



Concrete Sustainability Council

CSC-certification for concrete and its supply chain

Annual Report 2017/2018



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Christian Artelt
Chair of the Concrete Sustainability Council



Michael Scharpf
Vice-Chair of the Concrete Sustainability Council

1 Introduction

Dear Stakeholders,

For the Concrete Sustainability Council (CSC), the years 2017/2018 were very special. Pursuing its mission to demonstrate the values of concrete in sustainable construction, the CSC launched its certification system for responsibly sourced concrete in January 2017. The system intends to

- improve the sector's sustainability performance – by providing benchmarks and incentives for continuously improving management, environmental and social performance along the full value chain of concrete production;
- make the sector more transparent – by providing a common global framework that allows stakeholders of all kinds, i.e. neighbors, Civil Society Organizations (CSOs), public authorities, financing institutions and others to understand the sustainability performance of a plant;
- demonstrate leadership – by documenting the high level of sustainability the sector has already achieved and by showcasing pioneering new practices;
- add value for certifying companies – by achieving recognition in green building and green infrastructure rating systems;
- build a strong sector brand – by working towards a widely recognized trademark that is universally known for its credibility.

The CSC certification system is applicable worldwide with the substantial support of Regional System Operators (RSOs) in specific countries.

The results of the first certifications performed in 2017/2018 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 certification system for responsibly sourced concrete of global relevance, the CSC is proud to be a partner for the concrete industry in making the sector's future even more sustainable.

Yours sincerely,

A handwritten signature in blue ink that reads "Christian Artelt".

Christian Artelt
Chair of the Concrete Sustainability Council

A handwritten signature in blue ink that reads "M. Scharpf".

Michael Scharpf
Vice-Chair of the Concrete Sustainability Council

2 CSC certification

2.1 Scope of certification

The CSC system targets certification of production plants. 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 pursues the concept of continuous improvement. The system currently offers three levels of certificates (Bronze, Silver and Gold) for concrete producers and two levels of certificates (Bronze and Silver) for cement and aggregate producers, 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.

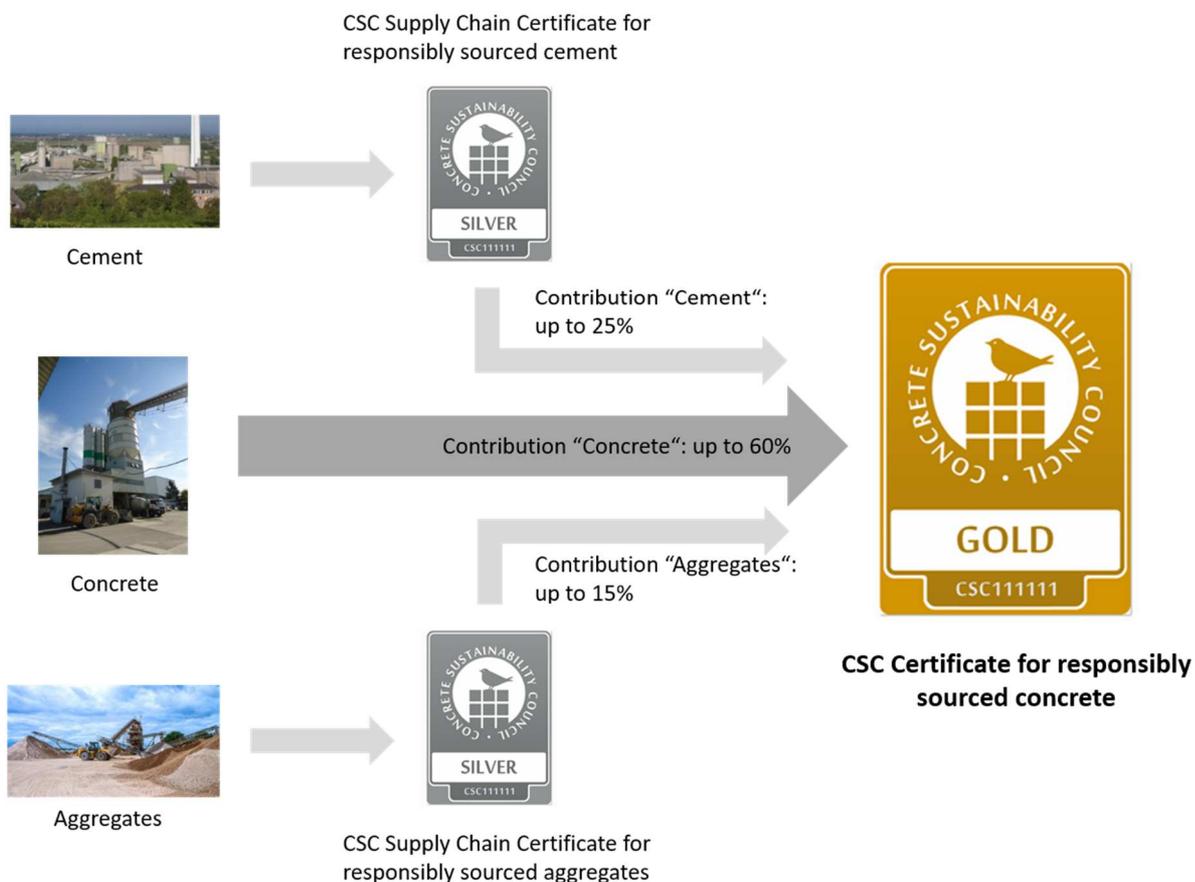


Fig. 2.1: CSC scoring principles



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:

- Management;
- Environment;
- Social;
- Economic;
- Supply chain.

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

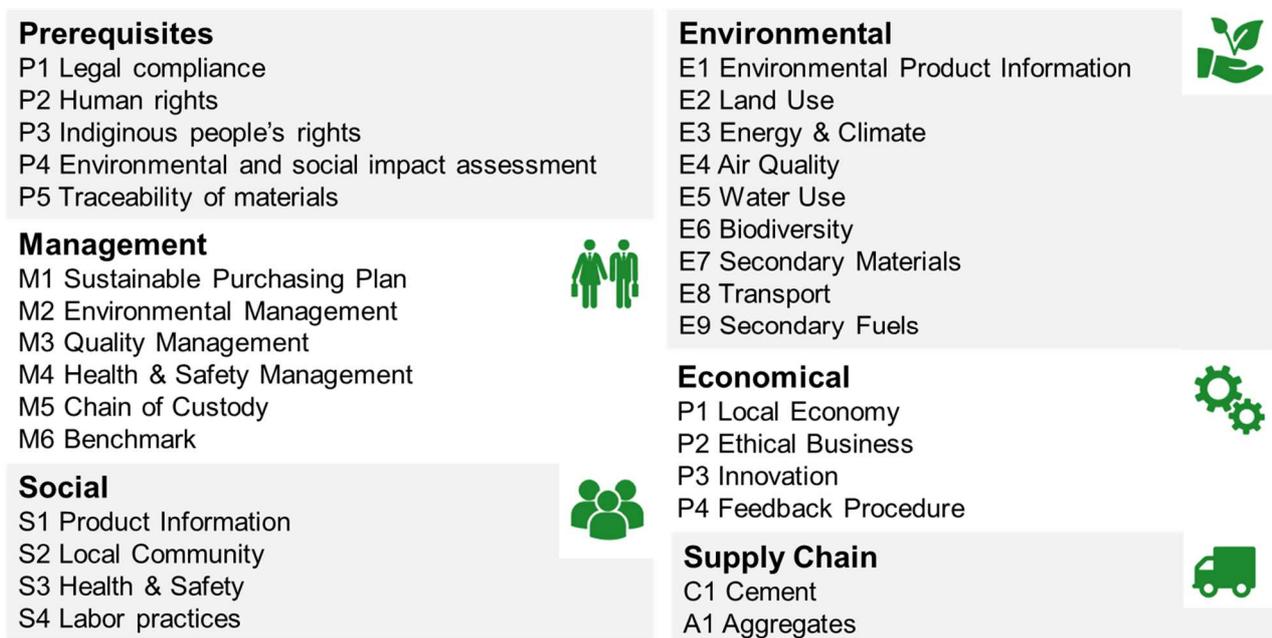


Fig. 2.2: Content of CSC certification

3 Credibility of the CSC certification system

The ultimate aim of the CSC is to achieve a positive impact in 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 reports;
- 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 CO₂ 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

Sixty-one CSC certificates were awarded in 2017, 50 of them in the Netherlands and 9 in Germany. This was the result of the joint efforts of the CSC and its local system operators, namely Betonhuis and BTB. Two certificates were also awarded in Canada. Fifty-four out of the total of 61 certificates were concrete plant certificates.

In 2018, 74 certificates were issued, and the footprint of cement suppliers increased significantly. The Netherlands remained an important demand-driven market with 32 new certifications. An increasing number of the new certificates were awarded to SMEs. This clearly indicates that the CSC certification system gained the concrete sector's appreciation beyond vertically integrated companies as a tool to demonstrate commitment to sustainability values.



Year	Aggregate	Cement	Concrete	Grand Total
2017	5	2	54	61
2018	3	21	50	74
Grand Total	104	23	8	135

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

In Germany, CSC certification continued to gain momentum in 2018, and the year ended with 32 new certifications. First certificates were also issued in the USA, Turkey and Spain.

Country	Aggregate	Cement	Concrete	Grand Total
Netherlands	8	4	72	82
Germany		20	21	41
USA			5	5
Turkey		1	3	4
Canada			2	2
Spain			1	1
Grand Total	8	23	104	135

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

Type	Gold	Silver	Bronze	Grand Total
Concrete	60	29	15	104
Cement		22	1	23
Aggregate			8	8
Grand Total	60	51	24	135

Table 4.3: Number of bronze, silver, and gold certificates

24 (\cong 18%) of the 135 certificates issued were awarded at a “Bronze” level, 51 certificates (\cong 38%) at a “Silver” level and 60 certificates (\cong 44%) at a “Gold” level. The concrete sector’s growing awareness of sustainability related matters and the growing engagement of the supply chain enabled an increasing number of certifying companies to achieve CSC certification at “Gold” level.

5 Achievements in the credits

5.1 Concrete producers

The credit achievement of the concrete producers that underwent CSC-certification in 2017/2018 is shown in the figure below.

Management credits were fully achieved in 70% or more of concrete plant certifications. Still, there remains room for improvement: 30 % of the concrete plants have no certified environmental management system (\rightarrow M2) in place (typically ISO 14001) and more than 20% have no certified



health and safety management system (→ M4) in place (typically OHSAS 18001, in Germany also “Sicherheit mit System”). On the other hand, ISO 9001 certification (“M3 Quality Management”) is very common amongst the certified plants – keeping in mind that most of them were located in the Netherlands and in Germany. As can be seen from credit “M6 Benchmarking” – 25 % of the plants do not participate in a benchmarking activity or have no sustainability report (→ Germany) in place.

The achievement rate was lower in the environmental section of the CSC certification system. “E3 Energy & climate” and “E6 Biodiversity” seem to be particular challenging credits for concrete producers with full achievement rates of less than 20%. This can be explained by the concrete industry’s focus on reducing energy consumption as a lever to increase profitability rather than monitoring and reporting CO₂ emissions, as is more common practice in the cement sector. Concrete plants are typically located in industrial zones or even in urban areas, where impacts on biodiversity is usually less of a concern. Highest fulfillment was achieved for credit “E4 Air quality”. This is a clear indication that concrete plants undertaking certification take care of their local environment and significantly invest in dust suppression measures. “E9 Secondary fuels” is not part of the CSC system for concrete plants.

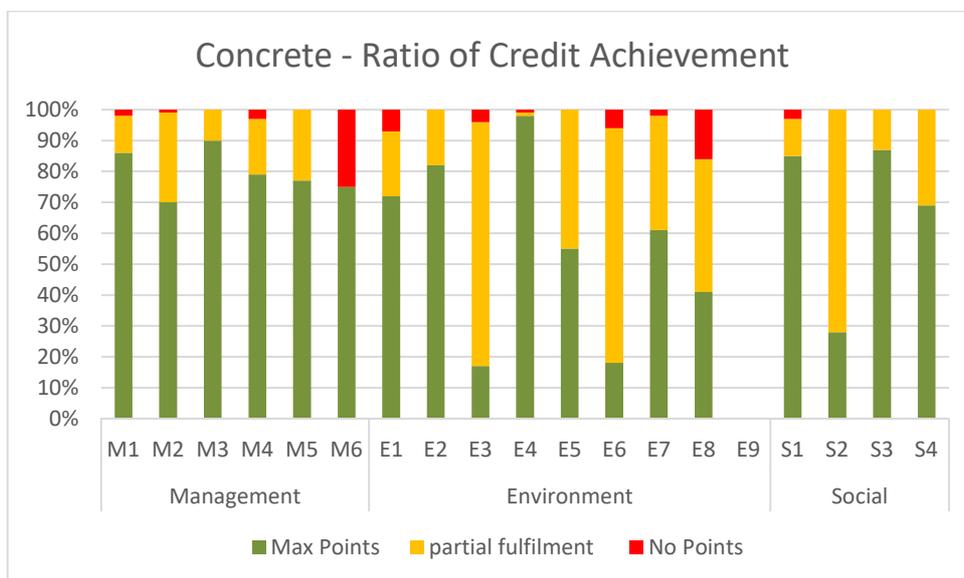


Fig. 5.1: Concrete – ratio of credit achievement

The credit achievement of social aspects shows a mixed picture. The achievement rate is particularly high in “S3 Health and Safety” which clearly reflects the sector’s efforts to improve health conditions and to reduce the risk of accidents for their employees. 100 % of the plants are engaged with their surrounding communities as shown by the partial or complete fulfilment of credit “S2 Local Community”. However, credit S2 covers a broad range of aspects such as stakeholder involvement, transparent communication and information, implementing noise reduction plans and minimizing the risk of traffic related accidents in and around the production site. More than 70% of the certified concrete producers remain with opportunities to strengthen engagement with their local community.

5.2 Cement producers

The credit achievement of the cement producers undergoing CSC-certification in 2017/2018 is shown in the figure below.

The achievement rate of management credits was high. In fact, all CSC certified cements plants have a certified environmental management system (ISO 14001) and a certified quality management system (ISO 9001) in place. All certified cement plants also have a health and safety management



system (→ M4) in place, but this is not always certified. Credit “M6 Benchmarking” was not part of the cement supplier certification.

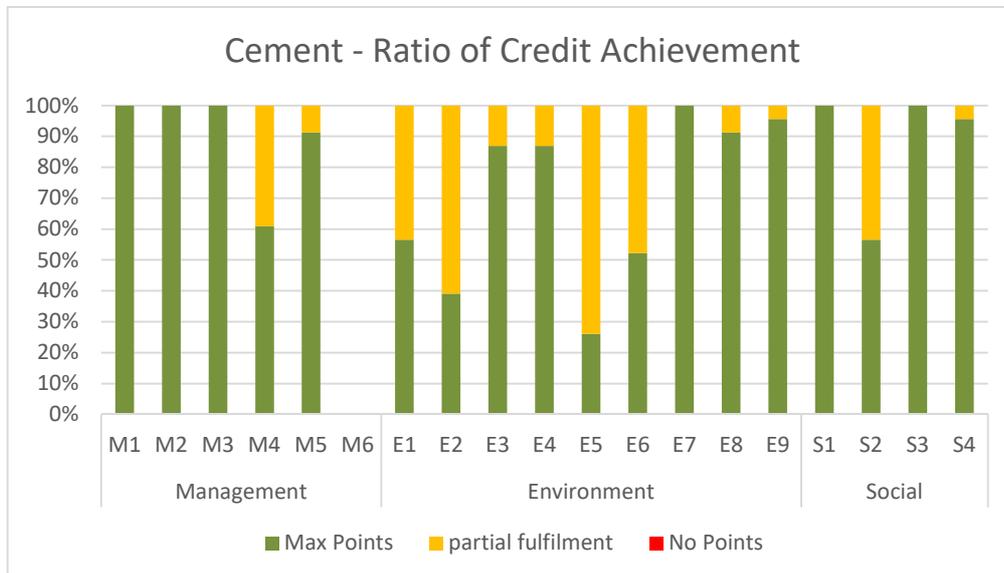


Fig. 5.2: Cement – ratio of credit achievement

The ratio of credit achievement was lower in the environmental section. In many cases in the credits “E1 Environmental Product Information”, “E2 Land Use”, “E5 Water Use” and “E6 Biodiversity” were only partially fulfilled. Credit “E1 Environmental Product Information” assesses the capability and willingness to perform Environmental Product Declarations (EPDs). Certifying plants mostly contributed to establishing sector EPDs. However, performing own EPDs is much less common. Credit “5 Water Use” is very broad and covers topics such as having a policy in place, monitoring & reporting, actions for improving efficiency, reducing water consumption and supplying water to nearby communities. Supplying nearby communities with water is not always possible and may have resulted in a deduction of points in many cases. When launching the CSC certification system in early 2017, biodiversity assessments using a net positive impact methodology were at an early adoption phase. This seems to be a reason why Credit “E6 Biodiversity” was, in many cases, only partially fulfilled.

The ratio of credit achievement was very good in the social section. Reduction of points mainly occurred in “S2 Local Community”. Similar to concrete producers, many cement producers remain with opportunities to further strengthen their engagement with their local community.

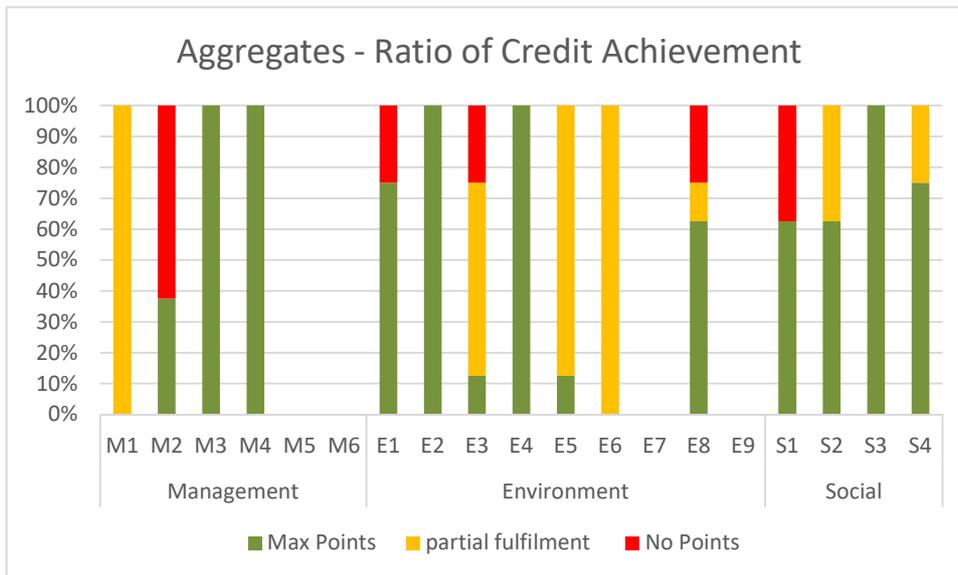
5.3 Aggregate producers

In the CSC certification system version 1.0, the following credits were either not applicable or not relevant for aggregate producers: “M5 Chain of Custody”, “M6 Benchmarking”, “E7 Secondary Materials”, and “E9 Secondary Fuels”.

As shown in the figure below, the overall ratio of credit achievement was much lower for CSC certifying aggregates producing plants. More than 60% of the producers have no environmental management system in place (“M2 Environmental Management”). Environmental practices can be further improved in the areas of “E1 Product Information”, “E3 Energy and Climate”, “E5 Water”, “E6 Biodiversity, and “E8 Transport”. In more than 20 % of the certifications, there was no evidence shown relating to addressing climate change through, for example, providing EPD related data (→ E1) identifying and implementing energy savings measures (→ E3) or optimizing transport logistics (→ E8).



Social aspects were generally addressed more comprehensively, with the exception of credit “S1 Product information”. More than one third of the certifying producers did not address this credit, i.e. were unable to provide evidence for proactively sharing health and safety related product information with their customers.



5.3: Aggregates – ratio of credit achievement

The overall number of supplier certificates for aggregate producers issued in 2017/2018 was limited to eight plants. The uncertainty regarding the general validity of the observations reported here is consequently significantly higher than in the case of concrete certificates or supplier certificates for cement producers.

5.4 General remarks

While the credit achievement rate of certified producers looks quite elevated, it should be kept in mind that CSC certification was performed in 2017/2018 by early adopters. Such producers are typically ambitious with regard to advanced sustainability practices. Consequently, the picture shown here does not necessarily fully reflect the current status of sustainability practices in the concrete, cement and aggregates sector.

6 Innovation credit

The CSC certification system promotes innovation with a dedicated innovation credit “P3 Innovation”. This credit stimulates

- 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;
- execution of best practices in the field of sustainability that are not covered by this certification systems; and
- exemplary performance under any criterion in this system.

In 2017/2018, the CSC’s innovation committee (IC) received 16 applications for evaluating innovation points. Innovation points were granted in all cases, with results ranging from 1 to 7 points.



Percentage vs. Points awarded

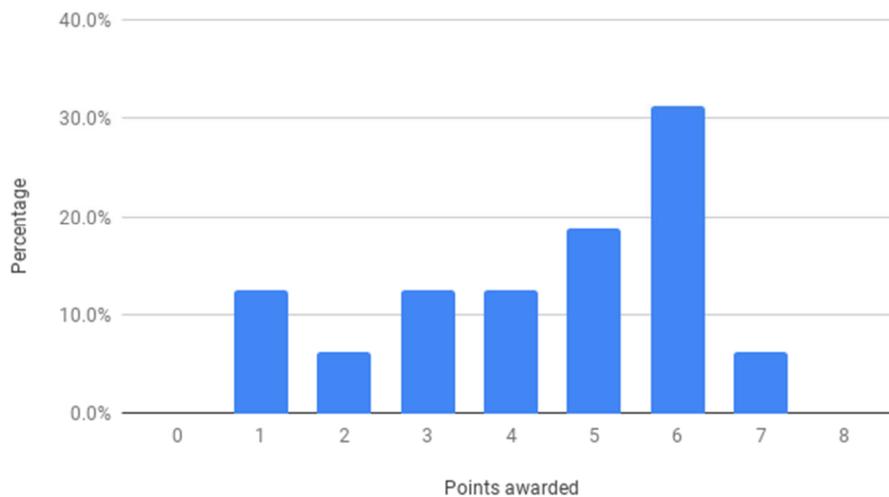


Fig. 6.1: Distribution of innovation points awarded in 2017/2018

7 Continuous improvement

Continuous improvement of the CSC certification system, including its toolbox, is an important lever to improve the sustainability performance of CSC certifying companies belonging to the concrete sector and its supply chain. Continuous improvement is very important to the CSC and includes an annual consultation of CSC accredited CBs and RSOs.

2017/2018 feedback revealed a number of improvement potentials, such as

- to provide clearer instructions on how to get started;
- to better explain the evidence required, in particular to fulfill the systems prerequisites and the criteria “M1 Sustainable Purchasing Plan” and “M5 Chain of Custody”;
- bearing in mind that a benchmark, such as indicated in “M6 Benchmark” is not available in most countries, and that an alternative route for achieving the points should be considered;
- considering that “E6 Biodiversity” is important for quarry operations, but not for concrete plants that are typically located in industrial zones;
- providing clearer guidance on how to achieve innovation points (“P3 Innovation”);
- further develop the toolbox in terms of providing guidance for (first time) users, to allow the copying of evidence from parallel projects in an easier manner, and to improve the clarity of the calculation of the supply chain score.

The feedback also shows that in some countries, concrete producers would appreciate local association support in establishing environmental product declarations. Furthermore, the limited influence in encouraging cement and aggregate suppliers to obtain their own CSC-certificate was brought forward by different concrete producers.

8 Our way forward

The CSC’s way forward was prepared in 2018 with two key-measures – the development of the CSC system version 2.0 and the evolution of the governance structure.



8.1 Development of CSC certification system version 2.0

Based on

- the feedback received from our external stakeholders, i.e. CSOs, academics, labor union representatives, GBCs, and companies that underwent CSC certification;
- the feedback received from our internal stakeholders, i.e. RSOs, CBs, and other CSC members; and
- the analysis of the ratio of credit achievement of the 135 plants certified in 2017/2018 (= base line analysis),

The updated CSC certification system version 2.0 was developed for release in January 2019. The changes resulting from the development of the new version of the system relate mainly to further improving the sustainability performance of certifying companies and on streamlining the certification system, i.e. improving its applicability.

Improving the sustainability performance of certifying companies is closely connected to raising the bar for obtaining CSC certification. This was achieved by

- Increasing the minimum score required for CSC certification at a "Bronze" level from 30% to 35%;
- Introducing mandatory criteria for CSC certification at a "Silver" level or higher, e.g. the obligation to
 - have an 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, and several others

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

8.2 Evolution of the governance structure

The CSC's new Governance Structure is shown in Fig. 8.1.

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

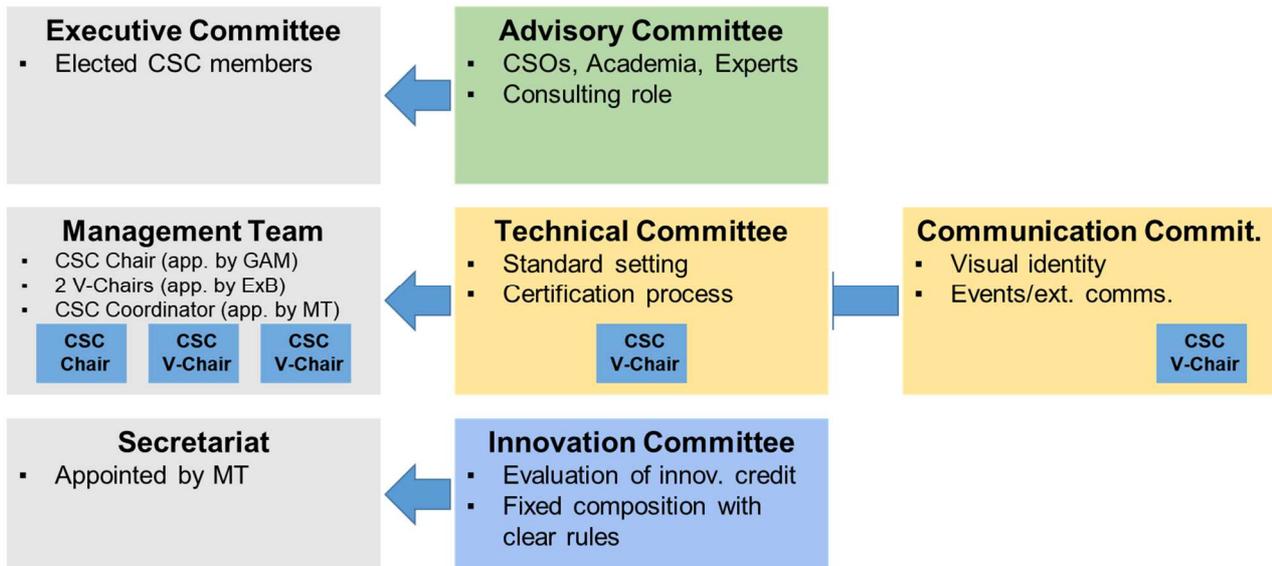


Fig. 8.1: CSC Governance Structure

9 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
EPD	Environmental Product Declaration
ExCo	Executive Committee
GA	General Assembly
GBC	Green Building Council
RSO	Regional System Operator
SME	Small and medium sized enterprises