



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Progress by innovation

Global partnerships and practical solutions: International engagement and initiatives

Energy Systems and Industrial Decarbonization
Unit

Energy and Climate Action Division
UNIDO

Riccardo Savigliano



INDUSTRIAL DECARBONIZATION for SUSTAINABLE FUTURE

INDUSTRIAL
EMISSIONS
account for

30%

of CO₂
emissions¹



HIGH-EMITTING SECTORS
represent

70%

of this total²

70% of

global CO₂ emissions
comes from cities, with
transport & buildings
among the largest
contributors.⁴

For 1.5°C, industrial
emissions must be **CUT** by

95%

by 2050³

**75% of
GLOBAL URBAN
INFRASTRUCTURE
for 2050 is yet to be built.**

Renewables & energy efficiency
improvements will continue to be
necessary, but not sufficient.

**Net zero by 2050 will
require all technologies
and all fuels approach.**

60%

of the **cement sector** emissions
reductions will likely come from
CCUS.³

55%

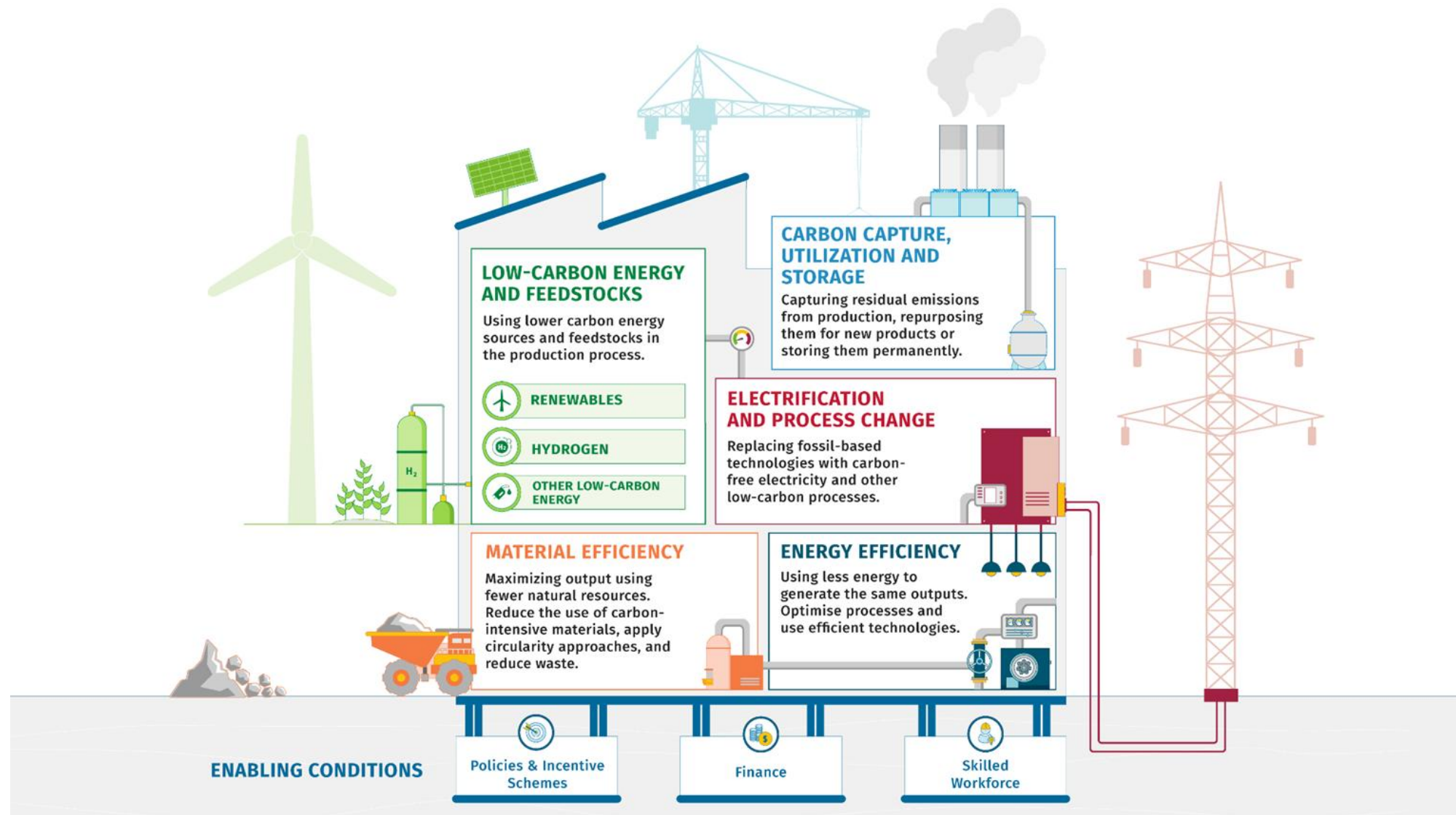
of the **steel sector** emissions reductions
will come from **electrification & H₂
based DRI.**³

¹ Including indirect emissions from electricity use, UNIDO, 2025 ² Achieving Net Zero Heavy Industry Sectors in G7 Members, IEA, 2022

³ Net Zero by 2050 A Roadmap for the Global Energy Sector, IEA, 2021 ⁴ IPCC, 2022



The five building blocks of industrial decarbonization





Green Industrialization as key contributor to climate goals, energy security, and sustainable economic development

The Global Green Industrialization Agenda (GGIA)

The Belém Declaration: Providing the political mandate for coordinated international action on green industrialization

Decarbonizing high-emitting industries

Expanding clean energy technology manufacturing

Ensuring that future industrial growth is green

The **Global Green Industrialization Agenda** focuses on **THREE KEY AREAS OF MULTILATERAL COOPERATION** for green industrialization, advancing global climate goals, alongside economic development and energy security objectives.

OBJECTIVE 1 Analyze & Inform

Foster **global knowledge generation** and dissemination on priority pillars, including **green industrial policy, finance and investment**, and **supply chain** integration.

Operational Structure:

- Secretariat supporting the delivery of the GGIA
- Oversight Group providing strategy and insight
- Global Green Industrialization Dialogue taking stock of progress and priorities

OBJECTIVE 3 Support Strategy & Implementation

Facilitate **access to initiatives, partnerships and resources** that enable governments and the private sector to devise and implement green industrialization strategies and investments.

OBJECTIVE 2 Connect & Exchange

Promote **international dialogue on shared priorities**, including through the annual **Global Green Industrialization Dialogue** and related thematic or regional exchanges.



Translating global engagement into country projects

GREEN INDUSTRIAL RECOVERY PROJECT FOR UKRAINE THROUGH TECHNOLOGY TRANSFER FROM AND CO-CREATION OF NEW BUSINESSES WITH JAPAN'S PRIVATE INDUSTRIES

Facilitation of technology transfer from Japan to Ukraine for industrial recovery, creation of new employment opportunities and co-creation of new businesses in cooperation with Japan's private industries.

TOTAL BUDGET: USD 188 million - Funded by the Government of Japan

PROJECT IMPACT:

- 47 new technologies tested, introduced, or adopted at feasibility study stage
- 30,000 people in Ukraine gaining new skills

Japanese private sector companies with technologies developed in Japan can apply transfer of technology to Ukrainian partner companies.

Partners: Ministry of Economy, Trade and Industry (Japan), Ministry of Economy and Environment (Ukraine)



EXAMPLES - FOCUS AREA 4 (ENERGY)

Sustainable energy systems, energy conservation, industrial decarbonization, energy infrastructure management and climate risk

- **Blossom Energy - Carbon-free heat supply:** Graphite Thermal Energy Storage (G-TES) technology replacing fossil-fuel boilers at industrial and district heating plants.
- **Panasonic Ukraine Ltd - High-efficiency heat pumps** replacing outdated centralized district heating with efficient, flexible and resilient A2W heating solutions.

<https://www.unido.org/girp-ukr-jpn>



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION
Progress by innovation



Get in touch

Follow our activities through our **social media** channels and **get in touch via email** for more information and collaboration opportunities!

Thank you!



industrialdecarb@unido.org
r.savigliano@unido.org



[UNIDO Industrial Decarbonization](#)



[Industrial Decarbonization - UNIDO](#)