



Information and requirements to customers managing CCS cements

Heidelberg Materials Cement Norway - HMSN

CCS cements - a completely new approach to low- and near zero-emission solutions

This document is a practical guide for use by customers of Heidelberg Materials Sement Norge (HMSN) for managing CCS cement produced in Brevik – the document does not replace the Sales Agreement with T&C and Sales Addendum

CCS cements (Carbon Capture & Storage) means that:

- CO₂ is handled as a physical product, where the value for the customer is that CO₂ is permanently stored in a reservoir
- Immediate customer is the first entity in the value chain purchasing CCS cement directly from HMSN

The three cement variants delivered by HMSN is the same physical cement with different levels of CO₂ reductions:

- 1. evoBuild cement** has CO₂ reductions equivalent to about the average CCS process over the produced cement volume
- 2. evoZero cement** has the maximum level of CO₂ reductions from the CCS process (near-zero GWP)
- 3. Cement without CCS** has no CO₂ reductions from the CCS process – managed as a traditional cement

evoZero and cement without CCS are created by principle of mass-balancing, with all CO₂ reductions allocated to evoZero



There are several ways to document the use of CCS cements

Permanently stored CO₂ from CCS can be documented in several ways:

1. ECO Platform approved **Prospective EPD** (P-EPD) for evoBuild cement with corresponding CO₂ reductions
2. **Carbon Bank account** for evoZero with remaining amount of CO₂ reductions not documented by the P-EPD for evoBuild

Only immediate customer of HMSN can issue an **evoZero declaration** to the end-customer from the Carbon Bank

DNV has performed limited assurance of the Carbon Bank and methodology for documenting permanently stored CO₂:

- The Carbon Bank ensures it is not possible for HMSN to deliver CCS cement without sufficient CO₂ permanently stored
- The immediate customers of HMSN receives their own account in the Carbon Bank to manage evoZero cement
- CO₂ reductions for evoZero in the Carbon Bank can be allocated to end-customer with an evoZero declaration
- The Carbon Bank ensures that CO₂ reductions are credited only once
- Training and support for managing the Carbon Bank will be provided by HMSN



CCS cements can be handled in several ways

CCS cements shall be managed as distinctive physical products or as virtual products:

1. **Physical** means that different CCS cement products are stored in separate physical silos and handled as entirely distinctive products in production - similar to how cements with different technical properties are managed today
2. **Virtual** means that different CCS cements are placed in the same physical silo and separated by using virtual silos

Virtual silos offers several advantages, but imposes requirements to internal systems:

- Virtual silos requires only one physical inventory for CCS cements, without the need for multiple physical silos
- Since there are no differences in the technical properties between cement without CCS, evoBuild, or evoZero CCS-cements from Brevik, virtual silos can be used by multiple production units
- Internal system(s) must be able to document the handling of CCS cements to external entities, if requested



All entities in the value chain shall comply with a set of requirements to handle CCS cement

Full terms for sales of CCS cement is given in the Sales Agreement with T&C and Sales Addendum

To ensure credibility in the CCS products all entities in the value chain, from HMSN's immediate customer of CCS cement to final entity delivering the CCS products to the end-customer, shall comply with the following:

1. Have systems to document that CO₂ reductions in delivered products with CCS cement at no time are greater than CO₂ reductions in received products with CCS cement
2. Provide customers with documentation of deliveries with products containing CCS cement
3. One type of CCS cement shall not be changed to another type of CCS cement
4. Have a description available that explains how products with CCS cement are handled internally and documented
5. Ensure that their own auditor performs audits to verify that CO₂ reductions in products with CCS cement delivered to customers are not greater than in received products with CCS cement
6. Customers shall cooperate with HM to maintain credibility in CCS cements and facilitate audits of how products with CCS cement and CO₂ reductions are handled and documented



Explanation of HMSN requirements for managing CCS cement

1. Have systems to document that CO₂ reductions in delivered products with CCS cement at no time are greater than CO₂ reductions in received products with CCS cement

CCS cement with CO₂ reductions can be documented in several ways. Some examples are:

- a) A ready-mix concrete producer may prefer to use a batching-/production system for this purpose, eg systems supplied by Skako, Branel, Polarmatic, Elematic, Haarup, Dorner etc. The batching-/production system with a mixing-log will track the amount of a given CCS cement used in a selected recipe for a specific delivery.
- b) A producer of prefabricated concrete elements may prefer to use an ERP system, possibly in combination with a design/drawing program. The reason for not using a batching-/production system, could be the need for a flexible production line where elements are continuously produced using both evoZero and evoBuild cements interchangeably.



Explanation of HMSN requirements for managing CCS cement

2. Provide customers with documentation of deliveries with products containing CCS cement

Any entity handling products with CCS cement, except end-customer, shall provide their customer with documentation of all deliveries of products with CCS cement at the time of delivery, eg by delivery note.



Explanation of HMSN requirements for managing CCS cement

3. One type of CCS cement shall not be changed to another type of CCS cement

The Customers shall adhere to the terms set out for use of the evoZero and evoBuild brand, which includes: Any entity managing a product with CCS cement, shall not at any time change the product to another type of CCS cement than what was received.

Eg CCS cement documented as evoBuild, shall not be changed to evoZero at a later time.



Explanation of HMSN requirements for managing CCS cement

4. Have a description available that explains how products with CCS cement are handled internally and documented

Customer that purchase products with CCS cement shall have available a concise description of how they are handling CCS products.

This description shall include information regarding:

- The systems, routines and processes to handle products with CCS cements and CO₂ reductions
- How internal quality assurance/control is ensuring the compliance between CO₂ reductions in received and delivered products with CCS cements
- Any other relevant information

The description shall be accessible to customers, auditors and HMSN.



Explanation of HMSN requirements for managing CCS cement

4. Have a description available that explains how products with CCS cement are handled internally and documented

It is recommended that two people, at immediate customer of HMSN, issues the evoZero declaration using a four-eyes principle in close collaboration with the end-customer – to ensure correct evoZero declaration

Person “One” has the role “**Issuer**” and is responsible for issuing the evoZero declaration by:

- Obtaining verified information from the end customer such as project name and customer address
- Verifying that evoZero has been delivered and invoiced to the end customer
- Obtaining information about the exact amount of evoZero included in the delivery to the customer
- Entering all relevant information into the Carbon Bank in order to issue the evoZero declaration

Person “Two” has the role “**verifier**” and is responsible for verifying all information in the declaration before it is issued and the approve that the declaration can be issued by:

- Verifying the information about the evoZero delivery obtained by Issuer and entered into the declaration
- Approve the issuance of the declaration after verifying the entered information in the Carbon Bank



Explanation of HMSN requirements for managing CCS cement

5. Ensure that their own auditor performs audits to verify that CO₂ reductions in products with CCS cement delivered to customers is not greater than in received products with CCS cement

Customer who receives and delivers products with CCS cement are required to ensure that their own auditor conducts audits of how CCS products with CO₂ reductions has been handled.

This is done to verify consistency and compliance between received and delivered CO₂ reductions in products with CCS cement.



Explanation of HMSN requirements for managing CCS cement

6. Customers shall cooperate with HMSN to maintain credibility in CCS cements and facilitate audits of how products with CCS cement and CO₂ reductions are handled and documented

Customers shall cooperate with HMSN to maintain credibility in CCS cements, including allowing their own downstream customers to audit them.

This can be compared with audits that customers today requests for other products.

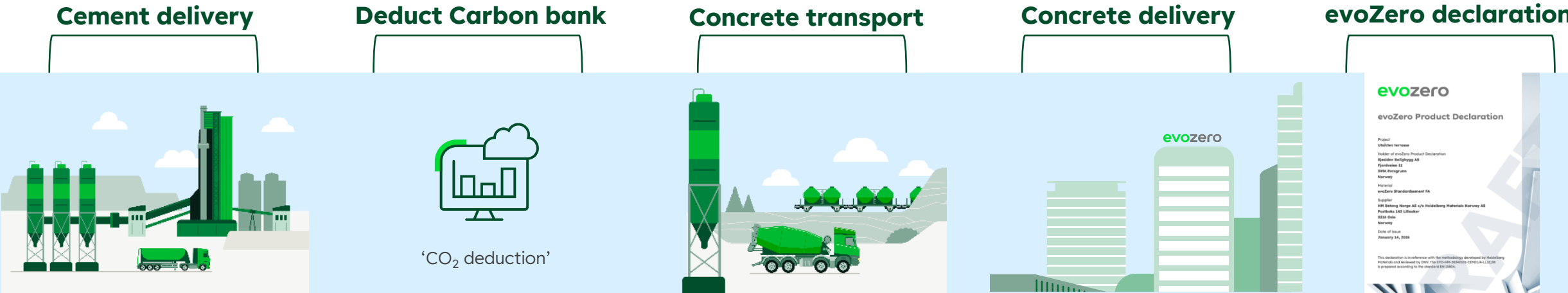
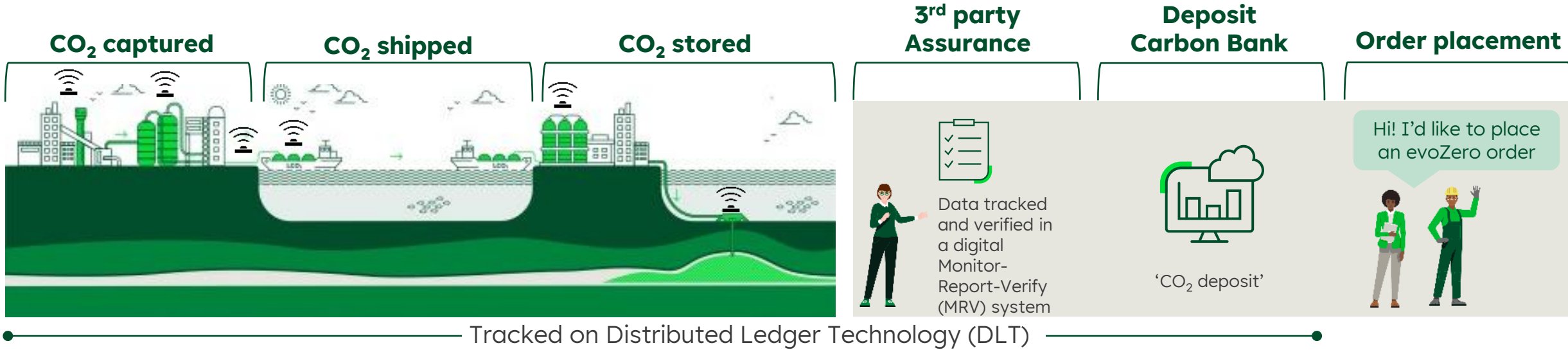




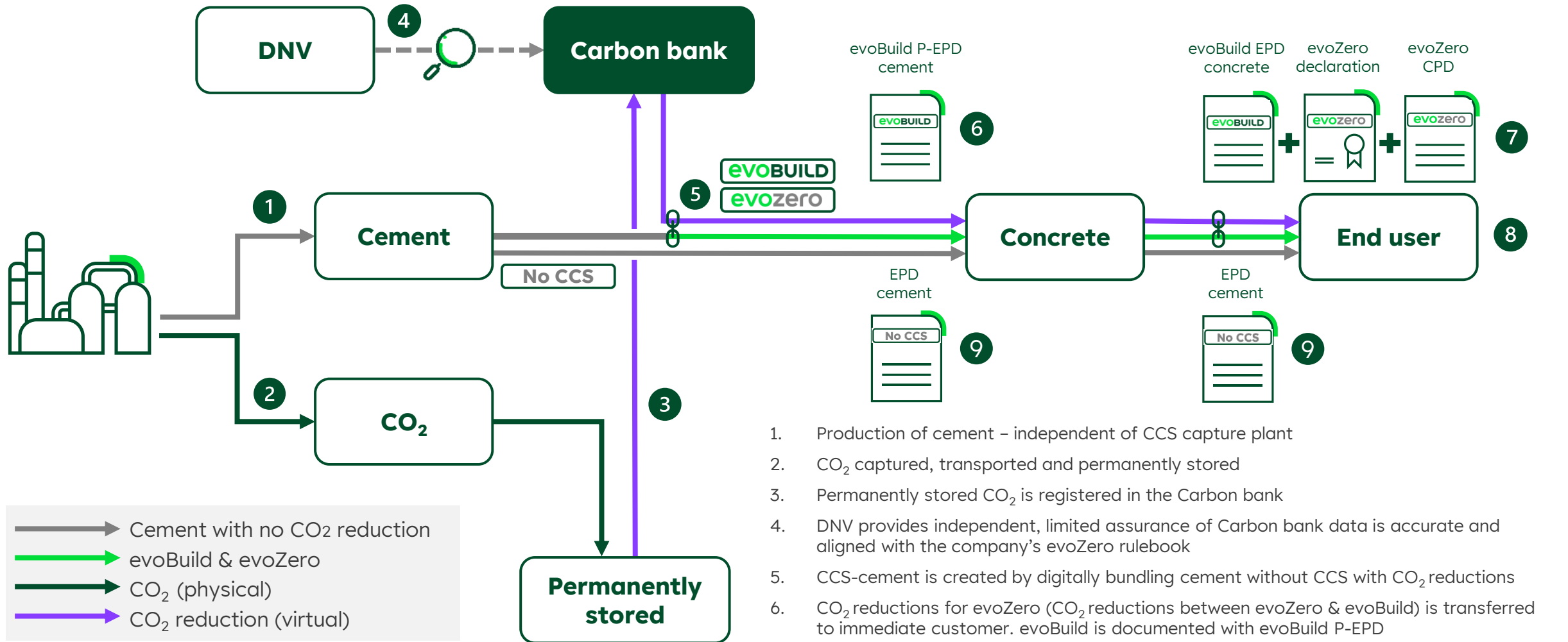
Additional information

CCS cements
02.06.2026

CO₂ reductions are traced to ensure correct allocation



Production, verification and documentation of CO₂ reductions in CCS cement

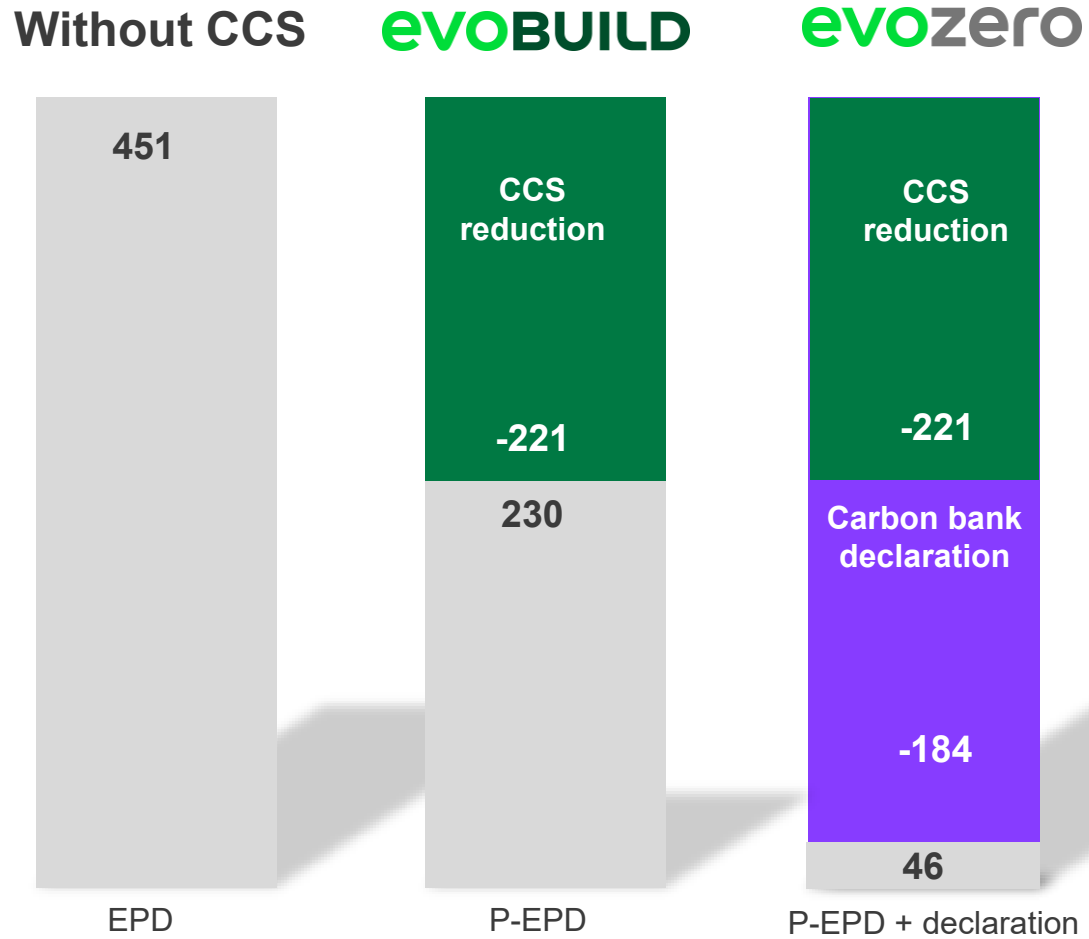


- Production of cement - independent of CCS capture plant
- CO₂ captured, transported and permanently stored
- Permanently stored CO₂ is registered in the Carbon bank
- DNV provides independent, limited assurance of Carbon bank data is accurate and aligned with the company's evoZero rulebook
- CCS-cement is created by digitally bundling cement without CCS with CO₂ reductions
- CO₂ reductions for evoZero (CO₂ reductions between evoZero & evoBuild) is transferred to immediate customer. evoBuild is documented with evoBuild P-EPD
- evoBuild to end-user is documented by a evoBuild EPD - while evoZero is documented by a evoZero deklarasjon + evoBuild EPD + evoZero CPD
- End-user can request HMSN immediate customer to issue an evoZero declaration
- Cement/concrete based on cement without CCS is documented by an EPD



Brevik CCS provides cements with three different GWP values

- eg for STD-FA cement



Cement variant	GWP	Reduction with CCS	Documentation
Without CCS	451		EPD
evoBuild	230	-221	P-EPD
evoZero	46	-405	-221 P-EPD -184 Declaration

evoBuild P-EPD:
<https://www.epd-norge.no/nyhetsarkiv/epd-norway-introduce-a-new-epd-type-prospective-epd>



P-EPD for evoBuild - For cement and concrete

P-EPD = Prospective Environmental Product Declaration

P-EPD for evoBuild is approved by ECO Platform and has the same validity as a traditional EPD.

P-EPD is a type of EPD for innovative products with data based on future predictions.

After 1-2 years when future environmental data is available, the P-EPD will be replaced by a traditional EPD.

P-EPD is used for products from Brevik CCS since it will take time to establish environmental data from the CCS process.

P-EPD is issued for both evoBuild and evoZero products, since the evoZero declaration documents the CO2 footprint from the evoBuild level and up to the evoZero level.



Prospective Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

evoBuild Low carbon Standardsement FA, CEM II/B-M (V-L) 42,5 R



Owner of the declaration

Heidelberg Materials Sement Norge AS

Product

evoBuild Low carbon Standardsement FA, CEM II/B-M (V-L) 42,5 R

Declared unit

1 tonne

This declaration is based on Product Category

Rules

EN 15804:2012+A2:2019 serves as core PCR
EN 16908:2017 Cement and building lime

Program operator

EPD-Global

Declaration number

NEPD-12342-12398

Registration number

NEPD-12342-12398

Issue date

15.09.2025

Valid to

15.09.2026

EPD software:

LCA.no EPD generator ID: 1037647

EPD-Global



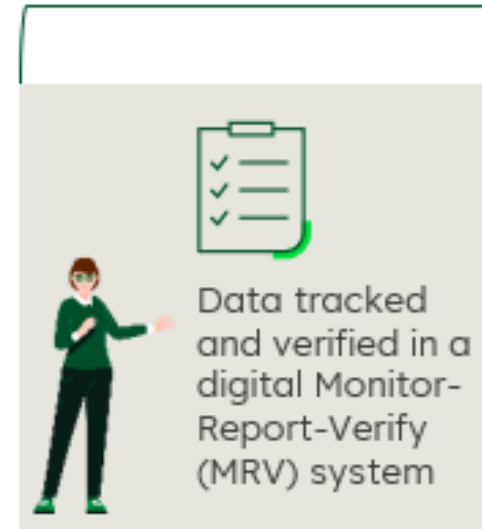
DNV provides independent limited assurance

Role of DNV

DNV provides independent, limited assurance to confirm that Heidelberg Materials' Carbon Bank data – such as deposits, withdrawals, and emission reduction allocations — is accurate and aligned with the company's evoZero rulebook.

They verify that the amount of CO₂ allocated to products never exceeds the volume permanently stored, ensuring there is no double counting or overselling and that the Carbon Bank remains credible and trustworthy.

3rd party Assurance



CPD - For concrete based on evoZero

CPD = Climate Product Declaration

Only used for Norway and Island.


Since evoZero does not have an EPD, we cannot create one for evoZero concrete.

A solution approved by the NB37 Technical Committee is to prepare a one-pager that can be used as documentation.

The concrete producer sends a draft to LCA.no, who prepares a CPD for the project.

The CPD contains the GWP level of the specific mix delivered to the project – and serves as documentation that the mix meets the requested low-carbon class in NB37

This is currently a manual process, to be integrated into the LCA generator at a later time.




Climate Product Declaration


The climate declaration shows the emissions of greenhouse gases, expressed as CO₂-equivalents. It is based on verified results from an LCA performed as basis for an EPD, in accordance with ISO 14003 and EN 15804.

A1-A3
35,4
kg CO₂-eq

B45 M45 D16 25%RED evoZero , LK80, 464315, Sjusjøya

Declared unit: 1 m³





Heidelberg Materials Betong Norge AS

Product description
Ready Mix Concrete, produced in accordance with NS-EN 206

Product specification
This document contains evoZero cement, which is not based on an EPD in accordance with NS-EN 15804+A2, and is therefore only valid in combination with the third-party verified declaration from Heidelberg Materials Carbon Bank, which specifies reductions in GWP (Global Warming Potential).

The GWP value for evoZero STD-FA is documented in the P-EPD for evoBuild STD-FA with publication number NEPD-12342-12398.

Global warming potential, GWP-Total , kg CO₂-eq/DU

A1	A2	A3	A1-A3	Unit
Material	Transport	Production	Sum	
20,7	12,3	2,43	35,43	kg CO ₂ -eq

Cradle to gate (A1-A3)

Material list

	%
SCM	4,05
evoZero STD-FA	11,25
Additives	0,13
Aggregates	77,92
Water	6,65
Total	100

EPD Owner: Heidelberg Materials Betong Norge AS	VAT: 934 468 740	Contact person: Peter Kermit
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Website:	Date: 21.09.2025	Verified EPD: ID: 1267268

Climate declarations from different programs may not be comparable. This climate declaration only addresses one impact and does not assess other potential social, economic and environmental impacts arising from the provision of this product. These aspects may be of equal or greater importance than the impact category displayed.

System ID: 1267268, Climate declaration generated by LCA.no EPD generator

