

Accelerating Sustainability Transformation for the Heavy Industry

The stakes are increasing...

Accounting for **one-third of global emissions**, energy-intensive sectors (steel, chemicals, cement, etc.) play a vital role in global warming. Rising carbon prices coupled with increased stakeholder pressure makes **sustainability mandatory to protect business continuity** in the long term.

...but transforming industrials is particularly complex

- High-emission manufacturing processes are **difficult to abate** due to temperature requirements, long asset lifetimes and complex production schemes that require integrated on-site utilities.
- Over **75% of global executives** believe that **excellent execution of a leading sustainability strategy will provide a competitive advantage**. However, less than **30%** believe their sustainability initiatives have been successful.

How we can help:

ENGIE Impact: Purpose-built to enable transformation at speed and scale

ENGIE Impact combines **strategy, asset-as-a-service models, engineering, transformation and digital tools**

to deliver **actionable roadmaps** and **seamless global implementation** that optimizes productivity and bolsters operational excellence.



ENGIE: Leader in the low-carbon energy transition

\$67Bn revenue company with more than **170,000** employees across **70** countries worldwide

\$13.4Bn investments in energy transition over 2019-2021

26.9GW installed renewable capacity

 ENGIE deploys and operates large power generation units across industrial sites

 ENGIE is a pioneer in low carbon industrial solutions, tools and methodologies

[Explore R&D at ENGIE](#) 

How We're Different

Strategy + Technical

- **200+** researchers and engineers
- **100+** experts in energy, water, waste and carbon management
- **200** strategic business consultants
- **100** data scientists and analysts

Global & Local

- **20+** ENGIE Impact offices and locations worldwide
- **1,000+** corporate, city and government clients
- Serve **25%** of Fortune 500 companies

Financing

- **World's largest** corporate issuer of green bonds
- **\$1B upfront payment** for 50-year concession for a single project
- **World's leading provider** of PPAs

Digital Acceleration

- Resource insights database spanning **over 1 million** sites
- **Dozens** of proprietary digital solutions
- **11 R&D** centers globally

Our Sustainability Solutions for the Heavy Industry Sector

Current State

Companies tackling energy efficiency and seeking carbon neutrality are faced with increasing **carbon prices, key stakeholder pressure and complexity in an inherently energy-intensive industry**. Clean industry transition requires a fundamental shift towards a strategic adoption of emerging technologies, new collaborative processes and digital enablers.



Future State

ENGIE Impact's holistic approach identifies the key levers and partners to drive more sustainable heavy industry. Built on **robust data and actionable roadmaps**, our innovative approach to sustainability transformation fosters **operational excellence and resilience in the global marketplace**.



1. Business Transformation

Leaders must reassess climate-related risks and identify new opportunities. They must tactically evaluate vital catalysts for transformation such as emerging technologies, energy and carbon market evolutions, regulation changes, and green finance that can drive operational efficiency, bolster productivity and capture new revenue streams. Building alliances and partnerships with strong actors from diverse horizons are particularly needed to explore, develop and finance collaborative technology innovations. ENGIE Impact brings a unique integrated offering to support you along this journey:

Transformation Design | Risk Management | Capital Allocation | Carbon Tracking | Stakeholder Management | Seamless Execution



2. Net Zero Plant

Resource Productivity

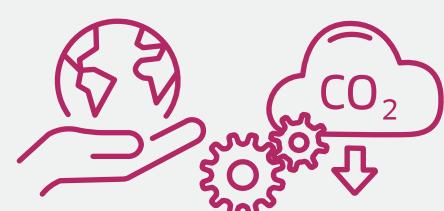
Enhance operational efficiency and optimize use of energy through strategic investments in core assets.

Fuel Switching and Electrification

Mitigate emissions using low-carbon fuels such as biofuel or clean hydrogen and explore viable electrification pathways that provide low-carbon heat and enhance energy efficiency.

Plant Retrofitting

Design, develop and finance viable technologies and processes that optimize operational efficiency and productivity while reducing carbon emissions.



3. Sustainable Supply

Sustainable Energy Vision

Implement customized energy solutions, including production, supply, storage and distribution to reduce energy transition costs while accentuating reliability, performance and zero carbon transition.

Supply Chain Decarbonization

Develop resilient sustainable procurement and sourcing strategies to reduce scope 3 emissions. Explore carbon offsetting solutions to compensate for carbon emissions across supply chains while also creating shared value.



4. Emerging Solutions

Alternative Feedstocks

Replace feedstock with domestic carbon sources towards cleaner and sustainable industrial production.

Carbon Capture, Storage and Utilization

Explore new revenue streams and carbon abatement measures through new technologies to capture emissions.

Industrial Symbiosis

Investigate and implement new local circular schemes to decrease carbon footprint and create new value streams.

Our Clients and Experts

Sample Heavy Industry Clients

sappi



AGC



PILKINGTON



ArcelorMittal



[Read More About Our Work](#) 

Our Experts



Ben Moens

Expertise: Consulting, Strategy & Transformation

Formerly with Deloitte and Bain & Company, brings 17+ years of experience in global consulting; lead strategist for transformation in energy and zero carbon



Sébastien Wagemans

Expertise: Sustainability Strategy & Energy Solutions

Accelerated global adoption of sustainability strategies via stakeholder engagement, materiality analyses, and change management programs



Brian Carey

Expertise: Energy Transition & Operational Efficiency

Launched PRTM's global renewables practice and led operational transformations at Fortune 100 companies



Greg Pope

Expertise: Energy Investment & Industrial Technologies

Former Investment Fellow at one of the world's top cleantech incubators; executed complex projects with leaders at energy companies



Stéphane Rapoport

Expertise: Energy Transition & Optimization

Engineered optimization tools for energy systems; collaborated with industrial partners to deliver innovative decarbonization roadmaps leveraging green thermal solutions



Alexia Kelly

Expertise: Clean Energy, Finance, Strategy

Lead negotiator for emissions trading for the U.S. State Department from Copenhagen to Paris (2010-2015)



[Learn More About Our Experts](#) 