

# 1.5°C SCIENCE BASED TARGET SETTING IN THE CEMENT SECTOR

## GUIDANCE LAUNCH WEBINAR

21 September 2022

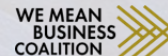
Partner organizations



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# VIDEO-CONFERENCE GUIDELINES

- This is a **zoom webinar**. Your camera and microphone are automatically muted
- Participants can **send questions via the Q&A button**
- **Slides from this webinar will be shared** after this call
- Please note that this webinar will be **recorded** for the benefit of those who cannot attend
- English event with **simultaneous interpretation**



# AGENDA

- 1. Welcome and introduction - Zniko Nhlapho/Lígia Ramos - 5 mins**
2. Introduction to the SBTi - Alberto Carrillo Pineda - 10 mins
3. The Cement Science Based Target Setting Guidance - Karl Downey - 20 mins
4. Case Study - Antonio Carrillo, Holcim - 10 mins
5. Q&A session - 10 mins
6. Closing remarks + call to action - Zniko Nhlapho/Lígia Ramos - 5 mins

# TODAY'S WEBINAR TEAM



**ALBERTO  
CARRILLO PINEDA**  
Chief Technical Officer  
SBTi



**KARL DOWNEY**  
Senior Technical  
Manager and Team Lead  
Buildings/Cement/Steel  
SBTi



**ANTONIO CARRILLO**  
Head of Climate and Energy,  
Group Sustainability  
Holcim Ltd.



**ZNIKO NHLAPHO**  
Engagement Manager  
SBTi



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Regional Lead LATAM  
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**PAULINA MORENO**  
Communications Manager  
SBTi



**AAMIR KHAN**  
Project Officer  
SBTi

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# INTRODUCTION TO THE SBTi

What is the Science Based Targets initiative?



SCIENCE  
BASED  
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

The Science Based Targets initiative (SBTi) is a **global body** enabling businesses and financial institutions to set **ambitious emissions reductions targets** in line with the **latest climate science**.

Founding Partners



United Nations  
Global Compact



WORLD  
RESOURCES  
INSTITUTE



In collaboration with

WE MEAN  
BUSINESS  
COALITION



# INTRODUCTION TO THE SBTi

What we do?



## Develop standards

We develop standards, guidance, tools and resources to support the adoption and implementation of science-based climate targets in the corporate and financial sectors



## Drive adoption

Through an extensive network of partners, we drive the adoption of science-based targets amongst the most climate-relevant companies in key sectors and regions



## Independent assessment

We provide independent assessment of targets against the SBTi criteria following transparent and publicly available protocols and assess progress against targets

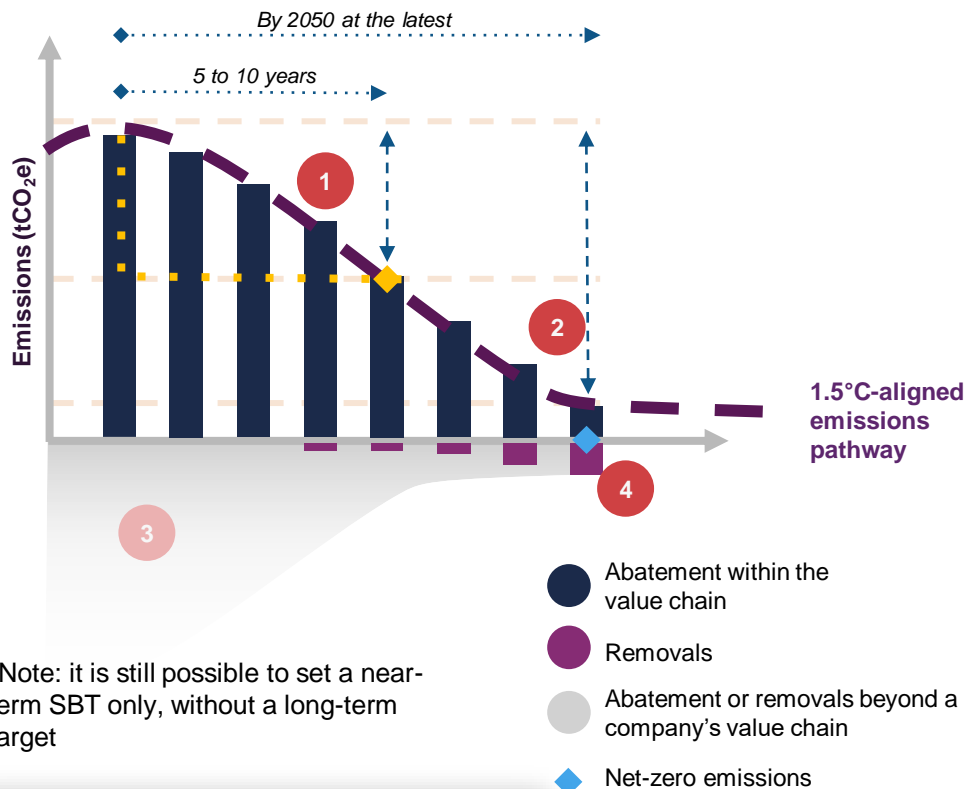


## Advocacy

We engage with key actors and initiatives to drive alignment, raise ambition and embed the concept of science-based target setting in key parts of the climate action ecosystem

# INTRODUCTION TO THE SBTi

Our target setting framework: The SBTi Net-Zero Standard



\*Note: it is still possible to set a near-term SBT only, without a long-term target

**1 To set near-term science-based targets:**  
5-10 year emission reduction targets in line with 1.5°C pathways\*

**2 To set long-term science-based targets:**  
Target to reduce emissions to a residual level in line with 1.5°C scenarios by no later than 2050

**Beyond value chain mitigation:**  
In the transition to net-zero, companies should take action to mitigate emissions beyond their value chains. For example, purchasing high-quality, jurisdictional REDD+ credits or investing in direct air capture (DAC) and geologic storage

**4 Neutralization of residual emissions:**  
GHGs released into the atmosphere when the company has achieved their long-term SBT must be counterbalanced through the permanent removal and storage of carbon from the atmosphere



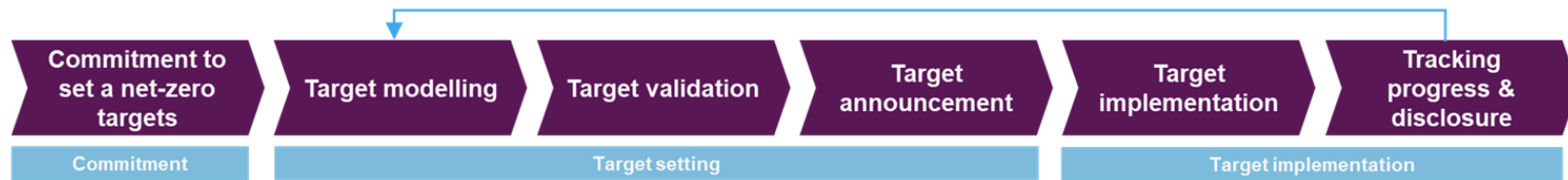
# INTRODUCTION TO THE SBTi

Our approach to maximise impact and accountability



Companies are expected to re-validate their targets every five years to reflect changes in the underlying assumptions of the target, latest science, latest criteria and others

Target re-validation (every 5 years)



Validation to ensure target integrity, in line with SBTi NZ standard, including:

- Baseline emissions;
- Target boundary;
- Alignment of decarbonisation plans with 1.5°C scenarios;

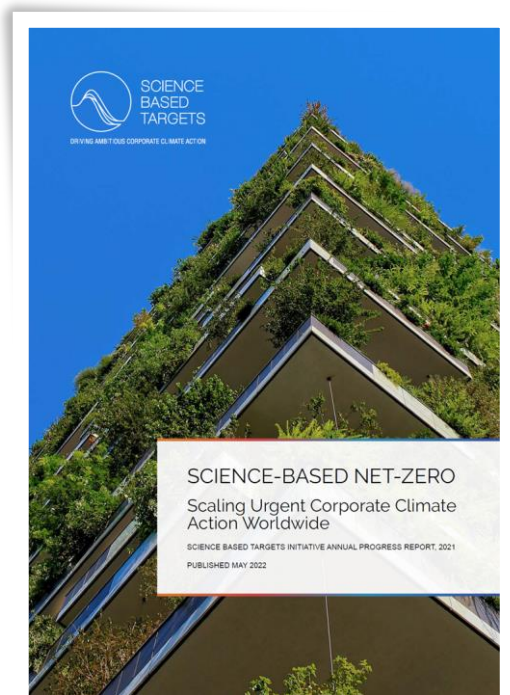
**Validated targets are listed on the SBTi website**

Progress against targets is assessed on an annual basis based on publicly available information (sustainability reports, CDP disclosure);

**Progress against targets is reported for each company as part of the SBTi annual progress report**

# INTRODUCTION TO THE SBTi

Progress to date



**1,730**

with science-  
based targets

**3,670+**

companies taking action

**1,343**

net-zero  
commitments

To learn more about the progress of the initiative, consult the [SBTi Progress Report 2021](#)

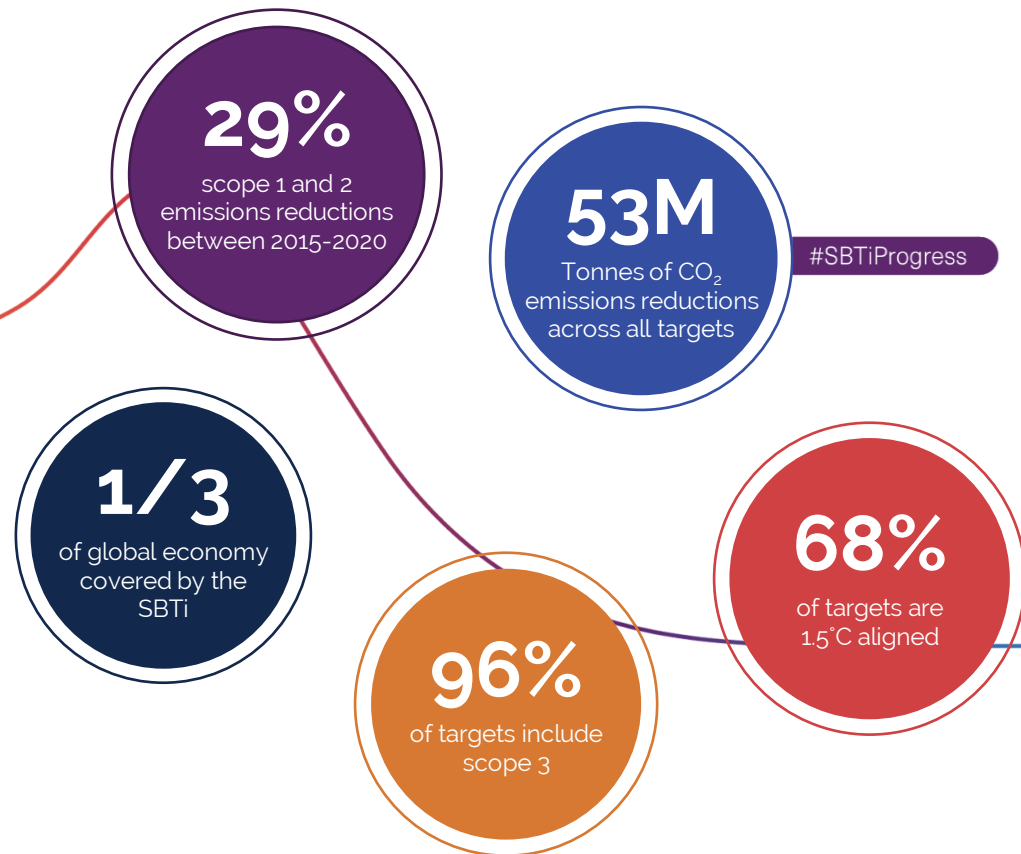
# INTRODUCTION TO THE SBTi

Progress to date

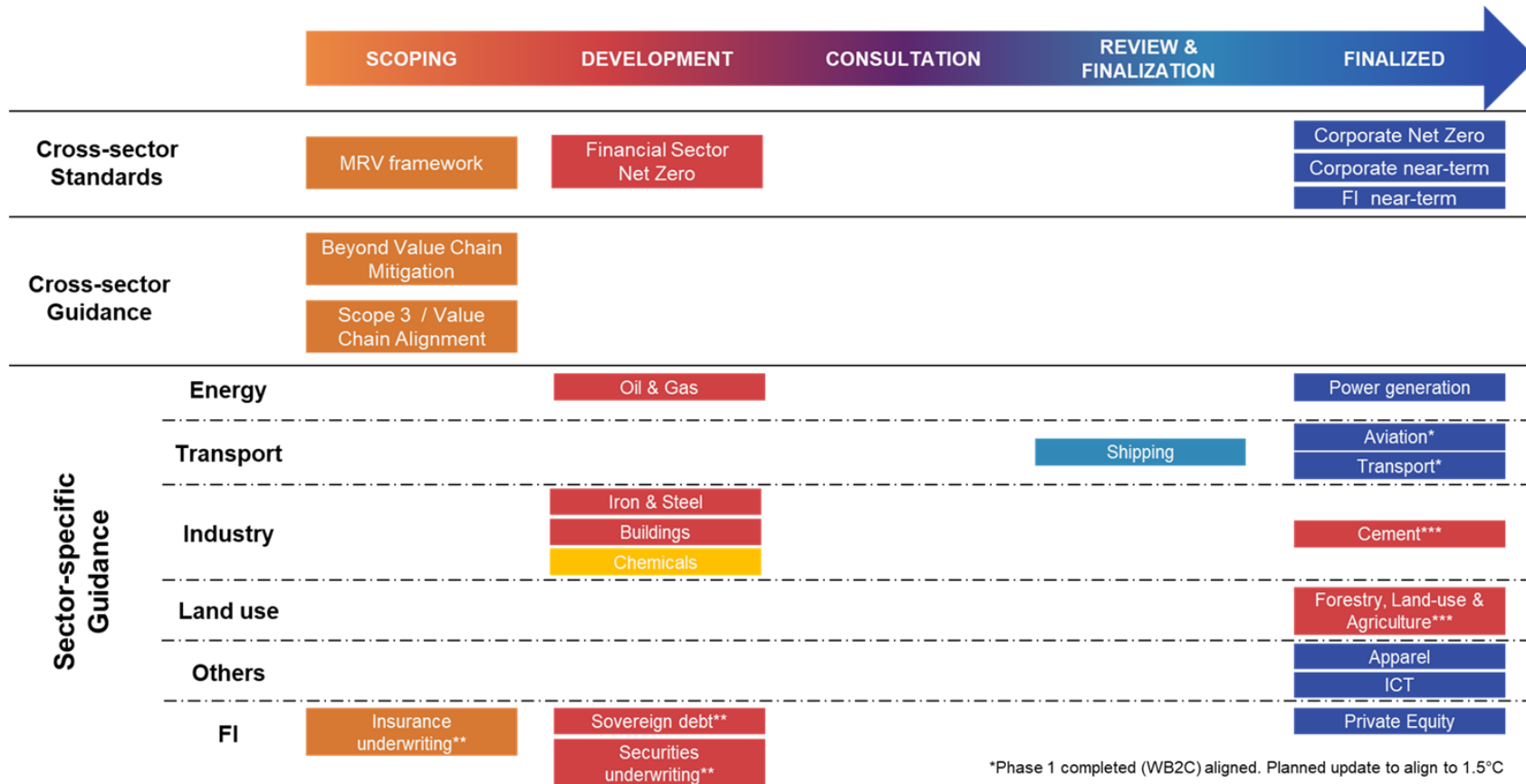
## Companies with science-based targets are delivering emissions reductions at scale

- Reduced emissions by **29%** between **2015-2020**
- **1.5B tonnes of annual CO<sub>2</sub>e** emissions covered by the SBTi
- **\$38trn** of global market capitalization
- **70** countries and **15** industries

Source: [SBTi Progress Report 2021](#).



# SBTi UPCOMING WORK



\*Phase 1 completed (WB2C) aligned. Planned update to align to 1.5°C

\*\*Asset class alignment guidance / method

\*\*\*Guidance approved, pending publication

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# COMPANIES TAKING ACTION



Non-exhaustive list of cement/concrete companies committed to set targets or with SBTi- approved targets.



# THE SBTi CEMENT PROJECT

- Cement companies could already set well-below 2°C-aligned targets using the SBTi tools
- The SBTi launched this project in October 2021 to provide resources for companies to set 1.5°C-aligned targets:
  - 1.5°C pathway
  - Detailed target-setting rules
  - Near-and long-term targets

The SBTi would like to recognize Holcim as a key supporter of this project



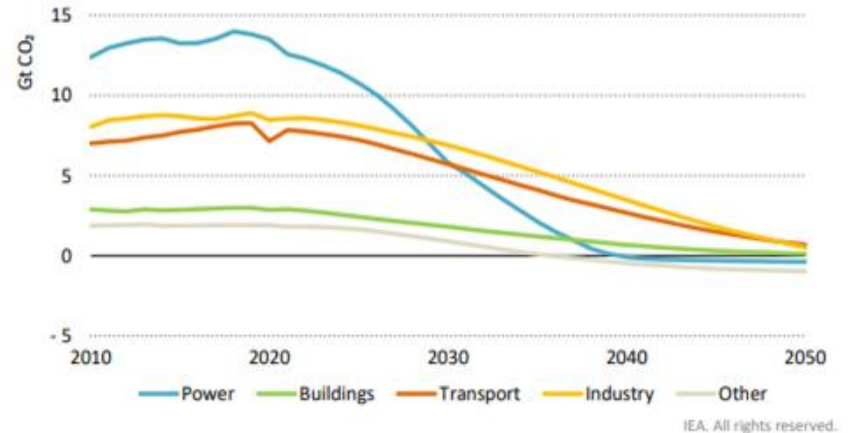
# CEMENT PROJECT - EXPERT ADVISORY GROUP

Bellona	Holcim Ltd.
Cementos Argos	Institute for European Environmental Policy (IEEP)
Cemex	Potsdam Institute for Climate Impact Research
CRH plc	RMI
Dangote Cement Plc	Siam Cement Public Company Limited (SCG)
European Climate Foundation	UltraTech Cement Limited
Global Cement & Concrete Association (GCCA)	VDZ/ECRA
Grupo Cementos Chihuahua	Votorantim Cimentos
HeidelbergCement	WWF



# DOES CEMENT WARRANT A DEDICATED PATHWAY AND GUIDANCE?

- Cement is a large industrial sector and source of emissions
- Modeling and data on cement is available
- Allocation of carbon budget to sectors aims at a cost-optimal scenario across sectors. The size of the allocation to each sector depends on decarbonisation levers available and their cost
  - Due to its process (geogenic) emissions, the rate cement sector can decarbonise may differ from rate for society as a whole
- **Note:** although the pathway is at the level of cement, concrete production is also covered by the guidance!



CO<sub>2</sub> emission by sector in IEA Net Zero scenario

IEA (2021), Net Zero by 2050, IEA, Paris  
<https://www.iea.org/reports/net-zero-by-2050>



# WHAT THE GUIDANCE COVERS



## WHAT CHANGES WITH THIS NEW GUIDANCE?

- This guidance codifies and clarifies criteria already being applied
- It also aligns to the latest SBTi criteria, Net-Zero Standard and 1.5°C ambition
- Definitions remain aligned to industry practice
- There is one major new requirement: cement companies are required to have near-term scope 3 target covering purchased clinker & cement



## TARGET-SETTING STEPS

**Step 1:** Determine target boundaries and approaches

**Step 2:** Calculate emissions inventory

**Step 3:** Construct targets

**Step 4:** Submit targets to the SBTi

# TARGET BOUNDARIES

## Near-term targets:

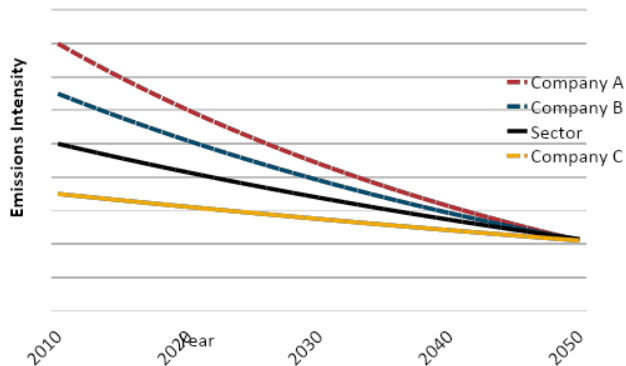
- At least 95% of scope 1 and 2 emissions
- If company's scope 3 emissions are 40% or more of total, a scope 3 target is required
- **New:** For cement companies, a scope 3 near-term target covering purchased cement and clinker is **always required**
- For cement companies, a scope 3 near-term target covering upstream emissions from fuels is **recommended**

**Long term** (net-zero) targets: scope 1, 2 and 3 shall be included



# TARGET-SETTING APPROACHES

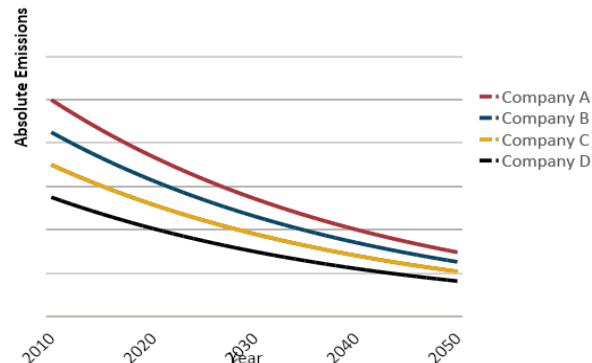
## Sector-specific intensity convergence



### Homogeneous sectors:

- Power
- **Cement**
- Iron & Steel
- Transport (some sectors)
- Buildings

## Cross-sector absolute reduction

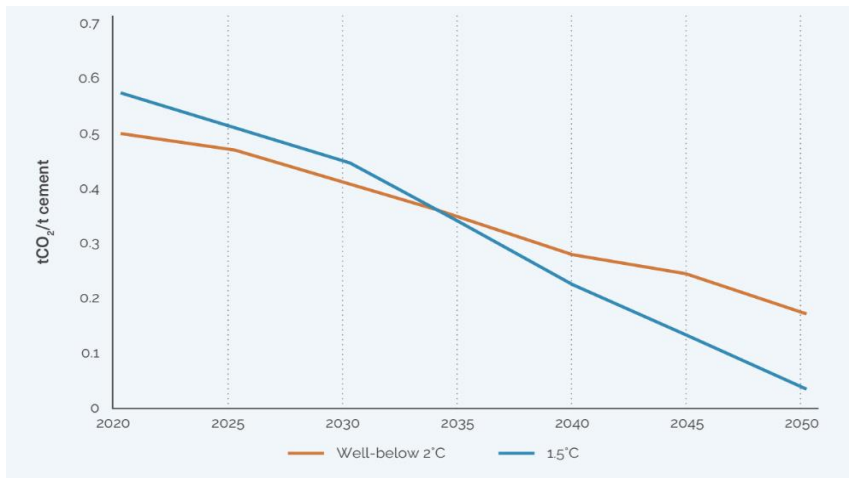


### Heterogeneous sectors & other industry

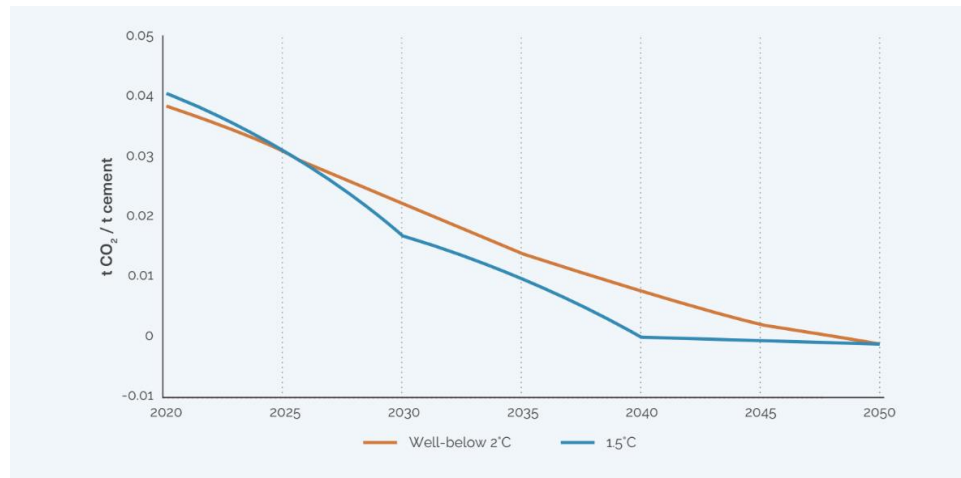
**Note:** The guidance explains how companies can use each of these methods to cover different activities, and how targets can be combined if desired

# WHAT DOES THE 1.5°C CEMENT PATHWAY LOOK LIKE?

Scope 1 emissions intensity (t CO<sub>2</sub>/t cement)



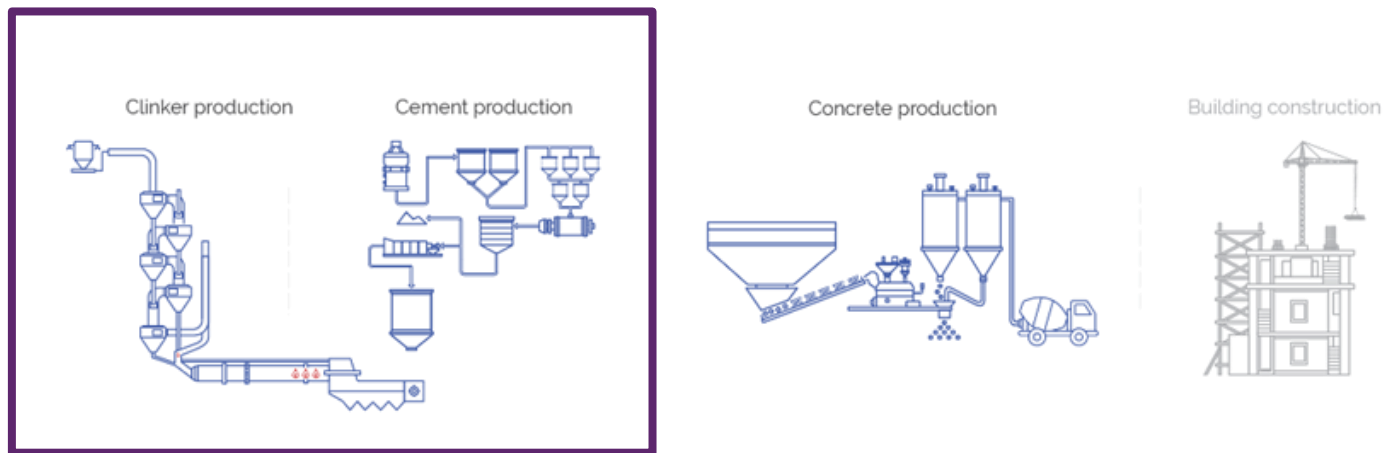
Scope 2 emissions intensity (t CO<sub>2</sub>/t cement)



- Sector convergence approach means a company's target depends on its starting point
- "Forward-looking ambition" criterion means that while target base year can be in the past, ambition must be as high as if calculation were made on the basis of the most recent year

# GUIDANCE FOR DIFFERENT TYPES OF COMPANIES

Different types of companies may use the guidance, including use of the cement pathway for their cement (clinker) emissions

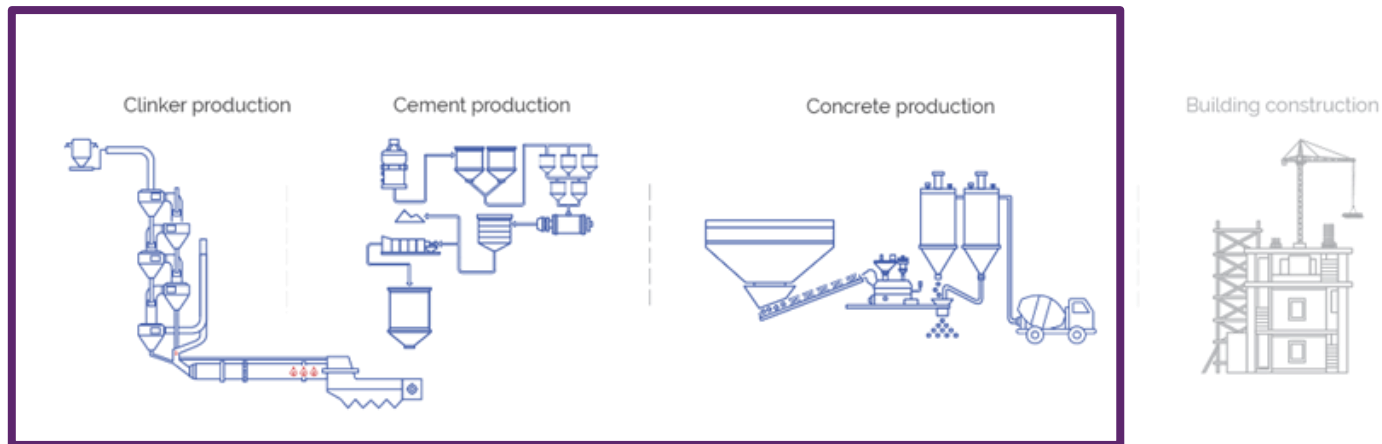


*Company producing clinker and cement*



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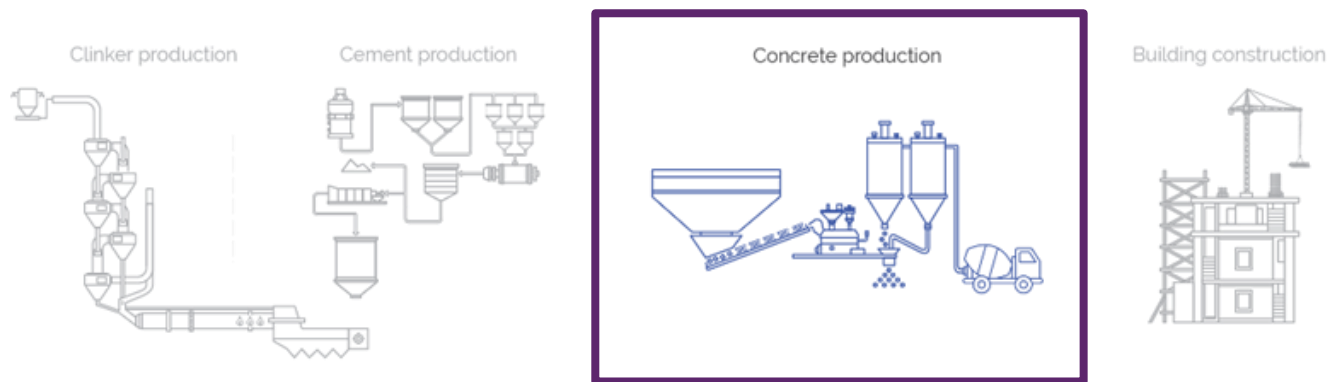


*Company producing clinker, cement and concrete*

**Note:** Cross-sector absolute reduction method must be used to cover emissions not related to clinker production

# GUIDANCE FOR DIFFERENT TYPES OF COMPANIES

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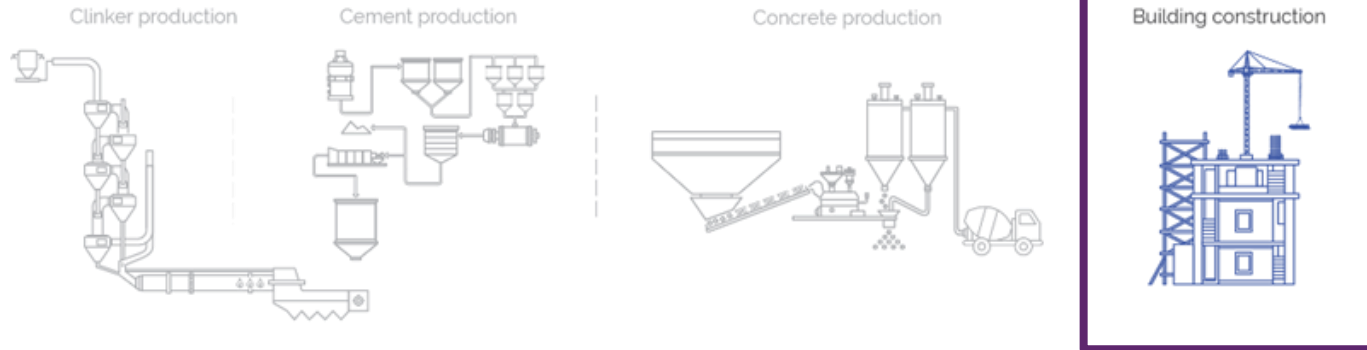


*Company producing only concrete*

**Note:** Cross-sector absolute reduction method must be used to cover emissions not related to clinker production

# GUIDANCE FOR DIFFERENT TYPES OF COMPANIES

Different types of companies may use the guidance, including use of the cement pathway for their cement (clinker) emissions



*Other potential user of cement pathway, e.g. construction companies*

**Note:** Optimization of cement in concrete and concrete in buildings can be encouraged through absolute targets

# CALCULATING EMISSIONS INVENTORY

- All greenhouse gas accounting for target-setting shall follow the **GHG Protocol** Corporate Accounting and Reporting Standard and Corporate Value Chain (Scope 3) Standard
- Definitions are aligned with the **Cement CO<sub>2</sub> Protocol** (v3.0, 2011) and **GCCA GNR**:
  - kg CO<sub>2</sub> / t **cementitious product** or cement
  - “**Gross**” emissions: emissions from waste-derived fuels included
  - **Biogenic** emissions: SBTi bioenergy criteria must be followed; cement industry biogenic emissions can often be justified as carbon neutral



# CONSTRUCTING TARGETS

The guidance provides worked examples on how to use the target-setting tools for different types of companies

## Near-term scope 1 and 2:

### Section 1 input data

Target-setting method	Sectoral Decarbonization Approach
SDA scenario	SBTi 1.5°C
SDA sector	Cement
Base year	2020
Base year   Activity output (t cement)	10,000,000
Base year   Scope 1 emissions (t CO <sub>2</sub> e)	6,500,000
Base year   Scope 2 emissions (t CO <sub>2</sub> e)	400,000
Target year	2030
Target year   Type of activity projection	Target year output
Target year   Activity output (t cement)	11,000,000
Most recent year (MRY)	2020

# SUBMITTING TARGETS TO THE SBTi

- **Requirement:** The company shall provide justification of the growth projection used to calculate the target using the SDA
- **Recommendation:** Cement companies should disclose information such as near-term investments that demonstrate they commit to ensuring breakthrough technology relevant to meeting target ambition is available in the timeframe expected



# SUBMITTING TARGETS TO THE SBTi

- **Recommendation:** Companies whose targets are expressed in intensity terms are recommended to publish also the absolute emissions reductions to be achieved by their targets, in order to:
  - Demonstrate that intensity targets lead to absolute emissions reductions, and
  - Demonstrate progress through the optimization of cement use in concrete and construction



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# SBTi GUIDANCE CEMENT SECTOR

ANTONIO CARRILLO | HEAD OF CLIMATE & ENERGY

21st SEPTEMBER 2022



# FAST FACTS ABOUT HOLCIM – BECOMING THE GLOBAL LEADER IN INNOVATIVE AND SUSTAINABLE BUILDING SOLUTIONS



**Largest**  
footprint



**2,300**  
operating sites



**~70,000**  
employees



**27**  
billion CHF net sales



**Net Zero**  
pledge



**SBTi**  
validated 2030 targets



**ESG Rankings**  
from MSCI to Sustainalytics



**Green Solutions**  
1/3 of our sales



**Global R&D**  
organization - 6 hubs worldwide



**300 Scientists**  
in green construction



**1,500 Patents**  
in green construction



**100+ startups**  
open innovation ecosystem



SCIENCE  
BASED  
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DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



# KEY MILESTONES ACHIEVED AND NEXT STEPS

1

**2019**  
VALIDATION OF 2DS TARGET

2

**2020**  
BUSINESS AMBITION 1.5°C AND 2030 WB2DS TARGET

3

**2020**  
PARTNERSHIP WITH SBTi TO DEVELOP 1.5°C GUIDELINES

4

**2021**  
HOLCIM AMONG THE FIRST COMPANIES WITH 2050 NET-ZERO TARGETS  
ACROSS 3 SCOPES

5

**2022**  
LAUNCH OF 1.5°C GUIDELINES FOR CEMENT



# HOLCIM CO<sub>2</sub> FOOTPRINT



Raw materials decarbonation  
Cement production

Fuels combustion  
Cement production

Energy generation

Aggregates and RMX operations

0.5%

All indirect emissions

Purchased electricity



# SBTi VALIDATION HAVE BEEN FUNDAMENTAL TO FURTHER STRENGTHENING HOLCIM'S SUSTAINABILITY JOURNEY

## ESG RATINGS



## PARTNERSHIPS

Founding Member of the MIT Climate and Sustainability Consortium



## SUPPLY CHAIN

**ECOPact**  
The Green Concrete  
Suppliers / Customers demand on SBTs and decarbonisation pathways

## INVESTORS



Increasing number of request to align with SBTs

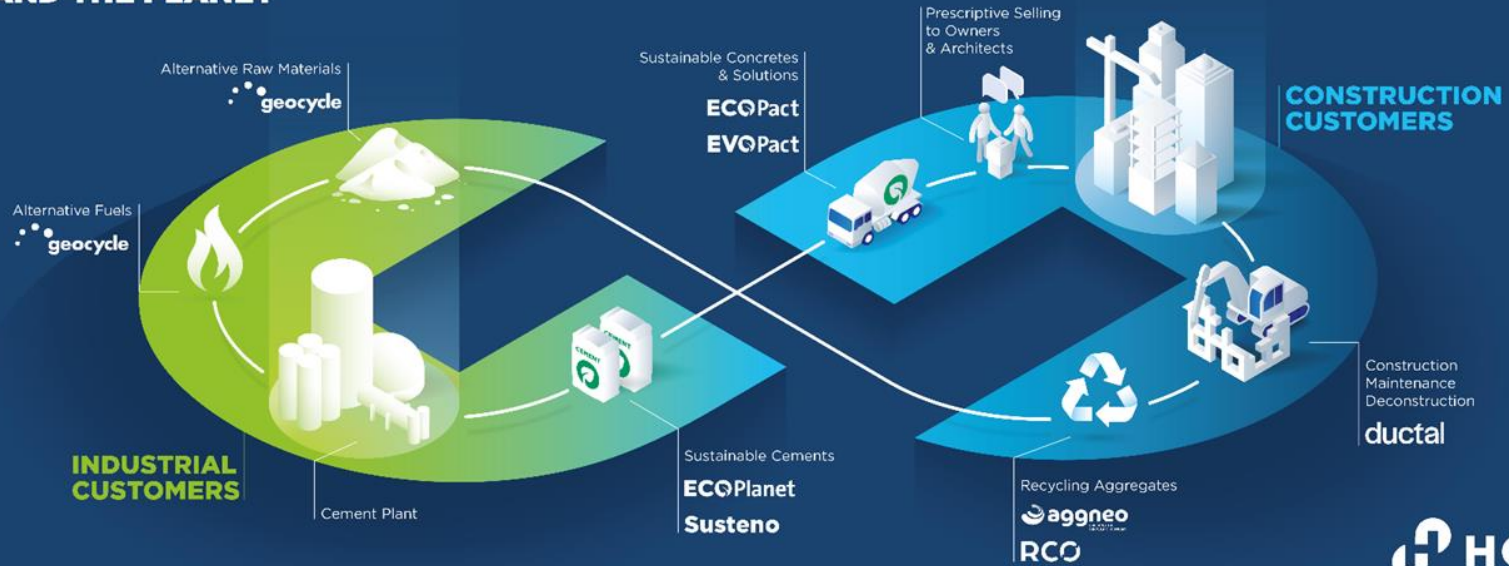


## SUSTAINABLE FINANCE



sustainability-linked bonds

# BUILDING PROGRESS FOR PEOPLE AND THE PLANET



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# Q&A SESSION

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## CALL TO ACTION

- The new guidance and materials, and a recording of this webinar, can be found on the [SBTi cement webpage](#)
- LATEST NEWS: A group of leading cement companies have committed to submitting 1.5°C targets this month according to the new guidance, for validation before COP27

**We are urgently calling on all companies to set science-based net-zero targets**



# CONTACT US



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