

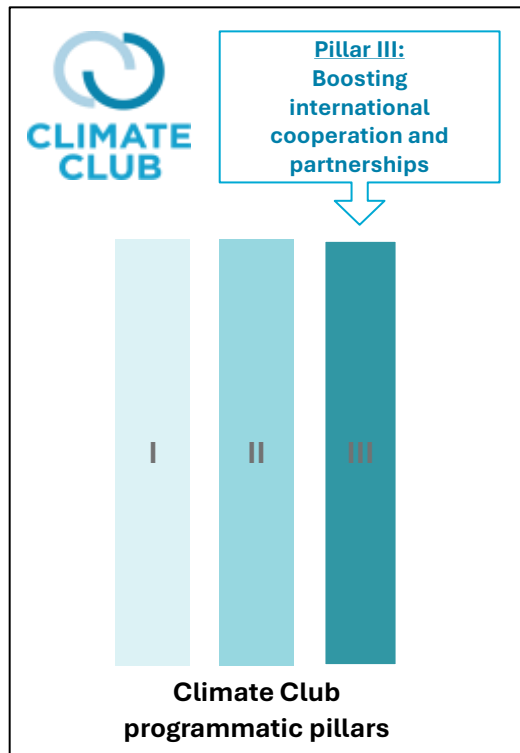
# **Climate Club Financial Toolkit**

## ***Economic, De-risking and Financing Instruments for Industry Decarbonisation***

Developed by the OECD  
under the Climate Club Work Programme 2024

June 2025

# Overview - Climate Club Work Programme



- Currently comprising 46 members (as of April 2025), **the Climate Club** is an open, cooperative, and inclusive forum of climate-ambitious countries, aiming to **fast-track the decarbonisation of heavy-emitting industries** through three pillars:
  - I. Advancing ambitious and transparent climate change mitigation policies
  - II. Transforming industries
  - III. Boosting international climate cooperation and partnerships
- The OECD** and the International Energy Agency (IEA) **co-host the Secretariat of the Climate Club**.
- The **Climate Club Financial Toolkit** is a deliverable under **Pillar III**. It will be **updated by end 2025 under the Module 7 of the Climate Club Work Programme 2025/26**.

# Objectives of the Financial Toolkit



- **Inform financial and technical assistance providers to identify and select instrument(s)**, notably to meet the requests from EMDEs on the Climate Club's Global Matchmaking Platform (GMP), by:
  - Providing an accessible tool for research and comparison of instruments and strategies
  - Sharing concrete examples on how to design and implement economic, de-risking and financing instruments
- **Support industry actors and project developers** to build robust business cases, by:
  - Analysing how economic, de-risking and financing instruments can improve industry decarbonisation business models
  - Identifying which institutions can provide these instruments

# Overview of the Financial Toolkit

1

## Economic, de-risking and financing instruments

- Overview of [28 financial instruments](#) to advance low-carbon solutions
- Classification under [economic](#), [de-risking](#) and [financing instruments](#)

2

## Case studies of available instruments

- [Success factors of instruments](#) to support industry decarbonisation projects
- [Diversity](#) of regions, instruments and providers

3

## Economic assessment of selected technologies

- [Steel](#): Renewable Hydrogen and Carbon Capture Use and Storage (CCUS)
- [Cement](#): CCS and Limestone Calcined Clay Cement (LC3)
- [Petrochemicals](#): Biomass based solutions and CCUS

# Overview of instruments covered

## Economic

- E.1. Accelerated Depreciation
- E.2. Auction and Contract for Difference
- E.3. Carbon Tax
- E.4. Carbon Credits
- E.5. Emission Trading Schemes
- E.6. Extended Producer Responsibility Fees
- E.7. Grants and Subsidies
- E.8. Green Premium Financing
- E.9. Tax Credits

## De-risking

- D.1. Buyer Credit Guarantees
- D.2. Energy Savings Insurance
- D.3. First and Second Loss Facility
- D.4. Foreign Currency Guarantee
- D.5. Partial Risk Guarantee
- D.6. Performance Guarantee
- D.7. Political Risk Insurance
- D.8. Sovereign Guarantees
- D.9. Swaps and Derivatives

## Financing

- F.1. Bonds
- F.2. Concessional Loans
- F.3. Local Currency Loans and Facilities
- F.4. Public and Private Equity
- F.5. Pull Financing Instruments
- F.6. Results-Based Financing Instruments
- F.7. Revolving Credit Facility
- F.8. Short-term Loans
- F.9. Structured and Securitised Products
- F.10. Sustainability-Linked Instruments

> **Various economic, de-risking and financing instruments are already available**

> **Combining instruments can help address multiple barriers when developing an industry decarbonisation project**

# 20 Case Studies have been collected



## Economic

### **E.2. Auction and Contract for Difference**

Hintco/H2Global

### **E.4. Carbon Credits**

Puro/Net Zero

### **E.6. Extended Producer Responsibility Fees**

European Union

### **E.7. Grants and Subsidies,**

EBRD; Government of India

### **E.9. Tax Credits**

US Department of Energy

## Derisking

### **D.1. Buyer Credit Guarantees**

EIFO

### **D.2. Energy Savings Insurance**

GCF/XacBank

### **D.4. Foreign Currency Guarantee**

IDB and Ministry of Finance of Brazil

### **D.5. Partial Risk Guarantee**

EESL/SIDBI/World Bank

## Financing

### **F.1. Bonds**

IDB and BBVA Sustainability Bonds

### **F.2. Concessional Loans**

Climate Investment Fund; EBRD/GCF; Mitigation Action Facility

### **F.3. Local Currency Loans and Facilities**

Eco Invest Brazil

### **F.5. Pull financing instruments**

### **F.6. Results-based financing instruments**

IDB; Instiglio

### **F.10. Sustainability-Linked Instruments**

Indorama Ventures and JSW Steel; Votorantim Cimentos

**Note:** the "category" is not always strictly defined. For instance, some programmes or funds may use several instruments, and the definitions of instruments may overlap.

# Key lessons from case studies

## Instruments

- Direct public support for **targeted or timebound uses**
- **Derisking instruments** to optimise the leverage of public resources

## Enabling conditions

- **Capacity building** to strengthen institutional readiness and industry maturity
- Key role of **sustainable taxonomies**

## Co-operation

- **Knowledge sharing and matchmaking platforms** to facilitate implementation
- **Multi-stakeholder approaches**

## Replicability and scale-up

- **Innovative financial instruments** for early stages of project/technology development
- Importance of **project pipelines**

# Illustrative Economic Assessment



- The economic assessment covers only a **subset of technologies to decarbonise each sector**.
- The technologies have been selected based on their **relevance for the country/sector's decarbonisation, technology readiness levels** and the **need to benefit from policy and financing solutions** to stimulate investment.

## Cement

- **Cross-cutting** for a “reference cement plant” in the **United States** and sensitivities reflecting conditions in other regions
- Technologies:
  - CCS
  - Limestone Calcined Clay Cement (LC3)

## Iron and Steel

- Based on economic assessment in **Indonesia** and **South Africa**
- Technologies:
  - Renewable hydrogen-based direct reduction
  - Blast Furnace revamping with CCUS

## Petrochemicals and Plastics

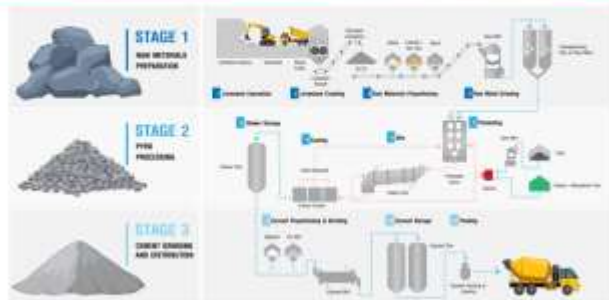
- Based on economic assessment of **Thailand**
- Technologies:
  - Biomass to bio-ethanol to bio-olefins
  - Biomass to bio-based and biodegradable plastics
  - CCS



# Reader's guide: Economic assessment

## Value chain overview

### Cement Overview



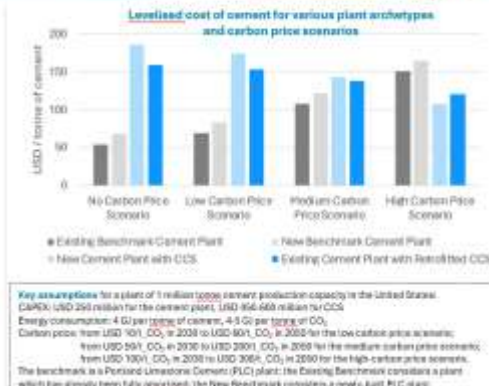
- The total annual CO<sub>2</sub> emissions of the cement sector amount to 2.4 Gt, i.e. 8% of total CO<sub>2</sub> emissions worldwide.
- More than 80% of cement production emissions come from clinker production

## Economic assessment

### Cement Carbon Capture and Storage



- There are multiple CCS technologies, enabling to capture CO<sub>2</sub> from the flue gas of the cement kiln and transport and store it in a long-term storage location, typically in underground geological formation.
- The analysis considers amine-based post-combustion carbon capture, which has the highest technology readiness level among CCS technologies in the cement industry.
- CCS projects for industrial plants are usually designed to capture around 90% of the CO<sub>2</sub> from the flue gas.
- Carbon Capture is an additional cost, driven by CAPEX, fixed OPEX and energy.
- Carbon pricing or revenue streams for the captured CO<sub>2</sub> are often not sufficiently developed to ensure competitiveness vs conventional production.



# Next Steps



- **Around 15 new case studies are currently being prepared** with governments, industry actors and the financing community.
- The Toolkit will be updated, enriched and turned into an **OECD report by end 2025**, incorporating the comments received on the first version.
- **Workshop in Q4 2025** to discuss how to further make use of the Toolkit for Climate Club members and other stakeholders.

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# OECD, IEA and Climate Club knowledge products

- Recent OECD, IEA and Climate Club knowledge products:
  - Climate Club Financial Toolkit
  - Financing solutions to foster industrial decarbonisation in emerging and developing economies
  - Mapping financial and technical assistance for industry decarbonisation in emerging markets and developing economies
  - Framework for industry's net-zero transition
  - Policy Toolbox for Industrial Decarbonisation



# Reader's guide: Financial instruments

Instrument name


## Accelerated Depreciation

Instrument category

Economic Instrument

No case study in the toolkit

Clickable links to related case studies



### Concept and Definition

- Accelerated depreciation occurs when a capital asset reduces its book value at a faster rate than it would via traditional depreciation methods, e.g. compared to the "straight-line depreciation" method, where the value of the asset is depreciated evenly over its lifetime. It records larger depreciation expenses during the earlier years of an asset's useful life, and smaller ones in later years.
- Accelerated depreciation is allowed under the Generally Accepted Accounting Principles (GAAP), but it is not applicable to all types of assets, and faces limitations in applicable rates. Several post COVID-19 relief packages issued by governments included a provision to adjust the authorised accelerated depreciation rate for specific assets, e.g. machinery.

### Benefits

- Accelerated depreciation lowers the taxable income during the early years of an asset lifetime (thereby improving the companies' cash balance), while increasing taxable income in later years.

### Relevance to Decarbonisation

- For CAPEX intensive projects, such as production plants, governments can use accelerated depreciation tax policies to encourage businesses to purchase new assets and optimise their cash flows at the early and riskiest stages of a project.

### Type of Provider(s)

- Governments

# Reader's guide: Case studies


- 20 case studies illustrating 14 instruments of the toolkit


## Description

### H2Global mechanism

Hintco

Economic Instrument  
Auction and Contracts for Difference




Incentive description	Supported project(s)
<ul style="list-style-type: none"><li>The H2Global mechanism facilitates the creation and scale-up of global clean fuel markets. A dedicated entity, Hintco GmbH, has been set up to trade hydrogen and its derivatives via a double auction mechanism.</li><li>Hintco stimulates clean energy markets by securing production of clean fuels through long-term purchase agreements (e.g., 1 year). The product and geographical scope are among the design elements at the discretion of the funding body.</li><li>Similar to the Contracts for Difference (CfD) approach, the potential difference between supply prices and demand prices is covered by Hintco with grants from a public or philanthropic funding body.</li></ul>	<ul style="list-style-type: none"><li>On the supply side, the first renewable ammonia project, led by Fertislobe in Egypt, has been awarded in 2024. On the demand side, the first tenders are expected in 2026.</li><li>To date, EUR 5.86 bn have been committed or earmarked to Hintco, from Australia, Canada, Germany and the Netherlands.</li></ul> 

## Analysis

### H2Global mechanism

Hintco

Economic Instrument  
Auction and Contracts for Difference



Clickable links to related instrument

Lessons Learnt	Replicability	Impact
<ul style="list-style-type: none"><li>Long-term purchase agreements can unlock Final Investment Decision for large-scale clean fuels production facilities, benefitting from economies of scale and competitive prices.</li><li>Regulatory uncertainties (e.g., on the interpretation of EU Delegated Acts and the import of derivatives from outside Europe) pose a challenge for viable project development, especially for e-SAF.</li><li>Access to port infrastructure is a challenge for many bidders. Hintco aims to overcome any bottlenecks through contractual arrangements.</li></ul>	<ul style="list-style-type: none"><li>The instrument can be applied to other hydrogen and clean fuel markets (e.g., shipping) or low-carbon technologies such as green steel.</li><li>H2Global is being offered as an implementation instrument for the European Hydrogen Bank (EHB). In 2024, the governments of Australia and Canada have committed to joint auctions with Germany. IFIs are also looking at leveraging the instrument to support decarbonisation.</li></ul>	<ul style="list-style-type: none"><li>H2Global reduces price, market, and regulatory risks hindering the development of the clean hydrogen economy.</li><li>The auctions provide consistent trade flows and liquidity – both essential for healthy market development.</li><li>The instrument can promote a business case for the technology by providing investment certainty across hydrogen supply chains.</li></ul>