



Responsible Sourcing - CSC-Certification for Concrete and its Supply Chain

Concrete Sustainability Council

12 July 2023

Presenters



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CSC Chair



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Responsible Sourcing - CSC-Certification for Concrete and its Supply Chain

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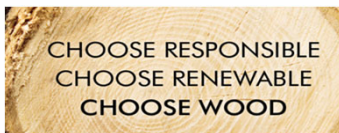
The Challenge

Responsible Sourcing - CSC-Certification for Concrete and its Supply Chain

Why responsibly sourced concrete?



- Wood often perceived as THE responsible choice- with the support of a strong label



- The public perception of concrete has a significant potential for improvement



WHY WOOD IS GOOD

- CLEAN
- RECYCLABLE
- BEAUTIFUL
- LONG-LASTING
- STRONG
- GREAT FOR CONSTRUCTION
- SOUND INSULATING
- THERMAL INSULATOR
- ENDLESS USES

RENEWABLE ✓

WOODU! CHOOSE

Why responsibly sourced concrete?



Sustainably sourced materials score points in LEED via

- Extended producer responsibility
- Bio-based products, ASTM tested
- Bio-based products, SAN Standard
- Wood products, FSC
- Salvaged, refurbished, or reused products
- Products meeting recycled content criteria

wood

wood

wood

This is contradicting the materials' reality in a typical green building:

- Concrete 70-80% by mass
- Wood < 10% by mass



- ❖ USGBC: "Responsible sourcing of raw materials credit" (ongoing conversations)
- As of today, recognition achieved in "Social equity within the supply chain" credit

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Why responsibly sourced concrete?



- Architects, Engineers, Constructors and Developers Community demonstrating increased demand for responsibly sourced materials
 - Introduction of responsible sourcing specification language
- 3rd Party Green Rating Systems
 - LEED Responsible Sourcing and Social Equity in the Supply Chain Pilot Credit
 - DGNB, ÖGNI, BREEAM, etc...
- Green Public Procurement Initiatives

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The Solution

Responsible Sourcing - CSC-Certification for Concrete and its Supply Chain

Why CSC?



Aim



CSC enables the concrete industry and its main suppliers – i.e. cement and aggregate industry – to communicate and demonstrate the responsible sourcing credentials of its products

Responsible sourced concrete



Responsible sourcing is an issue in procurement, and increasingly in construction material procurement

Industry Focus

Organized by industry, CSC certification provides concrete producers with the opportunity to gain an in-depth understanding of their sustainability performance, including its supply chain and take action



Credibility and Influence

CSC is independent and the certification process review is performed by independent certification bodies. CSC promotes knowledge sharing, outreach and awareness rising.

Collaboration



CSC is supported by competent and strong partners around the world, namely industry associations, certification bodies, concrete, cement and aggregates producers

Reward System making concrete more sustainable



- CO2 emission reduction
- Fair business practice & compliance
- Enhancing biodiversity
- Excellence in occupational health & safety
- Moving towards circularity using water in a responsible manner
- Enhanced responsibility in the supply chain

- ... **founded in November 2016**
- ... **the first & only certification system for concrete established world-wide**
- ... **'FSC for concrete'**

Who is involved in the CSC?



Associations	Producers	Certifiers
U.S LatAm Germany Netherlands Belgium Turkey Italy Global Europe Middle East	 	Italy Turkey USA/ Switzerland Netherlands Germany Spain

The Certification in Detail

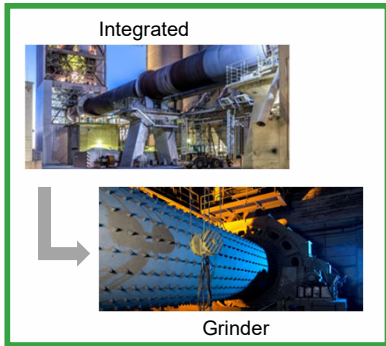


Responsible Sourcing - CSC-Certification for Concrete and its Supply Chain

What plants can be CSC-certified?



Cement & GBFS (supplier certificate)



Concrete



Aggregates (supplier certificate)



Note:

- Dry mortar cannot be certified if the binder is not cement-based
- Supplier Certificates are not recognized by Green Building Labels. They support the scoring of Concrete Certificates.

What does the certification system reward?



PREREQUISITES

- P1 Ethical and Legal Compliance
- P2 Human Rights
- P3 Indigenous People Rights
- P4 Environmental and Social Impact
- P5 Traced Materials
- P6 Vessels Evidence List



MANAGEMENT

- M1 Sustainable Purchasing
- M2 Environmental Management
- M3 Quality Management
- M4 Health & Safety Management
- M5 Benchmark



ENVIRONMENTAL

- E1 Life Cycle Impact
- E2 Land Use
- E3 Energy & Climate
- E4 Air Quality
- E5 Water
- E6 Biodiversity
- E7 Secondary Materials
- E8 Transport
- E9 Secondary Fuels



SOCIAL

- S1 Local Community
- S2 Health Product Information
- S3 Occupational Health & Safety
- S4 Labor Practices



ECONOMICS

- B1 Local Economy
- B2 Ethical Business
- B3 Innovation
- B4 Feedback Procedure



CHAIN OF CUSTODY

- C1 Cement
- C2 Aggregates
- C3 Clinker
- C4 Raw Aggs Suppliers
- C5 Ready Mix Concrete
- C7 Slag Supply to CSC Slag Grinder

Example of Credits: E1 - Life Cycle Impact



Athena Sustainable Materials Institute
www.athenasmi.org

A Cradle-to-Gate Life Cycle Assessment of Ready-Mixed Concrete Manufactured by NRMCA Members – Version 3

This project report and its results are used to support the development of an industry average Environmental Product Declaration for the production of 72 concrete mix designs

Commissioner: National Ready Mixed Concrete Association (NRMCA)
EPD Program Operator: NSF International
Prepared by: The Athena Sustainable Materials Institute

November 2019
Updated February 20, 2020

CADMAN MATERIALS INC.
Environmental Product Declaration (EPD)
No. 202068 - Ready Mix

This Environmental Product Declaration (EPD) reports the impacts for 1 m³ of ready mixed concrete mix, meeting the following specifications:

- ASTM C94 Ready-Mixed Concrete
- ENSPC Code 201106 Ready Mix Concrete
- CSA A23.1 A23.2 Concrete Made with an Integral of Concrete Combination
- CEN EN12620-2010 Coarse/Finest Concrete

COMPANY
Cadman Materials Inc.
754 18th Ave NE
Redmond, WA 98072

PLANT
Seattle Plant
555 E. Marginal Way S.
Seattle, WA 98148

EPD PROGRAM OPERATOR
NSF International
100 Bar Harbor Drive
West Conshohocken, PA 19380

DATE OF ISSUE
10/31/2017 (valid for 3 years until 10/31/2020)

ENVIRONMENTAL IMPACTS

Declared Product:	1 m³ Ready-Mixed Concrete
Global Warming Potential (kg CO ₂ e)	201
Acid Equivalents (kg SO ₂ e)	2.654
Abiotic Potential (kg Sb eq)	1.39
Global Air Pollution Potential (kg PM ₁₀ e)	1.27
Photochemical Ozone Creation Potential (kg O ₃ e)	0.1
Abiotic Depletion, non-fossil (kg Sb eq)	5.864
Abiotic Depletion, fossil (kg Sb eq)	1.286
Terrestrial Acid Potential (kg SO ₂ e)	0.2
Human Toxicity Potential (kg 1,4-DCB eq)	4.46

Product Components: water (approx. 207.00 kg), Portland cement (approx. 107.00 kg), sand (approx. 107.00 kg), and 107.00 kg of aggregates (approx. 107.00 kg).

Additional data and impacts are reported on page three of this EPD.

ISO 21930:2017 Sustainability in Building Construction – Environmental Declaration of Building Products, version 4.0.1 serves as the core PCR for Concrete, NSF International, August 2021 v2.1 serves as the sub-category PCR

Sub-category PCR review was conducted by Thomas P. Glavin - Industrial Ecology Consultants

Independent verification of the declaration, according to ISO 14025:2006: Internal or external

Third party verifier Thomas P. Glavin (tpglavin@industrial-ecology.com) - Industrial Ecology Consultants

For additional explanatory material:
Manufacture Transparency: ERM (mailto:ERM@industrial-ecology.com)
Software Tool: ConformCLARITY Suite, EPD Generator + Verification
LCA & EPD Developer: Climate Partner (mailto:info@climatepartner.com)

- E 1.01 Sectoral Environmental Product Declaration
- E 1.02 Implementation of Life Cycle Assessment LCA
- E 1.03 Release of Environmental Product Declarations EPDs
- E 1.04 EP Reporting of Product Specific Carbon Emissions

- NRMCA industry wide EPD and participation confirmation
- Mix specific verified (Type III) EPD and link to Program Operator and EC3 tool for more EPDs

Example of Credits: S1 to S4 - Social



RESPONSIBLE SOURCING IN OUR SUPPLY CHAIN

CODE OF BUSINESS CONDUCT FOR SUPPLIERS | 2021

GUIDE
Community Relationship Management at HeidelbergCement

Safety Data Sheet Ready Mix Concrete

Section 1. Identification

Other product identifier: Ready Mix Concrete
Other names of identification: Concrete, General Concrete, Ready Mixed Concrete

Supplier's details: HCLM, 2000 Corporate Parkway, Suite 1000, Redmond, WA 98072

Emergency telephone number (24 hours): 0800878711, 800.624.8339

Section 2. Hazard Identification

GHS Classification: H314: Causes skin irritation - Category 2, H335: Irritation to the respiratory system - Category 2, H410: Very toxic to aquatic life with long lasting effects - Category 1

GHS label elements: GHS07, GHS09, GHS11, GHS12, GHS13, GHS14, GHS15, GHS16, GHS17, GHS18, GHS19, GHS20, GHS21, GHS22, GHS23, GHS24, GHS25, GHS26, GHS27, GHS28, GHS29, GHS30, GHS31, GHS32, GHS33, GHS34, GHS35, GHS36, GHS37, GHS38, GHS39, GHS40, GHS41, GHS42, GHS43, GHS44, GHS45, GHS46, GHS47, GHS48, GHS49, GHS50, GHS51, GHS52, GHS53, GHS54, GHS55, GHS56, GHS57, GHS58, GHS59, GHS60, GHS61, GHS62, GHS63, GHS64, GHS65, GHS66, GHS67, GHS68, GHS69, GHS70, GHS71, GHS72, GHS73, GHS74, GHS75, GHS76, GHS77, GHS78, GHS79, GHS80, GHS81, GHS82, GHS83, GHS84, GHS85, GHS86, GHS87, GHS88, GHS89, GHS90, GHS91, GHS92, GHS93, GHS94, GHS95, GHS96, GHS97, GHS98, GHS99, GHS100

Human Rights and Social Policy

June 2021

Scope and Objective

The Human Rights and Social Policy ("the Policy") applies to Holcim Ltd. and its affiliates in our consolidated and managed operations ("Holcim") and sets out how our employees should interact with business partners, suppliers, communities and other stakeholders. We also expect suppliers to adhere to the Policy (through other requirements). The Policy forms part of Holcim's core values and its main objective is to set out the company's human rights and social commitment. Social and human rights compliance: Holcim's human rights commitment, and any not stated as an alternative to our work on respecting human rights. This Policy is publicly available and subject to regular review.

Our Commitments to Human Rights

Holcim is committed to respecting and promoting human and labour rights in our operations, business activities, business relationships and in the communities where we work. Respect for human rights is fundamental to the way we run our business and our ability to operate.

Our commitment is aligned with the principles and values contained in the UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises, with the internationally recognized rights in the International Bill of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, and the UN Convention on the Rights of the Child, as well as applicable laws. Where national law and international human rights standards differ, we will seek to follow the higher standard where possible. We work with a number of international organizations, such as the UN Global Compact, to strengthen respect for human rights.

The policy was developed following an extensive, global survey and interviews of Holcim managers and will be updated from external human rights reports and other stakeholders, including civil society and community representatives.

The Chief Executive Officer and the Chief Sustainability and Innovation Officer (member of the executive committee of Holcim) have overall responsibility for the policy, oversight and performance reviews are carried out by the Board's Health, Safety and Sustainability committee. Chief executive officers and managers are responsible in countries where they are the local responsible and are accountable for assessing and addressing local human rights issues.

This Policy and any other communications our human rights expectations of employees and business partners in key documents such as the Code of Business Conduct and Code of Business Conduct

- S1 Local Community
- S2 Health Product Information
- S3 Occupational Health & Safety
- S4 Labor Practices

- S 1.01 Policy
- S 1.02 Social Investment
- S 1.03 Communication & Information
- S 1.04 Noise Vibration Management Plan
- S 1.05 Implementation of the Noise Vibration Management Plan
- S 1.06 Safety Around Site for the Local Community
- S 1.07 Transport to and from the Site

Providing evidence via the CSC toolbox



Responsible Sourcing - CSC-Certification for Concrete and its Supply Chain

Four dedicated certification levels



35%



50%



65%



80%

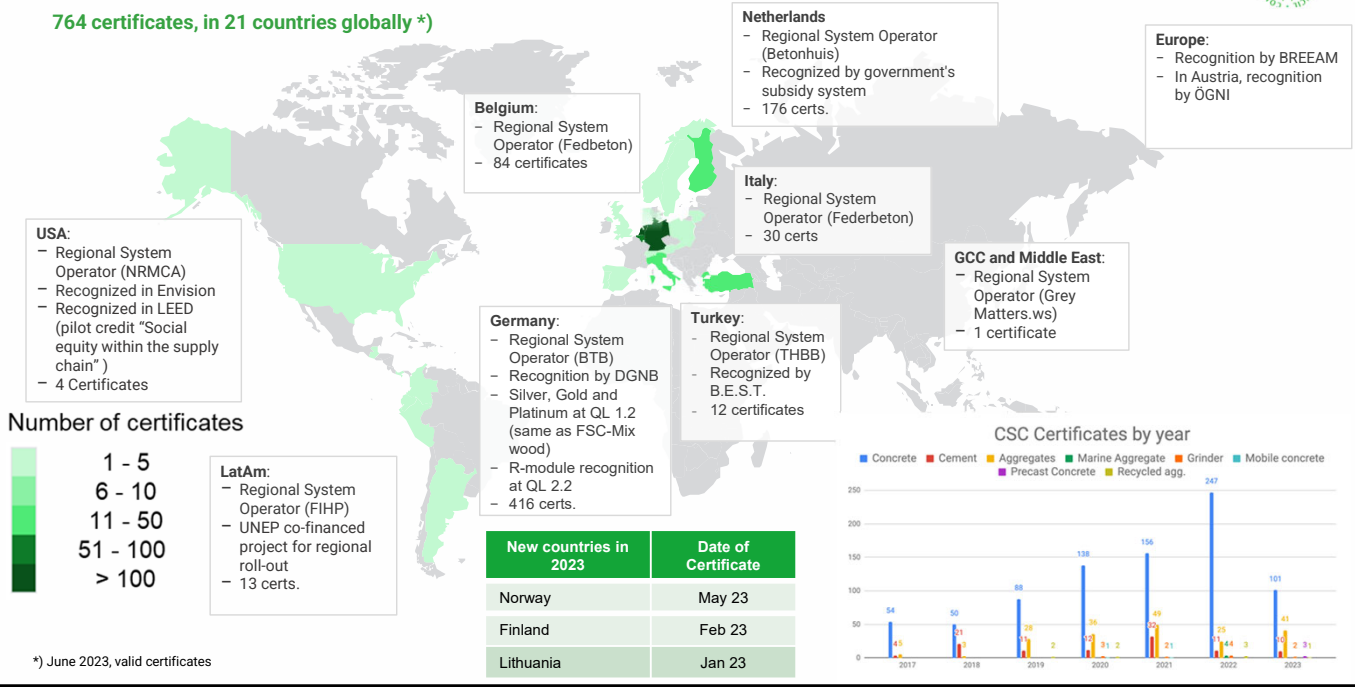
Minimum Score

Certification level is determined by

- Certified plants must fulfil all prerequisites
- Overall fulfillment rate (= score)
- Compliance with additional mandatory criteria for higher certification levels

Global Roll-out

764 certificates, in 21 countries globally *)



LEED recognition



Ongoing conversations for recognition in "Responsible sourcing of raw materials credit"

- Pilot Credit "Social Equity in the Supply Chain"
- First time ever for non-wood material labels to be recognized by LEED
- Fact sheet geared to coach LEED APs on how to score points with CSC certified concrete in LEED

Wes Sullens, Director in the LEED team, said: "With this new Pilot Credit, we are further enhancing the LEED system towards responsible sourcing of construction materials. It is key that material stewardship systems such as the Concrete Sustainability Council offer customers a clear guidance on the green profile of construction products and solutions."

SOCIAL EQUITY WITHIN THE SUPPLY CHAIN LEED PILOT CREDIT
Easily Achieve Innovation Credit: Pioneering Supply Chain Certification

Overview of Social Equity within the Supply Chain Pilot Credit
The LEED BD+C v2020 Social Equity credit is a new credit that allows project teams to earn points for responsible sourcing of materials used in the project. Option 1: Meet 8 criteria for responsible sourcing. Supply chain credit Standard, Concrete CSC, the Responsible Sourcing Pilot Credit.

Identifying CSC Certified Products
Concrete Sustainability Council Certification (v2.0 and above) is pre-approved by USGBC to meet the LEED Social Equity credit. Products or suppliers who have achieved CSC Certification can be identified through a CSC Certificate or a CSC Supplier Certificate tag. Final CSC Certified Products:
• Certification system covers concrete, Precast Concrete, Stone, Glass, and Precast.
• All levels of certification for concrete meet the pilot credit requirements.
In addition to CSC Certification, USGBC has pre-approved standards such as the Aluminum Stewardship Institute Chain of Custody Standard, the ResponsibleSourcing Coalition, the Forest Stewardship Certification Council, and more.
Learn more about the pre-approved standards.

Submitting Credit Documentation to USGBC

1 Determine if the project is eligible for the Social Equity Pilot Credit (PEIC) by using the PEIC Credit on the United States Green Building Council (USGBC) website. PEIC project teams, the LEED project type, and the version of the credit appear under "Open Pilot Credits."

2 If eligible, register for the credit by selecting it in the LEED Online project profile. The credit requires the use of 3 permanently installed products in the project. Identify certified products or suppliers used in the project.

3 Obtain evidence from the supplier verifying USGBC requires documentation proving proof of the pilot credit. Complete the pilot credit survey, which is found here. Save the survey completion email: Pilot Credit: Survey List.

4 Submit the documentation to USGBC through LEED Online. Open the project in LEED Online. In the credits tab, open the "Open PEIC" and select the number of applicable pilot credits, name "PEIC Social Equity within the Supply Chain", and the Innovation credit, use "Open PEIC" field for the Innovation credit.

USGBC Pre-Approved Standards:

Universal Declaration of Human Rights	CSC Prerequisite	LEED Requirement
Human Rights Risk Assessment	✓	✓
Assessment of Compliance	✓	✓
Responsible Governance	✓	✓
Transparency, Stakeholder Groups and Equal Opportunity for Women and Men in the World of Work (ILO Convention 113)	✓	✓
Civil and Political Rights	✓	✓
Fundamental Principles and Rights at Work (ILO Conventions 29, 87, 98, 102)	✓	✓
Child Labor (ILO Conventions 138 and 182)	✓	✓
Forced Labor (ILO Conventions 29, 105, 203)	✓	✓

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NRMCA logo and LEED logo.

ENVISION recognition



Recognized for contributing to requirements on credit RA1.1 (Support Sustainable Procurement Practices). Ongoing conversation for recognition on RA1.2 (Used Recycled Materials) with the R-module and in CR1.2 (Reduce Greenhouse Gas Emissions) with the CO2-module.

ENVISION POINTS TABLE

Category	Requirement	Target	Actual	Score	Weight	Points
Quality of Life	Q1.1 Impact Community Quality of Life	2	2	10	20	20
	Q1.2 Impact Public Health and Safety	2	2	10	20	20
	Q1.3 Impact Construction Safety	2	2	10	20	20
	Q1.4 Minimize Noise Disturbance	2	2	10	20	20
	Q1.5 Minimize Light Pollution	2	2	10	20	20
	Q1.6 Minimize Construction Impacts	2	2	10	20	20
	Q1.7 Minimize Construction Impacts	2	2	10	20	20
	Q1.8 Minimize Construction Impacts	2	2	10	20	20
	Q1.9 Minimize Construction Impacts	2	2	10	20	20
	Q1.10 Minimize Construction Impacts	2	2	10	20	20
Community	C1.1 Support Local and Regional Economy	2	2	10	20	20
	C1.2 Support Local and Regional Economy	2	2	10	20	20
	C1.3 Support Local and Regional Economy	2	2	10	20	20
	C1.4 Support Local and Regional Economy	2	2	10	20	20
	C1.5 Support Local and Regional Economy	2	2	10	20	20
	C1.6 Support Local and Regional Economy	2	2	10	20	20
	C1.7 Support Local and Regional Economy	2	2	10	20	20
	C1.8 Support Local and Regional Economy	2	2	10	20	20
	C1.9 Support Local and Regional Economy	2	2	10	20	20
	C1.10 Support Local and Regional Economy	2	2	10	20	20
Collaboration	CO1.1 Support Local and Regional Economy	2	2	10	20	20
	CO1.2 Support Local and Regional Economy	2	2	10	20	20
	CO1.3 Support Local and Regional Economy	2	2	10	20	20
	CO1.4 Support Local and Regional Economy	2	2	10	20	20
	CO1.5 Support Local and Regional Economy	2	2	10	20	20
	CO1.6 Support Local and Regional Economy	2	2	10	20	20
	CO1.7 Support Local and Regional Economy	2	2	10	20	20
	CO1.8 Support Local and Regional Economy	2	2	10	20	20
	CO1.9 Support Local and Regional Economy	2	2	10	20	20
	CO1.10 Support Local and Regional Economy	2	2	10	20	20
Leadership	L1.1 Support Local and Regional Economy	2	2	10	20	20
	L1.2 Support Local and Regional Economy	2	2	10	20	20
	L1.3 Support Local and Regional Economy	2	2	10	20	20
	L1.4 Support Local and Regional Economy	2	2	10	20	20
	L1.5 Support Local and Regional Economy	2	2	10	20	20
	L1.6 Support Local and Regional Economy	2	2	10	20	20
	L1.7 Support Local and Regional Economy	2	2	10	20	20
	L1.8 Support Local and Regional Economy	2	2	10	20	20
	L1.9 Support Local and Regional Economy	2	2	10	20	20
	L1.10 Support Local and Regional Economy	2	2	10	20	20
Economy	E1.1 Support Local and Regional Economy	2	2	10	20	20
	E1.2 Support Local and Regional Economy	2	2	10	20	20
	E1.3 Support Local and Regional Economy	2	2	10	20	20
	E1.4 Support Local and Regional Economy	2	2	10	20	20
	E1.5 Support Local and Regional Economy	2	2	10	20	20
	E1.6 Support Local and Regional Economy	2	2	10	20	20
	E1.7 Support Local and Regional Economy	2	2	10	20	20
	E1.8 Support Local and Regional Economy	2	2	10	20	20
	E1.9 Support Local and Regional Economy	2	2	10	20	20
	E1.10 Support Local and Regional Economy	2	2	10	20	20
Materials	M1.1 Support Local and Regional Economy	2	2	10	20	20
	M1.2 Support Local and Regional Economy	2	2	10	20	20
	M1.3 Support Local and Regional Economy	2	2	10	20	20
	M1.4 Support Local and Regional Economy	2	2	10	20	20
	M1.5 Support Local and Regional Economy	2	2	10	20	20
	M1.6 Support Local and Regional Economy	2	2	10	20	20
	M1.7 Support Local and Regional Economy	2	2	10	20	20
	M1.8 Support Local and Regional Economy	2	2	10	20	20
	M1.9 Support Local and Regional Economy	2	2	10	20	20
	M1.10 Support Local and Regional Economy	2	2	10	20	20
Energy	E1.1 Support Local and Regional Economy	2	2	10	20	20
	E1.2 Support Local and Regional Economy	2	2	10	20	20
	E1.3 Support Local and Regional Economy	2	2	10	20	20
	E1.4 Support Local and Regional Economy	2	2	10	20	20
	E1.5 Support Local and Regional Economy	2	2	10	20	20
	E1.6 Support Local and Regional Economy	2	2	10	20	20
	E1.7 Support Local and Regional Economy	2	2	10	20	20
	E1.8 Support Local and Regional Economy	2	2	10	20	20
	E1.9 Support Local and Regional Economy	2	2	10	20	20
	E1.10 Support Local and Regional Economy	2	2	10	20	20
Water	W1.1 Support Local and Regional Economy	2	2	10	20	20
	W1.2 Support Local and Regional Economy	2	2	10	20	20
	W1.3 Support Local and Regional Economy	2	2	10	20	20
	W1.4 Support Local and Regional Economy	2	2	10	20	20
	W1.5 Support Local and Regional Economy	2	2	10	20	20
	W1.6 Support Local and Regional Economy	2	2	10	20	20
	W1.7 Support Local and Regional Economy	2	2	10	20	20
	W1.8 Support Local and Regional Economy	2	2	10	20	20
	W1.9 Support Local and Regional Economy	2	2	10	20	20
	W1.10 Support Local and Regional Economy	2	2	10	20	20
Siting	S1.1 Support Local and Regional Economy	2	2	10	20	20
	S1.2 Support Local and Regional Economy	2	2	10	20	20
	S1.3 Support Local and Regional Economy	2	2	10	20	20
	S1.4 Support Local and Regional Economy	2	2	10	20	20
	S1.5 Support Local and Regional Economy	2	2	10	20	20
	S1.6 Support Local and Regional Economy	2	2	10	20	20
	S1.7 Support Local and Regional Economy	2	2	10	20	20
	S1.8 Support Local and Regional Economy	2	2	10	20	20
	S1.9 Support Local and Regional Economy	2	2	10	20	20
	S1.10 Support Local and Regional Economy	2	2	10	20	20
Conservation	C1.1 Support Local and Regional Economy	2	2	10	20	20
	C1.2 Support Local and Regional Economy	2	2	10	20	20
	C1.3 Support Local and Regional Economy	2	2	10	20	20
	C1.4 Support Local and Regional Economy	2	2	10	20	20
	C1.5 Support Local and Regional Economy	2	2	10	20	20
	C1.6 Support Local and Regional Economy	2	2	10	20	20
	C1.7 Support Local and Regional Economy	2	2	10	20	20
	C1.8 Support Local and Regional Economy	2	2	10	20	20
	C1.9 Support Local and Regional Economy	2	2	10	20	20
	C1.10 Support Local and Regional Economy	2	2	10	20	20
Society	S1.1 Support Local and Regional Economy	2	2	10	20	20
	S1.2 Support Local and Regional Economy	2	2	10	20	20
	S1.3 Support Local and Regional Economy	2	2	10	20	20
	S1.4 Support Local and Regional Economy	2	2	10	20	20
	S1.5 Support Local and Regional Economy	2	2	10	20	20
	S1.6 Support Local and Regional Economy	2	2	10	20	20
	S1.7 Support Local and Regional Economy	2	2	10	20	20
	S1.8 Support Local and Regional Economy	2	2	10	20	20
	S1.9 Support Local and Regional Economy	2	2	10	20	20
	S1.10 Support Local and Regional Economy	2	2	10	20	20
Emissions	E1.1 Support Local and Regional Economy	2	2	10	20	20
	E1.2 Support Local and Regional Economy	2	2	10	20	20
	E1.3 Support Local and Regional Economy	2	2	10	20	20
	E1.4 Support Local and Regional Economy	2	2	10	20	20
	E1.5 Support Local and Regional Economy	2	2	10	20	20
	E1.6 Support Local and Regional Economy	2	2	10	20	20
	E1.7 Support Local and Regional Economy	2	2	10	20	20
	E1.8 Support Local and Regional Economy	2	2	10	20	20
	E1.9 Support Local and Regional Economy	2	2	10	20	20
	E1.10 Support Local and Regional Economy	2	2	10	20	20

CSC Recognition in Green Building Labels



BREEAM



- Official recognition of CSC V2.1 in the responsible sourcing of construction products credit:
 - Bronze at "score level 4"
 - Silver at "score level 5" (same level as FSC-Mix wood),
 - Gold at "score level 6"
 - Platinum at "score level 7" (same level as FSC 100% wood)

DGNB, ÖGNI



Envision



- Official recognition of certificates in the responsible sourcing credit
 - Silver, Gold and Platinum at Quality Level 1.2 (same as FSC-Mix wood)
 - R-module recognition at Quality Level 2.2
- Official recognition in the US infrastructure certification system developed by the Institute for Sustainable Infrastructure (ISI)

LEED



- Recognition in the pilot credit "Social equity within the supply chain"
 - First time ever for non-wood material labels to be recognized by LEED
 - Fact sheet geared to coach LEED APs on how to score points with CSC certified concrete in LEED

B.E.S.T.



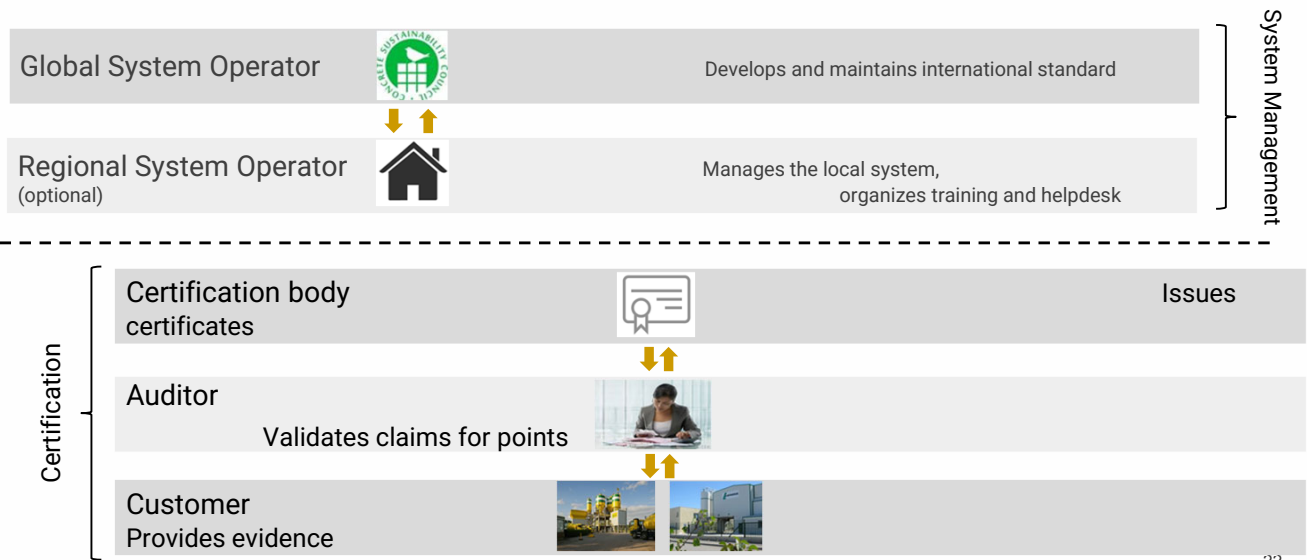
- Ongoing dialogue with USGBC to achieve permanent recognition in "Responsible sourcing of raw materials' credit"
- Official recognition by the Turkish Green Building Council of CSC V2.1 in B.E.S.T. (Ecological and Sustainable Design in Buildings) residential certification system



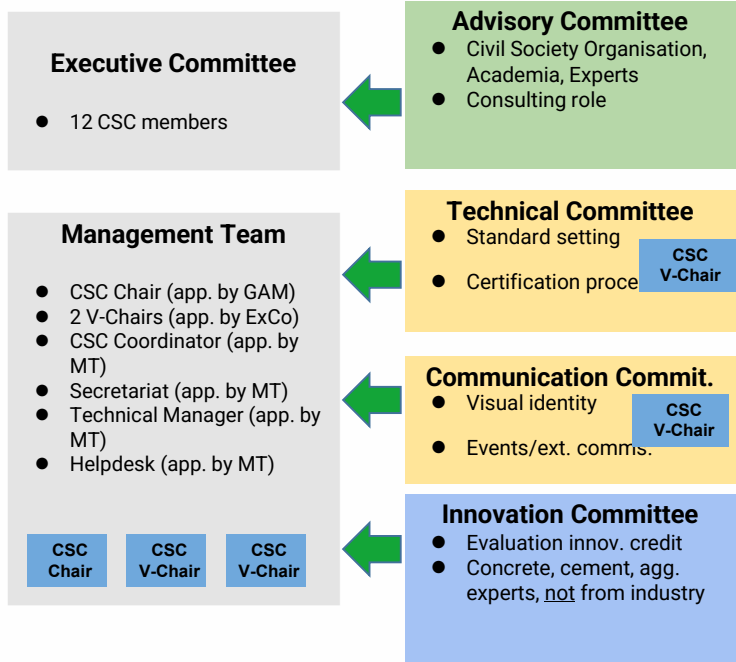
The CSC Governance

Responsible Sourcing - CSC-Certification for Concrete and its Supply Chain

CSC Version 2.1 has independent certification institutes doing the audits



CSC Governance – Committees



CSC 01.01.2019 23

Exchange with our key-stakeholders ...

... their valuable feedback is our opportunity to make it better



2020



Gland 2016



Amsterdam 2018



Opportunities for Companies

Responsible Sourcing - CSC-Certification for Concrete and its Supply Chain

Benefits of the CSC Certification

- ⇒ For the **Concrete sector and its supply chain**, this includes
- Promoting concrete as the sustainable construction material of choice
 - Pro-actively shaping the public perception of the concrete industry to secure the overall market share of concrete in construction
 - Conveying of a firm positive positioning against other building materials: Mainly wood (generally perceived as **THE MOST SUSTAINABLE CONSTRUCTION MATERIAL**) and steel



Benefits of the CSC Certification



- **Opportunity to differentiate and to perform in LEED and in Public Procurement:**
 - CSC certification is increasingly gaining recognition in Green Labels such as LEED (buildings) or Envision (infrastructure)



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Thank you for your attention

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Responsible Sourcing - CSC-Certification for Concrete and its Supply Chain

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Backups

Title of presentation Your name goes here (edit in master slide)

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R - Module



The R Module

- Prerequisite: plant must have at least Silver CSC certification
- Rewards plants for generation and use of recycled materials
- Acknowledges implementation of quality management system (QMS)
- Products must use at least 10% recycled material content



1 Star: **10 %**



2 Stars: **20 %**



3 Stars: **40 %**



4 Stars: **80 %**

R-Module

Plant Requirements

- R1 CSC certification Silver+
- R2 Traced R-material supply
- R3 R-material Consumption
- R4 Quality management QMS, Use of certified R-material

Product Requirements

- R5 Concrete mix with minimum R-material content $\geq 10\%$



As of June 2023, 73 certificates has been issued in Germany and in the Netherlands
 DGNB recognition at QL 2.2 offers opportunity for further increase in GER

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CO2 - Module



The CO2 Module

- aims to create transparency with regard to the greenhouse gas emissions associated with concrete production and to classify CO2-optimized concrete into CO2 classes.
- aims at creating transparency and credibility
- can be used as a marketing tool for concrete to demonstrate verifiable reduction of embodied carbon
- It is not an EPD



1 Star: - 30 %



2 Stars: - 40 %



3 Stars: - 50 %



4 Stars: - 60 %



CO2-Module

Plant Requirements

- L1 CSC certification Silver+
- L2 75% coverage of the cement supply chain
- L3 Monitoring of GHG emissions
CSC certification criterion E3.02 fulfilled
- L4 Quality Management: QMS

Product Requirements

- L5 Concrete Mix with CO2 reduction vs. baseline >= 30%

Since its launch in 2022, 133 CO2 module certificates have been successfully achieved in The Netherlands, Germany and Belgium

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What makes CSC concrete more sustainable?



- Alignment to SDGs objectives
- Alignment to EU's climate and environmental objectives



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What makes CSC concrete more sustainable?



Fair business practices & compliance

- Framework for ethical and legal compliance
- Operations comply with the Universal Declaration of Human Rights and acknowledge indigenous peoples' rights



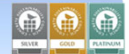
Reducing CO₂ emission

- Transport management system
- Awareness creation for energy saving among workers
- Policy/commitment to measure and reduce CO₂ emissions (cement)
- Public commitment to CO₂ reduction and GHG monitoring & reporting



Enhancing biodiversity

- All extraction activities managed under an Environmental Management System
- Protection against contamination
- Biodiversity management / action for cement and aggregate operations



Excellence in occupational health & safety

- Safety procedures in place
- OH&S policy available to every employee and the public
- OH&S risk analysis and a monitoring of all incidents in place
- Access to medical treatment and clean drinking water



Moving towards circularity Using water in a responsible manner

- Appropriate measures to process returned concrete
- Water scarcity assessment for the plant area
- Water consumption monitored and reported

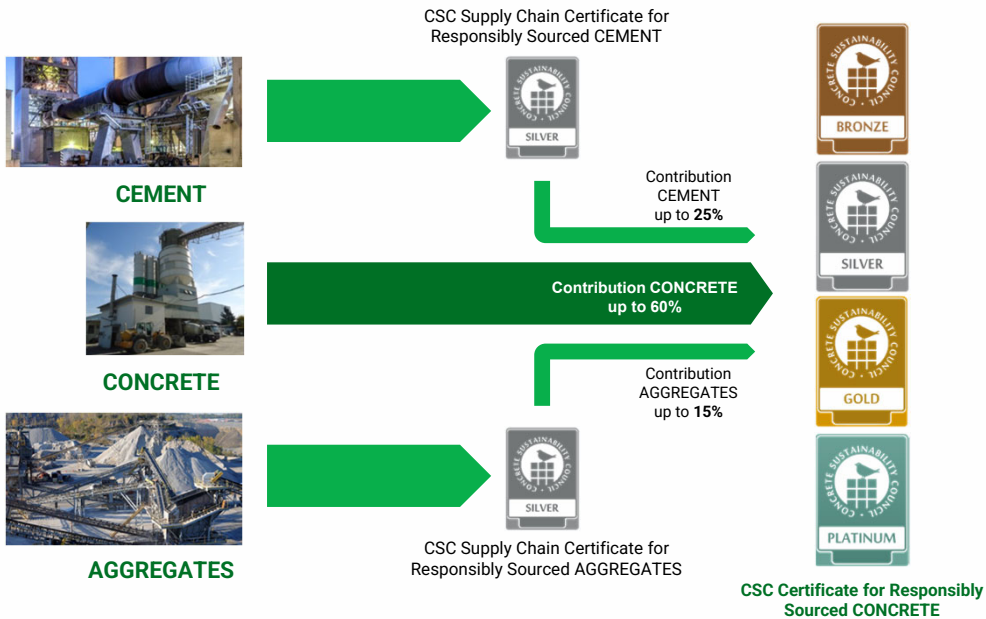


Enhanced responsibility in the supply chain

- Material from traceable sources
- Use of responsibly sourced cement and aggregates



Supply chain weighting



BREEAM recognition



BES 6001 Framework Standard for Responsible Sourcing	All (Issue 3)	n/a	5 (Baseline score ³)
	All (Issue 4)	n/a	6
	All (Issue 4)	The following have been achieved/scored: 4.3.1.3 (two points for 4.3.1) Plus one or more of the following: 4.3.2.4 (three points for 4.3.2), 4.3.3.4 (three points for 4.3.3), 4.2.4.4, or 4.4.9.2 (at least one point for 4.4.9).	7
CARES Sustainable Constructional Steel Scheme	All	n/a	5
Concrete Sustainability Council (CSC)	Certified concrete (bronze level)	n/a	4
	Certified concrete (silver level)	n/a	5
	Certified concrete (gold level)	n/a	6
	Certified concrete (platinum level)	n/a	7
Eco Reinforcement Responsible Sourcing Standard, Steel Products for the Reinforcement of Concrete	All	n/a	5
FSC	'FSC 100%'	n/a	7
	'FSC Mix'	n/a	5
	'FSC Recycled'		
PEFC	'PEFC Certified - 100% PEFC Origin'	n/a	7
	'PEFC Certified'	n/a	5
	'PEFC Recycled'		

