

Famor Sustainability Services

Company Profile & Capabilities





Lead with Sustainability for a Future
That Works for Us and Our Children



Famor Mehregan Engineering Group

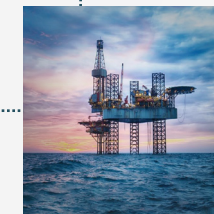
Famor Mehregan Engineering Group, with over 20 years of experience offers a broad spectrum of engineering services tailored for high-risk industries. Our primary focus is to create value and drive sustainable growth. Whether you're engaged in oil and gas drilling, field development, petrochemicals, mining, or other challenging sectors, we provide the expertise and innovative solutions essential for success while maintaining the highest safety standards.

With a steadfast commitment to innovation and safety, we provide expertise and solutions to navigate complex challenges, prevent unexpected incidents, and effectively prepare for critical moments. Our goal is to help industries build resilience and achieve sustainable success. We are deeply focused on addressing critical priorities such as energy efficiency, greenhouse gas (GHG) emissions reduction, and sustainable resource management.

Discover how we can enhance innovative strategies and deliver experienced solutions to empower your people, build more resilient businesses, minimize risks, and achieve lasting success.

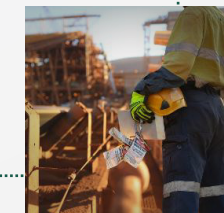
Famor Mehregan Engineering Group

Famor Mehregan Pouya



Famor Drilling Services

Famor Process Safety Services



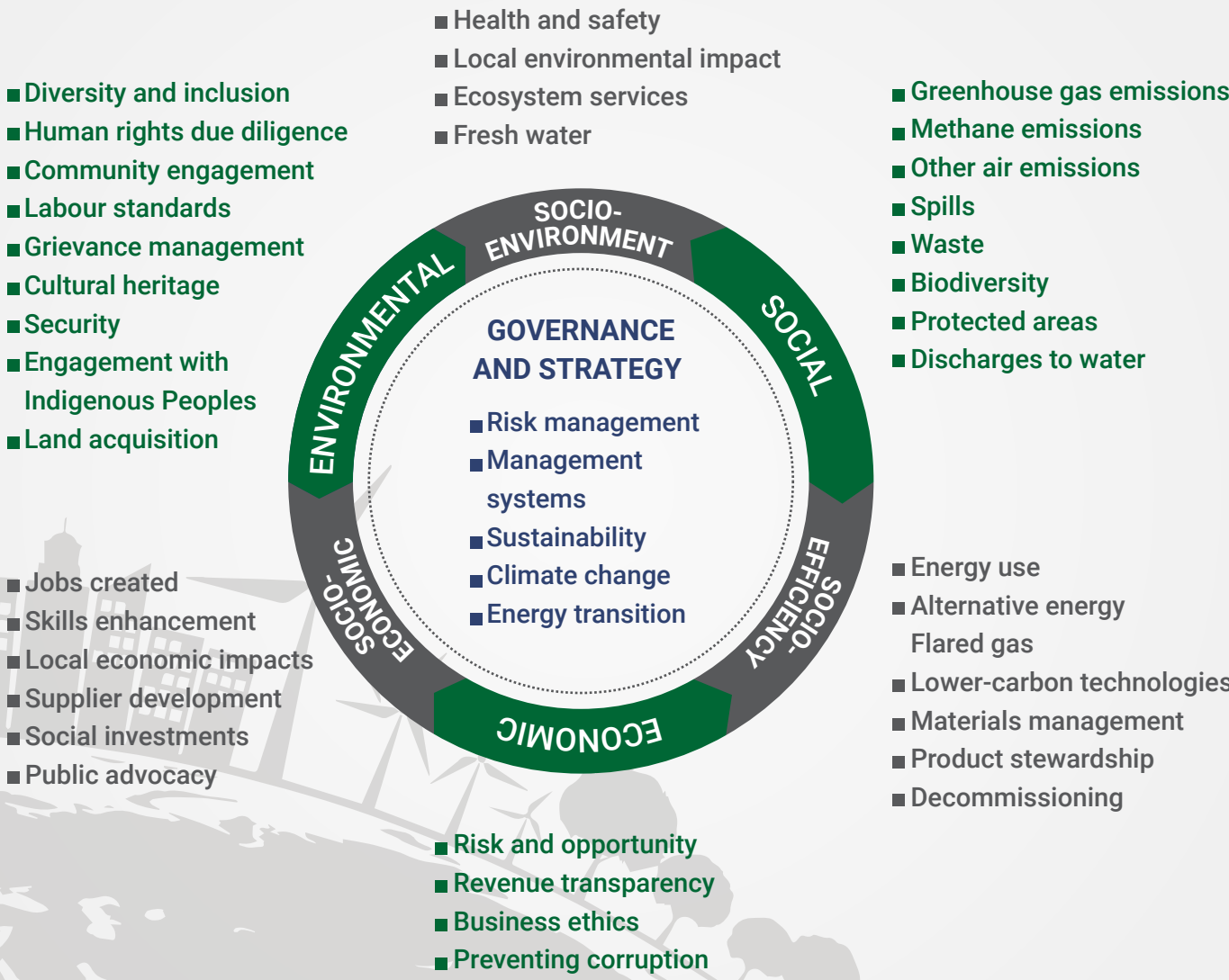
Famor Sustainability Services

Sustainability Development

Sustainability is no longer a choice but an imperative for industries worldwide, particularly energy-intensive sectors such as oil, gas, and petrochemicals. As the global community faces unprecedented environmental, social, and economic challenges, sustainability has become the cornerstone for addressing critical issues such as climate change, resource depletion, and the increasing demand for energy and materials. The transition towards a sustainable future is vital not only for preserving ecosystems but also for ensuring the long-term profitability and resilience of businesses in the face of evolving regulations, consumer expectations, and market dynamics.

The oil, gas, and petrochemical industries have a pivotal role in advancing sustainability as they account for a significant share of global greenhouse gas emissions and resource consumption. As societies shift towards a low-carbon economy, these industries are under increasing pressure to minimize their environmental footprint, adopt circular economy principles, and enhance energy efficiency.

Sustainability is also central to addressing social and economic imperatives. From improving workplace safety and fostering community engagement to ensuring equitable access to resources, integrating sustainability helps companies align with global goals such as the United Nations' Sustainable Development Goals (SDGs). Moreover, sustainable practices drive innovation, reduce operational costs, and create new market opportunities, making them a key enabler of long-term growth and competitiveness.



Famor Sustainability Services

At Famor, we empower industries to achieve their sustainability goals through tailored solutions and innovative approaches. Our services span key areas of Energy Optimization and Transition, Carbon Management, and the Circular Economy, ensuring a comprehensive strategy for sustainable growth.

We specialize in:

Accounting and Consultancy: Aligning strategies with sustainability objectives and regulatory frameworks.

Engineering and Technology Transfer: Implementing cutting-edge solutions and systems for efficiency and impact.

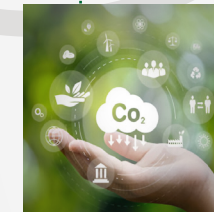
Culture Empowerment and Skills Development: Building the knowledge and capabilities needed to foster a sustainability-driven culture.

With Famor's expertise, alongside our world-class partners and extensive network, we help you navigate the complexities of sustainability and explore endless innovative solutions. Our approach is designed to reduce risks and create bespoke roadmaps, empowering your organization to thrive in a resilient and sustainable future.

Energy Transition



Carbon Management



Circular Economy

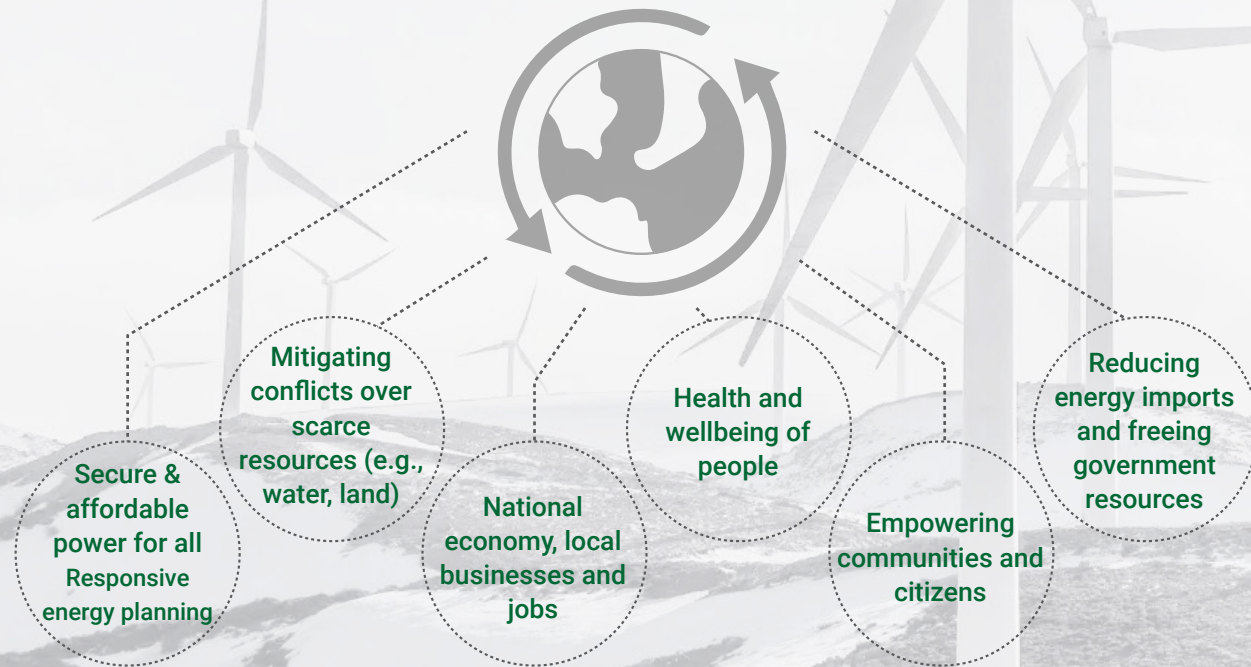


Energy Transition

All organizations need extensive technical and strategic capabilities to respond effectively to the energy transition. From investigating emerging low-carbon energy types and business models to decarbonizing operations and developing new energy strategies, we help organizations maximize and sustain their impact.

Evaluation of Actual and Future Energy Consumption

Energy remains one of the critical challenges of the future. Businesses need to strike a balance between operational efficiency and sustainable development. With soaring energy prices and increased scarcity of natural resources, pinpointing energy efficiencies – from planning to manufacturing to operations - makes good business sense.



Eco-Environmental Study to Identify Best Solutions for Transition and Clean Energy

Ensuring an affordable, reliable, and sustainable energy supply has become a critical priority for energy providers and suppliers. With rising energy costs, potential supply disruptions, and the global shift towards renewable and decentralized energy systems, it is vital to secure alternative energy sources, enhance efficiency, and adapt to emerging technologies.

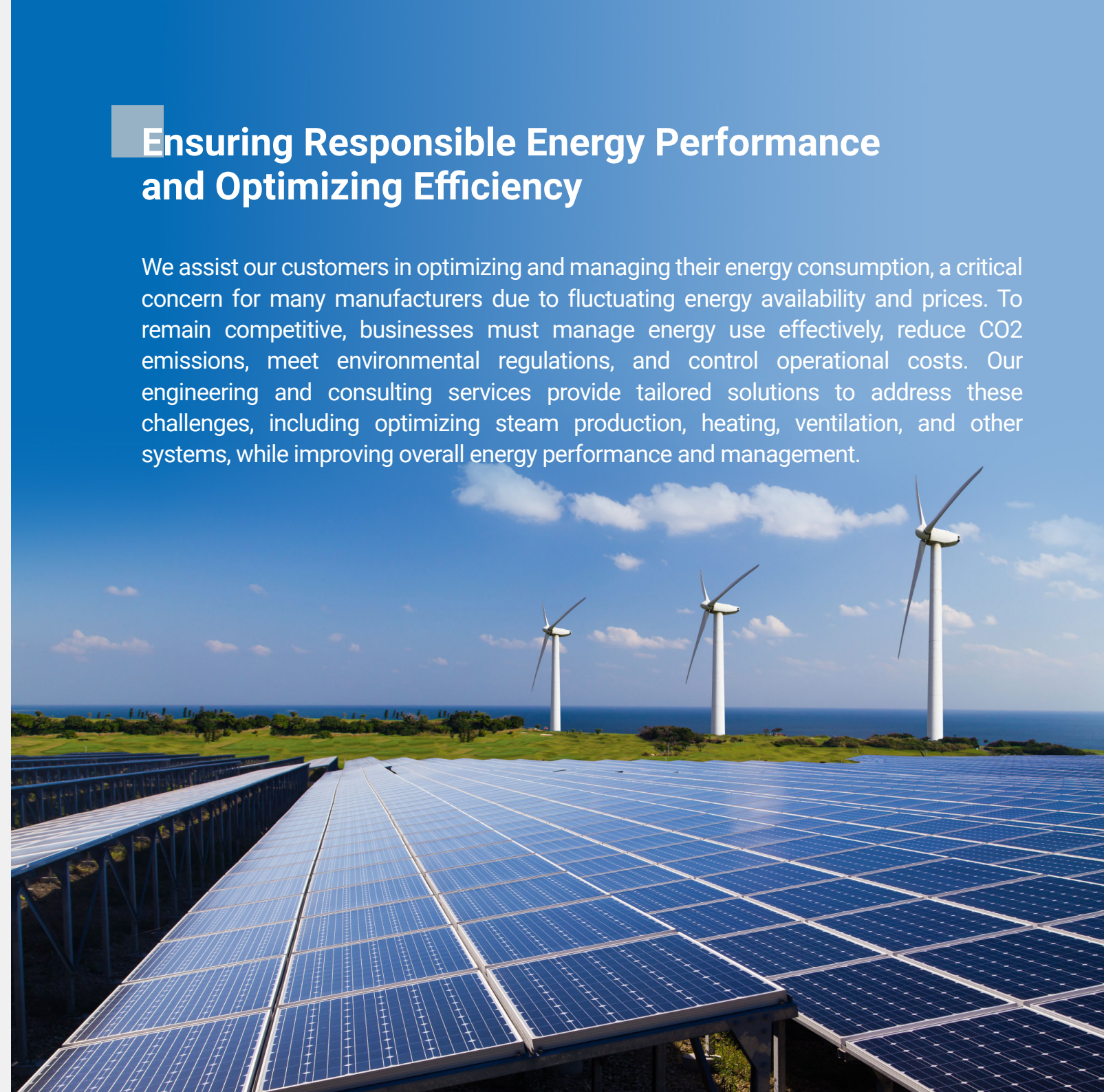
Leveraging our extensive network of worldwide business partners, we collaborate with you to assess your existing facilities, explore innovative renewable energy solutions, and craft a comprehensive roadmap and master plan. Our services include planning development initiatives, facilitating technology transfer, and ensuring your energy infrastructure and processes meet the highest national and international standards for power generation, distribution, and storage.

Zero Flaring

Our engineering services focus on achieving zero flaring, helping plants and industrial facilities eliminate unnecessary gas emissions from flare systems. By implementing advanced technologies and optimized processes, we enable companies to safely capture and utilize flare gas, reducing environmental impact and improving operational efficiency. Our solutions support sustainability goals while ensuring regulatory compliance and cost savings.

Ensuring Responsible Energy Performance and Optimizing Efficiency

We assist our customers in optimizing and managing their energy consumption, a critical concern for many manufacturers due to fluctuating energy availability and prices. To remain competitive, businesses must manage energy use effectively, reduce CO2 emissions, meet environmental regulations, and control operational costs. Our engineering and consulting services provide tailored solutions to address these challenges, including optimizing steam production, heating, ventilation, and other systems, while improving overall energy performance and management.



Carbon Management

Understanding Carbon Management: Features, Benefits, and Business Impact

The consequences of climate change are visible and the core aim of Carbon Management is to examine the options and mechanisms for mitigating the causes and impacts of climate change, which includes mechanisms for reducing emissions and enhancing the removal of GHGs from the atmosphere, as well as metrics used to measure the performance of options and mechanisms resulting from international treaties, domestic policies, local regulations, environmental markets, technologies, industrial efforts, and consumer choices. Oil & Gas companies need to efficiently operate in a high-risk, heavily regulated, and constantly changing global landscape. Achieving safety, health, and environmental compliance across upstream, midstream and downstream operations is a tremendous challenge, especially in an environment of fluctuating commodity prices, skilled labor shortages, stakeholder scrutiny, and capital-intensive project investments.

Net-Zero Emissions

Net-zero emissions will be achieved when all emissions released by human activities are counterbalanced by removing carbon from the atmosphere in a process known as carbon removal. Importantly, the time frame for reaching net-zero emissions is different for CO₂ alone versus for CO₂ plus other greenhouse gases like methane, nitrous oxide, and fluorinated gases.

Net zero demands a robust strategy that is practical, defensible, and actionable by the organization, without compromising commercial objectives. We aim to create long-term value by translating the corporate climate vision into reimagined business models and portfolios, as well as asset-level implementation actions that enhance operational performance.



Supporting members to reach net zero in their or their clients' organizations

Reducing emissions from travel

Our buildings

Partnering with the profession

Waste reduction

Transition to green energy

Transparently reporting our progress

Empowering our people to work and live sustainably

De-carbonization of our supply chain through responsible procurement

Decarbonization

Decarbonization Charter was released. It calls on the oil and gas sector to achieve the goal of reaching net-zero emissions for their own operations by 2050. The charter also includes commitments to achieve near-zero methane emissions and no routine flaring by 2030. Updating existing technology with more efficient technology can reduce emissions and expenditure towards industrial energy. We need to shift from standardized fossil fuels to alternative low-carbon energy sources. Decarbonization will require technological advancement and expertise in specific use cases to establish new energy systems, alternative energy sources based on green electricity, and cleaner sustainable energy distribution and transport methods.

Carbon Footprint Assessment and Climate Change Planning For Sustainable Progress

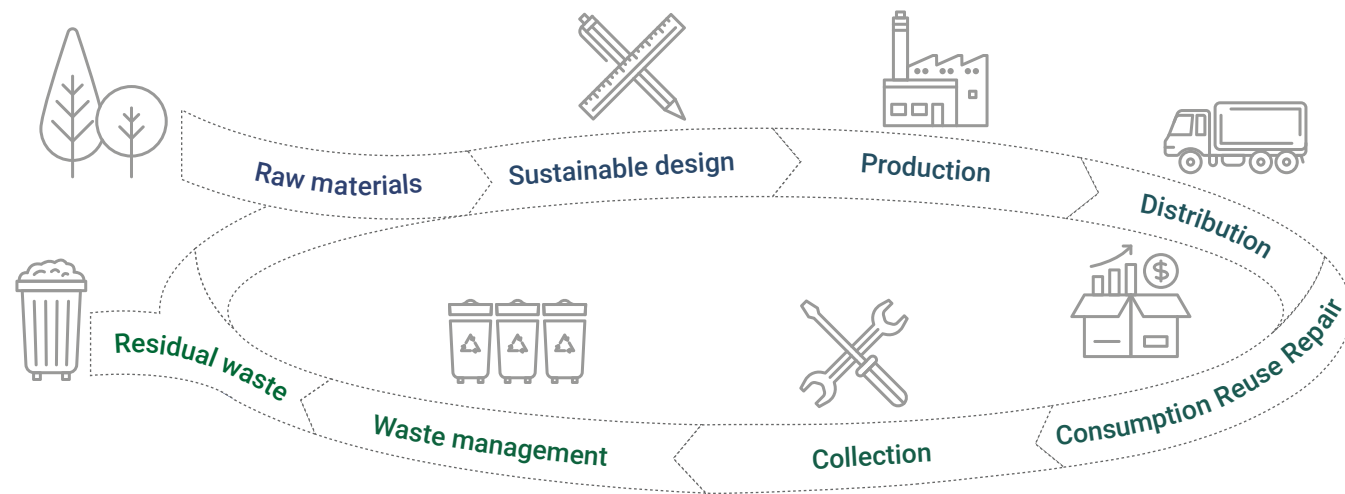
Climate change is a global challenge affecting every part of the world, disrupting national economies and affecting communities and businesses. The business world needs to see climate change as an opportunity rather than an environmental disaster and better take adaptation and mitigation actions to achieve real impact. The carbon neutrality concept means any CO₂ released into the atmosphere by a company's activities is balanced by an equally high amount being removed. To operate climate-neutral, a company must reduce all its GHG to zero while also eliminating damaging climate impacts that the company may cause.



Circular Economy

There is an imperative to decouple economic growth from resource consumption. Embracing circularity and product innovation can help convert operational constraints into market differentiators. The growing threat of raw material shortages can be mitigated by transitioning to a circular economy. Promoting sustainable resources and innovative manufacturing techniques creates more resilient supply chains.

Natural resources are no longer sufficient to meet our needs. Faced with this fact, we must change how we live and how we produce. This means reducing our consumption of natural resources, but also reusing and recycling them on a massive scale. By means of our solutions based on the circular economy, we propose ways to conserve and renew water, energy and material resource



Life Cycle Management (LCM)

Life Cycle Management (LCM) is a comprehensive approach to managing the entire life cycle of products and services, aiming for more sustainable production and consumption. It focuses on reducing environmental and socioeconomic impacts across the product's life cycle and value chain. LCM involves continuous improvement by gathering, organizing, and utilizing product data throughout its lifetime. We offer consultancy services to help you implement a sustainability-driven LCM approach, ensuring reduced impacts and improved processes.



The Carbon Market

Climate change is a defining challenge of our time, and carbon markets play a crucial role in reducing emissions at a lower cost. Carbon credits, generated from a wide variety of projects, can be calculated, defined, and traded to help organizations achieve their sustainability goals. With hundreds of eligible projects worldwide, the voluntary carbon market offers significant capital to drive these initiatives. We assist you in navigating global carbon markets, developing long-term mitigation strategies, planning a roadmap, and preparing a master plan to achieve your decarbonization and sustainability objectives.

Our Partner



Celanx GmbH is a Germany-based company specializing in CleanTech solutions for renewable energy production and reduction of climate gas emissions. Established in 2010, Celanx focuses on transitioning energy production

from centralized fossil fuel-based systems to decentralized, renewable energy solutions to contribute to zero carbon emissions. Our expertise lies in providing custom-tailored, turn-key engineered CleanTech projects and consulting services to industrial, commercial, and logistical sectors. Celanx Management brings our 70 years of experience from chemical industry and the renewable energy sector as an asset to the collaboration with the client. The mix of vast experience in the field of chemistry, engineering and economics creates a unique value to transform the client's company to a zero-carbon company. Our main field of services are Generation of electrical energy with renewable energies and Decarbonization of industrial processes.

Celanx's CleanTech systems adhere to strict criteria, such as utilizing fossil-free or fossil-reduced feedstock, generating electrical energy at competitive cost in any energy market, reducing CO₂ emissions by at least 80% compared to traditional technologies, and avoiding waste problems of the power plants at the end of system life. Their core values emphasize efficiency, ecology, and economics, ensuring clients receive sustainable and cost-effective energy solutions.



Most important projects

Belgium: Development of a multi-MWp PV power plant integrated with car parking and flat roof installations including EV charging powered by solar energy.

Chile: Feasibility studies for renewable energy systems delivering 9 GWh/year and wind measurement campaigns adhering to IEC standards. Integration of Solar Photovoltaics (SPV) and Concentrated Photovoltaics (CPV) with cutting-edge technologies to optimize energy production.

Germany: EPC and operations of a multi-MWp solar power plant using sun-tracking systems, roof top system and ground-mounted PV modules for increased efficiency, combined with battery storage, EV-charger and heat pumps to achieve > 80% energy autonomy of clients.

Germany: Analysis of production processes using hydrogen in steel processing industry with the aim to reduce the use of hydrogen and increase the safety of handling hydrogen.

Germany: Feasibility study of a GWh-sized underground pumped storage hydro plant.

North Americas: feasibility studies for on and off-grid hybrid systems, combining solar, wind, batteries, and generators for energy reliability in remote areas to supply salt mines.

Jordan: Installation of fully automated weather stations and wind energy studies to collect data for the design of power plants (solar, wind). Operations of mw-sized PV power plants with increase of up to 20% in annual yield.

Zambia: Development of national regulations for mini-grids and net-metering systems to promote decentralized renewable energy access.

Masterclass

The Renewable Energy Economy

Culture Empowerment and Skills Development on Sustainability

Location: Rotterdam, Netherland

Program Purpose and Objectives

- Equip participants with a deep understanding of the renewable energy economy
- Provide tools and strategies for implementing renewable energy solutions.
- Explore financial opportunities and innovative technologies driving the sector
- Foster collaboration and knowledge-sharing to accelerate global sustainability goals.
- Enable participants to create actionable roadmaps for transitioning to renewable energy systems.

Topics

1.Global Energy Transition:

- Overview of the shift from fossil fuels to renewable energy
- Economic, environmental, and social drivers of change

2.Market Dynamics and Trends:

- Emerging technologies in renewable energy
- Decentralized systems and the rise of energy communities

3.Financial Models and Carbon Markets:

- Funding mechanisms for renewable projects
- Role of carbon credits and trading in the renewable economy

4.Technology and Innovation:

- Smart grids, energy storage, and digitalization in the energy sector
- Breakthrough renewable technologies and their applications

5.Sustainable Business Models:

- Strategies for integrating renewables into existing systems
- Circular economy practices in energy production and usage

6.Global Case Studies:

- Lessons from successful renewable energy projects worldwide
- Collaborative efforts for energy security and sustainability

7.Roadmap Development and Action Planning:

- Designing practical, scalable strategies for renewable energy integration
- Long-term sustainability and impact measurement

Training Program

Learning from European Industries' Experiences in Sustainability

Focus: Reducing Greenhouse Gas Emissions, Energy Efficiency, and Clean Energy

Location: Rotterdam, Netherland

Program Purpose and Objectives

This 5-day training program is designed to provide managers and decision-makers in the oil, gas, and petrochemical sectors with the knowledge, tools, and inspiration to align their operations with global sustainability standards. By examining the leading practices and initiatives of renowned European entities such as Port of Rotterdam and one of industrial companies in Germany, participants will:

- Gain a comprehensive understanding of sustainability principles and regulatory frameworks.
- Learn from successful case studies in decarbonization, energy efficiency, and circular economy practices.
- Develop actionable strategies to enhance sustainability within their organizations.
- Explore emerging technologies and their applications for achieving long-term environmental and economic goals.



Topics

1.Introduction to Sustainability Concepts and Regulations

- European Union regulations: European Green Deal, ETS, and hazardous waste management.
- Policies and green standards in the Port of Rotterdam.
- Keynote presentations and case study analysis of Rotterdam projects.

2.Strategies and Technologies for Sustainability

- Carbon reduction, energy efficiency, and circular economy in the Port of Rotterdam
- Hydrogen pipelines, CCS, and sustainable supply chain innovations.
- Workshop on short-term strategies for energy and carbon management.

3.Field Visit to Rotterdam Industrial Area

- Tours of WarmtelinQ, hydrogen pipelines, and CCS facilities.
- Practical insights into implementing green technologies and infrastructure.
- Drafting an actionable sustainability roadmap.

4.Germany's Sustainability Initiatives

- Carbon management and renewable energy-driven production strategies.
- Circular economy: raw material recycling and green supply chains.
- Workshop on carbon reduction projects for chemical industries.

5.Industrial Facility Visit and Knowledge Transfer

- On-site learning at Industrial site, exploring advanced technologies.
- Group discussions to apply lessons from Rotterdam and other Industrial companies
- Roadmap development for sustainability and certification ceremony



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