Concrete Sustainability Council

CSC-certification for concrete and its supply chain

Annual Report 2019

Content

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1 Introduction

Dear Stakeholders,

2019 was the third exciting year for the Concrete Sustainability Council since launching its certification system for responsibly sourced concrete in January 2017. We are proud of being able to look back at a successful year with a number of highlights:

- After an intense preparation work including a thorough stakeholder consultation, CSC Version 2.0 was successfully launched; in the meantime, the new system got well adopted by the market;
- To enhance the coverage of ready-mix concrete, cement and aggregates production, further dedicated systems and modules for cement grinding plants, recycled aggregates plants, and for mobile concrete plants were introduced;
- The number of certificates so far issued in 2019 increased to a record high of 129 (266 certificates in total) with first certificates awarded in Italy, Poland, Belgium, and Latin America;
- Recognition in the green building labels DGNB and BREEAM was prolongued; in BREEAM the recognition score was increased to tier level 6.

Last but not least the CSC was formally recognized by the Swiss Geneva Cantonal Tax Authorities as a non-for-profit organization. This acknowledges our members' and stakeholders' engagement in the development and implementation of CSC-certification system and also underlines the increasing public interest in responsible sourcing.

The results of the first certifications performed in 2019 with CSC system version 2.0 were monitored and evaluated, and are shared in this report. Insights gained through the evaluation process will be used for future improvements of the CSC certification system.

As the operator of the first and leading certification system for responsibly sourced concrete of global relevance, the CSC is proud of its contribution to making concrete and its supply chain even more sustainable.

Yours sincerely,

Christian Artelt
Chair

Michael Scharpf
Vice-Chair

Richard Frost
Vice-Chair

2 CSC certification

2.1 Scope of certification

The CSC system is a product certification system, which practically targets the certification of production plants. The certification applies to all products manufactured and supplied by the respective plant.

Ready-mix concrete plants and precast concrete plants can obtain a “CSC certificate”. Cement and aggregate suppliers can obtain a “CSC supplier certificate”. Geared towards the comprehensive coverage of the supply chain, CSC supplier certificates are fully recognized in the CSC concrete certification.

2.2 Scoring & certification levels

The CSC certification system follows the concept of continuous improvement. The system currently offers three certification levels (Bronze, Silver and Gold) to stimulate improvement.

For certifying concrete plants, the certification level obtained is the result of a scoring system, taking into account the individual scores from the concrete plant, and the weighted average from its certified cement and aggregates suppliers.

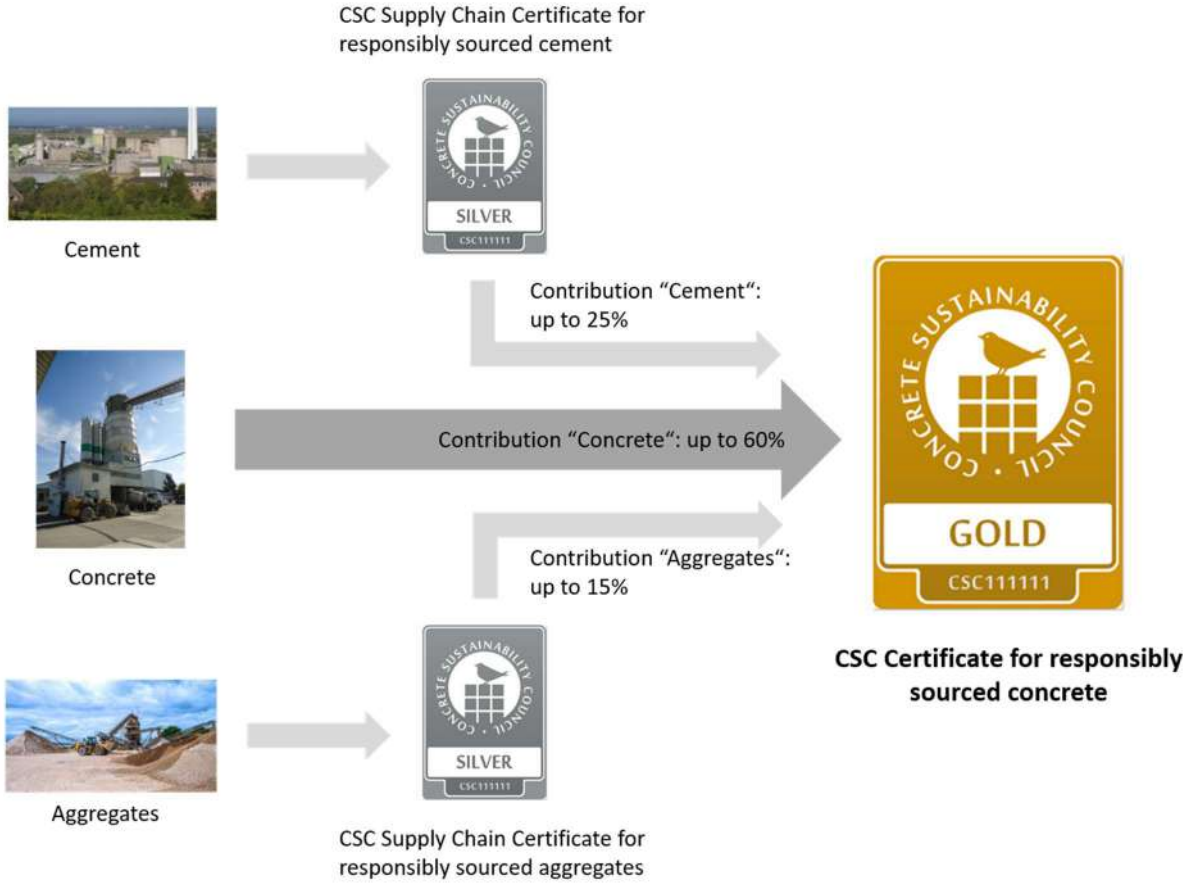

Fig. 2.1: CSC scoring principles

2.3 Content of CSC certification

Each plant undergoing CSC certification must fulfill a certain number of prerequisites to obtain a CSC certificate. Provided the prerequisites are met, it can score points in the following categories:

- M - Management;
- E - Environment;
- S - Social;
- B - Economic;
- C - Supply chain.

An overview of the credits applicable in CSC version 2.0 is shown in the figure below:

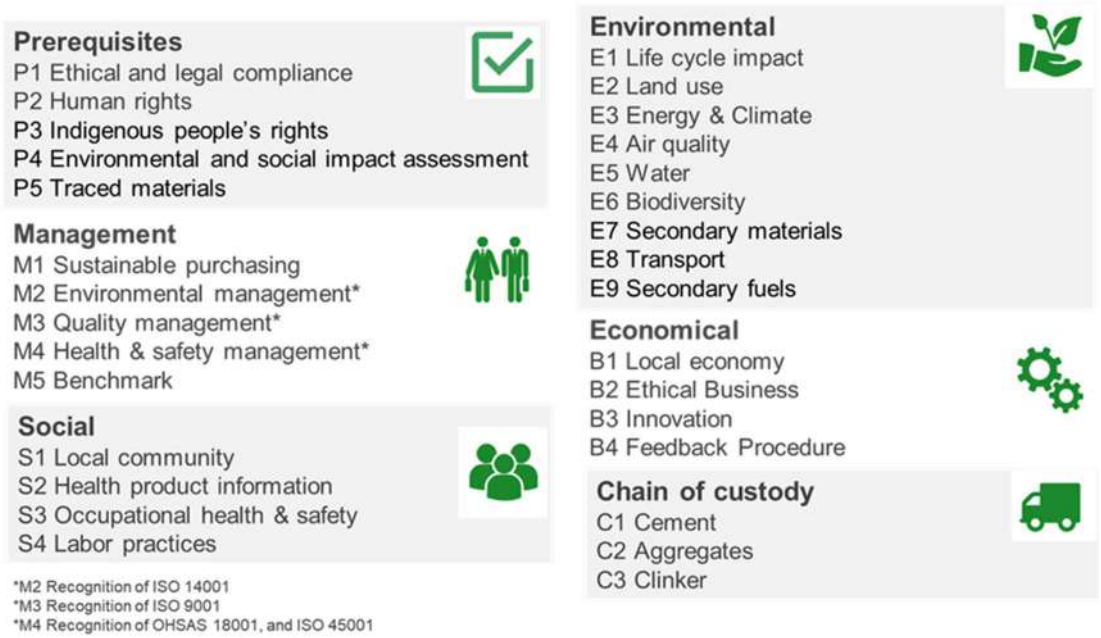

Fig. 2.2: Content of CSC certification

Some of the credits or criteria only apply to the certification of a specific part of the supply chain, such as “E9 Secondary fuels” to clinker producing plants or “C3 Clinker” for cement grinding plants.

2.4 Novelties in CSC version 2.0

The updated CSC certification system version 2.0 was released in January 2019. The changes resulting from the implementation of the new system version mainly relate to further improving the sustainability performance of certifying companies. This was achieved by

- Increasing the minimum score required for CSC certification at the level ”Bronze” from 30% to 35%;
- Introducing mandatory criteria for CSC certification at the level ”Silver” and “Gold”, such as the obligation to
  - have a documented environmental management system in place;
  - develop the capability to perform life cycle assessments;
  - use land in a responsible manner;
  - assess water scarcity;
  - responsibly process returned concrete;
  - performing health and safety risk assessments at production sites;
- Introducing new, in some cases mandatory, criteria to the certification system, such as

- raising the awareness amongst own employees for energy savings measures;
- providing access to medical treatment.

- Introducing exemplary performance criteria, offering additional scores for exceptional best practice in order to guide and stimulate further progress in material stewardship

Streamlining the system was additionally achieved by eliminating duplications and criteria which revealed to be of limited relevance.

2.5 Supporting the implementation of the United Nations' Sustainable Development Goals (SDGs)

CSC certification follows a holistic approach and requires compliance with five fundamental prerequisites and a wide range of social and environmental performance indicators, including "occupational H&S", "labor practices", "land use", "energy & climate", "air emissions", "water", "biodiversity", "secondary materials", and "transport". With this, the CSC aims contributing to the implementation of the SDGs in the concrete sector and its supply chain. Most of the SDGs are directly or indirectly adressed, namely SDG 3 "good health and well-being", 6 "clean water and sanitation", 7 „affordable and clean energy", 8 "decent work and economic growth", 9 "industry, innovation and infrastructure", 10 "reduced inequalities", 11 "sustainable cities and communities", 12 "responsible consumption and production", 13 "climate action", 14 "life below water", 15 "life on land", and 16 "peace, justice and strong institutions".

Fig. 2.3: The CSC system's coverage of the SDGs

3 Credibility of the CSC certification system

The ultimate aim of the CSC is to achieve a positive impact on the social, environmental and economic practices of concrete, cement and aggregate producers. This is why the CSC certification system is based on the 10 ISEAL credibility principles:

1. Sustainability

The CSC certification system aims to achieve a number of clearly identified sustainability objectives, namely:

- Improving the sustainable use of concrete by promoting responsible practices throughout the value chain and incentivizing continuous improvement;
- Ensuring transparency in the concrete sector by making sustainable practices more visible and enable organizations to demonstrate leadership;

- Raising the public awareness regarding the sustainability of the concrete sector and its products;
- Obtaining tangible benefit for implementing responsible sourcing by receiving recognition for the supply of CSC certified concrete in green building and green infrastructure rating systems such as BREEAM, DGNB, ENVISION;
- Obtaining recognition in “green procurement” government policies and policies for social procurement.

2. Continuous Improvement

Raising the bar for obtaining CSC certification is an important lever to continuously improve responsible sourcing practices. This is achieved via a number of dedicated measures, including

- regular discussions on the level of the CSC Technical Committee;
- the CSC’s annual report including the RSOs’ and Certification Bodies’ (CBs’) annual feedback;
- harmonization meetings between CBs;
- exchange meetings with RSOs;
- exchanges with certificate holders;
- stakeholder events with CSOs and labor organizations.

3. Relevance

Relevance of credits and criteria covered by the system are of highest importance to ensure “fitness for purpose” and progress in responsible sourcing practices. The topics covered by the certification system were consequently identified with the support of a broad range of stakeholders:

- Amongst the environmental key-topics identified are the reduction of CO_2 emissions, energy and water consumption, recycling and the use of secondary materials. In the supply chain, i.e. the production of cement and aggregates, biodiversity was identified as another important topic to be carefully considered.
- Amongst the key social topics identified are relations with the local community, occupational health and safety, and labor practices.
- In the field of economics, local economy, ethical business practices and innovation were identified as particularly important.

The CSC system allows adaptations to ensure local applicability.

4. Rigor

The system focuses on topics relevant for responsible sourcing. All evidence used for certification first needs to be uploaded in the CSC assessment tool, the so-called “CSC Toolbox”. In a second step, the uploaded evidence is assessed and validated by an independent CB before issuing the certificate.

5. Engagement

The system was developed and updated in a collaborative approach with involvement from internal stakeholders - i.e. enterprises, industry associations and CBs - and external stakeholders - i.e. CSOs, labor organizations, green building councils (GBCs) and academics.

6. Impartiality

The CSC has a broad range of internal stakeholders comprising concrete, cement and aggregate producers, industry associations, and CBs. Impartiality is ensured by the organization’s Governance, namely

- a General Assembly (GA) with equal voting rights for all members;
- the setup of the Executive Committee (ExCo) ensures appropriate representation of all internal stakeholders;
- the CSC Advisory Committee providing the direct voice of social and environmental stakeholder organizations;
- a dedicated grievance management procedure.

7. Transparency and
8. Accessibility

All relevant information regarding the CSC, its Governance and the certification system can be accessed via the CSC's homepage: https://concretesustainabilitycouncil.com/

9. Truthfulness

CSC intends to secure truthfulness, and thus confidence in products from CSC certified plants via a framework of dedicated measures:

- The CSC formally requests that claims and communications relating to CSC certification and the use of the logo are in line with the respective CSC guidance document;
- a dedicated procedure is in place to report false claims, false use of the CSC trademark and logo;
- the CSC regularly checks the use of the CSC logo and trademark, e.g. via internet spot-checks;
- the CSC reserves the right to take legal action against any false/deceptive claims including any misuse of the CSC logo.

10. Efficiency

CSC certification is aligned with ISO standards, namely ISO 14001, ISO 18001, ISO 9001, ISO 26000 and other standards. This makes the certification process efficient for companies, who are already following those standards. The CSC continuously seeks a dialogue with green building and green infrastructure labels. Recognition has been achieved within BREEAM, DGNB and ENVISION and is an important driver to create value for CSC customers. Recognition by such systems can become an important success factor for the CSC, leading to a growing number of CSC certifications, such as demonstrated in the Netherlands and in Germany.

Local promotion of the CSC certification system among stakeholders other than the concrete sector and its supply chain is key to implementing the CSC system throughout the construction value chain. Local promotion is secured through "system ownership" via RSOs who proactively engage with green building councils and public authorities.

4 CSC in numbers

Since the launch of CSC-certification in January 2017, 266 CSC certificates were awarded (see Table 4.1) – 149 certificates in the Netherlands, followed by 89 certificates in Germany. Since 2017, CSC certification made its first step into a number of further countries/regions including Turkey, the United States, Italy, Poland, Belgium, Latin America, and Canada (see Table 4.2).

Out of the 266 certificates, 129 certificates were awarded in 2019; 66 of them under the new system version 2.0 that became mandatory for all certificates issued as of July 1st, 2019. Out of the 129 certificates, 65 certificates were awarded in the Netherlands, 48 in Germany, 4 in Italy, 3 in Poland, 2 in Turkey, and 2 in Latin America. This is the result of the joint efforts of the CSC and its local system

operators Betonhuis, BTB, THBB, FedBeton, Federbeton, and FIHP, and the CSC's clients' dedication when implementing highest sustainability standards.

Year	Aggregates	Cement	Concrete	Recycled agg.	Grand Total
2017	5	4	54		63
2018	3	21	50		74
2019	28	11	88	2	129
Grand Total	**36**	**36**	**192**	**2**	**266**

Table 4.1: Number of certificates issued per year and per segment

Country	Aggregates	Cement	Concrete	Recycled agg.	Grand Total
Netherlands	22	4	121	2	149
Germany	13	27	49		89
Turkey		2	4		6
USA			5		5
Italy	1	1	2		4
Poland			3		3
Belgium			3		3
Latam			2		2
Canada			2		2
UAE		1			1
Spain			1		1
Luxembourg		1			1
Grand Total	**36**	**36**	**192**	**2**	**266**

Table 4.2: Number of certificates issued per country and per segment

88 out of the 129 certificates (≙ 68%) awarded in 2019 were concrete plant certificates. 30 supplier certificates (≙ 23%) were awarded for aggregate production sites, two of them for sites producing recycled aggregates, and 11 supplier certificates (≙ 9%) were awarded for cement plants. 28 (≙ 22%) of the 2019 certificates were awarded at the level "Bronze", 58 certificates (≙ 45%) at the level "Silver", and 38 certificates (≙ 29%) at the level "Gold". A few of the certificates were upgraded during the year. The overall scoring was lower than in previous years as new challenges were introduced with the CSC system update version 2.0.

5 Certificate holders' responsible sourcing performances

This section provides an overview on the achievements of plants certified in 2019 under the latest CSC system version 2.0. The data allows gaining insight into the implementation status of sustainability practices in the concrete and aggregate sector and is used to steer future updates of the CSC certification system. A first cement plant was also certified under the new CSC system version 2.0. For confidentiality reasons, the result this single plant is not displayed in this report.

5.1 Concrete producers

49 concrete plants were awarded in 2019 with a CSC certificate version 2.0.

5.1.1 Management criteria

Fig. 5.1 provides insight into the achievement of management related certification criteria: Concerning sustainable purchasing practices it can be seen that all CSC certified concrete plants have a purchasing policy in place (→ M1.01) covering social and environmental aspects. Around 90% of the plants carry out supplier assessments (→ M1.02) and around 75% of the plants do monitor the

performance of their suppliers (→ M1.02). Nearly all plants include responsible sourcing as a criterion in their procurement process (→ M1.06).

All certified plants have a documented quality management system (QMS) in place (→ M3.01), and nearly all of them also use a documented environmental- (EMS) (→ M2.01) and a documented health and safety management system (HSMS) (→ M4.01). On the other hand, there is, in many cases, still opportunity for implementing certified management systems (→ M2.02, M3.02, M4.02). More than 25% of the certified plants could also improve their scoring by publishing annual performance data (→ M5).

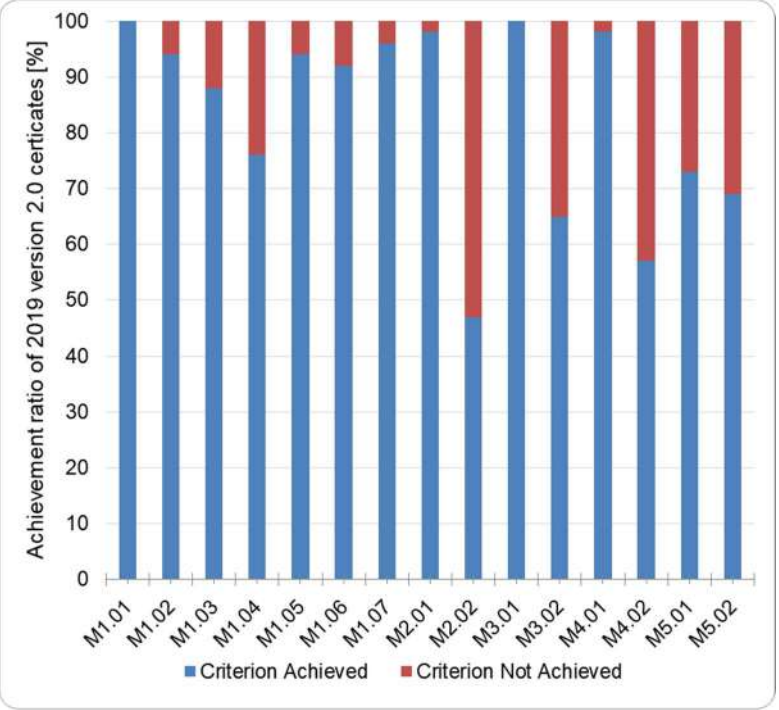

Fig. 5.1: Concrete: Management criteria - ratio of criterion achievement

5.1.2 Environmental criteria

Fig. 5.2 provides an overview on the achievement ratio of certification criteria relating to environmental issues: The achievement of environmental criteria shows a mixed picture. The overall fulfillment rate of criteria addressing land use (→ E2) and air quality (→ E4) is elevated. However, there is room for improvement in a number of areas: EPDs are not yet released by every certified concrete producer (→ E1.03 and E1.04). Furthermore, for around 30 % of the certified plants there is the opportunity to engage into monitoring and reporting on GHG emissions (→ E3.02, E3.03, and E3.04) and on water use (→ E5.04), respectively. Further areas providing improvement opportunities include optimizing the use of secondary materials (→ E7.05 and E7.06), and assessing and implementing clean transportation technologies and methods (→ E8.03).

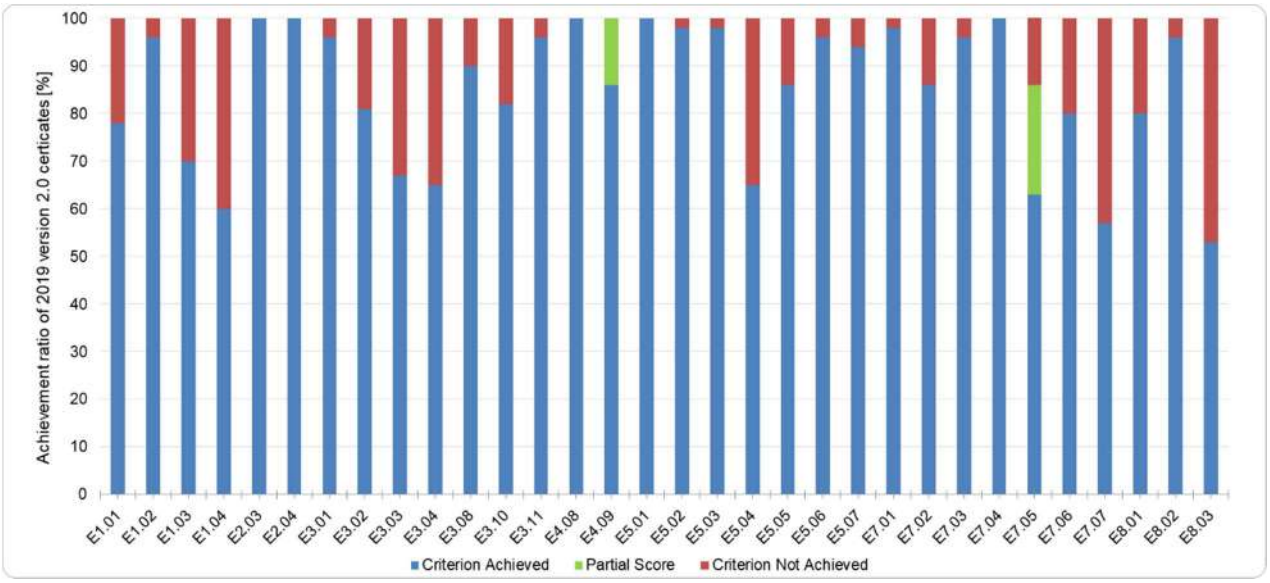

Fig. 5.2: Concrete: Environmental criteria - ratio of criterion achievement

5.1.3 Social criteria

Fig. 5.3 summarizes the achievement of certification criteria relating to social issues: Good relationships with the surrounding community are important for concrete plants as many of them operate in industrial zones located near residential areas. Nonetheless, an improvement opportunity for more than 20% of the certified concrete plants includes implementing a policy committing to engage with the local community on a regular basis (→ S1.01). Around 30 % of the certified plants may still engage into an active communication with the local community (→ S1.03), develop a noise management plan (→ S1.04) or measures to ensure safe transportation to and from the production site (→ S1.04).

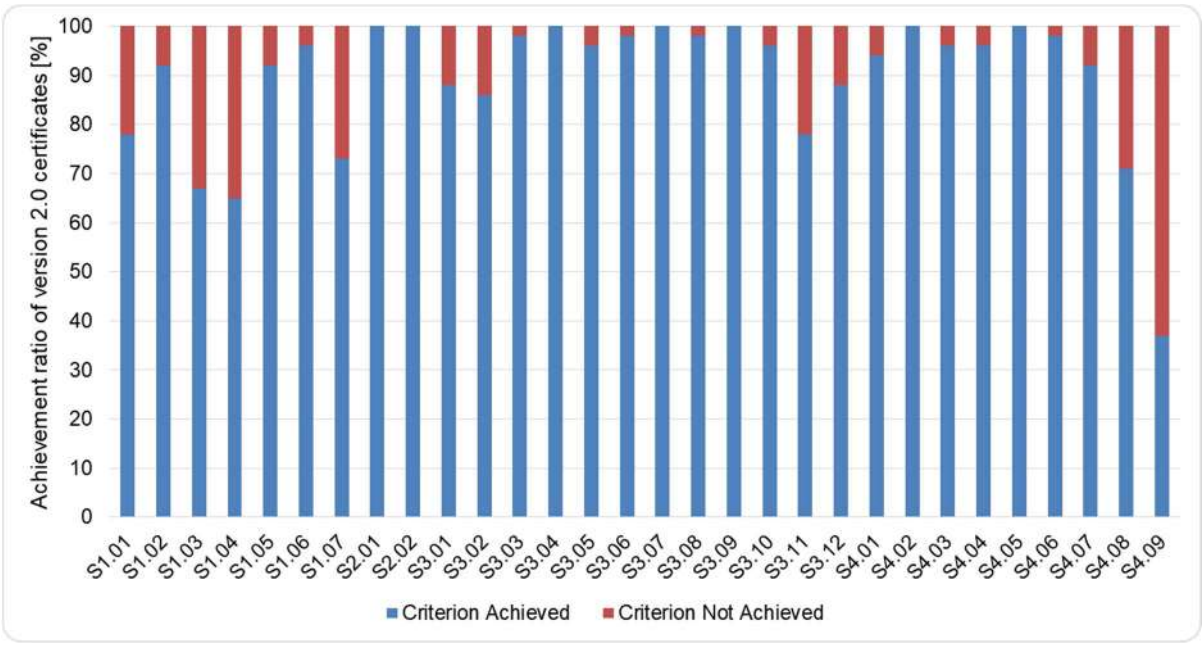

Fig. 5.3: Concrete: Social criteria - ratio of criterion achievement

Regarding labor practices ensuring work-life balance (→ S4.08) often seems to be a challenge. The newly introduced exemplary performance criterion on “External control of social standards and compliance with human rights” (→ S4.09) is – as expected – even more challenging and is achieved by a bit more than a third of the concrete plants undergoing CSC certification.

5.1.4 Supply chain criteria

Fig. 5.4 summarizes the achievement of the supply chain criteria “C2.01 Cement” and “C2.02 Aggregates”. 0% achievement means that the a CSC certified concrete plant does not use any CSC certified aggregates or cement, respectively 100% achievement means that a CSC certified concrete plant uses 100% CSC certified aggregates or cement, and that the respective suppliers achieved a total scoring of 100%. A supplier score lower than 100% will always lead to an achievement rate of less than 100% in the concrete certificate, even if the complete supply is from certified producers.

According to fig. 5.4, around 26% of the CSC-certified concrete plants do not yet use any CSC-certified cement (→ C2.01).Due to the increasing availability of CSC certified cement, in particular in the Netherlands, Germany, and Italy, most of the plants reached a scoring between 31% and nearly 100%. On the other hand, 40% of the CSC-certified concrete plants do not yet use any CSC-certified aggregates, and there is no scoring higher than 80%. This relates to the limited availability of CSC certified aggregates in many regions. Overall, the aggregate supplier certificates show a slower uptake than cement, primarily due to a more fragmented situation in the aggregates market. However, as the number of certified aggregates producers is continuously increasing, it is expected that the achievement ratio of the criterion C2.02 will improve.

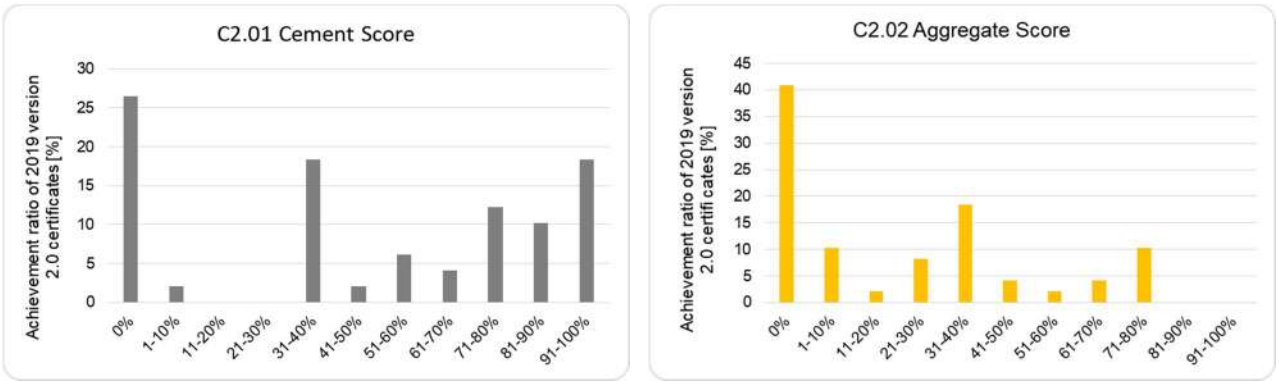

Fig. 5.4: Concrete: Supply chain – ratio of criterion achievement

5.2 Aggregate producers

16 Aggregate production sites were awarded in 2019 with a CSC supplier certificate version 2.0. Two of the 16 sites are producing recycled aggregates.

5.2.1 Management criteria

Fig. 5.5 provides insight into the achievement of management related certification criteria: Concerning sustainable purchasing (→ M1) it can be seen that improvement opportunities exist for all criteria. The main gaps include a purchasing policy that does not cover social and environmental aspects (→ M1.01), missing of a supplier assessment and monitoring (→ M1.02 and M1.03), the absence of training on responsible sourcing (→ M1.04) and the lack of including responsible sourcing as a criterion in the procurement process (→ M1.06). In 2019, these criteria were not met by a quarter and more of the production sites undergoing CSC certification.

Management systems are generally well established. The remaining opportunity for improvement in this area is – for more than half of the certified plants – to implement a certified EMS. On the other hand, publishing annual performance data (→ M5) is not at all common practice throughout the sector.

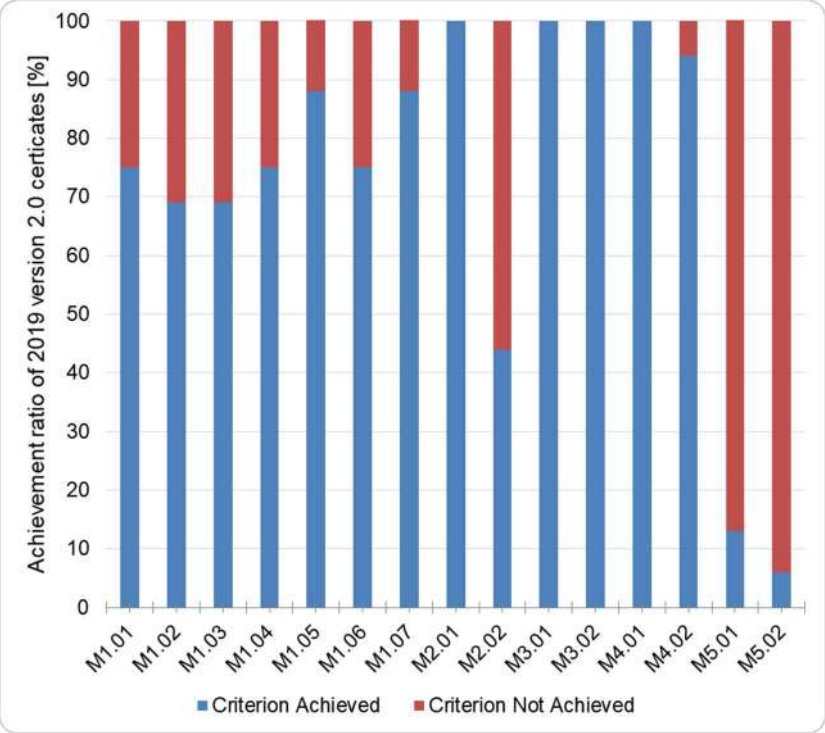

Fig. 5.5: Aggregates: Management criteria - ratio of criterion achievement

5.2.2 Environmental criteria

Fig. 5.6 provides an overview on the achievement ratio of certification criteria relating to environmental issues: The achievement ratio of environmental criteria shows a mixed picture. The overall fulfillment rate of the criteria addressing land use (→ E2), air quality (→ E4), water (→ E5) and biodiversity (→ E6) is very elevated. The comparably lower coverage of energy and climate (→ E3) could be a consequence of energy consumption and GHG emissions being less relevant in the production of aggregates than e.g. in the production of cement. Transport (→ E8) is an area providing opportunities for improvement including the implementation of policies (→ E8.01), transport management systems (→ E8.02) and the assessment implementation of clean transportation technologies and methods (→ E8.03).

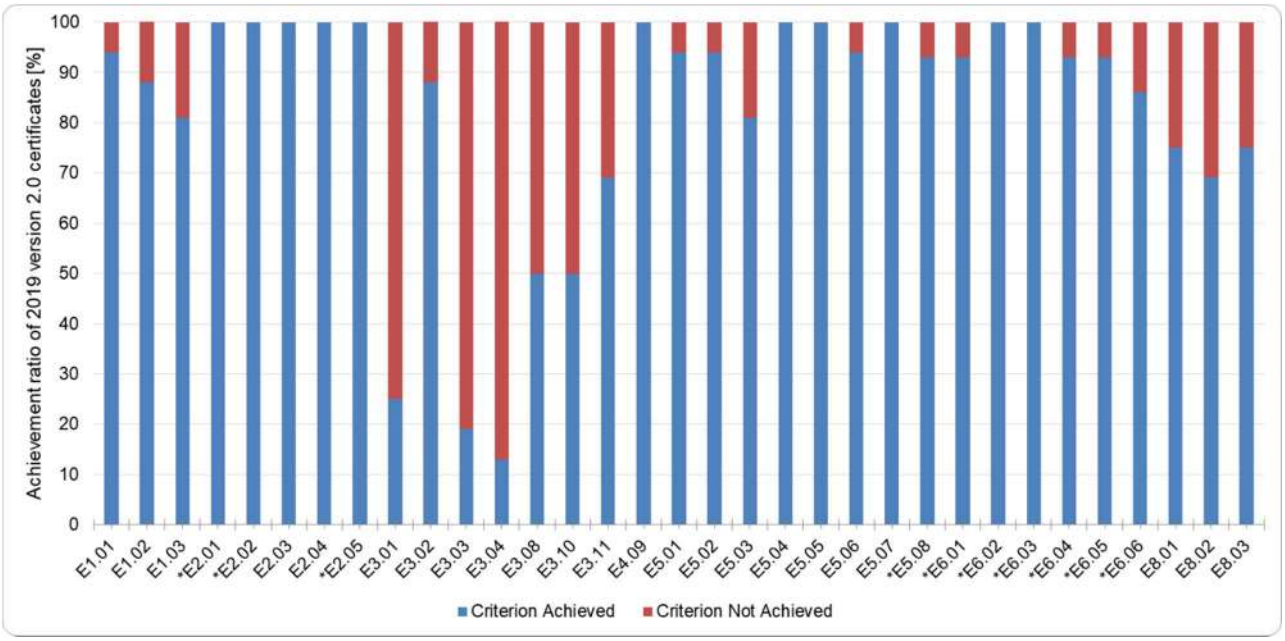

Fig. 5.6: Aggregates: Environmental criteria - ratio of criterion achievement; criteria marked with "*" do not apply for recycled aggregate producers

5.2.3 Social criteria

Fig. 5.7 summarizes the achievement rates of certification criteria relating to social issues: The overall scoring in social credits is elevated. Good relationships with the surrounding community are well established as they are important to secure "the license to operate". Criteria addressing occupational health and safety practices and fair and equitable treatment of the workforce are generally fulfilled. In some cases, additional effort can be made to further reduce the risk of accidents (→ S3.11 and S3.12).

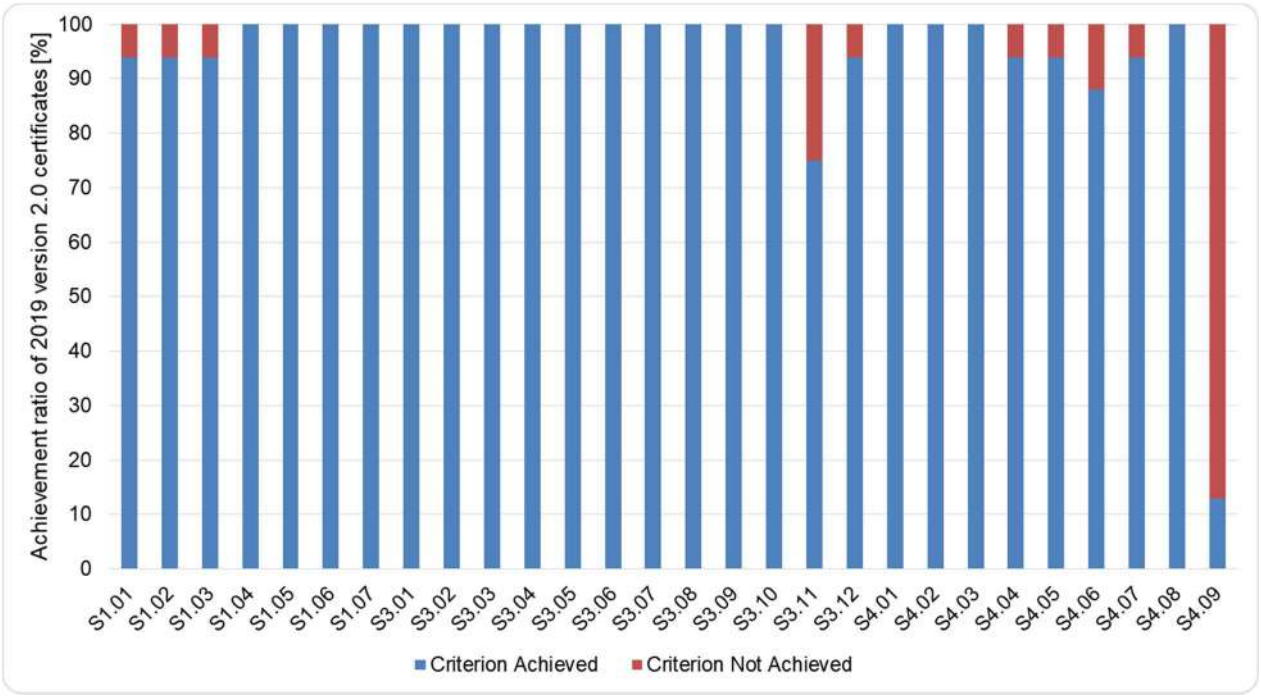

Fig. 5.7: Aggregates: Social criteria - ratio of criterion achievement

The newly implemented exemplary performance criterion on external control of social standards and compliance with human rights (→ S4.09) is – as expected – challenging and is achieved by a bit more than 10% of the aggregate production sites undergoing certification.

5.3 Cement producers

One cement plant was certified under the new CSC system version 2.0. For confidentiality reasons, the result this single plant is not displayed in this report.

5.4 General remarks

The experience with the requirements set by the CSC System for responsible sourcing are still in an early phase. However, CSC certifications are typically performed by concrete plants with the ambition to advance their sustainability practices and to improve their score. Consequently, the overall responsible sourcing performance is likely to increase over time for the certified concrete, cement and/or aggregates producing plants.

6 Innovation

The CSC certification system promotes innovation via the dedicated innovation credit “B3 Innovation”.

This credit aims at stimulating

- the development and implementation of new solutions that contribute to the sustainability of the operations, its products, its suppliers or other parts of the value chain;
- best practices in the field of sustainability that are not covered by this certification system; and
- exemplary performance under any CSC certification criterion.

In 2019, the CSC’s innovation committee (IC) received applications from 14 plants undergoing CSC certification according to version 2.0. Innovation points were granted to all applicants, with results ranging between 1 and 6 points out of a maximum of 9 achievable points.

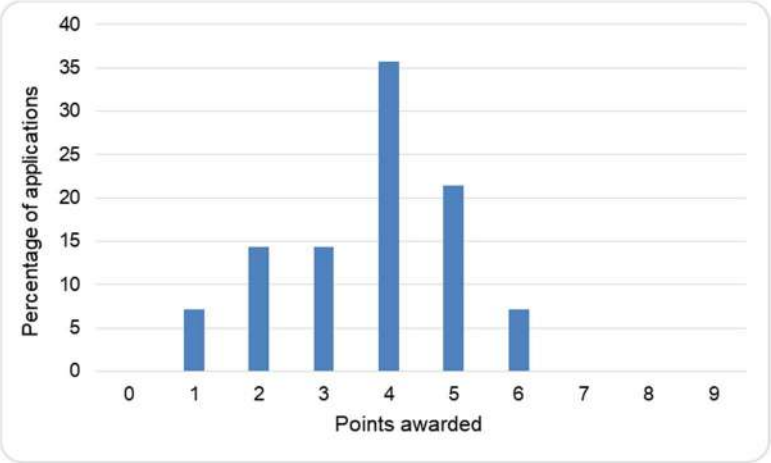

Fig. 6.1: Innovation points awarded to CSC version 2.0 projects in 2019

7 Continuous improvement

Continuous improvement of the CSC certification system, including its toolbox, is an important lever to improve the sustainability performance of CSC certified plants.

An in-depth evaluation of the achievements of newly certified plants was carried out (see chapter 5) to provide input for the next CSC version update. The following high-level opportunities for supporting progress in sustainability practices were identified:

- Increasing the scoring of criteria that refer to important sustainability practices that are not yet commonly implemented, e.g. certified management systems
- Reducing the scoring of criteria that have become common practice, e.g. non-certified management systems
- Request mandatory compliance with such criteria for certifications at the level of Silver or higher
- Incentivize the implementation of energy savings measures, especially in the aggregate sector

2019 feedback received by RSOs and CBs revealed further improvement potentials, such as

- Providing additional guidance on evidence to be provided
- Strengthening implementation related criteria
- Better rewarding the use of secondary cementitious materials
- Increasing the number of performance based criteria
- Simplifying the uploading process of evidence in the CSC Toolbox

8 Our way forward

The CSC's way forward for 2020 and beyond was prepared in 2019 with a number of key-measures, namely the

- development of dedicated systems for cement grinding plants and for plants producing recycled aggregates to get a more complete picture of the concrete supply chain;
- development of dedicated modules for mobile plants;
- initiation of the development of a CSC certification add-on for concrete containing recycled aggregates to be released during the second half of 2020.
- initiation of the development of the CSC system update version 2.1 to be released in 2021.

9 Governance structure

The CSC's Governance Structure is shown in Fig. 9.1.

- The technical and communication committees with defined leadership ensure target orientated work.
- Continuous involvement of a broad range of stakeholders will is guaranteed through a dedicated advisory committee.
- The transparent and straightforward decision process is at the responsibility of the CSC's executive committee.

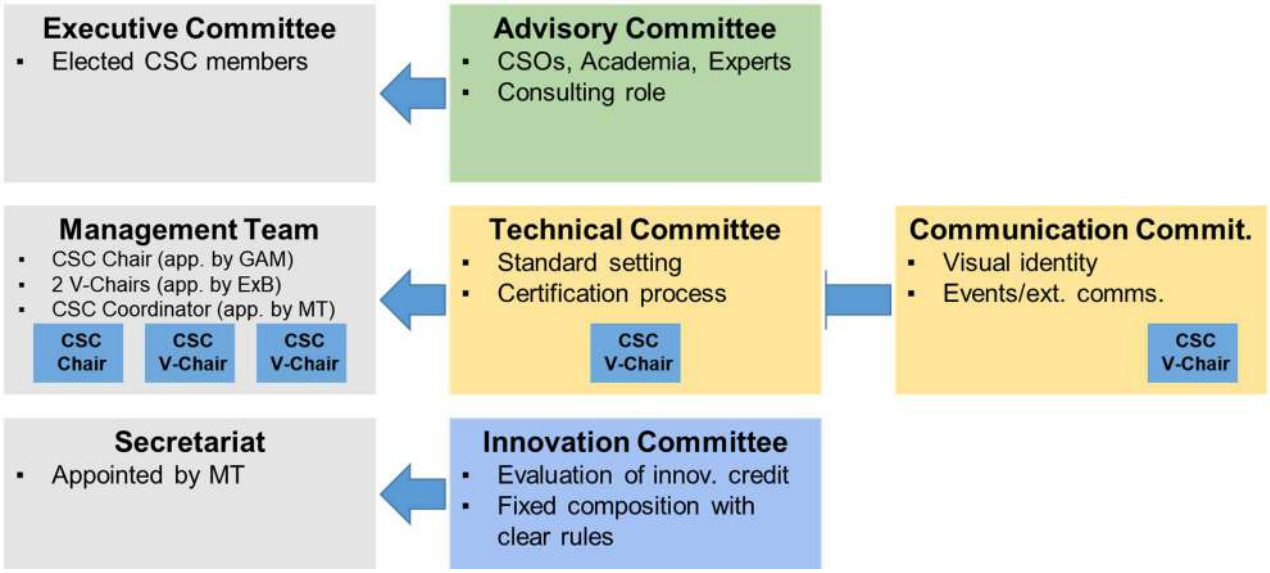

Fig. 9.1: CSC Governance Structure

10 Abbreviations

BREEAM	Building Research Establishment Environmental Assessment Methodology
BTB	Bundesverband Transportbeton – German ready mixed concrete association
CB	Certification Body
CSC	Concrete Sustainability Council
CSO	Civil Society Organization
DGNB	Deutsche Gesellschaft für Nachhaltiges Bauen – German GBC
EMS	Environmental management system
EPD	Environmental Product Declaration
ExCo	Executive Committee
FedBeton	Belgian ready mixed concrete association
Federbeton	Italian concrete association
FIHP	Federación Iberoamericana del Hormigón Premezclado - Latin American ready mixed concrete association
GA	General Assembly
GBC	Green Building Council
GHG	Greenhouse gas
HSMS	Health and safety management system
QMS	Quality management system
RSO	Regional System Operator
SDG	Sustainable Development Goal
SME	Small and medium sized enterprises
THBB	Türkiye Hazır Beton Birliği - Turkish ready mixed concrete association