



# ANNUAL REPORT 2024

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### CSC CONCRETE SUSTAINABILTIY COUNCIL

# ANNUAL REPORT 2024

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a Malagueño- The lighthouse- Sarmiento Park, Cordoba, Argentina



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e in life 24/25, Febina Nabeel- Where Nature and Architecture come together! Abrhamic Family House, Abu Dha

![](_page_2_Picture_5.jpeg)

**CSC - CONCRETE SUSTAINABILITY COUNCIL** 

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# INTRODUCTION

Dear Stakeholders,

As we reflect on the achievements of 2024, it is clear that this year has been a transformative one for the Concrete Sustainability Council (CSC). With a deepened commitment to promoting sustainability across the concrete industry, we have made significant strides in expanding our global reach and strengthening our certification system.

2024 began with the successful implementation of Version 3.0 of the CSC Technical Manual, which followed extensive consultations with various stakeholders and workshops held with experts in key areas such as biodiversity and human rights. These discussions ensured that the updated manual reflects the latest advancements in sustainable practices and addresses the evolving challenges facing the concrete sector and its supply chain. This year, we proudly reached the milestone of 1297 active CSC certifications, a powerful demonstration of the increasing recognition and adoption of sustainable practices within the industry. This accomplishment underscores the growing momentum of our mission to drive sustainability at every level of concrete production and use.

One of the key highlights of the year was the expansion of CSC certification to new regions, with first-time certifications in Ireland, Letonia, Czech Republic, Hungary, Egypt, and Saudi Arabia. This expansion continues to reflect the worldwide demand for sustainable solutions and the increasing interest in the value of CSC certification in achieving those goals.

Additionally, 2024 saw the official launch of CSC in the Middle East and North Africa (MENA) region, in partnership with our new Regional System Operator, Grey Matters, based in Dubai. This milestone not only strengthened our global presence but also provided a platform for dialogue on innovation and sustainability, highlighted by key presentations at the International Concrete Technology Forum in Dubai. The year was also marked by continued collaboration with diverse stakeholders, including industry leaders, certification bodies, and academic institutions. These partnerships are instrumental in refining our certification system, ensuring it remains relevant and impactful in driving sustainability within the concrete sector.

As we look to 2025, we are excited to build on the success of 2024 and continue expanding our efforts to make the concrete industry more sustainable, efficient, and resilient. Together, we will keep pushing the boundaries of what is possible in creating a more sustainable built environment.

We are grateful for the support of our partners, members, and stakeholders, and we look forward to an exciting year ahead.

Yours sincerely,

![](_page_3_Picture_9.jpeg)

![](_page_3_Picture_11.jpeg)

andian Artur

Christian Artelt Chair of the CSC

![](_page_3_Picture_14.jpeg)

Michael Scharp Vice-Chair of the CSC

# **3 CSC Certification**

### **3.1 Scope of certification**

The CSC system is a comprehensive certification system, designed to certify production plants, with a clear focus on enhancing sustainability across the concrete supply chain. Generally, the certification applies to all products produced and supplied by the respective plant, with the exception of voluntary modules for recycling and low CO2-concrete, which are specific to a defined range of products offered by the certified plant.

Both, ready-mix concrete plants and precast concrete plants are eligible to receive a "CSC certificate" demonstrating their commitment to sustainable practices and responsible sourcing. Cement, slag and aggregate suppliers can obtain a "CSC supplier certificate". The supplier certificates ensure that the entire supply chain adheres to the highest sustainability standards, reinforcing the overall performance and integrity of certified concrete plants

![](_page_4_Figure_4.jpeg)

### Fig. 3.1: CSC certification scope

![](_page_4_Picture_6.jpeg)

# 

### 3.1.1 Grinding System extended by a system for cement blending stations

Cement production in cement blending plants is performed by blending Ordinary Portland Cement (OPC, CEM I) with secondary cementitious materials in dedicated blenders. Cement blending plants are not equipped with a kiln and own grinding equipment and their cement production consequently depends on (external) Ordinary Portland Cement (OPC, CEM I) supply. The CSC has now enhanced the "Grinding System" to become a System for "Cement Grinding and Blending".

### **3.2 Scoring & certification levels**

![](_page_5_Picture_3.jpeg)

Fig. 3.2 CSC scoring principles

![](_page_5_Picture_5.jpeg)

### **3.3 Content of CSC certification**

Each plant undergoing CSC certification must meet a certain number of prerequisites to obtain a CSC certificate. Provided the prerequisites are fulfilled, the plant 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 3.0 is shown in the figure 3.3. Certain prerequisites, credits or criteria only apply to the certification of a specific part of the supply chain. For example, the "P6 Vessel Evidence List" applies to Marine aggregate producers, while the "E9 Secondary fuels" criterion is specific to clinker producing plants.

![](_page_6_Figure_8.jpeg)

### Fig. 3.3 Content of CSC certification

![](_page_6_Picture_10.jpeg)

	SOCIAL
	S1 Local Community
	S2 Health Product Information
	S3 Occupational Health & Safety
	S4 Labor Practices
	ECONOMICS
~	B1 Local Economy
2	B2 Ethical Business
	B3 Innovation
	B4 Feedback Procedure
	CHAIN OF CUSTODY
	C1 Cement
0-10	C2 Aggregates
	C3 Clinker
	C4 Raw Aggregates Suppliers
	C5 Ready Mix Concrete
	C6 Steel Reinforcement
	C7 Slag Supply to CSC Slag Grinder
	C8 Cement supply to CSC Cement Blender

### 3.4 The "R-Module"

The R-module enables concrete suppliers to label concrete that contains 10 vol.-% (or more) of recycled aggregates. The R-Module is available for CSC-Silver (or higher) certified concrete plants and rewards maximizing the use of recycled material in fresh concrete. This is incentivized through a "Star" system which was introduced with the CSC R-Module Version 2.1.

The CSC R-Module is visually represented on the certificate by a supplementary "R" label, along with the number of stars awarded, reflecting the maximum level of recycled material incorporated into the concrete supplied from a given plant.

![](_page_7_Figure_3.jpeg)

![](_page_7_Picture_4.jpeg)

![](_page_7_Figure_5.jpeg)

Fig. 3.5: R-Module star system

### 3.5 The "CO2-Module"

The CO2-module enables concrete suppliers to label CO2-optimized concrete that achieves a reduction in GHG emissions [kg CO2eq per m<sup>3</sup> of concrete] of at least 30% when compared with a regional CEM I / OPC based reference mix of a given strength class. The CO2-Module is available for CSC-Silver (or higher) certified concrete plants. The CO2-Module is not considered an EPD (Environmental Product Declaration), as it integrates performance levels into material specific CO2 values relative to a regional benchmark. The CSC CO2-Module is awarded in the form of a star system ranging from one to four stars. The color (Silver, Gold, Platinum) of the CSC CO2-Module is the color of the main CSC certificate held by the concrete plant supplying the low CO2-concrete. This system recognizes and incentivizes plants that achieve significant reductions in carbon emissions.

![](_page_8_Picture_2.jpeg)

![](_page_8_Picture_3.jpeg)

Level	Min. CO2 reduction vs. local baseline				
1 Star	30				
2 Stars	40				
3 Stars	50				
4 Stars	60				

Fig. 3.7: CO2-Module star system

### 3.6 SUPPORTING THE IMPLEMENTATION OF THE UNITED NATIONS' **SUSTAINABLE DEVELOPMENT GOALS (SDGS)**

CSC certification takes a comprehensive and integrated approach, requiring concrete plants to comply with five fundamental prerequisites and a broad range of social and environmental performance indicators. These include "Occupational Health & Safety", "Labor practices", "Land use", "Energy & climate", "Air emissions", "Water", "Biodiversity", "Secondary materials", and "Transport". By addressing these issues, CSC Certifications contributes to the broader implementation of the United Nations' Sustainable Development Goals SDGs within the concrete sector and its supply chain.

The CSC Certification framework actively supports the achievement of multiple SDGs, both directly and indirectly. In particular, the following goals are specifically addressed:

![](_page_9_Figure_3.jpeg)

nable and innovative construction methods.

Page 10

![](_page_10_Figure_0.jpeg)

**SDG 7:** 

and management practices.

Affordable and Clean **Energy - Encouraging energy** efficiency and the adoption of renewable energy sources in production processes.

### **SDG 8:**

Decent Work and Economic Growth - Fostering fair labor practices and promoting long-term economic growth within the industry.

![](_page_10_Picture_5.jpeg)

### **SDG 10:**

**Reduced Inequalities -**Reducing inequalities within communities and the workforce by promoting inclusive practices.

Industry, Innovation, and Infrastructure - Supporting sustainable industry practices and innovations that improve infrastructure resilience.

![](_page_11_Picture_0.jpeg)

### SDG 11:

Sustainable Cities and Communities - Contributing to the creation of sustainable and resilient urban environments through responsible building practices.

![](_page_11_Figure_3.jpeg)

SDG 13:

**Climate Action - Reducing** 

the carbon footprint of

concrete production

through sustainable

practices and innovation

Responsible Consumption and Production -Encouraging resource efficiency and minimizing waste through responsible production processes.

### SDG 14:

Life Below Water - Minimizing the impact of industry activities on aquatic ecosystems.

![](_page_11_Picture_7.jpeg)

### SDG 16:

Peace, Justice, and Strong

ethical business practices,

within the concrete sector.

transparency, and strong

governance structures

**Institutions - Ensuring** 

![](_page_11_Picture_9.jpeg)

### SDG 15:

Life on Land - Promoting sustainable land use and biodiversity conservation.

![](_page_12_Picture_0.jpeg)

# 4 Credibility of the CSC certification system

The aim of the CSC is to achieve a positive impact on the social, environmental and economic practices of concrete, cement and aggregate producers. Therefore, the CSC certification system is based on the 10 ISEAL credibility principles. The ISEAL Credibility Principles define the core values of credible and effective sustainability systems. They provide the foundations for systems to deliver greater impact. CSC adopted the ISEAL Credibility Principles since its foundation, and has updated them now according to version 2 of ISEAL principles.

![](_page_12_Picture_3.jpeg)

**CSC - CONCRETE SUSTAINABILITY COUNCIL** 

![](_page_13_Picture_0.jpeg)

![](_page_13_Picture_1.jpeg)

### **1. SUSTAINABILITY IMPACTS**

The CSC certification system aims to promote responsible practices throughout the concrete value chain, i.e. amongst concrete, cement and aggregate producers.

This is achieved by driving the CSC's key objective, i.e. providing positive social, environmental and economic impacts to producers, nature and society. For this reason, sustainability topics where responsible practices can make a material difference are in the spotlight of CSC certification. Material topics covered by the certification system were identified with the support of a broad range of internal and external stakeholders and include:

- relevant economic topics.

![](_page_13_Picture_8.jpeg)

• Human rights, compliance, health and safety, labor practices, and engagement with local communities as social key-topics; • Life cycle impact assessment, energy and climate, air quality, water, land use, biodiversity, recycling and use of secondary materials including fuels, and transportation as most material environmental topics; Local economy, ethical business practices, and innovation as more

### 2. COLLABORATION

The CSC is convinced that collaboration is very impactful to create change and therefore embraces engagement and partnerships with stakeholders inside and outside the concrete value chain, including non-for profit- and civil society organisations. This is why the CSC is working in close collaboration with sector associations and also engaged with a broad range of external stakeholders including Green Building Councils, the Decarbonisation Leaders' Network Decarb Connect, the Global Alliance for Buildings and Construction Global ABC, and ISEAL.

The CSC continuously seeks to create value that fairly rewards the effort and resources that it takes for users to obtain CSC certification. This is achieved by

- social procurement.

CSC certification is aligned with different ISO standards, namely ISO 14001, ISO 18001, ISO 9001, ISO 26000, and ISO 50001. This makes the certification process efficient for companies, who are already following those standards.

![](_page_14_Picture_7.jpeg)

### **3. VALUE CREATION**

• receiving recognition for the supply of CSC certified concrete in green building and green infrastructure rating systems such as BREEAM, DGNB, LEED, ÖGNI, ENVISION, CASA, B.E.S.T.;

• obtaining recognition in "green procurement" government policies and policies for

![](_page_15_Picture_0.jpeg)

### 4. MEASURABLE PROGRESS

With its "toolbox" the CSC possesses a tool to track progress on achieving its sustainability objectives, i.e. providing positive social, environmental and economic impacts to producers, nature and society. Progress is measured annually by means of analysing the credit fulfillments rates of the plants that underwent CSC certification during the past 12 months.

Key-insights of this in-depth analysis are shared with the general public as part of the organization's annual report and provide tangible input to the annual certification system review process.

The CSC recognizes the value of inclusive and non-discriminatory stakeholder engagement. This is why the CSC created a broad range of approaches and opportunities for stakeholders to express views, to participate in the system development as well as in the general decision making process.

The CSC offers full membership to civil society organizations free of any charge and with this access to the CSC's executive committee. The CSC also created an advisory committee as a platform for in-depth exchanges with academia and implemented a collaborative approach for updating the CSC certification system, i.e. with in-depth 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.

![](_page_15_Picture_6.jpeg)

![](_page_15_Picture_7.jpeg)

### **5. STAKEHOLDER ENGAGEMENT**

The global certification stem for responsibly ed ready-mixed and precast concrete crete Sustainability Counci

### 6. TRANSPARENCY

Information on the CSC is easily accessible via its homepage www.csc.eco. The homepage provides in-depth documentation of the CSC certification system, and - via the annual report on the progress measured. The homepage also provides transparent information on governance issues such as the grievance mechanism and certification body audit findings, and a contact form to reach out to the CSC helpdesk for other information, including information on how to actively engage with the CSC or how to raise concerns.

The CSC has a broad range of internal and external stakeholders comprising producers, industry associations, certification bodies, academia, Green Building Councils and others. Impartiality is ensured by the organization's Governance, namely

- stakeholders;

![](_page_16_Picture_9.jpeg)

![](_page_16_Picture_10.jpeg)

### 7. IMPARTIALITY

• a General Assembly (GA) with equal voting rights for all full members;

• an executive committee (ExCo) with appropriate representation of all internal

• the CSC Advisory Committee providing the direct voice of social and environmental stakeholder organizations;

• and a dedicated grievance management procedure applicable to all stakeholders.

Welcon	ne to the CSC Toolbox		ANINAR
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### 8. RELIABILITY

The CSC has made available for plants undergoing CSC certification the so-called CSC toolbox. The CSC toolbox is a web-based certification tool that provides its users with a clear structure and guidance when uploading certification evidence to support their claims.

The evidence undergoes third party verification by trained, CSC accredited certification bodies before they issue the certificate, provided the evidence is valid, such also demonstrated during an on-site audit. CSC accredited certification bodies need to be ISO 17021 and/or 17065 certified. They need to demonstrate responsibility, impartiality, confidentiality and openness, responsiveness to complaints and appeals, and they must have knowledge of aggregate, cement and concrete production.

### 9. TRUTHFULNESS

It is of utmost importance for the CSC that claims and communications in relation to the CSC certification system can be trusted. This is why the CSC toolbox provides a publicly available list of all active CSC certificates. Certificates can be downloaded and they provide essential information such as the certification body, the validity date, and the achieved score per sustainability category.

Furthermore, the CSC has implemented a framework of dedicated measures to secure truthfulness, hence confidence in products from CSC certified plants:

- misuse of the CSC logo.

![](_page_17_Picture_11.jpeg)

• 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

![](_page_18_Picture_0.jpeg)

![](_page_18_Picture_1.jpeg)

### **10. CONTINUAL IMPROVEMENT**

It is important for the CSC to regularly review the organization's objectives, its strategies as well as the ambition level of the CSC certification system as a way to include stakeholder input and to continually raise the bar for achieving CSC certification in response to new and progressing responsible sourcing practices.

- regular discussions on the level of the CSC Technical Committee and with other internal stakeholder groups, namely Regional System Operators (RSOs) and **Certification Bodies (CBs)**
- proactively requesting key-stakeholders' feedback on an annual basis;
- regular exchanges with Green Building Councils;
- exchanges with companies undergoing certifications and certificate holders;
- Labor Organizations.

after three years.

picture: GCCA concrete in life 24/25, Wentao Guo- A concrete Cube of Everything, Magazzino Museum, Cold Spring New York USA

This is achieved via dedicated measures, including

• stakeholder events with CSC Advisory Committee, Civil Society Organizations, and

All these measures lead to regular CSC certification system updates, at the very latest

# **5 CSC in numbers**

### 5.1 2024 Annual Report Fact Sheet Summary

The number of annual certifications continued to increase, reaching a record high of 619 in 2024, leading to an increase of 53% compared to 2023. This trend reflects a growing industry commitment to higher sustainability standards and recognition. Growth was largely driven by Germany, Belgium, Austria, Turkey and Latin America.

CSC certificates are now present in 24 countries with 1297 plants holding active CSC Certificates as of Dec. 31st, 2024.

In 2024, CSC certifications expanded in a number of countries and regions including Czech Republic, Egypt, France, Hungary, Ireland, Latvia and Saudi Arabia, fostering responsible sourced concrete.

In terms of certificates per product, 470 concrete plants were awarded certificates, followed by 96 aggregate production sites and 53 cement plants.

The 110 CO2 module certificates awarded in 2024 contribute to reducing life cycle emissions, while the 85 R-module certificates continue to advance the circularity of concrete production.

![](_page_19_Figure_7.jpeg)

Fig. 5.1: Fact sheet

### **CSC Certificates per country**

![](_page_19_Picture_10.jpeg)

ions in 202	4 vs. 2023
2024	2023
470	319
96	61
53	25
619	405

### **5.2 CSC-Certifications**

		Cement Grinder &			Goncrete	Mobile	Precast	Aggregates		Marine	Recycled	Grand
Year*	Cement	Blender	Slag Grinder	Concrete	Products	concrete	Concrete	crusher	Aggregates	Aggregates	aggrogates	Totul
2017	4			54					5			63
2018	21			39			11		3			74
2019	11			87			1		27		3	129
2020	12	3		127		1	11	2	34		2	192
2021	32	2		138		1	18		47	2		240
2022	10	4		227	3		16		27	4	3	294
2023	19	5	1	262	16		41		57	1	3	405
2024	40	13		373			97		92	1	3	619
Grand Total	149	27	1	1307	19	2	195	2	292	8	14	2016

Since the launch of CSC-certification in January 2017, over 2000 CSC certificates have been awarded (see Table 5.2). In 2024, the number of annual certifications reached a record high totaling 619.

\*Includes upgrades and expired certificates

470 out of the 619 certificates ( $\stackrel{\circ}{=}$  76%) issued in 2024 were awarded to concrete plants, 373 of them to plants producing ready-mix concrete, and 97 to precast concrete plants.

Additionally, 96 supplier certificates ( $\doteq$ 16%) were awarded to aggregate production sites, including 3 to recycled aggregates plants and 1 to marine aggregates.

Meanwhile, 53 supplier certificates ( $\triangleq$  9%) were awarded to cement plants, 13 of these to cement grinding and blending plants.

In 2024, 57 ( $\doteq$  9%) of the 2024 certificates were awarded at the "Bronze" level. 201 certificates ( $\doteq$  32%%) were awarded at the "Silver level", 322 certificates ( $\doteq$ 52%) at the "Gold" level, and 39 certificates ( $\doteq$  9%) at the "Platinum level".

The 619 CSC certification awarded in 2024 were spread across multiple countries, with 437 in Germany, 47 in the Netherlands, 55 in Belgium, 29 in Austria, 14 in Turkey, 12 in Italy, 10 in Guatemala, 5 in Saudi Arabia, 2 in Latvia, 2 in France, 2 in Ireland, 1 in Luxembourg, 1 in Czech Republic, 1 in Hungary and 1 in Egypt.

![](_page_20_Picture_10.jpeg)

Table 5.2 Number of certificates issued per year and per segment

![](_page_21_Figure_0.jpeg)

### 5.3 CSC R-Module certifications

In 2024, 85 R-Module certifications were issued, bringing the total number of R-module certificates to 172. Of the 172 active R-Module certificates, 128 are in Germany, 39 in the Netherlands, 4 in Austria and 1 in Belgium. This growth highlights the expanding adoption of sustainable resource management practices across the sector.

### 5.4 CSC CO2-Module certifications

In 2024, 110 CO2-Module certifications were issued, reflecting the industry's ongoing commitment to reducing carbon emissions in concrete production. By the end of 2024, the total number of active CO2-module certificates reached 289, with 230 in Germany, 31 in the Netherlands, 26 in Belgium, 1 in Austria and 1 in Luxembourg.

Fig. 5.2: Certificates by country issued in 2024, 2023 and 2022

# 6 Certificate holders' responsible sourcing performances

This section provides an overview of the achievements of plants certified in 2024 under the latest CSC system version 3.0. The data offers insights into the implementation of sustainability practices within the concrete and aggregate sectors, highlighting industry trends and areas for improvement. Additionally, these findings help to guide future updates of the CSC certification system, ensuring continuous advancement in responsible sourcing and sustainable production.

### 6.1 Overview of key-findings and developments

Category	Cement	Concrete	Aggregates
Prerequisites	100%	100%	100%
Management	90%	70%	79%
Environmental	88%	76%	80%
Social	93%	90%	94%
Economics	91%	87%	90%
C1 Cement		96%	
C2 Aggregates		41%	

Table 5.3: Overview of the Achievements of plants certified in 2024

![](_page_22_Picture_5.jpeg)

![](_page_23_Picture_0.jpeg)

### ENVIRONMENTAL

![](_page_23_Picture_2.jpeg)

- In 2024, more than 85% of cement, aggregates and concrete plants undergoing CSC-certification contributed to sectoral environmental product declarations (EPDs), reinforcing transparency and environmental accountability within the industry.
- · Nearly all certified plants have implemented climate, water and transport policies as well as measures to avoid operations in globally or nationally important sites.
- Furthermore, over 98% of certified concrete and cement plants have established policies on the use of secondary materials. Likewise, more than 98% of all CSC certified cement plants and aggregates production sites have a Biodiversity Policy in place, demonstrating a strong, long-term commitment to protecting nature and reversing ecosystem degradation. Throughout 2024, CSC certified plants continued to show high compliance rates in key areas such as responsible use of land, protection from pollution, water and transport management. Additionally, reducing energy consumption and creating awareness on this remained a priority, with widespread implementation across certified facilities.

![](_page_23_Picture_6.jpeg)

![](_page_23_Picture_7.jpeg)

- In 2024, the vast majority of CSC-certified plants maintained local community guidelines, health and safety protocols, and social welfare policies, reinforcing their commitment to social responsibility.
- The trend continues into 2024, whereby all plants consistently meet expectations regarding occupational health and safety measures and fair treatment of employees.
- Moreover, it has become standard practice for all facilities to implement corrective actions based on recorded incidents, actively fostering safer work environments. Additionally, certified plants continue to strengthen community engagement, uphold ethical labor regulations, and promote a culture of well-being and safety among employees.

### **MANAGEMENT**

![](_page_23_Picture_12.jpeg)

- In 2024 all certified plants had a purchasing policy in place, additionally over 92% of these plants actively conducted supplier assessments and incorporated responsible sourcing criteria into their procurement process.
- Furthermore, more than 97% of CSC certified plants had a documented management system in place, addressing environmental-, quality- and health and safety aspects. However, while progress has been significant, full implementation of certified Environmental Management Systems (EMS), Quality Management Systems (QMS) and Health & Safety Management Systems (HSMS) remains an area for further development in some plants.

![](_page_24_Picture_0.jpeg)

GCCA Picture Competition 24/25 Celbert Palaganas- Concrete Waves- winner of Beauty and Design category.

Agora Garden (Tao Zhu Yin Yuan) in Taipei is a fusion of art, geometry, and sustainability. Its twisting double-helix design creates a dynamic visual rhythm while optimizing natural light and airflow. Covered in lush greenery, the structure absorbs CO2, promotes biodiversity, and redefines urban living by blending architecture with nature. Yinyi Distric, Taipei, Taiwan

![](_page_24_Picture_3.jpeg)

### **6.2 Concrete Producers**

In 2024, a total of 470 concrete plants were awarded with a Bronze, Silver, Gold or Platinum CSC certificate compared to 319 certified plants in 2023. Among these, 373 plants (79%) from the total number of certified concrete plants were ready-mix concrete plants. Notably, the proportion of precast plants saw a significant increase, rising from 41 plants in 2023, to 97 plants (21%) in 2024.

### 6.2.1 Management Criteria

Fig. 6.1 provides insight into the achievement of management related certification criteria in 2024:

It is evident that nearly all concrete plants certified in 2024 demonstrate very good practices in sustainable purchasing ( $\rightarrow$  M1). At least 94% of the new CSC certificate holders consistently engaged in ESG Supplier assessment and performance monitoring  $(\rightarrow M1.02)$ , and included responsible sourcing as a criterion in the procurement process ( $\rightarrow$  M1.05).

Nearly all of the newly certified plants also have documented management systems in place addressing environmental- ( $\rightarrow$  M2.01), quality- ( $\rightarrow$  M3.01), and health and safety  $(\rightarrow M4.01)$  issues. Significant progress has been made in the implementation of documented management systems over the past years, especially since CSC certification system version 2.1 introduced this as a requirement for plants aiming for certification at the level Silver or higher.

On the other hand, numerous facilities pursuing CSC certification have not yet implemented certified management systems such as ISO 14001, ISO 9001, and ISO 45001.

Purchasing Policy ESG Supplier assessment and performance monitoring Training on Responsible Sourcing Promotion of responsible sourcing Responsible sourcing as a criterion in the procurement process Environmental management system (EMS) Certified environmental management system (EMS) Quality management system (QMS) Certified Quality management system (QMS) Health and safety management system Certified health and safety management system Publishing annual performance data (KPIs)

![](_page_25_Picture_9.jpeg)

![](_page_25_Figure_10.jpeg)

Fig. 6.1: Concrete: Management criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

### 6.2.2 Environmental criteria

Figs. 6.2, 6.3, 6.4, 6.5 and 6.6 provide an overview on the achievement ratio of certification criteria relating to environmental issues in 2024 for concrete producers.

Within the concrete industry, the practices of conducting sectoral environmental product declarations ( $\rightarrow$ E1.01) and reporting of product specific carbon emissions to customers  $(\rightarrow E1.02)$  are becoming increasingly prevalent. In 2024, these activities achieved fulfillment rates of 85% and 89% respectively, reflecting a strong commitment to understanding and reducing environmental footprints.

The vast majority of plants undergoing CSC certification in 2024 have implemented policies to avoid adverse effects on globally or nationally important sites and a climate policy, with fulfillment rates of 94% ( $\rightarrow$ E2.01) and 99% ( $\rightarrow$ E3.01), respectively.

Key achievements in 2024 within land use, climate & energy and air guality categories include 100% fulfillment rate for criteria addressing responsible land use ( $\rightarrow$ E2.02), protection from pollution ( $\rightarrow$ E2.03) and clean air silos ( $\rightarrow$ E4.08). Although energy saving awareness creation  $(\rightarrow$ E3.09) is already well established in 97% of concrete plants in 2024, the use of renewable energy ( $\rightarrow$ E3.11) remains only partially implemented in most of the plants, with 62% having adopted it to some extent.

83% of plants undergoing CSC certification in 2024 are actively monitoring their GHG emissions ( $\rightarrow$ E3.02). Out of these, ~67% have implemented GHG emission reporting ( $\rightarrow$ E3.03 and E3.04).

Sectoral environmental product declaration

Reporting of product specific carbon emissions to customers

Release of environmental product declarations (EPDs)

(EP) Release of environmental product declarations (EPDs) on plant level

Fig. 6.2: Concrete: Life Cycle criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

Policy to avoid globally or nationally important sites

Monitoring of GHG emissions

Public reporting of monitoring results

Externally verified reporting of GHG emissions

Achievement of CO2 emission reduction target

Energy saving awareness creation

Use of renewable electrical energy

Process and fugitive dust reduction measures

Fig. 6.3: Concrete: Energy & Climate criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_26_Picture_24.jpeg)

2024

![](_page_26_Figure_26.jpeg)

![](_page_26_Figure_28.jpeg)

![](_page_26_Figure_29.jpeg)

In 2024, complying with water related certification requirements continued to gain traction with fulfillment ratios mostly above 91%. Verification of water reporting ( $\rightarrow$  E5.05) was performed by around 46% of the plants undergoing certification.

> Concrete: environment criteria - ratio of criterion achievement Water Policy £5-01 E5.0.3 Water scarcity and impact Water monitoring ±9.03 25.04 Water target Verification of water reporting 15.03 Report on water use and quality of discharged water 25.06 15.0) Water Treatment 1.0 22 Entertait, Achieved 💫 Partial Scote 🗌 🖬 Criticism Not: Achieved

Fig. 6.4: Concrete: Water criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024 Version 3.0

The overall fulfillment rates of criteria addressing the assessment of the availability of secondary materials ( $\rightarrow$ E7.01) and implementing a policy on usage of secondary materials ( $\rightarrow$ E7.02) reached 94% and 98%, respectively, demonstrating significant progress in incorporating sustainable practices into material sourcing.

The 2024 key achievement in the Secondary Materials category is that, in the meantime, all concrete plants undergoing CSC certification ensure that returned concrete is processed in a responsible manner( $\rightarrow$ E7.04). However, there is still some room for improvements in areas such as reporting the use of secondary materials ( $\rightarrow$  E7.03) and optimizing the use of mineral components as alternative raw material (ARM), secondary

cementitious material (SCM) or filler ( $\rightarrow$  E7.05) with fulfillment rates currently reaching 83% and 87%, respectively.

![](_page_27_Picture_6.jpeg)

![](_page_27_Figure_7.jpeg)

### 6.2.2 Environmental criteria

All concrete plants undergoing certification in 2024 have implemented a transport management system ( $\rightarrow$ E8.02). Also, the two criteria requiring the implementation of a transport policy ( $\rightarrow$ E8.01) and performing fuel saving awareness training ( $\rightarrow$  E8.03) maintained high fulfillment rates of 92% and 97%, respectively.

The criterion low emission transportation modes ( $\rightarrow$ E8.04) was newly introduced in version 3.0 and reflects the growing importance of transitioning towards sustainable transportation methods. It is too early to evaluate the comparably low fulfillment rate of this criterion.

![](_page_28_Figure_3.jpeg)

Fig. 6.5: Concrete: Secondary Materials criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024 Version 3.0

![](_page_28_Figure_5.jpeg)

Fig. 6.6: Concrete: Transport criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024 Version 3.0

![](_page_28_Picture_7.jpeg)

![](_page_28_Picture_8.jpeg)

### 6.2.3 Social criteria

Fig. 6.7 summarizes the achievement of certification criteria relating to social issues realized in 2024.

In 2024, notable accomplishments amongst social criteria include the disclosure of information about product risks and safety ( $\rightarrow$  S2.01), ensuring access to clean drinking water ( $\rightarrow$  S3.06) and promoting a work-life balance ( $\rightarrow$ S4.08). The overall fulfillment rate of criteria addressing these social aspects is above 98%.

Nonetheless, remaining improvement opportunities for certified concrete plants relate to strengthening the communication with the local community ( $\rightarrow$  S1.03), analyzing and controlling health and safety risks ( $\rightarrow$  S3.01), reducing Lost Time Injuries (LTI) ( $\rightarrow$  S3.10), conducting personal evaluations ( $\rightarrow$  S4.04), and performing preventive medical examinations ( $\rightarrow$  S4.07). Additionally, undergoing an external control of social standards and ensuring compliance with human rights ( $\rightarrow$  S4.09) clearly remains an opportunity for additional social engagement within the sector.

Policy Social investment \$2.0 Communication & information 55/03 Noise/vibration management plan 31.0 Implementation of the noise/vibration management plan 51.03 Safety around site for the local community 55-04 Transport to and from the site 31.07 Public availability of information about product risks and safety 52.01 Proactive awareness downstream \$2.01 **Risk analysis** 33.03 Preventive actions 53.07 Occupational health and safety policy \$3.03 Availability of the OHS policy \$3:04 Access to medical treatment \$3.05 Access to clean drinking water 53.00 Training on health and safety \$1.03 Recording of incidents 58.08 Corrective actions based upon incidents \$3.05 No Lost Time Injuries (LTI) during the last three years 55.20 No fatality during the last three years \$8.11 Policy on social protection \$4.01 Personal record for all employees 54.62 Access to personal record for all employees \$4.01 Personal evaluation \$4.04 Availability of job profiles \$1.05 \$4.05 Skills development in the workplace Preventive medical examination 54.07 Work-life balance \$4.08 (EP) External control of social standards and compliance with human rights \$6.05

### Fig. 6.7: Concrete: Social criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024 Version 3.0

![](_page_29_Picture_6.jpeg)

2024

Concrete: Social criteria - ratio of criterion achievement

![](_page_29_Figure_9.jpeg)

### 6.2.4 Supply chain criteria

Fig. 6.8 summarizes the achievement of the supply chain criteria "C1.01 Cement" and "C2.01 Aggregates" in 2024. 0% achievement means that 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%. Supplier scores lower than 100% always result in an achievement rate of less than 100% in the concrete certificate, even if the complete supply is from certified producers.

According to fig. 6.8, only 4% of the concrete plants certified in 2024 did not use any CSC certified cement. Due to the increasing availability of CSC certified cement, in countries like the Netherlands, Germany, Italy, or Turkey, about 80% of the concrete plants achieved a scoring between 81% and 100% in 2024.

On the other hand, 59 % of the CSC-certified concrete plants did not use any CSC-certified aggregates, which is related to the limited availability of CSC certified aggregates in many regions. Overall, 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 aggregate producers continues to rise, we already see an improvement compared to last year. It is expected that the achievement ratio of the criterion C2.01 will continue to improve as more certified aggregate producers enter the market.

![](_page_30_Figure_4.jpeg)

0,8

### **Supplier Score in Relative Terms**

![](_page_30_Picture_6.jpeg)

### GCCA Picture competition 2024/2025 Category: Urban Concrete

Title: Wentao Guo- Shotcrete Cave

Description:

With a unique technique known as "shotcrete", during which concrete is sprayed onto the rebar and surface directly, the new Gilder Center at American Museum of Natural History in New york presents a striking urban interior that contrasts to the clear, refined and seamless image of concrete. It welcome children, scholars, tourists, and many other people into a playful concrete space where texture, shadow and tone perfectly intertwines with the natural, educational, adventurous profile of the American Museum of Natural History

![](_page_31_Picture_4.jpeg)

![](_page_31_Picture_5.jpeg)

### **6.3 Aggregate producers**

In 2024, 96 Aggregate production sites were awarded with a Bronze, Silver, Gold or Platinum CSC supplier certificate, with 60 of these awarded under version 3.0.

### 6.3.1 Management criteria

Fig. 6.9 provides insight into the achievement of management related certification criteria in 2024:

Similar as for concrete plants, also all certifying aggregate production sites have a purchasing policy ( $\rightarrow$ M1.01), a documented QMS ( $\rightarrow$  M3.01), and a documented HSMS ( $\rightarrow$  M4.01) in place. Furthermore, 97% of the plants also have a documented EMS ( $\rightarrow$  M2.01) in place. However, there remains an implementation gap of certified EMS ( $\rightarrow$  M2.02), certified QMS ( $\rightarrow$  M3.02) and certified HSMS ( $\rightarrow$ M4.02) with less than 50% of the plants meeting these requirements. Further improvement opportunities include criteria on benchmarking and reporting ( $\rightarrow$  M5), ESG Supplier assessment and performance monitoring ( $\rightarrow$  M1.02), and on training on responsible sourcing ( $\rightarrow$  M1.03).

![](_page_32_Figure_5.jpeg)

Fig. 6.9: Aggregates: Management criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_32_Picture_7.jpeg)

### 2024

M1/0

M1.03

M5.03

![](_page_32_Figure_9.jpeg)

### 6.3.2 Environmental criteria

Fig. 6.10, 6.11, 6.12, 6.13 and 6.14 provide an overview on the overall fulfillment of environmental issues in 2024.

The achievement of environmental criteria shows a mixed picture. Providing transparency and encouraging the use of aggregates with an improved life-cycle impact (LCA) ( $\rightarrow$  E1) remains a challenge, although contributing to sectoral environmental product declaration is becoming the norm in the aggregates sector. There is room for further significant improvement particularly in the release of EPDs ( $\rightarrow$ E1.03) and the new criteria introduced with version 3.0, related to the release of environmental product declarations (EPDs) on plant level ( $\rightarrow$  E1.04). Only 48% and 17% of the certified aggregates producers in 2024 have met these criteria.

On the other hand, the achievement ratios for all environmental criteria relating to the responsible use of land ( $\rightarrow$  E2), are scoring very high, i.e. ranging from 95%-98%.

![](_page_33_Figure_4.jpeg)

\*not relevant for recycled aggregate producers, only producers of primary materials are considered in the evaluation Fig. 6.10: Aggregates: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_33_Picture_6.jpeg)

The achievement ratios concerning the certification criteria relating to implementing a climate policy ( $\rightarrow$ E3.01), monitoring of GHG emissions ( $\rightarrow$  E3.02), ensuring energy saving awareness creation ( $\rightarrow$ E3.09) and implementing process and fugitive dust reduction measures ( $\rightarrow$  E4.09) remain high with fulfillment rates of 98%, 92%, 95% and 93%, respectively.

A lower fulfillment ratio was achieved by several other energy & climate related criteria: Reporting of monitoring results ( $\rightarrow$  E3.03), externally verified reporting of GHG emissions ( $\rightarrow$  E3.04), achievement of a CO2 emission reduction target ( $\rightarrow$ E3.08), and the use of renewable electrical energy  $(\rightarrow E3.11)$  were met by 72%, 60%, 62%, and 53% of certified plants.

![](_page_34_Figure_2.jpeg)

### Fig. 6.11: Aggregates: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_34_Figure_4.jpeg)

Fig. 6.12: Aggregates: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024 Version 3.0

![](_page_34_Picture_6.jpeg)

The achievement ratio of water related criteria ( $\rightarrow$  E5) shows a mixed picture as well. All aggregate plants undergoing certification in 2024 fulfilled criteria related to water monitoring ( $\rightarrow$  E5.03) and water treatment ( $\rightarrow$  E5.07). Additionally, the overall fulfillment rate of the criteria addressing water policy ( $\rightarrow$  E5.01), water scarcity and impact ( $\rightarrow$ E5.02), water target ( $\rightarrow$  E5.04), report on water use and quality of discharged water ( $\rightarrow$  E5.06) is generally very elevated (above 95%). The exception is the criterion on verification of water reporting ( $\rightarrow$ E5.05). 37% of the production sites undergoing certification did not yet meet this new criterion introduced with version 3.0.

The elevated achievement ratio in 2024 for many certification criteria addressing biodiversity ( $\rightarrow$  E6) clearly demonstrates a growing commitment towards more advanced biodiversity management practices: 98% of the aggregate plants have a biodiversity policy in place ( $\rightarrow$  E6.01), 90% have implemented high biodiversity value area assessment ( $\rightarrow$  E6.02) and a biodiversity management/action plan ( $\rightarrow$  E6.03), and 85% are performing biodiversity impact assessments. The newly introduced criteria no net loss ( $\rightarrow$  E6.05) and additional action for nature ( $\rightarrow$  E6.06), are already showing fulfillment rates of 33% and 78%, respectively, indicating a positive movement in the sector towards a more ambitious preservation of nature.

![](_page_35_Figure_1.jpeg)

\*not relevant for recycled aggregate producers, only producers of primary materials are considered in the evaluation Fig. 6.13: Aggregates: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024 Version 3.0

![](_page_35_Figure_3.jpeg)

Fig. 6.14: Aggregates: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024 Version 3.0

![](_page_35_Picture_5.jpeg)

### 6.3.3 Social criteria

Fig. 6.15 summarizes the achievement rates of certification criteria relating to social issues in 2024:

The overall scoring in social credits is high, with 20 out of 27 criteria fulfilled by all plants. Strong relationships with the surrounding community are well established as they are important to secure "the license to operate".

Nearly all criteria addressing occupational health and safety practices ( $\rightarrow$  S3) were fulfilled by all plants. However, 13% of the certifying plants that did not perform an annual risk analysis ( $\rightarrow$  S3.01), and 43% reported lost time injuries (LTI) over the last three years ( $\rightarrow$  S3.10), demonstrating that additional effort can particularly be made to further reduce the risk of accidents in aggregate production sites.

In terms of fair and equitable treatment of the workforce ( $\rightarrow$  S4), 92% of certified plants met the related criteria in 2024 with the exception of the exemplary performance criterion ( $\rightarrow$  S4.09) awarding the external control of social standards and compliance with human rights. This challenging criterion was met by 23% of the aggregate production sites undergoing certification in 2024.

Policy Social investment Communication & information Noise/vibration management plan Implementation of the noise/vibration management plan Safety around site for the local community Transport to and from the site **Risk analysis** Preventive actions Occupational health and safety policy Availability of the OHS policy Access to medical treatment Access to clean drinking water Training on health and safety **Recording of incidents** Corrective actions based upon incidents No Lost Time Injuries (LTI) during the last three years No fatality during last three years Policy on social protection Personal record for all employees Access to personal record for all employees Personal evaluation Availability of job profiles Skills development in the workplace Preventive medical examination Work-life balance (EP) External control of social standards and compliance with human rights

Fig. 6.15: Aggregates: Social criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_36_Picture_7.jpeg)

### 2024

### AGG: Social criteria - ratio of criterion achievement

![](_page_36_Figure_10.jpeg)

### **6.4 Cement producers**

53 cement plants were awarded with a Bronze, Silver, Gold or Platinum CSC supplier certificate in 2024, thereof 36 under version 3.0

### 6.4.1 Management criteria

Fig. 6.16 provides insight into the achievement of management related certification criteria in 2024.

In 2024 7 criteria out of 13 were fulfilled by all plants.

The implementation of sustainable purchasing practices ( $\rightarrow$  M1) is already fulfilled across all plants undergoing certification, except for training on responsible sourcing ( $\rightarrow$  M1.03), which was fulfilled by 94% of the plants. Clinker and cement production is performed in plants equipped with mills, kilns and other heavy machinery. This explains why documented management systems ( $\rightarrow$  M2.01, M3.01 and M4.01) are implemented in all plants.

In 2024, In line with the sector's commitments to limit greenhouse gas emissions and other environmental impacts, the criteria addressing certified EMS ( $\rightarrow$  M2.02) and certified QMS ( $\rightarrow$  M3.02) were achieved by 89% and 94%, respectively, of the plants undergoing certification. On the other hand, implementing a certified HSMS ( $\rightarrow$  M4.02) still remains an opportunity for further improvement for around 47% of the cement plants certified in 2024.

Publishing annual performance data has become a common practice in the cement sector  $(\rightarrow M5.01, M5.02)$  ensuring transparency and credibility. In 2024, 89% of the certified plants published their key performance data, and 86% of the plants had their data third-party verified.

Purchasing Policy ESG Supplier assessment and performance monitoring Training on responsible sourcing Promotion of Responsible Sourcing Responsible sourcing as a criterion in the procurement process Environmental management system (EMS) Certified environmental management system (EMS) Quality management system (QMS) Certified Quality management system (QMS) Health and safety management system Certified health and safety management system Publishing annual performance data (KPIs) Externally verified KPIs

Fig. 6.16: Cement: Management criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_37_Picture_10.jpeg)

![](_page_37_Figure_11.jpeg)

### 6.4.2 Environmental criteria

Fig. 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.23 and 6.24 provide an overview on the achievement ratio of certification criteria relating to environmental issues in 2024:

The achievement ratio of many environmental criteria continued to increase during 2024, while further progress remains possible in some other areas.

Cement plants have gained significant public attention due to the elevated CO2 emission in clinker production. This has led to a growing customer demand for EPDs in many countries. Hence, EPDs are becoming common practice to increase transparency and provide the basis for a fair comparison of product specific emissions. This shift is essential for enhancing the sector's credibility and accountability in addressing its environmental footprint.

In 2024, the contribution to sectoral EPDs ( $\rightarrow$  E1.01) and reporting of product specific carbon emissions to customers ( $\rightarrow$  E1.02) achieved a fulfillment rate of 94%. While the release of at least one EPD e ( $\rightarrow$ E1.03) and the newly introduced exemplary performance criterion addressing the release of environmental product declarations on plant level ( $\rightarrow$  E1.04), also saw high compliance rates with 86% and 83%, respectively.

In 2024, the cement sector has increasingly embraced responsible land management practices. The fulfillment rates or land use ( $\rightarrow$  E2) related criteria was 94% or higher.

![](_page_38_Figure_6.jpeg)

\*Not relevant for cement grinders, only clinker producers are considered in the evaluation Fig. 6.17: Cement: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_38_Picture_8.jpeg)

However, opportunities for improvement remain in several areas: reporting to CDP ( $\rightarrow$  E3.06), committing to science-based CO2 emission reduction targets ( $\rightarrow$  E3.07), progressing on achieving these targets ( $\rightarrow$  E3.08) and keeping to a minimum CO2 emissions according to GCCA guidelines ( $\rightarrow$  E3.10) remain an improvement opportunity for many cement plants. Furthermore, the use of renewable electricity ( $\rightarrow$  E3.11) can be increased in many cases. This could contribute significantly to reducing Scope 2 emissions.

![](_page_39_Figure_1.jpeg)

\*Not relevant for cement grinders, only clinker producers are considered in the evaluation Fig. 6.18: Cement: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024 Version 3.0

![](_page_39_Picture_3.jpeg)

In 2024, all certified plants had implemented process and fugitive dust reduction measures ( $\rightarrow$  E4.09), and notable progress was made in reducing other emissions. All plants undergoing certification achieved full or at least partial compliance with the emission levels specified in the criteria NOx ( $\rightarrow$  E4.04), SOx ( $\rightarrow$  E4.05), dust ( $\rightarrow$  E4.06), and mercury ( $\rightarrow$  E4.07).

The criteria on setting emission reduction targets ( $\rightarrow$  E4.01), monitoring and reporting of air emissions ( $\rightarrow$  E4.02), and verification of emission reporting ( $\rightarrow$  E4.03) showed elevated fulfillment rates reaching 93%.

![](_page_40_Figure_2.jpeg)

\*Not relevant for cement grinders, only clinker producers are considered in the evaluation Fig. 6.19: Cement: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_40_Picture_4.jpeg)

In 2024, full compliance was achieved by all cement plants with several criteria focused on optimizing water use and ensuring that the quality of discharged water does not harm the environment ( $\rightarrow$  E5), namely water policy ( $\rightarrow$  E5.01), water scarcity and impact assessment ( $\rightarrow$  E5.02), water monitoring ( $\rightarrow$  E5.03), water target ( $\rightarrow$  E5.04) and action for improving the quality of discharged water ( $\rightarrow$  E5.06). Meanwhile, verification of water reporting ( $\rightarrow$  E5.05) still represents an area for improvement.

![](_page_41_Figure_1.jpeg)

\*Not relevant for cement grinders, only clinker producers are considered in the evaluation Fig. 6.20: Cement: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_41_Picture_3.jpeg)

Biodiversity ( $\rightarrow$  E6) is a very important topic when it comes to quarrying activities. That explains why all cement plants undergoing certification had a biodiversity policy in place ( $\rightarrow$  E6.01) and performed a high biodiversity area assessment ( $\rightarrow$  E6.02). 93% of the cement plants also fulfilled the criteria related to implementing a biodiversity management/action plan ( $\rightarrow$  E6.03), performing a biodiversity impact assessment ( $\rightarrow$  E6.04) and carrying out additional actions for nature ( $\rightarrow$  E6.06). The exemption to the high fulfilment rate is the criterion "no net loss" ( $\rightarrow$  E6.05), where the fulfillment ratio was 33%. This new criterion was introduced with CSC system version 3.0, to demonstrate the sector's willingness to enhance the biodiversity value and the ecosystems in quarries.

![](_page_42_Figure_1.jpeg)

\*Not relevant for cement grinders, only clinker producers are considered in the evaluation Fig. 6.21: Cement: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_42_Picture_3.jpeg)

![](_page_43_Figure_0.jpeg)

### All criteria related to secondary materials ( $\rightarrow$ E7) were fulfilled by all plants

Fig. 6.22: Cement: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024 Version 3.0

![](_page_43_Figure_3.jpeg)

Regarding the credit on transportation ( $\rightarrow$  E8), all certified sites have a transport policy ( $\rightarrow$  E8.01) and a transport management system ( $\rightarrow$  E8.02) in place and 94% have implemented fuel saving awareness training ( $\rightarrow$  E8.03).

![](_page_43_Picture_6.jpeg)

Fig. 6.23: Cement: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024 Version 3.0

Significant achievements were made in meeting the requirements of the secondary fuels' credit ( $\rightarrow$  E9). Fulfillment rates of 93% and above were achieved for all criteria, which demonstrate that most plants undergoing CSC certification (Bronze, Silver, Gold, Platinum) in 2024 are committed to reduce fossil fuel consumption by incorporating secondary fuels where available. These plants are also ensuring that the use of alternative fuels does not pose any health and safety or environmental risks during sourcing, transportation, handling, production, or the final product's end of life. This practice contributes to waste reduction and supports resource recovery, aligning with broader sustainability goals.

![](_page_44_Figure_1.jpeg)

\*Not relevant for cement grinders, only clinker producers are considered in the evaluation Fig. 6.24: Cement: Environmental criteria - ratio of criterion achievement (Bronze, Silver, Gold, Platinum). Data: 2024, Version 3.0

![](_page_44_Picture_3.jpeg)

### 6.4.3 Social criteria

Fig. 6.25 summarizes the achievement rates of certification criteria relating to social issues as in 2024:

The overall scoring in social criteria is elevated, with 19 out of 28 criteria being entirely met by all plants undergoing CSC certification (Bronze, Silver, Gold, Platinum).

Good relationships with the surrounding community ( $\rightarrow$  S1), occupational health and safety practices ( $\rightarrow$  S3) and responsible labor practices ( $\rightarrow$ S4) are generally well established and the corresponding certification criteria therefore mostly fulfilled.

However, there are still areas for improvement, namely reducing lost time injuries (LTI) ( $\rightarrow$  S3.10) and and performing an external control of social standards and compliance with human rights ( $\rightarrow$  S4.09), as is shown by criteria fulfillment rates limited to 31% and 17%, respectively.

Policy Social investment Communication & information Noise/vibration management plan Implementation of the noise/vibration management plan Safety around site for the local community Transport to and from the site Public availability of information about product risks and safety **Risk analysis Preventive actions** Occupational health and safety policy Availability of the OHS policy Access to medical treatment Access to clean drinking water Training on health and safety Recording of incidents Corrective actions based upon incidents No Lost Time Injuries (LTI) during the last three years No fatality during last three years Policy on social protection Personal record for all employees Access to personal record for all employees Personal evaluation Availability of job profiles Skills development in the workplace Preventive medical examination Work-life balance (EP) External control of social standards and compliance with human rights

![](_page_45_Picture_7.jpeg)

### CEM: Social criteria - ratio of criterion achievement

![](_page_45_Figure_10.jpeg)

### 6.5 Summary of Performance Results and Improvement Areas

**CSC certification continues to serve as a pivotal tool** for concrete, cement, and aggregate production facilities dedicated to advancing sustainability practices across the industry. Throughout 2024, certified **plants have demonstrated meaningful progress** in enhancing their sustainability performance, driven by a commitment to **continuous improvement and innovation**.

This year saw significant progress in reducing lifecycle emissions and advancing circular economy principles within concrete production. A notable achievement has been the widespread adoption of key criteria introduced in CSC System Version 3.0, particularly the increased transparency through Environmental Product Declarations (EPDs) at the plant level, which now cover 83% of certified plants. This milestone underscores the sector's dedication to openly sharing environmental impacts and fostering accountability.

Improvement were also evident in critical opeerational areas, including reductions in dust emissions, the implementation of water management and biodiversity policies, and streghtened relationships with local communities. Occupational health and safety practices have likewise been firmly integrated, reflecting the industry's commitment to social responsibility.

### Despite these advances, certain areas still require focused attention and further progress.

**Biodiversity measures**, including the newly introduced **"No Net Loss" criterion** are beginning to take shape, though with a limited 33% fulfillment rate. Additionally, the utilization of low-emission trucks remains low at only 28% utilization and the share of renewable electricity used by certified plants stands at 53% both highlighting opporunities to accelerate sustainable energy transition and reduce emissions from transport and operations.

Overall, the **substancial progress** made along many certification criteria highlights the sector's ongoing journey toward more sustainable practices. **The CSC remains committeed to supporting producers in overcoming challenges and elevating standards**, ensuring that the concrete industry fully assumes its **environmental and social responsibilities**.

As we look ahead, we are optimistic that continued collaboration, innovation, and adherence to rigorous certification standards will drive further advancements. Together, we will continue to build a more sustainable, resilient, and responsible concrete insustry for the future.

picture: GCCA concrete in life 24/25 Maria Jose Jeremias Guarizzo - Suspended Concrete

### 7 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 2024, the CSC's innovation committee (IC) rewarded 70 innovation applications submitted by projects undergoing CSC certification according to CSC System Version 3.0. Innovation points were granted to all applications submitted with results ranging between 1 and 9 points out of a maximum of 9 achievable points.

Fig. 7.1: Innovation points awarded to CSC Version 3.0 projects

![](_page_47_Picture_8.jpeg)

0.4

0.3

0.2

0.1

![](_page_47_Picture_9.jpeg)

Distribution of points awarded in 2024

![](_page_47_Figure_11.jpeg)

Points awarded

# 8 Continuous improvement

Continuous improvement of the CSC certification system, including its toolbox, is a crucial lever to enhance the sustainability performance of CSC certified plants. Feedback from Regional System Operators (RSOs), Certification Bodies (CBs), certified plants, and stakeholders has been instrumental in refining the CSC certification system. In response, the system underwent key enhancements in 2024 to address emerging challenges and opportunities in the concrete industry.

The CSC Toolbox now features improved usability and functionality, including an automatic check for upgrade eligibility, pre-opening of requirements for easier navigation, and adjustments to the Manual Export for better alignment with required evidence. A validation feature ensures missing information in Auditor Reports is addressed, while clients can now access additional certificate logo formats. The Toolbox overview includes a new filter for marine and recycled aggregates, and the R-/CO2-Modules introduce an Annual Assurance feature to enhance monitoring and reporting. In 2023, CSC conducted workshops with industry experts on marine aggregates, biodiversity, and human rights, leading to updates incorporated into Technical Manual Version 3.0, launched in January 2024. Key updates include enhanced Human Rights Prerequisites, revised labor and anti-corruption criteria aligned with UN Global Compact Principles, and an increased ambition level through targeted achievements such as action plans and best practices.

The Prerequisites section now offers greater clarity: P1 (Ethical and Legal Compliance) includes additional guidance, P2 (Human Rights) aligns more closely with global standards, P3 (Indigenous People's Rights) provides stronger protection measures, P4 (Environmental and Social Impact) emphasizes an impact assessment, P5 (Traced Materials) refines traceability requirements, and P6 (Vessels Evidence List) enhances documentation standards. Suggestions have been made to incorporate a corporate commitment to climate action, as well as to strengthen corporate accountability measures and expand social impact considerations. These include proposals to address psychological risk assessments and DE&I certifications. While not yet part of the current system, these recommendations reflect a broader ambition to reinforce CSC's commitment to responsible business practices.

The environmental section maintains its structure but features critical updates to better align with global sustainability priorities. Criteria E1 – E9 have been refined for clarity and alignment with sustainability priorities. E3 (Energy & Climate) simplifies transparency requirements and CO2 reduction efforts. Companies are expected to demonstrate a commitment to measuring, reporting, and reducing greenhouse gas (GHG) emissions., E5 (Water) strengthens policy implementation, and E6 (Biodiversity) introduces "No net loss" along with "Additional action for nature" to reward voluntary site actions. The launch of CSC Version 3.0 marks a significant step in advancing sustainability in the concrete sector. By continuously refining its certification framework and adhering to ISEAL Alliance principles, CSC ensures its relevance and rigor while supporting certified plants in achieving higher sustainability standards. These ongoing efforts reinforce the concrete industry's role in sustainable development including climate action.

# 9 Our way forward

The aim is for the CSC certificate to become the standard for sustainable and responsible concrete production and thus significantly contribute to the reduction of the environmental impact of the construction industry. Targeted communication campaigns and collaboration with stakeholders remain key. This includes deepening our consultation processes to ensure that we continue to be inclusive, transparent, and responsive to stakeholder feedback. CSC is also aiming at enhancing its Advisory Committee and at working towards ISEAL Community Membership in 2025. By embedding these improvements, CSC is reinforcing its leadership in the global roll-out of responsible sourcing of concrete. CSC is convinced to accelerate the concrete sector's journey towards a more sustainable future, through its engagement in collaborating with public and private organizations.

# **10 Web-Page**

To enhance accessibility, we have integrated and synchronized the Regional System Operators' websites in the U.S, Latin America, Belgium, Turkey, MENA, Austria and Italy with the CSC Global website www.csc.eco. These regional sites are implemented in local languages, but with the same look & feel as the Global website.

## **11 Governance structure**

The transparent and effective decision-making process within the CSC is the responsibility of the **CSC's Executive Committee.** Continuous engagement with a wide range of stakeholders is guaranteed through the dedicated **Advisory Committee**, which the CSC was able to establish in 2020 with distinguished experts as well as leading green building councils' involvement. Additionally, the Technical- and the Communication Committee with defined leadership ensure target orientated work. The Innovation Committee assesses CSC innovation application and thereby encourages innovative responsible sourcing practices. **The** General Assembly, composed of all CSC members, convenes once per year to provide overall strategic direction and ensure inclusive participation. The Management Team meets approximately every three weeks to coordinate on key legal, financial, and organizational matters essential to the day-to-day functioning of the CSC.

![](_page_50_Picture_11.jpeg)

Fig. 11.1: CSC Governance Structure

# **12 Abbreviations**

B.E.S.T Ecological and Sustainable Design in Buildings (residential certification system developed by the Turkish Green Building Council)

- Building Research Establishment Environmental Assessment Methodology(sustainability certification for buildings) BREEAM
- Voluntary certification system developed by the Guatemala Green Building Council (sustainability standard for housing) CASA
- **Certification Body** CB
- CSC **Concrete Sustainability Council**
- CSO **Civil Society Organisation**
- DGNB Deutsche Gesellschaft für Nachhaltiges Bauen – German Green Building Council
- **Environmental Management System** EMS
- Environmental Product Declaration (life cycle-based environmental performance report for products) EPD
- ENVISION Sustainability framework and rating system for infrastructure projects
- GAM **General Annual Meeting**
- GBC Green Building Council
- GBFS Ground blast furnace slag (by-product used in sustainable concrete production)
- GCCA **Global Cement and Concrete Association**
- Health and Safety Management System HSMS
- ISEAL International Social and Environmental Accreditation and Labelling Alliance.
- Leadership in Energy and Environmental Design (green building certification system developed by the U.S Green Building Council) LEED
- MENA Middle East and North Africa
- MT Management Team
- ÖGNI Österreichische Gesellschaft für Nachhaltige Immobilienwirtschaft (Austrian Green Building Council)
- **Quality Management System** QMS
- RSO **Regional System Operator**
- SDG Sustainable Development Goal (global goals adopted by the United Nations in 2015 for sustainable development)

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CSC - Concrete Sustainability Council Rue de la Cité 1 1204 Genève