Accelerating the transition of industries worldwide to a zero-carbon economy.
WHAT IS THE ACCELERATOR?

The Industrial Decarbonization Accelerator is a UNIDO-led network of international initiatives working to accelerate the shift of industrial organizations – both large and small – away from fossil-fuels. Working with governments, the private sector, and finance institutions in emerging economies, we help industry to rethink how they use energy.
The race is on to protect a stable climate for generations to come

- Burning fossil fuels for energy consumption is one of the largest sources of global GHG emissions – and over a third of these emissions come from the industrial sector.

- If business continues as usual, heavy industrial sectors such as cement, chemicals and steel will account for the world’s entire carbon budget in 2050, and the climate goals will be out of reach.

- As the world transforms its energy system and solves the climate crisis, it is essential to work hand-in-hand with industry.

- More energy efficient manufacturing practices, higher recycling rates, electrification, green hydrogen and renewable power have the potential to drastically cut industrial emissions and therefore put the world on track to net-zero.
OUR WORK

Centered on three areas of opportunity

1. Energy efficiency
   Working with government and industrial stakeholders in emerging and developing economies, to drive momentum for energy efficiency with tailored training for industries, improved access to finance for entrepreneurs and policy advice for governments.

2. Renewables and alternative fuels
   Helping industries from all sectors to integrate emerging sources of clean energy mainly to generate heat. These include biomass, solar thermal systems, green hydrogen, waste heat recovery technologies and others.

3. The Industrial Deep Decarbonization Initiative
   Facilitating the creation of policy that enables industrial decarbonization, by creating a thriving market for low carbon industrial products such as steel and cement.
16 countries so far, with large and/or growing industrial sectors
OUR APPROACH

- Training and know-how
- Financing solutions
- Advocacy and policy support
- Tailored support to MSMEs & SMEs
- Data systems and transparency
At the heart of the Accelerator’s work

We systematically document what we learn through stories, thought leadership articles, case studies, reports, videos, infographics, knowledge kits and dedicated campaigns. We share this knowledge widely to inspire global action.
CAMPAIGNS

To mobilize urgent action and commitments

#InvisibleSolution
Can you see it?

Help us make this invisible solution visible!

YOUR COMMITMENT TO GREEN CONSTRUCTION WITH PUBLIC FUNDS

Pledge to:

Level One:
Starting no later than 2025, require disclosure of the embodied carbon in cement/concrete and steel procured for public construction projects.

Level Two (in addition to Level 1):
Starting no later than 2030, conduct whole project life cycle assessments for all public construction projects, and, by 2050, achieve net zero emissions in all public construction projects.
EFFICIENCY SOLUTIONS KITS

To help industry leaders kickstart their energy efficiency journey
CASE STUDIES

To showcase solutions and demonstrate impact

King Shaka International Airport (KSIA) South Africa

**INDUSTRIAL BUILDINGS**

**Lighting and Heating ventilation and air conditioning systems**
- Replacing lighting delayed to reduce energy costs with lower wattage light sources
- Programming BMS control to reduce internal lighting by 35% and 65% in idle operational requirements and to reduce fans operating during the day
- Programming BMS control to switch off Air Conditioning to rest system

**IMPLEMENTATION PERIOD**
2015 – 2013

**MEASURES**

**Energy savings**
1 312 152 kWh/year

**CO₂ emissions reduction**
1995 tCO₂/year

**Payback time**
1.5 months

**Savings of**

2% IN ELECTRICITY
6% IN GAS
11% IN FUEL

**SUPERCERAM**

**Morocco**

**Ceramics, floor and wall tiles**

**The company has transitioned to the new version of ISO 50001 and revised their approach to energy planning, data analysis, measurement and monitoring.**

**They have seen improvement of their monitoring and control of their large energy users.**

How do Energy Efficiency projects create value?

Scock Manufacturing
Cape Town, South Africa

**SECTOR**

Textile

**SOLUTION**

Steam and compressed air energy systems
- Replacing electrostatic boilers with a liquid heat (paraffin) water tube boiler and the distribution system was optimised
- Optimising the steam system through effective insulation, tank repair and installation of new condenser tanks with new control panels
- Installing a new 45MW variable speed air compressor, reducing system pressure to the required 0 bar setpoint

**IMPLEMENTATION PERIOD**
2012 – 2013

**MEASURES**

**Investment**
ZAR 150,000,000 (US $10,924,000)

**Financial savings**
ZAR 120,000,000 (US $8,703,000)

**Energy savings**
485,000 kWh/year

**CO₂ emissions reduction**
98 tCO₂/year

**Payback time**
4 years
REPORTS AND ARTICLES

To dive deeper
INFOGRAPHICS

To visualize key data and processes

Let’s get energy efficient!
The easiest and cheapest clean energy solution lies in the energy we don’t use.

Cost-effective motor system optimization measures and the replacement of inefficient motors can result in as much as a 20 per cent reduction in energy use.

KEY RESULTS

1,000 people received capacity building

More than 130 Full Yearly energy saved (during programme’s lifespan)

11 local manufacturers producing solar heater components / products

29,900 (total) CO2 avoided (during programme’s lifespan)

$16M potential investment required to achieve the potential savings

7 public organizations

13 government bodies

60 private entities (representing industrial and tourism sections) involved

20 financing institutions

OVER

50% of industrial carbon emissions are generated by steel, cement and concrete.¹

FOR THE NEXT

40 years the world is expected to build the equivalent of another New York City every month.²

TO ACHIEVE GLOBAL CLIMATE GOALS, carbon emissions from steel, cement and concrete need to decrease by more than 90% by 2050.³

APPROXIMATELY

20-30% of global construction industry revenues come from purchases made by national, regional and local government entities together.⁴

THE WORLD COULD SAVE

1.25 billion tonnes of carbon emissions a year even if 35% of the steel and 60% of the cement used in public construction projects was very low emission. This is more than all the carbon emissions generated by the commercial aviation industry in 2019.⁵
SOCIAL MEDIA CHANNELS

To amplify our lessons learned and build community
Thank you

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