

# Energy is our reality, Transition is our business

Sustainability Report 2021



**TECHNIP  
ENERGIES**



## Energy is our reality, Transition is our business

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# Energy is our reality, Transition is our business

Interview with  
**Joseph Rinaldi, Chairman  
and Arnaud Pieton,  
Chief Executive Director**

Our industry is facing its biggest challenge ever. Committing to the Paris agreement and making the transition to Net-Zero emissions a reality is not an option but an imperative. Tackling climate change is not just about reducing emissions, it's also about balancing environmental, social and governance responsibilities to ensure that this is achieved in a sustainable way.

### Why is this new sustainability report an important publication for Technip Energies?

**Arnaud Pieton (AP):** When we launched the company on February 16, 2021, we pledged to build a sustainability roadmap, fully integrated with our business strategy, and to publish a report and performance scorecard every year. This is our first report which sets out our environmental, social and governance (ESG) roadmap and presents the people and processes involved in its development. The report illustrates the importance of ESG within all our business operations and for all our people.

Businesses need to demonstrate value for shareholders and society, and we are setting the tone from the top; in the goals that we set and the way that we lead. Our sustainability report tracks our performance and provides transparency to honor our commitments. Delivering on our ambitions to support our clients to accelerate the energy transition can be a clear differentiating factor and key to success.

### What was the role of the Board in the development of the ESG Roadmap?

**Joseph Rinaldi (JR):** As a new company, the Board made the conscious decision to structure the organization around ESG best practices. Together with the Executive Committee, we have been closely involved in the materiality assessment and development of the ESG Roadmap.

We set out a very collaborative approach from the outset to ensure that it is meaningful for all aspects of the business, robust, bold and inspiring.

The ESG Roadmap defines in detail the company priorities and commitments for the next 3 years with a strong action plan and a KPI scorecard. The Board and specifically the ESG Committee is actively involved in monitoring its implementation. The ESG Committee is tasked with reviewing policies, strategies and performance related to environmental stewardship, responsible investment, corporate citizenship, human rights, risk management, and all ESG matters. To strengthen ESG accountability and transparency, key ESG targets have been incorporated into the incentive components of our 2022 executive compensation program.

### In addition to publishing your ESG Roadmap, you have also presented the company purpose and values. What is the importance of these elements and how do they work together?

**AP:** I strongly believe that for a new company to succeed, especially in such a period of change that the energy transition represents, all employees, wherever they work, in whatever they do, need to share the same spirit.

How can we achieve that? By engaging with them, understanding what is important for them and what drives them in their professional and personal lives. This was carried out through an employee questionnaire and a series of workshops in parallel with the preparation of our ESG Roadmap. It was a very participative and interactive process.

This process enabled us to come up with what we believe is a strong purpose statement: Breaking boundaries together to engineer a sustainable future. Our purpose captures the essence of who we are and why we do business. It truly reflects our engineering DNA and inspires us all to act.

Our values play a foundational role in the company culture. They define who we are, how we act, and where we want to go. Most importantly, they are embedded in the way we run our business. They are a driving force behind a global, collective sense of identity and a key part of the brand.

The ESG Roadmap and strategic plan translate our ambition into targets to create value over a medium to long term horizon. Our values set out the way we carry out our business. Our purpose ensures that we are all heading in the same direction. ●●●

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As a new company, the Board made the conscious decision to structure the organization around environmental, social and governance (ESG) best practice. We set out a very collaborative approach from the outset to ensure that it is meaningful for all aspects of the business, robust, bold and inspiring.”

**Joseph Rinaldi,**  
Chairman of the Board



●●● **What does the Energy Transition mean for Technip Energies?**

**AP:** To reach the goal of net-zero by 2050, the world has 60 giga-tonnes of CO<sub>2</sub> to offset from today's position. This is the reality of the Energy Transition. This means that renewable energies, especially solar and wind, need to grow like no other energies have ever grown, energy storage solutions must be developed, and technologies for carbon capture, clean hydrogen and its derivatives, scaled up. While thinking 'global' is necessary, we must also integrate more 'local' considerations when studying and addressing circularity by design, in greenfield and brownfield energy infrastructures. In the interim, gas and in particular LNG and low-carbon LNG,

will become key transition fuels, to displace high-carbon fossil fuels, including coal and heavy fuel oil, in the global energy mix.

As an Engineering and Technology company, with over 60 years of successful operations, we are constantly pushing the boundaries to deliver innovative solutions and expand our offerings. Our strategy is focused around four high growth markets that constitute our energy transition domains – low-carbon LNG, decarbonization, sustainable chemistry, and carbon-free energies. And we have achieved some important commercial successes across all these segments this year with some notable references in offshore floating wind, hydrogen, carbon capture and biofuels facilities.

Moreover, digital will have a far-reaching role to play in the Energy Transition. Digitalize to decarbonize is our data-driven approach to provide a new offering of digital solutions and promote open collaboration across and between industries. Technip Energies is fully invested in harnessing the power of digital to make sustainable changes to the way we operate, broaden opportunities, and support new business models.

**JR:** For the Net-Zero ambition to be achieved, an unprecedented level of global investment in production, transportation, storage and distribution infrastructure and associated technology will be required over the coming decades. The company's engineering and technological leadership in the energy sector positions it to become an important player in designing, building and deploying this core infrastructure and to build leading and profitable businesses for Net-Zero.

The Board works closely with management to assess the opportunities and risks that this evolving energy landscape presents. In developing and setting the strategic objectives for the business, and reviewing and approving the investments (including in our people and in technology), partnerships and other actions required to execute the company's plans, the Board's objective is to achieve long term sustainable growth that creates value for all our stakeholders.

**What do you consider to be the key achievements of Technip Energies in 2021? And what are your expectations for 2022?**

**JR:** February 16, 2021, marked a new and exciting chapter in the history of the company with the creation of Technip Energies. We set out with a strong ambition and now we have a clearly defined purpose, values and ESG Roadmap which express how we intend to achieve this ambition and conduct business.

The strong results achieved by the people of Technip Energies in our first year and in the face of the many challenges presented by the ongoing covid pandemic clearly demonstrate that we are on the right path.

Looking forward, the global consequences of the Covid-19 pandemic have not entirely disappeared and the devastating war in Ukraine is impacting businesses throughout the world, including the Company's operations in Russia. The Company has stopped work on future opportunities in Russia and, together with our employees, we are helping to provide support for the victims of the war.

We continue to monitor the impact of these developments on our people and operations and to take appropriate mitigating actions. Our strong and diversified global business and financial strength means that we are well positioned to weather and contain the impact of these challenges. Above all the talent, resilience and commitment that our people displayed in 2021 give me confidence that the company will continue to build a strong, sustainable and financially successful future.

**AP:** I am filled with pride as we reflect on our first year as an independent company – 2021 has been a special and memorable year for all of us at Technip Energies.

We have taken time collectively to define our company purpose, to identify and appropriate our company values and to embed these foundations in our strategy and in our ESG Roadmap. These are presented in detail throughout this report.

Everything we have achieved – operational robustness, solid financials, and notable commercial success – has been driven by the collective effort of 15,000 talented people, and their creativity, innovation and collaborative mindset.

I also wish to express our solidarity with those suffering as a result of Russia's invasion of Ukraine. The Company and its employees have taken measures to provide material support to help the Ukrainian people. We are monitoring the situation closely and have taken appropriate measures to safeguard our people and operations. Until further notice, we have decided to suspend working on future business opportunities in Russia.

I am confident in the robustness of Technip Energies' global and diversified business, balance sheet, and our ability to invest and deliver on our strategy. We have sown the seeds to strengthen our capabilities and offering, extending our reach into a low- to zero-carbon future through technology, innovation and partnerships.

I am impressed by the positive energy and attitude that people are bringing to our transformation and contributing to the Energy Transition. ●

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The magnitude and the complexity of the challenge ahead of us is gigantic, but it's also exciting and it's our responsibility to make a better tomorrow. And at Technip Energies we believe we have a critical role to play on this journey. **Energy transition is our business.**”

**Arnaud Pieton,**  
Chief Executive Officer

# Meet our Executive Team

Bringing together a wealth of international experience from across the industry, the fifteen members of our extended Executive Team are driving our ambition to be leader of the Energy Transition.

The blue outline indicates our Executive Committee members.  
SVP Strategy to be nominated.



**Arnaud Pieton**  
Chief Executive Officer

Arnaud Pieton joined Technip in 2004 and has served in several leadership positions including President Asia Pacific Region covering Subsea and Onshore/Offshore operations. Prior being CEO of Technip Energies, he was President of subsea business segment and EVP People & Culture at TechnipFMC.



**Marco Villa**  
Chief Operating Officer

Marco Villa joined Technip in 2003. He previously served as TechnipFMC's President Onshore/Offshore for Europe, Middle East, India, and Africa and has held a number of leadership positions at Technip.



**Michael McGuinty**  
Chief Legal Officer

Michael McGuinty joined Technip Energies in 2021. Previously, he served as General Counsel and Company Secretary of Valaris plc and of TAQA, the Abu Dhabi National Energy Company, and spent 18 years with Schlumberger where he held various senior legal positions in Paris, the Middle East and the United States.



**Bruno Vibert**  
Chief Financial Officer

Bruno Vibert joined Technip in 2014 serving as Chief Accounting and Treasury Director for the North America region, then Chief Financial Officer of the Yamal LNG Project. He previously served as Vice President Finance for TechnipFMC's Onshore/Offshore business.



**Wei Cai**  
Chief Technology Officer

Wei Cai joined Technip Energies in 2021. Before joining the company, she spent more than 18 years at GE Research, where she held various leadership roles including General Manager of the GE Global Research Center in Shanghai, and later at GE Research headquarters in New York.



**Magali Castano**  
Senior Vice President  
People & Culture

Magali Castano joined Technip in 2011 and has held various Human Resources leadership positions including Vice President Human Resources & Communications Europe, Middle East, India, and Africa and Vice President People Development of TechnipFMC.



**Christophe Bêlorgeot**  
Senior Vice President  
of Communications

Christophe Bêlorgeot joined Technip in 2005 within the Strategy department before moving to various communications functions including SVP Corporate Engagement of TechnipFMC and Executive Officer. Previously he held positions in both the public and private energy sectors, in France and in the United States.



**Loïc Chapuis**  
Senior Vice President Gas  
& Low Carbon Energies

Loïc Chapuis joined Technip in 2006 serving corporate activities in strategic development. He has since held various business and development positions for major projects both in Paris and Asia, including the Shell Prelude FLNG, Yamal LNG and Arctic LNG2.



**Laure Mandrou**  
Senior Vice President  
Carbon-Free Solutions

Laure Mandrou joined Technip Energies in 2022. With over 20 years in the Energy industry at Schlumberger, she is a globally experienced innovator and leader. Most recently she served as Head of New Ventures and Technology Including energy transition topics for the MENA Region.



**Mario Tommaselli**  
Senior Vice President  
One T.EN Delivery

Mario Tommaselli started his career with Technip in 1992 in the Process Department where he became head of Process Engineering before moving on to project management. He previously served as SVP for the Americas Business Unit, and Executive Program Director for the Sasol petrochemical complex in Lake Charles, USA.



**Christophe Virondaud**  
Senior Vice President Commercial

Christophe Virondaud joined Technip in 2002 and has held operational leadership positions including Vice President of Business Development Onshore/Offshore for TechnipFMC as well as VP Business Development for Major Projects and for Middle East and Managing Director of the Abu Dhabi and Doha offices.



**Alain Poincheval**  
Fellow Executive Project Director  
of Arctic LNG2

Alain Poincheval joined Technip at the beginning of his career in 1987 as Process Engineer in Paris. He has since been Project and Consortium Director of the Pazflor project for Total E&P Angola as well as for the Shell FLNG Prelude Project. In 2016, Alain became Fellow Executive Project Director.



**Bhaskar Patel**  
Senior Vice President Sustainable  
Fuels, Chemicals and Circularity

He joined Technip in 2012 and has held senior leadership positions as SVP Process Technology and Americas Business Unit and Managing Director of Technip Energies. Bhaskar Patel has more than 35 years' experience in the oil and gas industry.



**Charles Cessot**  
Senior Vice President T.EN X –  
Consulting & Products

Charles Cessot joined Technip in 2011. He previously held the role of SVP of Strategy overlooking Strategy, Investments, Digital and Innovation and prior to that, served as Corporate Development Vice President at TechnipFMC and M&A Manager.



**Davendra Kumar**  
Senior Vice President Deputy  
One T.EN Delivery and Managing  
Director India

Davendra Kumar joined Technip as Project Engineer in 1994. Having held various leadership positions in India, he brings 30 years of extensive experience in project management, business development and general management. In 2019, he was appointed Managing Director of the India Business Unit.



# Our Board of Directors

Registered in Amsterdam, the Netherlands and headquartered in Paris, France, Technip Energies has a one-tier board structure comprising Executive and Non-Executive Directors.

The current Board is composed of nine members, eight Non-Executive Directors and one Executive Director. Seven members of the board are independent.

In March 2022, the Technip Energies Board has nominated for appointment at the 2022 Annual General Meeting all of the Non-Executive Directors currently on the Board, with the exception of Mr. Pascal Colombani who is not seeking reappointment. In addition, the Board has nominated two new Non-Executive Directors, Ms. Colette Cohen (currently serving as Board Observer) and Mr. Francesco Venturini.

The Board has established three committees: the Audit Committee, the Compensation Committee and the ESG Committee.

The Technip Energies Board has developed a detailed skills and experience matrix encompassing the areas most relevant to overseeing the company's international operations and strategy. These areas include: Energy Industry (EI); Project Management (PM); Technology and Innovation (TI); Finance/Audit/M&A/Risk Management (€); Governance (Gov); Social and Sustainability (SS); International Experience (IE); and Senior Executive experience (SE).



**Joseph Rinaldi**  
Chairman of the Board,  
Independent Director

Member of the Audit Committee and Compensation Committee

Joseph Rinaldi is the Managing Partner of Fennecourt Partners, an investment management and consulting firm. He is a retired partner in the international law firm of Davis Polk & Wardwell, where he advised companies, financial institutions and Board of Directors on corporate governance issues.  
(EI, €, Gov, IE)



**Arnaud Pieton**  
Executive Director of Technip Energies,  
Chief Executive Officer

Arnaud Pieton joined Technip in 2004 and has served in several leadership positions including President of TechnipFMC's Subsea business segment, EVP People & Culture of TechnipFMC as well as President Asia Pacific Region covering subsea and onshore/offshore operations.  
(EI, PM, TI, €, SS, IE, SE)



**Arnaud Caudoux**  
Independent Director

Member of the Audit Committee

Arnaud Caudoux is currently Deputy Chief Executive Officer and executive director of Bpifrance, a French state-owned investment bank, in charge of the Finance, Risk Management, IT, and Guarantee business line.  
(EI, €, Gov)



**Pascal Colombani**  
Independent Director

Chair of the ESG Committee

Mr. Colombani has been President of TII Strategies, a consulting and investment company, since 2014. He is Honorary Chairman of Valeo, a high technology automotive parts supplier. He also serves as Senior Advisor of A.T. Kearney, a global management consulting firm, as a member of EMEA advisory board of JPMorgan Chase, and as a Senior Advisor of Truffe Capital.  
(EI, PM, TI, €, Gov, IE, SE)



**Marie-Ange Debon**  
Independent Director

Chair of the Audit Committee

Marie-Ange Debon has acted as Chairwoman of the Keolis Group Executive Board since August 2020. Prior to joining Keolis, Ms. Debon was Deputy Chief Executive Officer of the Suez Group, a global water and waste company she joined in 2008.  
(EI, PM, €, Gov, SS, IE, SE)



**Simon Eyers**  
Independent Director

Member of the Audit Committee

Until January 2022, Simon Eyers served as Chairman of Evrything, a leading provider of cloud-based traceability data services to the consumer products industry, and as a director of Trident Energy.  
(EI, TI, €, IE)



**Alison Goligher**  
Independent Director

Chair of the Compensation Committee and Member of the ESG Committee

Alison Goligher is the Executive Chair of Silixa, a private equity backed Distributed Fibre Optic company working in the energy sector, a role she has held since 2016. Prior to this Ms. Goligher held various executive leadership roles at Royal Dutch Shell, in The Netherlands.  
(EI, PM, Gov, SS, IE)



**Didier Houssin**  
Independent Director

Member of the ESG Committee

Didier Houssin served as Chairman and Chief Executive Officer of IFP Energies Nouvelles, a research and training company in the fields of energy, transport, and the environment, from 2007 to 2015. Prior to this, from 2007 to 2015, Mr Houssin served at the IEA (International Energy Agency) as Director of Sustainable Energy Policy and Technology, responsible for the development of low-carbon technologies and energy, and Director of Energy Markets and Security.  
(EI, TI, Gov, SS, IE, SE)



**Nello Uccelletti**  
Non-Independent Director

Member of the Compensation Committee

Nello Uccelletti served as President and Advisor to TechnipFMC's Chief Executive Officer from November 2019 to February 2020. Mr. Uccelletti joined Technip in 1978 and has spent his entire career with the company serving in a variety of leadership positions, including as Chief Executive of Technip Italy.  
(EI, PM, TI, IE, SE)



**Colette Cohen**  
Board Observer<sup>(1)</sup>

Ms. Cohen is the Chief Executive Officer for the Net-Zero Technology Centre, an organization committed to the development and deployment of technology to accelerate the transition to an affordable Net-Zero future. Ms Cohen is an ambassador for Powerful Women. She has worked in the industry for over 25 years.  
(EI, PM, TI, SS, IE, SE)



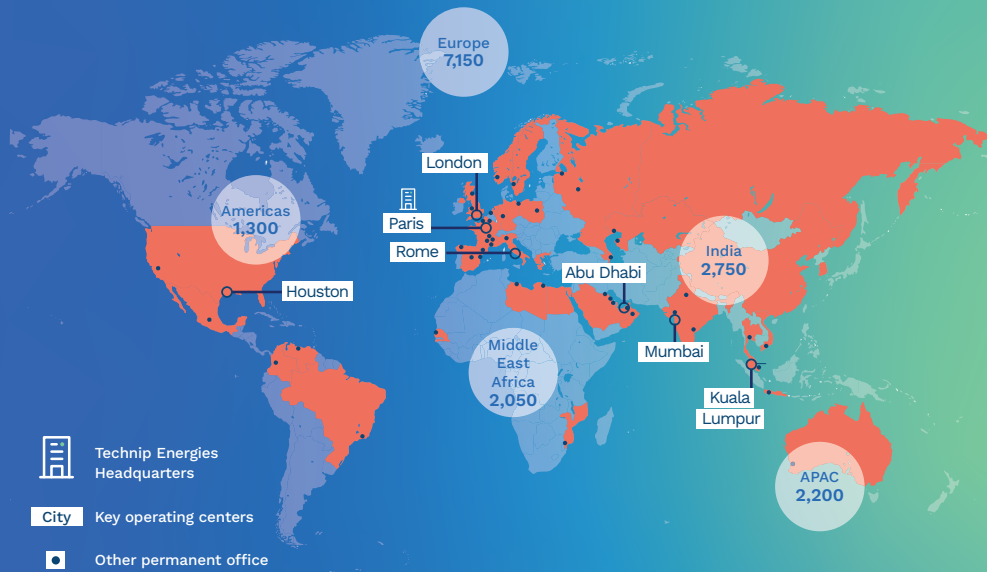
**Francesco Venturini<sup>(2)</sup>**

Mr. Venturini is Head of Enel X Global Retail, the new global business line that consolidates all the customers products and services of the Enel Group. Mr Venturini joined the Enel group in 1997 and has held various international management positions. He was appointed head of Enel X, now Enel X Global Retail, in November 2017.  
(EI, PM, TI, €, SS, IE, SE)

(1) Ms. Cohen was appointed Board Observer in October 2021, following a structured director search process, and is nominated for appointment as an independent non-executive director at the 2022 Annual General Meeting in her capacity as Board Observer. Ms. Cohen has attended Board meetings since her appointment.

(2) Francesco Venturini was nominated by the Board in March 2022 for appointment as an independent Non-Executive Director at the 2022 Annual General Meeting.

# A global footprint in 34 countries



# Technip Energies at a glance

- 15,000+** employees
- Listed on **Euronext** Paris stock exchange
- Over **3,000** patents
- Over **60 years** of successful operations
- 108** nationalities
- 150** Energy Transition contracts secured in 2021
- 450** project managers
- 3 R&D** centers Weymouth, Frankfurt and Marseilles
- 420** experts
- 25+** leading proprietary technologies
- 27%** of women within the overall staff (Industry average women in the workforce is 23%)
- Headquartered in France and registered in the Netherlands

### 2021 Financial Results

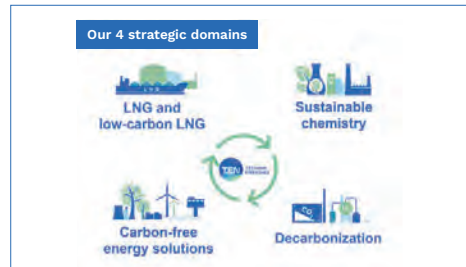
- €6.7bn** Adjusted Revenue
- 6.5%** Adjusting Recurring EBIT Margin
- €9.8bn** Adjusted Order Intake
- €16.4bn** Backlog
- €3.1bn** Adjusted Net Cash
- €0.45/share** Proposed Dividend

# Our top ten 2021 highlights & achievements

**February 16, 2021:** creation of Technip Energies, a leading Engineering & Technology company for the Energy Transition



**Focusing on the Energy Transition:** our energy transition strategy provides a clear framework on how we strive to provide low-carbon technologies and solutions in the projects that we work with



**Winning €9.8bn of projects:** including North Field East LNG in Qatar, our first and largest project win, fully aligned with our Energy Transition strategy



**Several key project milestones:** including the Coral Sul floating liquefied natural gas (FLNG) sail-away to Mozambique

**Digitalize to decarbonize:** launch of our Digital strategy to support a sustainable future



**Engaging our people:** through internal programs on safety, inclusion, smart working, mental health...



**Building our ESG Roadmap:** a highly participative process, 38% of employees responded to our survey



**Engaging with our clients:** 46 trade shows to support our strategy and present our business



**Supporting communities:** through emergency aid, volunteering, donations, fundraising



SEE VIDEO



# A unique business model

Our business model is based on the sustainable use of our resources to support our energy transition framework and deliver long-term value for our stakeholders.

## Our resources

### Our talents

We are a people company with worldwide technical expertise

- 15,000+ employees in 34 countries with 108 nationalities
- Strong pool of expertise, average age is 43, average seniority is 10 years with the group
- 27% of women, beyond the energy industry average

### Our financial<sup>(1)</sup> strength

Our solid financial position supports our leadership

- Adjusted cash position of €3.8 billion with strong free cash flow generation
- Gross debt to adjusted recurring EBIT<sup>(2)</sup> ratio of 1.58 down from 2.11 at spin-off date
- Adjusted backlog<sup>(3)</sup> of €16.4 billion, equivalent to 2.5 times the 2021 adjusted revenue

### Our track record

We have a project delivery track record of over 60 years based on our know-how, methods and outstanding project execution teams

- Some of the world's most iconic and complex energy infrastructure, from the largest LNG plant in Qatar, to the first floating LNG in the world or the world's largest biodiesel plant
- 270 hydrogen units
- First floating offshore wind unit

### Our ESG Roadmap

We have designed Together by T.EN, a strong ESG Roadmap with measurable targets

- Contribution of 5,800 employees (38%)
- Participation of over 100 external stakeholders
- Robust scorecard with 23 quantitative targets
- Fully embedded within our culture and business strategy

### Our technological leadership

Technology is a key element of our strategy and supports our business leadership

- Chief Technology Officer reports to the CEO
- 420 technology experts supporting our activities

- 3 R&D centers working with the largest institutions and research centers (MIT, Stanford, CEA, ...)
- Over 3,000 patents, 25 leading proprietary technologies and 45 in-house technologies

### Our Purpose and Values

We have clearly expressed why we do business and how we work

- Our Purpose provides consistency and direction for the long term
- Our 5 Values frame the way Technip Energies wants to do business, inspire employees and deliver the best experience to clients

(1) Financial information is presented under an adjusted IFRS framework, which records Technip Energies' proportionate share of equity affiliates and restates the share related to non-controlling interests, and excludes restructuring expenses, merger and integration costs, and litigation costs.

(2) Adjusted profit before net financial expense and income taxes adjusted for items considered as non-recurring.

(3) Backlog comprises secured and confirmed orders from customers which will generate future revenues with a high probability.

## Value created

### Growing and safeguarding our people

Developing a learning, inclusive and safe workplace

- 94% of employees have undertaken a Global Inclusion Course and Code of Business Conduct e-learning
- 50% of graduates hired in 2021 are female
- Total recordable incident rate (TRIR) of 0.08 in 2021

### Developing partnerships

Collaboration is key to accelerate the journey to a carbon neutral economy

- 13 strategic alliances and partnerships signed in 2021
- Key partnerships with leading industry players such as Nipigas, NPCC and TUV Rheinland
- Collaboration with academic and research centers (MIT, Stanford, CEA, IFPEN)
- Agreements with technology leaders (Svante, Shell Catalysts & Technologies, Carbios)

### Empowering communities

Supporting the communities where we live and work is at the core of our ESG Roadmap

- 14,360 volunteering hours to support the communities
- Our India office received the National Corporate Social Responsibility (CSR) Award for its "Seeds of Hope" program in 2019, which has improved the education of more than 9,000 children since 2015

### Collaborating with our supply chain

In our business, the supply chain is a major contributor to our success

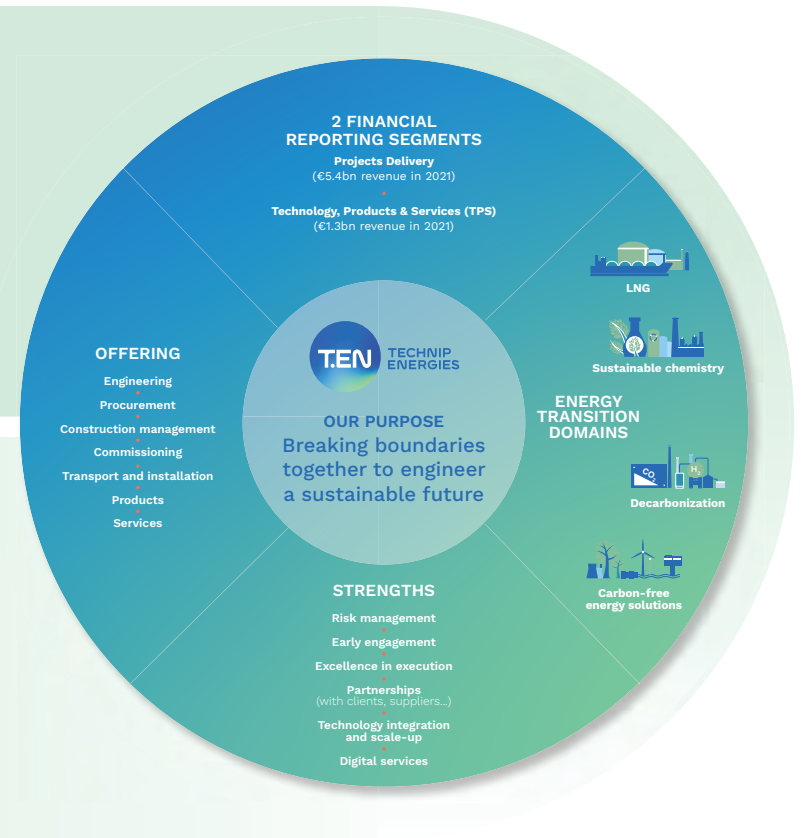
- €21 billion spend in 2021 with suppliers in 66 countries on goods and services
- Continued our efforts to reduce waste, decrease our carbon footprint and collaborate with suppliers on innovative environmental subjects
- The pandemic context has accelerated the use of digital solutions notably for remote inspections enabling some improvements in terms of CO<sub>2</sub> emissions

- Seeking suppliers' engagement on ESG topics such as business ethics, HSES and human rights as early as the preliminary evaluation phase

### Ensuring a shareholder return

Maintaining a continuous dialogue with our shareholders and rewarding them for their trust is a priority

- Operational performance (Adjusted recurring EBIT) of €431 million, 22% increase year-on-year, representing 6.5% of Adjusted revenue
- Group share Adjusted net income of €251 million, 22% up from 2020
- Adjusted net earnings of €1.39 per outstanding share
- First dividend of €0.45 per share to be proposed at the next Annual General Meeting



## Global Trends

### ENERGY DEMAND

Growing population driving growth in primary energy demand in a context of energy independence and decarbonization needs across all our markets.

### ECONOMY

Global economy recovering gradually from the pandemic but facing inflationary trends and war context in Ukraine.

### HYBRID WORK

Covid-19 pandemic has unsettled the way people work from home and at the office. At the same time there is a race for talent with growing expectations for diversity, inclusion and digital connectivity to create a better work-life balance.

### DIGITAL AND TECHNOLOGY

Digital tools and technologies are now inextricably linked to the energy transition. "Digitalize to decarbonize" can accelerate the drive to carbon neutrality by using intelligent technology to leverage data and increase connectivity and accessibility.

### CLIMATE AND ENVIRONMENT

Following the COP26, growing concerns regarding climate change acceleration and environmental protection require coordinated and efficient actions involving all stakeholders.

# Our strategy places ESG at the heart of our business

With the ambition to accelerate the energy transition, the company embarked on a journey to establish an ESG Roadmap to achieve this goal. Christophe Bélorgeot, Senior Vice President Communications and Charles Cessot, who previously held the role of Senior Vice President of Strategy overlooking Strategy, Investments, Digital and Innovation and recently appointed Senior Vice President T.EN X – Consulting & Products explain the steps involved to embed sustainability at every level of the business.

CHRISTOPHE BÉLORGEOT, Senior Vice President Communications and CHARLES CESSOT, Senior Vice President T.EN X – Consulting & Products



## What was the process involved in developing the ESG Roadmap?

**Christophe Bélorgeot (CB):** It was an in-depth process with 3 distinct phases. The first phase was an active engagement of our employees and our external stakeholders, through surveys, interviews and workshops. The second phase involved carrying out a materiality assessment and establishing aspirational and tangible environmental, social and governance action plans. And now the third phase is to communicate our roadmap, embed it in our strategy and our culture, deliver the actions, and of course report on progress.

## How is this reflected in the strategy?

**Charles Cessot (CC):** The strategy of Technip Energies is 100% focused on the energy transition, while maintaining our leadership in engineering and project delivery activities. We are targeting our approach around 4 high-growth markets starting with LNG and low-carbon LNG, where we have a market leadership position; and strongly believe that gas, as a flexible energy, has a role to play to displace oil or coal thanks to its lower carbon emissions. Our next energy transition domains are decarbonization, through carbon capture and hydrogen solutions; sustainable chemistry to increase circularity; and the development of carbon-free energy solutions.

## In what way does digitalization support Technip Energies' strategy?

**CC:** Our strategy for digital is based on leveraging data as a foundation to digitalize the entire value chain. There are two aspects to this approach. The first is to be structured as a data company to capitalize on data to make good decisions. The second is to develop a seam of digital services and consultancy solutions. Indeed, digital solutions combined with our project experience over the last 60 years will drive growth in our technology, products and services offering and open new markets.

## Did the 2021 events related to climate change influence the ESG Roadmap?

**CB:** I would say that the recent events, including the COP26, have probably accelerated a change in consciousness among the general public. There has also been an important shift in terms of financing for the industry with support now being concentrated on projects which address ESG concerns. We see our traditional clients exploring low-carbon solutions and investing in renewables. This confirms that we are taking the right approach! We are right to focus on climate and energy transition.

“

The key to reach the Paris climate goals is collaboration, through both public and private actions. It's critical to accelerate, all together!”

CHRISTOPHE BÉLORGEOT,  
Senior Vice President Communications

## What do you consider to be the key achievements of Technip Energies in 2021? And what are your expectations for 2022?

**CB:** I would say the successful launch of the company on February 16, 2021 and the implementation of the Technip Energies brand thanks to the huge efforts of our teams. After just one year, our brand is a source of pride for our 15,000 employees and Technip Energies is now recognized by its partners and the market as a leader in the energy transition.

Moreover, the development of the company Purpose, Values and ESG Roadmap all provide substance to the brand, to the way we are positioned, the way we do business, and the reason why we do business.

It encapsulates our DNA and generates a strong sense of belonging in the company. One of the key aspects in 2022 will be to continue deploying our brand and our strategy to strengthen our position as an energy transition leader. Implementation of our ESG Roadmap will be very important.

**CC:** We have signed many partnerships in 2021 that are aligned with our energy transition strategy. One of the key highlights for me was creating the joint venture with IBM and Under Armour to develop a new recycling framework and circular economy for polyethylene terephthalate (PET), which is commonly used in the manufacture of synthetic fibers. I would never have imagined such collaboration between 3 totally diverse groups, but we share a common goal. I am confident and very happy to have contributed to this venture. 2022 will be about execution and acceleration. The pace is set in our KPIs which will help us go beyond simple maturity of the company. We are fully mobilized to deliver on our ambitions. •

“

The strategy of Technip Energies is 100% focused on the energy transition, while maintaining our leadership in engineering and project delivery activity.”

CHARLES CESSOT,  
Senior Vice President T.EN X –  
Consulting & Products



## Our ESG Roadmap

During our first year, we engaged with our stakeholders to establish a meaningful ESG Roadmap and scorecard with the goal of embedding ESG in everything we do and the choices we make to have a positive and long-term impact. It is fully aligned with our Purpose and Values. Samia Kaddour was appointed to lead the project, she explains the process involved.



“

As a manager I believe in creating a climate of trust, collaboration and respect for each other where everyone can reach their true potential.”

SAMIA KADDOUR,  
ESG Program Leader

“Together by T.EN” is the name you have chosen for the ESG Roadmap. Can you explain the idea behind this branding?

**Samia Kaddour (SK):** Together reflects both how we act in Technip Energies and how the world will have to act to address the 21<sup>st</sup> century challenges as a result of climate change, inequality, pandemic and dwindling natural resources across the world. In my view, working better together will define the collaborative effort that our industry and the world needs today and tomorrow to create a sustainable future for all. Our main asset at Technip Energies is human capital. Working together internally and externally beyond boundaries with several partners and various supply chain actors is in our DNA and we want to leverage this ability to overcome the energy transition challenge. “Together by T.EN” is a way to promote our collaborative working approach and to go further in this direction.

Can you summarize the key messages of the ESG Roadmap in a few words?

**SK:** The role of a company today can no longer be limited to generating profits, companies have the responsibility to create a lasting positive impact on the environment and people lives.

That is why our ESG Roadmap is defined by 4 main pillars.

- **Drive solutions for the climate** by delivering more sustainable plants and low-carbon solutions.
- **Enable people to thrive** by developing skills and promoting a diverse and inclusive workplace.
- **Lead responsibly** with accountable governance bodies and the right organizational culture to deliver sustainable and affordable energy solutions.
- **Collaborate to impact** by engaging with players across different industries to bring sustainable changes in the ecosystem.

How did you define these 4 pillars?

**SK:** They were established through a very collaborative process. The first phase was engagement, through surveys and interviews, both internal and external. We had a high participation rate – close to 5,800 respondents representing 38% of employees and over 100 external respondents. This process allowed us to classify our 22 ESG topics in terms of importance and business impact in a materiality matrix (see on the right). The 12 most important or material ESG topics were selected. Dedicated multi-competence working groups, involving more than 150 employees, were set up for each topic to set ambitions, establish aspirational and tangible targets and define precise action plans with measurable key performance indicators. The result of this collaborative work is our ESG Roadmap, based on 4 pillars, 12 ambitions and 23 quantitative targets. •

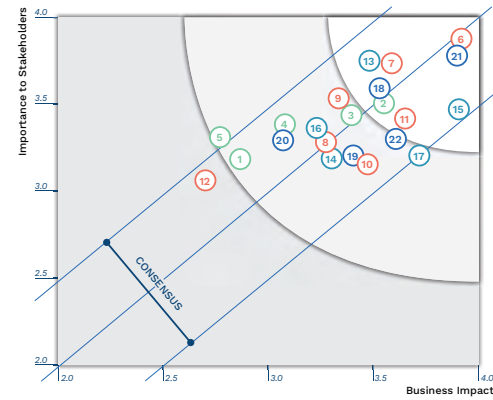
**38%**  
employees responded to the survey

**100+**  
external stakeholders contributed

**23**  
targets in our ESG scorecard

Each topic was assessed according to its importance to stakeholders and its impact for the business. The topics in the top right quartile (white) represent the 8 material topics. Internal and external cross analysis of the remaining topics highlighted a further 4 major topics.

### Our ESG Materiality Matrix



#### Environment

- 1 Impact of our own facilities on their direct environment
- 2 Environmental footprint of projects
- 3 Climate change mitigation & adaptation
- 4 Sustainable use of resources
- 5 Protection of biodiversity

#### Solutions & Services to support energy transition & Sustainability

- 13 Safety & quality of our solutions
- 14 Integration of ecofriendly design in our solutions
- 15 Low to zero-carbon technologies & solutions
- 16 Responsible & sustainable supply chain
- 17 Innovative solutions, cutting-edge technologies & digitalization

#### People & Communities

- 6 Safety & security of teams
- 7 Human Rights
- 8 Employee engagement & social dialogue
- 9 Employee well-being & health
- 10 Skills development & talent management
- 11 Diversity & equal opportunities
- 12 Community engagement

#### Governance & Business model

- 18 Corporate governance & transparency
- 19 Dissemination of an ESG culture
- 20 Stakeholder relationships & dialogue
- 21 Business ethics
- 22 Integration of ESG criteria in the corporate decisions

### Our commitments

Our ESG Roadmap is aligned with the Sustainable Development Goals as defined by the United Nations.

We have set strong targets for carbon reduction in line with the Paris Agreement and we plan to commit to setting and reporting on Science Based Targets initiative (SBTi).

We are a signatory of the United Nations Global Compact, operating in a way that meets fundamental responsibilities in the areas of Human Rights, Labor, Environment and Anti-Corruption.



### SUSTAINABLE DEVELOPMENT GOALS



TO LEARN MORE ABOUT our ESG Roadmap



# The Energy Transition journey

For Technip Energies, our Energy Transition journey begins with a Purpose, which sets out our destination and guides us on our mission. It is set in motion by our Values, that reflect our culture and the way we act. Our ESG Roadmap shows us the path we take and monitors the progress that we make, every step of the way.

## Our ESG Roadmap



SEE VIDEO

## Our Purpose

# Breaking boundaries *together* to engineer a sustainable future

Our Purpose statement captures the essence of who we are and why we do business. It demonstrates our passion and defines what we bring to the world. It broadens our horizons to realize the potential of our 15,000 talented professionals across the globe. Conceived by our people and our stakeholders, our Purpose reflects our DNA and inspires all of us to act. It guides us on our mission to design and deliver added-value energy solutions to accelerate the energy transition.

We will translate the priorities of today into tangible actions for a better tomorrow to benefit our clients, people, communities, and planet.

And we will make this journey *together*.



SEE VIDEO

## Our Values



SEE VIDEO

# Setting ambitious targets and measuring performance

Our ESG Roadmap is the result of collaborative work with our employees and stakeholders to embed sustainability in the way we work and the choices we make. Built around 4 pillars, 12 ambitions and 23 quantitative targets our ESG Roadmap sets the path towards a sustainable future.

## Our Ambitions

### DRIVE SOLUTIONS FOR THE CLIMATE

- Decarbonize the future
- Accelerate innovation and digitalization
- Enhance circularity and protect biodiversity

We are engineering solutions in the energy sector and industries; we strive to solve complex energy challenges such as climate change. It is our duty to deliver to the world more sustainable plants and low-carbon solutions.

### ENABLE PEOPLE TO THRIVE

- Advance an inclusive culture
- Safeguard people and reinforce wellbeing
- Attract and grow talents

We are committed to sustaining a caring and inclusive work environment to attract, nurture and retain our talents with an absolute commitment to safety, quality, security, and wellbeing of our global multicultural workforce.

### COLLABORATE TO IMPACT

- Join forces and bridge expertise across industries
- Partner towards a sustainable supply chain
- Contribute to local communities' development

The transition to a sustainable future can only be achieved through intelligent partnerships, collaboration to enrich our knowledge, and innovation for making a lasting positive impact in local communities.

### LEAD RESPONSIBLY

- Integrate ESG into our business strategy
- Strengthen ESG accountability & transparency
- Foster integrity

To implement the full potential of our ESG strategy we rely on strong governance and full accountability of the CEO and Board of Directors. ESG is part of our business strategy and we do not compromise on integrity.

## Our ESG Scorecard

PILLAR	AMBITION	2021 STATUS	TARGET <sup>(1)</sup>
DRIVE SOLUTIONS FOR THE CLIMATE	Reduce Scope 1 & 2 emissions compared to 2019	-8%	-30% by 2025
	Net-Zero scope 1 & 2	18.8 kt CO <sub>2</sub> e	Net-Zero by 2030
	Data centers zero carbon footprint certified		100% by 2025
	Report full scope 3 emissions		100% by 2023
	R&D budget allocation to our Energy Transition domains	68%	100% by 2025
	Main entities ISO 14001 certified	63%	100% by 2025
	Water consumed on sites from reused sources	21.3%	50% by 2025
	Waste valorized	75%	85% by 2025
	Women hiring on annual graduate intake	50%	50% each year
	Women in leadership positions	12%	25% by 2025
	Main countries <sup>(2)</sup> have local diversity action plan		100% by 2025
	Eligible construction sites with BBS program	50%	100% by 2025
ENABLE PEOPLE TO THRIVE	Entities complying with our new core benefits standard worldwide		>90% by 2025
	Employees participating in the ESG learning		>90% by 2022
	International Graduate Program dedicated to Energy Transition		100% by 2023
	Women on the Board of Directors	30%	40% at AGM 2024 <sup>(1)</sup>
	Link compensation to ESG Roadmap performance annually	Completed 2021	Complete yearly
	Annual ABC training for all at risk functions and gatekeepers	75%	>90% yearly
	Reduction of non-mandatory commercial intermediaries		-30% by 2023 -100% by 2025
	Supplier and subcontractor qualification to integrate ESG criteria		100% by 2023
	Key suppliers and subcontractors monitored and audited on ESG performance		100% by 2025
	Eligible projects with Human Rights Management System		100% by 2025
	Volunteering hours	14,360	30,000 by 2025

(1) Technip Energies consider all targets to be achieved and completed by the end of the year committed. With the exception, the 40% of Women on the Board of Directors is planned to be achieved and reported on or before the Company's 2024 AGM.  
 (2) France, India, Italy, USA, UAE, Malaysia, Spain, United Kingdom, Netherlands, Colombia



## Drive solutions for the climate

To accelerate the Energy Transition and drive solutions for the climate, Technip Energies is positioned to unlock cleaner energy chains. From improved energy efficiency and enhanced performance of traditional industries, through sustainable chemistry, decarbonization, and carbon-free energy solutions we support our clients in the journey to Net-Zero.



# Unlocking the energy chains of tomorrow

With a leading portfolio of process technologies, Wei Cai, Chief Technology Officer, explains how Technip Energies will leverage its technological toolbox and apply digital solutions to accelerate the Energy Transition in a smart and sustainable way.

WEI CAI, Chief Technology Officer



26 · Drive solutions for the climate

## What does the role of Chief Technology Officer consist of and why is it so important today?

**Wei Cai (WC):** The role of my office is to develop technology strategy and roadmaps to support the business growth and help our industry and our customers to reach their Net-Zero targets. This means assessing where we stand today and what needs to be done, what challenges need to be overcome, to reach Net-Zero by 2030. We are looking at technologies in their broadest sense, in the way they are designed and built, to allow our customers to manufacture their products in a low- to Net-Zero-carbon way.

We have four main approaches; designing plants to be more energy efficient through better selectivity or yield and thereby lowering the carbon footprint; applying technologies to capture and utilize carbon; bringing technologies to make biofuels and bio-based chemicals; as well as technologies that can affect the circularity around plastics recycling. But there is no one-size-fits-all solution. The choice of pathway depends on project specific criteria, such as suitable storage or associated use in the case of carbon capture; or the ability to get a high volume of renewable electricity to the plant gate for the electrolysis of green hydrogen.

## Technip Energies is a leader in hydrogen technology. What role will hydrogen play in the energy transition?

**WC:** Hydrogen technology is very important and offers significant potential for decarbonizing certain industries. Two main pathways of decarbonizing hydrogen today is either by capturing CO<sub>2</sub> from hydrogen production (blue hydrogen) or by using electricity from renewable sources (green hydrogen). Our blue hydrogen technology, BlueH<sub>2</sub> by T.EN™ reduces carbon emissions by up to 99% and we are looking at multiple projects with this technology. We have an exclusive alliance with Shell CANSOLV® CO<sub>2</sub> capture technology which is proven at industrial scale.

We are also committed to developing fully renewable green hydrogen and have a strategic partnership with McPhy, a leading manufacturer of electrolysis equipment to provide large-scale design solutions.

## What steps are needed to achieve economies of scale?

**WC:** We need to see a significant scale up of blue and green hydrogen production to decarbonize industries. This means intensifying production to lower the cost and carbon footprint per unit and this is where Technip Energies has a lot of experience. Today, we are building the world's largest ethylene plants that are 10 times the size of what they were 30 years ago. Energy efficiency of these plants has improved by around 30% in the last 10-15 years. We are doing the same with LNG.

Another important aspect to scaling up involves discovering new fields of application. For example, our Hummingbird® technology, that converts ethanol to ethylene, is a key technology brick, to produce sustainable aviation fuel. Our catalyst demonstration unit at our Weymouth research facilities in Massachusetts, allows us to test potential feedstocks, and design specific plants around those feedstocks. This allows us to convert bioethanol from different sources into ethylene, which is an important step in sustainable chemical pathways to make bioplastics and bio-olefins.

## How will digital technologies transform the energy industry?

**WC:** The digital transformation will allow many technologies to achieve their full potential. For example, our SPYRO® Asset Management solution is a software program that allows ethylene plant operators to continuously monitor operations and optimize plant settings. Digitalization provides intimate knowledge of the plant, it enables clients to predict yields based on certain feedstocks, anticipate maintenance, maximize product value, and minimize costs. The carbon footprint reduces as these plants are run more efficiently.

In parallel, all our new technologies will be Digital-by-design. That means delivering technologies with a fully digitalized platform, from the design and build of the plant. Going forward, as we bring in carbon capture, hydrogen or electrification, the digitalization aspect will become even more important, to control, monitor, and maximize carbon reductions across all scopes 1, 2 and 3.

## What do you consider to be the key achievements of Technip Energies in 2021? And what are your expectations for 2022?

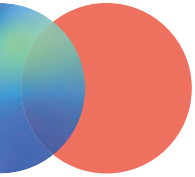
**WC:** We have sown some good seeds from a technology project perspective. Whether it's the decarbonization of LNG in Qatar, or the most energy efficient ethylene cracker in the UAE, from Net-Zero Teesside to the joint venture with IBM and Under Armour for chemical recycling, we have achieved a lot in a short period of time. If 2021 was about setting the foundations, 2022 will see a build-up in momentum.

The energy transition is bringing about a collective renaissance in the industry. Everyone is looking at the challenges and asking what can be done and how can we do it together. Partnerships are more important than ever, to build a more interactive approach to working together, to find the right solutions and make them work. It's a huge challenge, there's an urgency to move forward, and I think that's good for the industry. ●

 **50**  
references for CO<sub>2</sub>  
removal solutions

 **45**  
in-house technologies

 **25+**  
leading proprietary  
technologies



# Decarbonizing our traditional industries

Technip Energies is a leading provider of design, engineering, construction solutions and services for downstream industries specifically in Refining, Petrochemicals and Ethylene.

To accelerate the Energy Transition, Technip Energies is establishing Net-Zero roadmaps for each business which focus on three key levers:

- Energy efficiency improvements and enhanced plant performance through digital solutions and technology upgrades.
- Decarbonization using hydrogen and carbon capture solutions.
- Increased integration and circularity to recycle plastic waste as feedstock.

## Refining

Refining is an industrial process for transforming crude oil into marketable products such as fuels, lubricants and feedstocks to petrochemicals. A typical refinery consists of several processing units such as distillation, cracking, coking, reforming, and post-treatment of the products. Bottom-of-the-barrel conversion, increased integration of refining and petrochemicals, and transition to a low-carbon economy are the three strategic trends driving the refining industry today.



We leverage our execution capabilities to conduct decarbonization projects involving electrification, reconfiguration into biorefineries, petrochemicals integration and more. The challenges and solutions are multifaceted, compelling our product lines, entities and businesses to work together to support the refining industry in its transition to Net-Zero emissions.”

ALBAN SIRVEN,  
Vice President, Refining Product Line



## Petrochemicals

Petrochemicals involve transforming carbon, either sourced from bio-based or fossil material, into longer chain molecules and ultimately into valuable plastic resins. These plastics are then turned into consumer goods.

Technip Energies provides market-leading technologies, strong partnerships and unrivalled project management skills for the delivery of successful petrochemicals projects across the globe. We strive to build more efficient and less carbon intensive plants while integrating alternative sustainable feedstocks and recycling end-of-life plastics.

At Technip Energies, we are actively developing plastic recycling technologies and are building new plants that will contribute in a real way to the reduction of global CO<sub>2</sub> emissions.

## Ethylene

Ethylene is described as the world's most important chemical as it forms the basic building block in the production of plastics. Technip Energies is the world leader in the design and construction of ethylene plants with over 40% of the licensing market share, and delivery of 32% of the worldwide licenced capacity.

The cracking furnaces are the largest source of CO<sub>2</sub> emissions in an ethylene plant, and often in a whole petrochemicals complex, so these represent the main focal point of our decarbonization efforts. As well as offering commercially proven solutions, which include reforming methane to hydrogen for firing in the furnaces using our BlueH<sub>2</sub> by T.EN™ technology and capturing the CO<sub>2</sub> from the flue gas of the furnaces and the boilers, other new technologies are under development. These include electric furnaces, rotating olefins compressor and low CO<sub>2</sub> cracking furnaces.



Greenhouse gas emission calculations show that by incorporating 30% of recycled plastics in the production of polyolefin resin we may typically reduce the total carbon footprint from 5.0 kg/CO<sub>2</sub> equivalent for a straight run process to 3.9 kg/CO<sub>2</sub> equivalent over its full life cycle.”

ANDREW REYNOLDS,  
Vice President, Petrochemicals Product Line



## World-class research centers in the USA and Europe

Our Badger research center in Weymouth, Massachusetts in the USA, develops and tests technologies for petrochemical applications. The laboratory has automated pilot plants to test catalysts and gather the design data needed to scale up processes for commercialization.

In the Zimmer center located in Frankfurt, Germany, we develop and improve polymer technologies to support the commercialization of clients' products. Experiments in this lab generate critical design data to cost-effectively scale up the process to commercial conditions.



**New contract**

**Borouge Petrochemical Complex in Abu Dhabi**

Following the successful FEED execution, Technip Energies was awarded the EPC contract to deliver a new ethane cracker unit, in excess of 1,500 KTA<sup>(1)</sup>, based on a proprietary Technip Energies technology. Subject to successful conclusion of a study, the new Borouge 4 complex could include a carbon capture unit that would reduce overall CO<sub>2</sub> emissions by approximately 80%. This plant will be the first cracker in the world to be constructed which is designed to accommodate a CCS unit.

(1) Kilo tonnes per annum (KTA)

**SPYRO® for Asset Management to enhance Ethylene plants' efficiency**

Technip Energies and Arundo have joined forces to deliver a new digital service, SPYRO® for Asset Management (SAM). It uses Technip Energies proprietary SPYRO® software for prediction and optimization of the plant and leverages the expertise of Arundo, a provider of proprietary software and advanced analytics solutions for asset-intensive industries, using big data analytics to drive value from live industrial data.

SAM provides plant operators with key performance indicators and alerts, and continuously suggests optimization opportunities based on real time plant data by unlocking the information hidden in the historical data of the ethylene plant.



Signature of the Borouge EPC contract by H.E. Sultan Al Jaber, Minister of Industry and Advanced Technology, Managing Director and Group CEO of ADNOC and Chairman of Abu Dhabi Polymers Co Ltd. (Borouge), and Technip Energies CEO Arnaud Pieton, in presence of His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, and Chairman of the Board of Directors of the Abu Dhabi National Oil Company (ADNOC) and the President of the French Republic, Emmanuel Macron during the French delegation's visit to the UAE.

**Ongoing project**

**Hengli's largest Ethylene Cracker in China**

Technip Energies provided the proprietary technology and process design for the Hengli petrochemical liquid ethylene plant in Dalian, Liaoning Province, China. The plant successfully started up at the beginning of 2020 to reach its capacity shortly after the start-up, and despite the Covid-19 context, passed all performance guarantees and the final acceptance test in the fourth quarter.

Technip Energies provided key proprietary technology components to achieve high energy efficiency and high yields. The plant ranks in the 1st quartile of comparable crackers for the lowest CO<sub>2</sub> production per relative amount of high value chemical production.



“

We are very pleased with passing the final performance acceptance of the Hengli cracker. This is a great milestone for the complex and another example of our know-how to improve energy efficiency and reduce CO<sub>2</sub> emissions through our proven ethylene technology.”

JIM MIDDLETON,  
Vice President, Ethylene Product Line and Technologies

**Ongoing project**

**EPC contract for the Bapco Refinery Modernization Program to boost efficiency and capacity, Bahrain**

The project involves a major expansion and upgrade of the Sitra Refinery, increasing its total throughput up to 380,000 barrels per day (BPD) and improving both production slate and energy efficiency. Key features include the introduction of a high conversion unit and the integration and upgrading of existing and new utilities and offsites in compliance with international safety and environmental standards. This includes greenfield and brownfield activities.

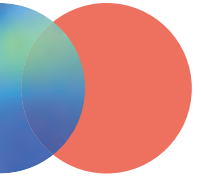
This complex project, coordinating three engineering contractors, and correlating material suppliers from around the world, with two years of Covid-19 pandemic restrictions will be delivered in 2022. It clearly demonstrates Technip Energies state of the art technology and expert project management.



TO LEARN MORE ABOUT the Bapco project







# Managing carbon with sustainable chemistry

Displacing fossil fuel feedstock with biomass, producing bio-based and biodegradable plastics, and recycling plastics to reduce plastic waste and promote a circular economy, are the three areas of focus where Technip Energies is applying its processes and services for sustainable chemistry.



“

Our skills in polyolefins and polyesters technologies help us to be successful in recycling solutions, while our wealth of refining experience is a great asset when it comes to designing biofuel refineries for renewable diesel or sustainable aviation fuel. It is this combination of engineering experience and technology know-how that makes us a valuable partner for our clients.”

ANDREAS BORMANN,  
Vice President, Sustainable Chemistry Product Line

Many products that we consume today, such as fuel, plastics and packaging, contain a lot of carbon that at the end of the product life is released to the atmosphere as CO<sub>2</sub> or waste into the environment. If we want to continue using those products, we need to solve the issue of the origin of the carbon and the carbon handling at the end of life of the product. This is where sustainable chemistry comes in to play.

Sustainable chemistry provides technologies and processes to produce carbon containing feedstock that is derived from biomass or recycled plastic waste, thus reducing and eventually eliminating the need for fossil-based carbonaceous feedstock for all kinds of downstream industries.

In this regard, sustainable chemistry will drive and support the traditional downstream industries towards delivering more sustainable and energy efficient products.



## ZOOM on an ongoing project

### Development of Neste's Renewables Production Platform in Rotterdam, the Netherlands

Technip Energies has a long-standing relationship with Neste, which started with the delivery of two world-scale renewable fuel units in Rotterdam and Singapore and followed up in 2018 with the Singapore Expansion project. In 2021, this relationship has been reinforced with the award of two contracts for the development of their renewables production platform in Rotterdam.

#### Challenges

The first contract is to modify Neste's existing renewables production refinery to enable production of Sustainable Aviation Fuel (SAF). The second contract covers the Front-End Engineering and Design (FEED) for Neste's next world scale renewable products refinery using Neste's proprietary NEXBTLM™ state-of-the-art technology, to convert waste and residue feedstock into renewable products like renewable diesel, SAF and renewable solutions for the polymers and chemical industry.

#### Solutions

Technip Energies is providing high value-added project execution expertise to modify Neste's existing Rotterdam plant to produce up to 500,000 tonnes of SAF per annum. Our extensive experience in the design of biofuel refineries, which includes the integration of proprietary and partnership-based technologies, will help to optimize the site's sustainability footprint and ensure that a strong value engineering mindset and ESG considerations are applied to the project right from the design phase, guaranteeing quality through advanced technological solutions.

#### Result

Neste's early adoption of innovative renewable fuel technologies has made the company one of the most important industry players. These new awards confirm their confidence in Technip Energies to contribute to the Energy Transition supported by today's market trend.

Strategic partnerships

Joint venture with IBM and Under Armour to advance recycling technology

This joint venture brings together IBM's research technologies, Technip Energies' engineering and technology expertise with Under Armour's deep technical apparel, footwear and global textile supply chain capabilities to advance the recycling of plastics and fibers across different industries. The goal is to build a new recycling framework and circular economy for polyethylene terephthalate (PET), which is commonly used in the manufacture of synthetic fibers, plastic bottles, and rigid food packaging.

Production of sustainable aviation fuel (SAF) using Hummingbird® catalyst

Technip Energies will supply the LanzaJet biorefinery, with its proprietary Hummingbird® ethanol-to-ethylene catalyst. Hummingbird® is a second generation, low-cost process for dehydrating ethanol to produce ethylene. It gives ethylene derivative producers an option to produce 'niche' renewable products from sustainable bioethanol sources. This is the first sale of our proprietary catalyst for LanzaJet's biorefinery which was brought to realization through our R&D technology licensing teams.

Scaling up Agilyx's advanced polystyrene recycling technology

Technip Energies will be applying its extensive experience in scaling-up technology to market and license the integrated technologies of Agilyx depolymerization and Technip Energies purification technology, leveraging the expertise, resources, and global presence of both companies. Scaling-up this sustainable process provides a reliable circular economy technology for a major packaging plastic used around the world.



TO LEARN MORE ABOUT Technip Energies' solutions in circular economy



“

LanzaTech is pleased to be working closely with Technip Energies to support solutions and enable technologies to bend the carbon curve, especially in sectors in need of reducing their emissions. Ethanol, which can be produced from a variety of locally available waste resources, is an ideal substrate for the production of sustainable fuels and chemical building blocks. LanzaTech is collaborating closely with Technip Energies in order to leverage their proprietary Hummingbird® ethanol-to ethylene technology, to provide a carbon efficient pathway to Sustainable Aviation Fuel (SAF) via the LanzaJet™ Alcohol-to-Jet (ATJ) Process.”

JENNIFER HOLMGREN, CEO LanzaTech

Ongoing project

An industrial demonstration plant for Carbios PET recycling technology

Technip Energies has been working in close collaboration with Carbios, a pioneer company in the development of an enzymatic PET recycling process, since 2017. A major milestone was reached in 2021, with the launch of an industrial demonstration plant of Carbios C-ZYME® technology.

The demonstration plant will validate the technical, environmental and economic performance of the enzymatic PET recycling process to establish the Process Design Package for C-ZYME® technology.

Based on this industrial definition, the first business unit with a capacity of around 40,000 tonnes is envisaged by 2025. Other industrial units could then be built and operated under licenses.

Technip Energies provided process development and industrialization services as well as engineering and site supervision.



“

Technip Energies is well recognized for the quality of their work and they have a good reputation in the engineering and technology industry. We are glad to have partnered with this company to assist us on demonstrating our enzymatic waste PET recycling process. Their knowledge of the aromatics value chain, from paraxylene (PX) to purified terephthalic acid (PTA) to polyethylene terephthalate (PET), combined with their local footprint nearby our technical teams has been a real asset for the development of our technology.”

MARTIN STEPHAN, Deputy CEO Carbios



# LNG plays a critical role in the Energy Transition



Technip Energies has a leading position in liquefied natural gas (LNG). Alain Poincheval, Fellow Executive Project Director, Arctic LNG2, explains the importance of LNG as a transition fuel, and the steps that Technip Energies is taking to achieve low-to-zero carbon LNG.

ALAIN POINCHEVAL,  
Fellow Executive Project Director,  
Arctic LNG2

## What is the role of LNG in the Energy Transition and how do you expect it to evolve?

**Alain Poincheval (AP):** LNG is the process of compressing natural gas at high pressure and low temperature into liquid form to make it transportable, anywhere around the world. Rich in hydrogen, with a lower carbon content than oil or coal, LNG can be used to displace more CO<sub>2</sub> intensive fossil fuels for power generation and other industrial applications. Progressively, LNG will be displaced by cleaner energy, as renewable energy capacity ramps up and energy storage solutions are developed. In this way it can be seen as a transition energy. But in the meantime, we expect it to grow by a further 25% of current capacity (or 140 mtpa) by 2035.

LNG represents close to half of the international trade in natural gas, and around 12% of the global energy mix. With an estimated installed global capacity of 550 million tonnes per annum (mtpa) it is forecast to reach 690 mtpa by 2035. Demand is being driven by the flexibility of LNG to replace oil and coal as fuel sources and reduce emissions, most notably for power generation.

The LNG infrastructure and natural gas grids provide another advantage. They can easily be adapted to support biomethane, to export liquified CO<sub>2</sub> or import hydrogen rich fuels such as ammonia or liquid hydrogen. Technip Energies Loading Systems business has continually evolved to support the transfer needs of LNG, floating LNG (FLNG) as well as other liquified gases.

## Technip Energies is a pioneer in modularization. Can you explain this in the context of LNG?

**AP:** For any project development, there is constant pressure to lower the cost per tonne. There are two main factors which influence this: the project location and the cost of feedstock. This is why projects are typically located as close to the feed source as possible. But some locations such as Yamal, where winter temperatures are below -40°C or Qatar, where temperatures are often above 40°C make local construction very challenging. And project costs for offshore gas fields are also much higher, often making them uneconomic.

The answer is modularization. For the construction of our LNG modules we maintain close relations with selected construction yards in Asia and elsewhere, with each module transportable by sea anywhere in the world.

In this way, we benefit from a very skilled and experienced workforce, and we are competitive.

Modularization enables us to de-risk project execution of LNG trains and provides greater certainty with respect to costs and schedules. We have successfully delivered modularized LNG and FLNG facilities including Yamal LNG, which was assembled from 142 prefabricated modules in Asia, and the Petronas FLNG Satu project in Malaysia and the giant Prelude FLNG in Australia.

## What is the key to successful project delivery, on time and on budget?

**AP:** There are three key factors to success. The first is our experience. We make the right estimation in terms of time and cost, we have a rigorous project framework, we know what we can deliver, and we are realistic. This enables us to win the project.

The next important factor is teamwork, having the right team, with the right skills, tackling the right topics. From the very start of the project, we formalize the execution plan, coordinate procedures and organization and establish overall project controls. Everyone knows how to work. As a project manager, it's about leadership, fostering a collaborative mindset; being flexible and agile to make sure things are happening, and motivating people to outperform and make a difference.

And above all, it's about having transparent collaboration with partners. Working in collaborative mode with partners, sharing information and working together to reach solutions is a win-win approach.

## What do you consider to be the key achievements of Technip Energies in 2021? And what are your expectations for 2022?

**AP:** Despite the challenging context due to the Covid-19 pandemic and supply chain disruptions, we have been able to deliver on our promises. The market supports our strategy and clearly sees us as

a company able to lead the Energy Transition. From a project delivery standpoint, I have to highlight the successful sail-away of Coral Sul FLNG just before Christmas, and I am looking forward to the sail-away of Arctic LNG in August 2022.

We have secured over 150 energy transition contracts in 2021, across our four energy transition domains, LNG, Sustainable chemistry, Decarbonization and Carbon-free energy solution. This is an increase of 45% compared to 2020 and I expect that this momentum will continue in 2022. ●


“

As a leader in LNG plant design and construction, having developed 20% of the world's capacity, we are on a perpetual quest to reduce greenhouse gas emissions from LNG and this is unique. There is a route within gas to be premium, low-carbon and this is what we offer.”

 **4**  
ongoing contracts equivalent to 60 million tonnes of LNG

 **50+**  
year track record

 **> 20%**  
of operating LNG capacity built by Technip Energies

 **7.8 Mtpa**  
(million tonnes per annum)  
World's largest LNG trains delivered



# First class engineering for LNG

Technip Energies is the global leader in Liquefied Natural Gas (LNG) plant design and construction. No hydrocarbon is richer in hydrogen than LNG. As the world energy mix progressively decarbonizes, Technip Energies continues to lead the way in liquefaction and low-carbon LNG. We have delivered more than 20% of the world's installed LNG capacity.

At Technip Energies, our LNG and low-carbon LNG roadmap is focused on three features:

## Carbon capture and electrification

Many LNG plants built in the 1970s are still in operation, which is a clear demonstration of good design, and we expect them to continue to operate until the end of the transition period. As countries impose tighter emissions regulations, we expect to see substantial decarbonisation related investments for carbon capture and electrification. This is also the case for new LNG projects such as the recently awarded North Field East project for QatarEnergy.

## SnapLNG™

While addressing climate and environmental related topics, we remain attentive to lowering the overall cost of ownership for our clients. We are one of the most successful contractors delivering large projects and a lot of this is down to the astute use of modularisation.

Our SnapLNG™ programme targets fully functional modules of standardised dimensions designed to fit with most sites, including small-to-mid-scale plants. SnapLNG™ allows pre-commissioning in the construction yard which drastically lowers site manhours.

## Methane emissions

Technip Energies can help its clients to abate methane emissions as the plants that we build are equipped to track and eliminate all fugitive emissions. Methane emissions can be driven to zero throughout the supply chain by copying the good practice already used in liquefaction plants for conducting systematic leak detection and repair.



“

We are building on a reference list of projects in the last 10 years that represents over 1.2 million tonnes of modules delivered, which is an industry record!”

PHILIP HAGYARD,  
Vice President, LNG Product Line



## Ongoing project

### Coral Sul FLNG facility arrives in Mozambique waters

Specifically built for deep waters, and the first to operate in Africa, the Coral Sul FLNG is the third FLNG to be engineered and built by Technip Energies. The TJS consortium, which constructed the FLNG, is led by Technip Energies and includes JGC Corporation and Samsung Heavy Industries (SHI).

At 432-metre-long and weighing 140,000 tonnes, the Coral Sul FLNG has now been towed from the SHI shipyard in Geoje, South Korea, for the next phase of the project. Local engineers from Mozambique, trained by the consortium partners throughout the project development stages, will support the hook-up and commissioning activities.

The Coral Sul FLNG facility will produce 3.4 million tonnes per annum (mtpa) of LNG. It will be operated by ENI for the next 25 years.

## New contract

### Major LNG contract for the North Field East Project in Qatar

Technip Energies and Chiyoda Corporation have been awarded an EPCC contract to deliver 4 mega LNG trains, each with a capacity of 8 mtpa. The plant will include a large CO<sub>2</sub> carbon capture and sequestration facility, leading to more than 25% reduction of greenhouse gas (GHG) emissions when compared to similar LNG facilities.

## Strategic partnership

### Advancing low-carbon solutions together with TotalEnergies

Technip Energies and TotalEnergies will be working together to jointly develop low-carbon solutions for LNG production and offshore facilities to reduce the carbon footprint of existing facilities and greenfield projects. Both parties will explore new concepts and technologies in key areas including LNG production, cryogeny, production and use of hydrogen for power generation and processes for carbon capture utilization and storage (CCUS).

“

For TotalEnergies, as a global LNG player, this collaboration brings opportunities to further innovate and strengthen our expertise in reducing GHG emissions, improving energy efficiency for our LNG and offshore assets and developing innovative technologies such as hydrogen.”

ARNAUD BREUILLAC, President Exploration & Production at TotalEnergies

# Decarbonization technology solutions

For our clients, decarbonization means reducing their emissions at scale to continue operating their plants sustainably and economically. Our technology centered approach provides innovative and integrated solutions that enable our clients to manage their CO<sub>2</sub> emissions problems totally; from source to use or source to sink. We address decarbonization in three key areas: improved energy efficiency, Carbon Capture Utilization and Storage (CCUS) and hydrogen technologies.



“

Deployment of CCUS technologies will be imperative in the energy transition, enabling high carbon emitting industries to achieve Net-Zero emissions. By helping our partners develop and commercialize their solutions, we are applying our expertise to defining technologies of the future.”

DORUK ISIL,  
Vice President, CO<sub>2</sub> Product Line

## Energy efficiency

Through innovative approaches and strategic alliances, Technip Energies achieves continuous improvements in process technologies and plant designs, to improve yields while reducing emissions and improving energy efficiency.

Technologies include our Enhanced Annular Reforming Tube for Hydrogen (EARTH<sup>®</sup>), which reduces up to 10% of the CO<sub>2</sub> emissions per unit of hydrogen produced in a steam reformer while saving up to 30% in fuel costs and increasing the fire box efficiency by 20% or more. Our Low Emission C2 Cracking Furnace is designed to significantly increase fuel efficiency and reduce CO<sub>2</sub> emissions. We also provide our PDH/PP and LDPE energy optimization technologies, which improve energy efficiency in the production of propylene and low-density polyethylene, respectively.

## Carbon Capture Utilization and Storage (CCUS)

Technip Energies exclusive alliance with Shell CANSOLV<sup>™</sup> for the capture of CO<sub>2</sub> is providing a mature and referenced answer to today's challenges. In parallel we are rapidly extending our technology coverage across the CCUS chain to face the challenges of tomorrow.

We are working in partnership with Shell Catalysts & Technologies to improve the CANSOLV<sup>™</sup> CO<sub>2</sub> Capture system's process design, efficiency and costs in order to facilitate wide-scale deployment of carbon capture solutions. New improvements have been tested in collaboration with Fortum Oslo Varme, in their waste to energy plant as part of a pilot campaign in 2021.

We are collaborating with Svante on their solid sorbent technology which allows the direct capture of carbon from post-combustion flue gases of hard-to-abate industries. One of the goals of this partnership is to accelerate the cost reduction of carbon capture to enable rapid and massive deployment which is necessary for reaching the Net-Zero objectives.

## Hydrogen

Technip Energies is a world leader in hydrogen. We have delivered our proprietary steam reforming technology to more than 270 plants, representing some 30% of the global installed base for pure gaseous hydrogen. Of those, more than 50 facilities feature carbon capture solutions.

Looking ahead, the world will need large quantities of cheap and clean hydrogen. The combination of our conventional hydrogen heritage (including proprietary recuperative reforming technologies) and our leading carbon avoidance and capture solutions puts us in a strong position to engineer and construct blue hydrogen plants.

## Carbon-free “green” hydrogen

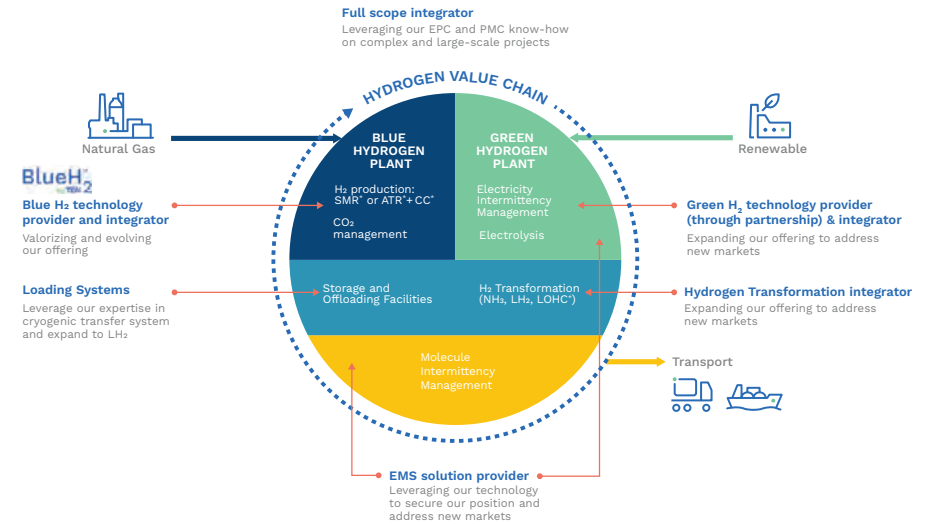
Our ambition in this market is to be the leading technology integrator and services provider for green hydrogen projects. Our technology collaboration and equity investment in McPhy, a leading manufacturer of equipment used in the production and distribution of green hydrogen, is an excellent example of this goal.



“

Clean hydrogen is a key lever to achieve Net-Zero targets set out in the Paris Agreement. Estimates suggest that up to 20% of global CO<sub>2</sub> emissions can be avoided by hydrogen through fossil fuel replacement in industry, power generation, transportation and combined heating and power for buildings. Clean hydrogen will likely form around 10% of the global energy mix by 2050 from almost zero today.”

NARIK BASMAJIAN,  
Vice President, Hydrogen Product Line





**ZOOM on a new contract**

**FEED Study for Teesside Power, Carbon Capture and Compression Project in the UK**

BP has awarded Technip Energies and GE Gas Power the front-end engineering design (FEED) study for the Net-Zero Teesside (NZT) Power project and the Northern Endurance Partnership's (NEP), carbon capture and compression project in the UK. The aim is to create the UK's first decarbonized cluster of industrial, power and hydrogen businesses.

**Challenge**

The FEED study includes a 'first of a kind' large scale amine-based post combustion carbon capture facility to integrate with a natural gas fired 860MW power plant. The scope also includes NEP's planned 4 million tonnes per annum (mtpa) Teesside high pressure CO<sub>2</sub> compression and export facilities. GE Gas Power will provide proven expertise in natural gas combined cycle plant engineering, operability, and plant integration while Technip Energies will focus on carbon capture and compression plant using Shell's Cansolv™ carbon capture technology. They will be supported by Balfour Beatty for the construction.

**Solution**

The companies will work together to develop a detailed plan for integrating the two technologies. This FEED study – a detailed blueprint and operating business guide – will explore gas and steam turbine equipment enhancements to improve the capture process whilst seeking to minimize the impact to plant output and performance and preserve the value that a gas turbine brings to the grid.

**Result**

Net-Zero Teesside Power will be one of the world's first commercial scale gas fired power station with carbon capture and will share the CO<sub>2</sub> transportation and storage infrastructure being developed by the Northern Endurance Partnership. This project perfectly illustrates that cross-industries collaboration is central to reaching Net-Zero targets.



**BlueH<sub>2</sub> by T.EN™**

In May 2021, we launched BlueH<sub>2</sub> by T.EN™, our full suite of deeply decarbonized and cost competitive solutions for hydrogen production. This suite of solutions is comprised of "flight-proven" proprietary technologies to reduce carbon emissions by up to 99% while maintaining flexibility to be tailored to individual applications.



**ZOOM on technology**

**Large Scale Vortex Burner (LSV®)**

Technip Energies has successfully tested its Large Scale Vortex Burner (LSV®) for 100% firing of hydrogen. The innovative LSV® burner was developed by Air Products and designed and applied by Technip Energies in various fired heater usages. The test demonstrates the potential for hydrogen to substitute methane or other fuel gases.

**New contract**

**India's Largest PEM Based Hydrogen Project**

NTPC has awarded Technip Energies an EPCC contract to deliver a 5 MW Hydrogen Generation Plant using Proton Exchange Membrane (PEM) Electrolysis technology at a Super Thermal Power station. This project is suited for large-scale green hydrogen production as power to the electrolyzer can be replaced with renewable electricity in the future. The plant will include a CO<sub>2</sub> capture facility that captures CO<sub>2</sub> from flue gas stream of the coal fired power plant and a methanol unit that uses the captured CO<sub>2</sub> and the hydrogen through PEM Electrolyzer being supplied by Technip Energies to convert it into green methanol.

**New contract**

**Supplying the world-first liquefied CO<sub>2</sub> Marine Loading Arms for the Northern Lights project**

Technip Energies advanced technology in transfer operations provide onshore loading solutions to handle a complete range of fluids and gases. This is why we have been selected by Aker Solutions to supply the world-first liquefied CO<sub>2</sub> Marine Loading Arms as part of the Northern Lights carbon capture project in Norway.

The Northern Lights project is the transport and storage component of Longship, the Norwegian Government's full-scale carbon capture and storage project. After being captured and liquefied at various industrial sites, liquid CO<sub>2</sub> will be shipped to an import terminal in western Norway. There, Technip Energies Marine Loading Arms will be used to offload the product for intermediate storage, before being transported offshore by pipeline for permanent storage in a reservoir under the seabed.

Northern Lights is owned by Equinor, Shell and TotalEnergies who are equal joint venture partners, with Equinor as project lead and operator.



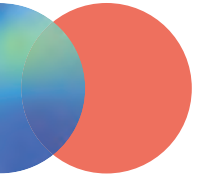
**Promoting technology development in Hydrogen and Carbon Capture**

As a key player in the development of hydrogen solutions and CCUS technologies, Technip Energies is a member of the Hydrogen Council, Hydrogen Europe and the Global CCS Institute.

The Hydrogen Council is a global CEO-led initiative of leading companies with a united vision and long-term ambition: for hydrogen to foster the clean energy transition for a better, more resilient future. Hydrogen Europe works very closely with EU institutions recognizing hydrogen as a Net-Zero emission society enabler.

The Global CCS Institute is an international think tank whose mission is to accelerate the deployment of Carbon Capture and Storage (CCS), as cost effectively as possible by sharing expertise, building capacity and providing advice and support so that this vital technology can play its part in reducing greenhouse gas emissions.





# Floating offshore wind

## Delivering cost competitive clean energy solutions

As our clients move into the low-carbon energy market, we are applying our skills to support full-scale marine energy projects such as wind farms.

Technip Energies is recognized as a pioneer in floating offshore wind solutions, with the delivery of the Hywind demo in the Norwegian North Sea for Equinor in 2009, followed by the Hywind pilot park in Scotland. We develop in-house technologies, such as our INO12™ and INO15™ floating foundation concepts, in order to offer innovative industrial offshore wind solutions. In addition, our Genesis software and simulation capabilities can be applied to optimize wind farm layout and provide performance analytics across the key components of the park.

 Pool of **2,000** expert employees working in Offshore segment

 Dedicated BU launched in **May 2021**

To accelerate the energy transition and leverage our offshore experience and capabilities for new carbon-free energy solutions, Technip Energies has set up a dedicated floating offshore wind business unit (BU). Working at the forefront of marine energy R&D projects, we aim to take the industry to the next level by developing full-scale marine energy projects including wind farms, carbon capture and sequestration and near-shore gas-to-power projects. We are notably developing solutions to convert power from offshore wind farms into hydrogen as a readily available energy source.

### Technip Energies pioneering technology for Floating Offshore Wind

Our INO12™ floating offshore wind concept basic design is certified by DNV. To meet the demand of future commercial wind farms we continue to develop this solution in 2022, with our INO15™ technology designed for even higher capacity turbines of 15MW and beyond. We aim to further advance the technical readiness of the concept through a full-scale pilot project in the near future.

The technology is a semi-submersible 3 column floating foundation with an integrated turbine that can range from 9.5MW to 20MW and beyond. It is a lean design with a passive ballast system and a structural configuration which is very well adapted to mass production and scalability. It also allows easy access for the turbine integration during the assembly phase. It is a robust and proven design capable of resisting the harshest offshore environments anywhere in the world.

### Advanced digital solutions

In terms of Operation and Maintenance (O&M), Technip Energies is developing a software solution – APMS for Advanced Production Management System – to integrate in real-time all operational data coming from the wind farm (inspection, condition monitoring, turbine control system, environmental data, etc.) and analyze and interpret the data in real time in order to adjust the parameters of the wind farm to maximize the annual energy production (AEP) and prevent any premature fatigue or damage in the system.



“

We are convinced that our technology together with cost effective industrialization strategies and advanced O&M solutions will position Technip Energies as the leader in the floating offshore wind market.”

WILLY GAUTTIER,  
Vice President, Floating Offshore Wind

### Strategic partnership

#### Offshore sustainable energy development in Azerbaijan

Technip Energies signed a cooperation agreement with its long-standing client SOCAR, the State Oil Company of Azerbaijan Republic, to study sustainable measures in the offshore upstream activities, including CO<sub>2</sub> emissions reduction, improvement of power efficiency and associated optimization in the total cost of ownership.

The cooperation agreement includes evaluation of a joint pilot project for offshore energy production on a floating wind turbine. The pilot project envisages energy supply for upstream operations in the Caspian Sea. This would be the first case of offshore wind energy production in Azerbaijan.

This collaboration clearly highlights the confidence that our established clients place in Technip Energies to support them in their energy transition to significantly cut carbon emissions.



#### Cybernetix Surveillance, Robotics and NDT

Located in France, with 88 experts, Cybernetix provides advanced robotics and surveillance systems for clients across the energy industry. Designed to help clients increase uptime, reduce costs and improve safety, our monitoring and inspection systems can be used for mooring and hull condition monitoring; our multi-robot solutions offer autonomous and onshore control capabilities.

By combining monitoring and inspection solutions, and advanced robotics with our proprietary data management and processing software, we support clients throughout the life of the asset, providing services for site intervention, training, online monitoring, remote troubleshooting and spare parts management.



VISIT  
our affiliate website



# Our climate strategy

Tackling climate change requires concrete actions to meet the commitments set out in the Paris Agreement. As an Engineering & Technology company with the ambition to be a global leader of the energy transition, it is our responsibility to drive solutions for the climate which have a real and positive long-term impact. This is the first pillar of our ESG Roadmap which sets clear targets, actions, and performance indicators to create value and positively impact our planet. Our climate strategy is designed to leverage our key competencies.

## 1. Decarbonize the future

Decarbonization is a priority for us. At Technip Energies, we seek to reduce our own greenhouse gas (GHG) emissions (scope 1 and 2) and to drive solutions to enable our clients to reduce their GHG emissions (scope 3). We intend to commit to the Science Based Targets initiative (SBTi) from 2022 and have set clear targets to deliver comprehensive reductions in our emissions of 30% by end of 2025 to reach Net-Zero by 2030. Simultaneously, to reduce emissions outside our direct scope, we are developing a carbon footprint platform and decision-making tools to empower our stakeholders to make more carbon-conscious choices. In 2022, we will also measure our full scope 3 emissions to define the actions to be taken in our value chain.



Reach **30%** reduction of scope 1 and 2 emissions by end of **2025** compared to 2019



Reach **Net-Zero** for scope 1 and 2 emissions by **2030**



## 2. Accelerate innovation and digitalization

While decarbonization technologies exist, we need innovation and digitalization, powered by data, to accelerate and realize the full potential of the decarbonization journey. With a solution-oriented approach connecting data across the entire project life cycle, we are making sustainable changes to the way we operate, broaden opportunities, and support new business models. We will increase our R&D focus on the energy transition and establish technology pathways for our clients to achieve their Net-Zero ambitions. At Technip Energies, our digital and data-enabled solutions will help us drive the journey towards a carbon neutral future.

## 3. Enhance circularity and protect biodiversity

The circular economy model is a systems solution framework that tackles global challenges including climate change, biodiversity loss, waste, and pollution, that we seek to embed at all levels of our business. Our aim is to build a Sustainable-by-Design offering where our solutions and technologies, from concept to operation, integrate social and environmental impacts as key success parameters to ensure a resilient business model. Moving towards a more circular economy by reducing waste, recycling materials and regenerating brownfield sites will enable our industry to reduce pressure on biodiversity and improve the security of the supply of raw materials. The benefits of these actions will increase competitiveness, stimulate innovation, boost economic growth, and ultimately, create long term value for society.



## Our carbon footprint

In 2021, our scope 1 and 2 emissions amounted to 18,838 tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e). This represents a 1.6% increase in emissions compared to 2020 and a 7.9% decrease compared to our base year, 2019. It should be noted that emissions related to offices represent around 90% of our scope 1 and 2 and have globally decreased since 2019. However, our efforts to reduce the emissions are difficult to assess due to the Covid-19 sanitary crisis.

Regarding industrial site activities in both years 2020 and 2021, they have also been largely impacted by the pandemic and GHG emissions do not reflect available manufacturing capacity. From 2022 onwards, we will continue to focus on implementing tangible reduction measures in order to meet our targets.

The assessment of our value-chain emissions is an integral part of our sustainability strategy. We are committed to measuring our full carbon footprint, including scope 3 downstream, on an annual basis. The calculation of scope 3 emissions is one of the most complex and technically challenging topics. In 2021, we estimated a portion of our scope 3 emissions, related to projects for our clients. These emissions, corresponding to the purchased goods and services for subcontracted construction activities, amounted to 225,097 tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e). From 2022, we will progressively expand our reporting to include new categories of both upstream and downstream emissions with an ultimate objective of setting a scope 3 emissions reduction target in the future.

We are also working on defining our scope 4 emissions. These represent the emissions saved or avoided due to our technologies and solutions: saved emissions correspond to the reduction of emissions from our brownfield awards whereas avoided emissions correspond to the avoidance of emissions from our greenfield awards. Although scope 4 is a new concept without a standardized methodology, we believe we must quantify the CO<sub>2</sub> impact of our offers for clients, to provide a decision-making tool for more carbon-conscious choices and accompany our clients to lower their emissions and meet their own targets.

In 2022, Technip Energies will respond to the CDP climate change questionnaire and will reinforce its climate strategy in accordance with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.



## ZOOM on a new contract

### Qatar Energy North Field East (NFE) project in Qatar

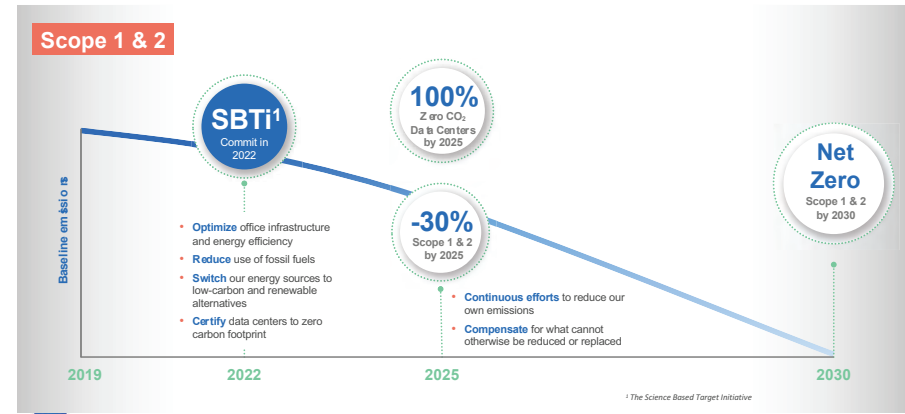
- The NFE design will emit approximately 25% less CO<sub>2</sub> than a normal LNG plant through:
- A CO<sub>2</sub> Capture and Sequestration (CCS) system that will be the largest of its kind in terms of capacity in the LNG industry, and will be one of the largest ever developed anywhere in the world
  - A better energy efficiency due to waste heat recovery facilities
  - NOx emissions will be reduced by 40% through the application of enhanced Dry Low NOx technology



## Our roadmap to Net-Zero

The 2019 baseline for scope 1 and 2 emissions has been assessed as 20,480 tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e). From this basis, our target is to reduce scope 1 and 2 emissions by 30% by end of 2025, and reach Net-Zero by 2030. Actions to achieve this include optimizing

office surfaces to improve energy efficiency, reducing the use of fossil fuels in our activities, switching our energy sources to low-carbon or renewable alternatives, and obtaining Net-Zero data center certifications by 2025.



## Genesis Carbon Assessment Tool – Gen-CAT™

For many of our clients, the carbon footprint of their project or asset is basic information that they need to understand their business risk exposure. Our suite of Carbon Assessment Tools (Gen-CAT™) provides visibility on carbon footprint drivers from design to operations in line with the Greenhouse Gas (GHG) Protocol. Gen-CAT™ was developed in 2020 to enable early quick quantification of the scope 1, 2 and upstream scope 3 emissions over field life.

### Case study

#### Genesis supported IOG plc in their Emissions Assessment report

IOG plc, the UK gas company, commissioned Genesis, our wholly-owned entity, to undertake a comprehensive Emissions Assessment (EA) of their operations. Genesis identified the relevant emissions sources and compiled an emissions inventory in line with the GHG Protocol. Based on this assessment, IOG has committed to scope 1 & 2 Net-Zero status as of 2021.

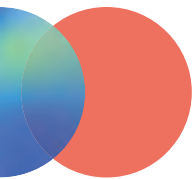


“

With our proprietary tools, extensive experience and guiding framework, we have helped our clients make objective decisions, efficiently addressing their problems with innovative and cost-effective solutions.”

CHRISTOPHE MALAURIE,  
Senior Vice President Genesis





# Raising environmental standards

**Our focus on protecting the environment means we ensure our clients a sustainable approach over the lifetime of their projects. For all our assets, projects and construction sites, we implement environmental management best practices and we carefully monitor our impact in terms of energy, freshwater, noise, air emissions and waste.**

## Enhance circularity

To be a leader in the Energy Transition, we need to strive for environmental excellence, which means operating in a way that protects the environment and minimizes our impact and that of our clients. We believe that the circular economy model is the most sustainable, and we promote this approach at all levels of our business. Energy efficiency is the first step in preserving resources, but we must consider every possible action to reduce consumption of water and raw materials and facilitate recycling across the life cycle of each facility we design or operate and each activity we perform. A more circular economy will enable our industry to reduce pressure on biodiversity and improve the security of the supply of raw materials to create long-term value for the society.

## Helping clients select the best environmental solutions

At Technip Energies, we offer our clients environmental solutions at every stage of their projects, from conceptual design phase to execution phase. By analyzing our clients' specific context and ambitions, we advise them with the highest environmental standards, that include high-efficiency design and best practices. For instance, we encourage our clients to adopt a circular economy approach, notably through eco-design or sustainable procurement. As part of our ESG Roadmap, we will

build a comprehensive Sustainable-by-Design offering where all our solutions and technologies, from concept to operation, will consider social and environmental impact as key success parameters to ensure a resilient business model that can be trusted by our clients, investors, and partners.

We can also provide our clients with Best Available Techniques (BAT) to prevent and control industrial emissions of pollutants, especially for the projects located in Europe. In addition, we have in-house expertise in performing Life Cycle Assessments (LCA). The objective is to quantify the environmental impact of equipment or units from cradle to gate, and to give an overview of the foreseen future impacts.

Furthermore, for most of our current projects, as recommended by the ISO 14001 standard, we run Environmental Aspects Identification (ENVID), a multi-disciplinary analysis of the project impacts, during both the construction and operation phases. For example, if the presence of a protected species is identified nearby the construction site, ENVID will identify solutions to avoid potential disturbance. In 2021, we conducted around 80 ENVID reviews for our assets and projects.



DISCOVER our environmental solutions brochure



Almost all the projects carried out by Technip Energies are subject to an acoustic risk assessment.

## Responsible water and waste management

In Qatar, our major LNG contract for the North Field East project will conserve 10.7 million cubic meters of water per year by recovering 75% of the plant's tertiary water (internal cooling water loop instead of sea water cooled process).

For a major project in Malaysia, we designed the collection of storm waters for firewater backup and cooling water makeup for refinery and petroleum complexes.

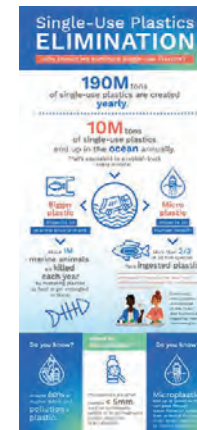
We develop responsible waste management plans to reduce waste at source, perform pre-treatment and optimize recycling channels for local waste contractors. For example, the soil and dredging material generated during the excavation phase were systematically reused for backfilling at the mega petrochemicals project, Long Son Olefins, in Vietnam. For another project in Asia Pacific, our teams reused wood from packaging material to make wooden pallets and material boxes at warehouses for equipment transportation and storage.



“

At Technip Energies, we have a deep sense of responsibility wherever we are present. Building facilities for our clients means respecting the ecosystems where we live and work. This is integrated in our approach and standards.”

FABIENNE MICHALON-MAYO, Global Environment Manager



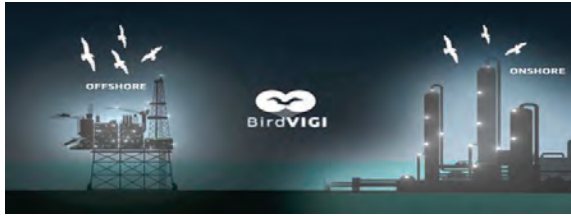
## Best practices championed by our people

“Passion for the Environment” is a program launched by our teams in Asia Pacific. Workshops and webinars are organized for World Environment Day to raise awareness and promote conscious behaviour. Topics include the elimination of single use plastics pollution as well as recycling and shared gardening tips.

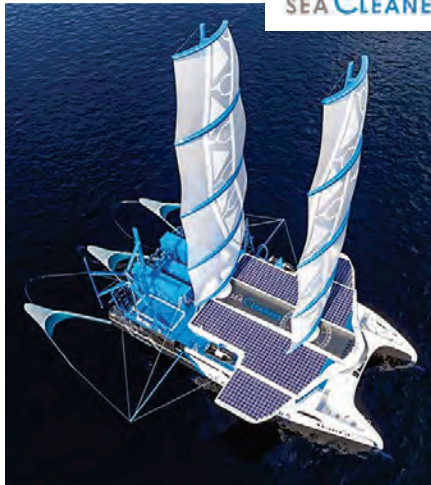


### Protecting biodiversity

Technip Energies has patented an innovative proactive system, the BirdVIGI™, to predict migratory bird crossings and lower structure lighting accordingly. Adopted at our clients' onshore and offshore facilities located in migratory corridors, this system mitigates disruption to bird migration.



SEE VIDEO



### The SeaCleaners

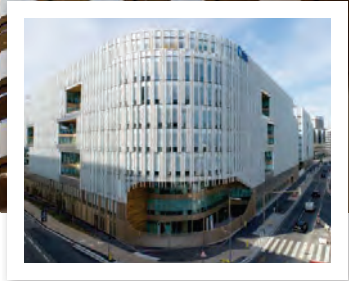
Technip Energies is supporting a pioneering new vessel, the Manta, designed to tackle the growing ecological concern of plastic waste discarded around the world's coasts and in the ocean. Our engineering teams are helping with the development of technologies for the giant catamaran that will collect waste offshore. The plastic waste in the water is collected, sorted and either converted into energy on the boat or brought back to land for recycling. The vessel will be fitted with wind turbines, solar panels and hydro generators to minimize the use of fossil fuels and is scheduled to begin operating in 2024. Our work on the project includes technical support on how to maximize the collection of waste through reliable equipment and how to select the best plastic treatment processing scheme. We are also exploring how we can expand our work on the development program and be part of the detailed engineering execution.

The Manta project is being overseen by The SeaCleaners, an association formed in 2016 by the veteran sailor and adventurer Yvan Bourgnon.



### Leveraging an environmental network

T.EN Italy Solutions, a wholly-owned subsidiary of Technip Energies Italy, includes in its Sustainability & Environment Division, a team of 12 environmental specialists, supported by a network of around 40 consultants specialized in various disciplines (botanists, marine biologists, pedologists, agronomists, archaeologists). They are involved on projects through different areas of expertise such as environmental impact studies, environmental monitoring, archeological surveys or soil management. As an example, they bring their expertise in sustainability and circular economy on a pipeline project in Southern Italy where they have carried out a wide soil characterization campaign in relation to the planned excavation operations. Over 97% of the excavated soil (500,000 m³) has been directly reused at the production site for backfilling and restoration activities, without any treatment, transport and movements. Several collaborations are also ongoing between T.EN Italy Solutions and Italian universities.



### Origine, our eco-responsible headquarters

Our new headquarters reflects in its design and construction the leading role we play in the energy transition and our environmental ambitions. Located west of Paris, France, it has been granted several leading environmental certifications and labels\* awarded by French and international organizations.

With almost 5,000 sqm of green areas, the building is significantly more energy efficient than the company's previous headquarters. The building consumes 100% green electricity, thanks to low-carbon energy sources via a mix of geothermal energy, rooftop photovoltaic panels, and a 100% green electricity contract. Made with low environmental impact materials (wood, low-carbon concrete), the building benefits from natural ventilation, and collects rainwater for sanitary facilities and gardens.

The interior design of the building, in line with the evolution of our ways of working, is specifically adapted to the "project" spirit which is the DNA of Technip Energies. The internal space layout has been designed through a collaborative process between management and employees initiated from the very beginning of the project in 2018 to define the concepts and workspaces most appropriate to everyone's needs. In addition, a multi-disciplinary project team, supported by 80 volunteer ambassadors, has been created to carry out this project for more than three years, all of them being internal Technip Energies people working together to deliver this unique project.



“

This project was a unique opportunity to design innovative spaces with the help of our teams, at the cutting edge of technology, ergonomics, aesthetics and services, to promote well-being and performance.”

FRÉDÉRIQUE LE MOIGNE  
Vice President, Real Estate



\*Labels and certifications : HQE Excellent, BREEAM Outstanding, ESC2, BBCA Excellent, BEPOS Efficience, LEED Gold, R2S 3\*, WiredScore Platinum, Ready to Osmoz, Biodiversity



# Driving new solutions for the climate

Our core competencies position us to unlock cleaner energy chains and accelerate the journey to a low-carbon future. Marco Villa, Chief Operating Officer and Christophe Virondaud, Senior Vice President Commercial, discuss the role Technip Energies will play to engineer a sustainable future.

MARCO VILLA, Chief Operating Officer and CHRISTOPHE VIRONDAUD, Senior Vice President Commercial



54 • Drive solutions for the climate

## What are Technip Energies core competencies?

**Marco Villa (MV):** Technip Energies has the competencies to cover the whole energy chain. While natural gas is our main conventional energy chain today, we have the required skills and flexibility in our business model to support our customers at every step of the transformation. We are addressing the energy transition through four domains: LNG and low-carbon LNG, sustainable chemistry, decarbonization and carbon-free energy solutions.

**Christophe Virondaud (CV):** We are not only an EPC contractor, with proven expertise in project execution, we also provide advisory and consulting services. As an Engineering and Technology company, we have strong FEED expertise, we have a solid portfolio of proprietary technology and licenses, and we master technology integration. With 15,000 employees, engineering centers on all continents operating across 34 countries, we have manufacturing facilities and modularization yards which enable us to scale up technologies fast and deliver them all over the world. And this is supported by huge investments in digitalization which has a central role in our offering to drive continuous improvement.

## How has your business approach changed to integrate the ESG Roadmap?

**CV:** When we first assess a project, we look at it through an energy transition lens to identify opportunities to promote our decarbonization technologies. Then we apply a very selective and risk-based approach; ESG criteria are very much part of this project assessment. Whenever we identify environmental, social, or governance risks, we make recommendations in our proposals to mitigate them and improve above and beyond minimum standards.

Safety, security and respect of Human Rights are key concerns. We will not bid for a project where this is not fully addressed. I would add that our focus on the energy transition means that this is the main criteria in the selectivity of the opportunities that we are following.

## Technip Energies is recognized for its operational excellence. How do you continue to achieve that?

**MV:** Operational efficiency works on two levels; the first is selectivity during the proposal phase. We pay a lot of attention to what is involved from the beginning, and we assess all the risks – technology early engagement, country, client, execution partners, supply chain and constructability – to mitigate risks to an acceptable level.

Then during execution, we involve different operating centers with the most important competencies, and we build a management team with the right skills and the right project experience. We have monthly reviews and a rigorous process, but most importantly, it's about having a strong team with the right culture and attitude; a strong commitment to succeed.

## How do you ensure and maintain a strong record on safety?

**MV:** We do not compromise on safety, it is a core value of the company, embedded in our work processes through our Pulse safety program. All management reviews start with safety at the top of the agenda, and all incidents are reported and assessed in detail. The target is of course zero accident, but when accidents happen or nearly happen, we carry out root cause analysis and take corrective actions. We were deeply saddened by the accidental death of three subcontractors at one of our yards in China last November. We have reinforced our actions to avoid such events happening in the future.

## What role will innovation play in the energy transition?

**CV:** Innovation can mean two things; inventing something entirely new that doesn't exist yet and applying existing technology to generate new solutions. We need both.

At Technip Energies we are feedstock agnostic, this means that we make sure we can use whatever feedstock is available. This is particularly important for recycling plastics, and it forms the basis of our circularity approach for sustainable chemistry. The large spectrum of expertise that we have internally around the globe

and for the different markets that we are addressing is giving us an advantage for open innovation and collaboration.

## What do you consider to be the key achievements of Technip Energies in 2021? And what are your expectations for 2022?

**MV:** Demonstrating our clear commitment to support the Energy Transition is a major achievement. This has been reflected in the awards we received this year in the investment in technologies and the cooperation agreements that we have signed in each segment of our activity, and in our traditional business. These include the Qatar NFE project, the Borouge Petrochemical Complex in the UAE, and the Rotterdam Renewables Production Platform for Neste. BP's Net-Zero Teesside project also highlights the importance of bringing together the right partners to address the Net-Zero challenge. We have a strong backlog of projects and a strong balance sheet, and I am very confident going into 2022.

**CV:** We have achieved a lot of firsts this year; the first green hydrogen project in India, the first industrial concept for offshore floating wind platforms, as well as our first catalyst supply agreement for the first of sustainable aviation fuel using our Hummingbird® technology. Looking forward, once the concept of proof has been demonstrated and seen to work, then we have the necessary experience and manufacturing capability to scale up and drive down costs. The FEED studies that we are undertaking are sowing the seeds for future growth in 2022 and beyond. ●




SEE VIDEO  
on our energy  
transition framework




# Collaborate to impact

We are convinced that engaging with players within and across different industries is one of the most important ways to drive change. Here are some highlights of the partnerships and cooperation agreements we have signed in 2021.



**TotalEnergies**  
Agreement to jointly develop low-carbon solutions for LNG production and offshore facilities in key areas, including use of hydrogen for power generation, and CCUS. This partnership is based on a common belief that cooperation across the industry is needed to achieve energy transition goals.




**Svante**  
Collaboration with Svante on their emergent solid sorbent carbon capture technology by leveraging our expertise in technology co-development and integration as well as design and construction of carbon capture plants. This partnership clearly reflects the role of industrial-scale technologies to accelerate the transition towards a low-carbon society.



**National Petroleum Construction Company (NPCC)**  
Strategic partnership to focus on capturing opportunities in the energy transition across the United Arab Emirates and other countries in the MENA region. It will enhance cooperation in blue and green hydrogen and related decarbonization projects, CO<sub>2</sub> capture, biorefining, biochemistry and other industrial projects.



**Petronas**  
Increasing innovation and fostering active technology collaboration to further develop and commercialize carbon capture technologies including PETRONAS' Rotating Pack Bed assisted cryogenic CO<sub>2</sub> recovery technology (CryoMin), and membrane-based CO<sub>2</sub> recovery technology (PN2).



**IBM and Under Armour**  
Working across different industries to build and commercialize a new recycling framework and circular economy brings together IBM's research technologies, Under Armour's global textile supply chain capabilities and Technip Energies' engineering and technology expertise.



**Agilyx**  
Agilyx's advanced recycling technology converts polystyrene plastics back into their original chemical components which can be used to produce high-quality products that can be recycled indefinitely. This collaboration will leverage Technip Energies extensive experience in scaling-up technology to accelerate the implementation of this pioneering technology.




**Synova**  
Using Technip Energies' leading purification technologies and SYNOVA's advanced plastic waste-to-olefins technology, the partnership aims to commercialize a complete solution to convert plastic waste back to plastic via a steam cracker, thus reducing the need for virgin polymers.



**Recenso**  
By combining REGENSO's proprietary CARBOLIQ technology with Technip Energies' leading purification technologies, the agreement offers high-value solutions for sustainable plastics-to-plastics chemical recycling.




**Arundo**  
A new digital service, SPYRO® for Asset Management, leverages Arundo's expertise in proprietary software and advanced analytics solutions for asset-intensive industries with Technip Energies' proprietary SPYRO® software for ethylene plants to optimize plant efficiency and reduce emissions.



**Siemens Energy**  
An exclusive agreement to jointly develop, commercialize, and license the Rotating Olefins Cracker (ROC) technology to decarbonize olefin production processes. A demonstration project utilizing the ROC technology has been selected by the Cracker of the Future Consortium of industry majors.



**Socar**  
An agreement with SOCAR includes the evaluation of a joint pilot project for offshore energy production on a floating wind turbine. The pilot project, which envisages energy supply for upstream operations in the Caspian Sea, would be the first offshore wind energy production in Azerbaijan.



**LanzaJet**  
Technip Energies will supply LanzaJet with its proprietary Hummingbird® ethanol-to-ethylene catalyst to produce sustainable aviation fuel (SAF). The catalyst will be used in LanzaJet's first commercial demonstration scale integrated biorefinery at its Freedom Pines Fuels site in Soperton, Georgia, USA.



# Enable people to thrive

Technip Energies is a people company. Our performance depends on the actions of our people and our actions are guided by our Values. We believe a diverse and inclusive workplace encourages collaboration and drives performance. Our 15,000 talented employees are eager to embrace our company Purpose: **Breaking boundaries together to engineer a sustainable future.**



# A diverse and inclusive workplace enables people to thrive



Magali Castano, Senior Vice President People & Culture explains how a diverse and inclusive culture promotes wellbeing, encourages collaboration and drives performance.

“

The company has been through many changes. We know how to adjust, to learn fast and adapt, and these are the competencies we need to be leader in the Energy Transition.”

MAGALI CASTANO,  
Senior Vice President People & Culture

## In your view, what defines Technip Energies people and culture?

**Magali Castano (MC):** People are passionate about their work, and they take pride in their achievements and those of the company. They're also passionate and confident about the future. As an Engineering and Technology (E&T) company our people like to find solutions and deliver results. We have a collaborative mindset, and this is behind the successful delivery of lots of “first-of-a-kind” projects, it forms part of our collective DNA. The company has been through many changes. We know how to adjust, to learn fast and adapt, and these are the competencies we need to be leader in the Energy Transition.

## What is the role of company' Values for Technip Energies?

**MC:** Values play a foundational role in the company culture; they form a change driver by translating the vision into actions. As a new company, we decided to take time to define them and make them meaningful through a highly participative process involving people throughout the company. This doesn't mean that we started from scratch, we have a 60-year history. We wanted to make sure that our values resonate with our company purpose and ESG Roadmap. Our values reflect where we come from and where we want to go.

## Technip Energies has set an annual objective to achieve gender parity in graduate recruitment. What specific steps are you taking to attract young graduates to the industry, and women graduates in particular?

**MC:** We decided to set an ambitious target for young graduate recruitment because gender parity starts with having the right reservoir of talents. The first reaction when we set the 50% recruitment target for female graduates was that it couldn't be done. However, if we want things to change, if we want to stay ahead of the game, we need to take a different approach and solve the problem. And this is what we did. We reached our target already in 2021 by having a different positioning and messaging for young graduates. Our focus on the energy transition certainly helps to create a more attractive proposition. Technip Energies has developed long-term initiatives to promote

women in STEM. These are carried out on a very local basis to identify the most appropriate action. They include supporting schools and students through scholarships, mentoring, donation of materials and equipment and by promoting STEM-oriented activities. One example that I would like to share and in which I am involved directly is “C'Génial” (It's Great), which is a French association promoting science by connecting schools, universities and business. The association organizes innovation contests for students and will be celebrating its 15<sup>th</sup> anniversary this year.

## Transformation, change, and uncertainty creates a lot of stress for employees. What measures have been taken to reduce these risks and raise awareness of mental health issues?

**MC:** In addition to the global challenges we have all faced with Covid-19, the company has been through lots of changes over the past years. However, the reaction to the creation of Technip Energies has been really positive. The Covid-19 crisis meant that we had to react quickly to organize remote ways of working. To sustain the lessons learned from the Covid-19 pandemic, we have put in place a policy called “SmartWorking”. For an international company with operations all around the world, SmartWorking is not just about remote working; it's about working differently to facilitate team collaboration. Thanks to digital technology, this flexibility can have a positive impact for employees' wellbeing and enhance performance. But it can also create other stresses – often complex and personal. So, SmartWorking also means keeping offices open, promoting social interaction, and having a flexible approach. Many initiatives have been set up across the company including wellbeing ambassadors, psychological assistance and the “it's okay not to be okay” program. We will ensure that these initiatives are deployed in a consistent manner so that all our employees have access to the same level of support.

## What actions have you put in place to promote a diverse and inclusive workplace?

**MC:** Creating a diverse and inclusive workplace is actually another way of addressing wellbeing. We have launched

a program called “Inclusion in Action”. It starts with a statement from the Executive Team that sets out what we mean by inclusion at Technip Energies and our gold standards. An online global inclusion course has been designed, which includes a self-assessment component. As part of the follow up, we invite managers to lead a team discussion about how to translate the standards into actions in the workplace. It is not judgmental. We want to encourage a speak-up culture, where employees feel comfortable to report issues and share problems, and therefore nurture empathy, listening and trust.

## As one of only two women on the Technip Energies Executive Committee, do you see yourself as a role model for other women to achieve senior positions in the company?

**MC:** I do believe in role models, and I have to say that we still lack female role models in the company. Our target for women to represent 50% of young graduate recruitment is a great start, but we also need to accelerate the promotion and development of senior women in the company, hence our ambition to have 25% of women in leadership positions by end of 2025. Arnaud Pieton is a great champion of gender diversity; he is genuinely promoting diversity and is pushing in this direction. And together with all the members of the ExCom, we are challenging everyone to do better and faster.

## What do you consider to be the key achievements of Technip Energies in 2021? And what are your expectations for 2022?

**MC:** I would say our first year as a stand-alone company has been very successful, both in terms of operations and organization. At the same time, we have defined our Values and Purpose, developed our strategy, and established the ESG Roadmap, providing a clear dynamic for the future. On a personal level, meeting our target of 50% women graduates in our first year, is a great achievement and we need to pursue our actions to build up our talent pool. I am also proud of our work on inclusion and the journey towards making Technip Energies an inclusive workplace. ●



# Breaking boundaries together



“

As a leader, I am grateful for the opportunity and freedom given to lead a structured and rich conversation with my team about inclusion in everyday life at work. We have chosen to put inclusion into action by paying attention to our colleagues, to get to know them from a new perspective.”

NICOLA PERUGINI,  
Technip Energies Italy, Site Manager



In 2021,  
**94%**  
of employees  
undertook the  
Global Inclusion  
Course

Going beyond diversity with inclusion. With employees from 108 nationalities, representing a multitude of cultures, ethnicities and backgrounds across the globe, we continue to nurture a culture of inclusion and transparency, where everyone feels they belong and are encouraged to grow, create and thrive.



## Our inclusion statement

“At Technip Energies, it's important to nurture a culture that encourages transparency and collaboration to the benefit of our people and our business. To do this, we want to promote an inclusive and caring environment that encourages our people to perform, innovate and grow. In this way, we leverage our diversity for a stronger and more successful Technip Energies.”

Technip Energies Executive Committee

## Inclusion in Action Journey

We are inclusive and collaborative. This is a core value for Technip Energies, and it is a key pillar of our ESG Roadmap to enable people to thrive.

## Global Inclusion Course

To promote our culture of inclusion, we have designed and rolled out an online Global Inclusion Course for all employees to complete. The aim of this program is to develop a clear understanding of inclusion and inclusive behaviors based around our four gold standards (see on the right). The course includes a self-assessment component and as part of the follow up, managers facilitate a team talk to translate our inclusion statement and gold standards into actions in the workplace. Even small actions can make a big impact.

We challenge our biases and embrace diversity of thought.



No one has all the knowledge and solutions, collectively we do.



We foster a caring environment where people are respected, comfortable to share and be heard.



We promote active listening for effective decision and action.

**Inclusion in Action**

## Promoting inclusion and diversity

Our B.O.L.D. program is a good example of an initiative launched in the USA, to promote a diverse and inclusive workplace. The Black and Brown Organization for Leadership and Development (BOLD) was launched to support the recruitment, development, advancement, and retention of Black and Hispanic professionals in the company. It is an Employee Resource Group (ERG) which organizes internal events, conferences and lectures with external speakers to identify educational opportunities and make necessary resources available to targeted groups and communities. Its goal is to promote hiring, wellbeing and retention within the company.



“

We want every employee no matter what race, creed or color to be able to bring their authentic selves to the workplace, with a sense of pride about who they are.”

SIDNEY BARRAU,  
Director People & Culture, Americas

## Enhancing accessibility

The integration and wellbeing of employees with disabilities is one of our ESG priorities. Our “Mission Handicap” program in France is a good example of the actions we are implementing. It has been created to promote the employment and professional integration of people with disabilities. Our talent acquisition officers are trained to consider accessibility (accessible workspace, ergonomic workstations, home working solutions etc.) as part of a more inclusive recruitment process.

## Taking care of mental health

In addition to the global challenges we have all faced with Covid-19, the company has been through lots of changes in recent years, which can create stress and put pressure on mental health. This is why one of our ‘Inclusion in Action’ gold standards focuses on fostering a caring environment, where employees are respected and feel comfortable to express their concerns and be heard, by managers, colleagues, and medical teams. Our goal is to break the silos of isolation, to identify early signs of stress and provide support at the earliest opportunity.

## SmartWorking

Thanks to digital technology almost everyone can work from almost anywhere. But this accessibility to work creates other challenges. Our response is called “SmartWorking”, which means working differently to facilitate team collaboration, even when we are all in different locations. This includes a Group policy for working from home which offers a flexible approach and is designed to contribute towards creating a better work/life balance. We are committed to keeping offices open and promoting social interaction to have a positive impact for employees’ wellbeing and enhance performance.

## It's okay not to be okay

October 10<sup>th</sup>, World Mental Health Day, is the occasion to remind employees that it's okay not to be okay. Our wellbeing affects our performance and mental health, like health in general, is part of life. The Covid-19 pandemic has raised awareness and highlighted the risks, which is why we believe, that when we face difficulties at work or in our personal lives, it is important to communicate to others how we feel.



SEE VIDEO  
on World Mental  
Health Day 2021



“

Among our mental health toolbox, we have an employee assistance program with a 24-hour hotline giving people support, and proactive programs focused on mental wellbeing and how it connects to physical and social wellbeing.”

BÉNÉDICTE MONCOMBLE,  
Group Medical Manager

# Women in Energy

Around the world, women are under-represented in our industry. This is why, for many years, we have been supporting long-term education initiatives to promote women in Science, Technology, Engineering & Math (STEM).

## Attracting women in STEM

Changing the gender balance in our company starts with graduate recruitment. We have set an ambitious target in our ESG Roadmap to achieve gender parity in our annual graduate recruitment process from 2021 onwards, and we achieved this objective in our first year! We will of course pursue this objective in the coming years so that progressively, women make up a greater share of the workforce. This will enable us to reach another objective that we have set, for women to hold 25% of leadership positions by 2025.



“

I work with colleagues who come from different cultures, backgrounds, and experiences yet are supportive of the success of every team member, our projects and our clients. Knowing that I am working with some of the best minds in the industry encourages me to be my best.”

SEUN OMOJA,  
Marketing & Business Coordinator, UK



“C’Génial” (It’s Great), is an association in France connecting schools, universities, and business. Its aim is to promote science in schools and establish links between business and education.



“

I enjoy working at Technip Energies because it gives meaning to my profession as a chemical engineer. I am part of a pool of knowledge, together with colleagues from various backgrounds (catalyst, research, ethylene, services etc.) which enriches the technical discussions and contributes to making a technology work.”

STELLA VORUGANTY,  
Process Engineer, The Netherlands

## Supporting STEM programs around the world

For Technip Energies, a leading Engineering & Technology company, STEM is part of our daily work. This is why we promote actions to support education in these fields and provide access for underprivileged students and girls. In this way, we help to empower and motivate women to become future leaders in these fields.

For many years, Technip Energies has been supporting schools and students through scholarships, mentoring, donation of educational materials and equipment, promotion of events, knowledge transfer, and other STEM-oriented activities.

In 2021, with over 30 initiatives, more than 5,000 students in 10 countries\* benefited from our STEM programs.

\* Australia, France, India, Italy, Kuwait, Malaysia, Mozambique, Spain, UK, USA

 **50%**  
of graduates hired  
in 2021 are female

 **27%** of women within  
our employees, well ahead  
of industry average

 In 2021, more than  
**5,000**  
students  
benefited from  
our STEM programs





# Recognizing our achievements

We're proud of the achievements we have made in our first year as Technip Energies. Here we celebrate recent awards that recognize the outstanding performance of some of our talents. Congratulations!



## ↑ “Trophée des Femmes” Award

**Valentina Gabriel**, SVP Asia Pacific Business Unit, was awarded the “Trophée des Femmes” in the International Woman category. Created by French media company L'Usine Nouvelle, the Trophées des Femmes awards honors female talents in the industry. Valentina Gabriel joined Technip Energies as a process engineer in 1996 and has been in charge of projects all over the world, from Angola to Azerbaijan, via Brazil and the United States. In 2018, based in Kuala Lumpur, Malaysia, she became the first woman to lead one of Technip Energies' regional Business Units, managing a team of more than 2,000 people. Diversity is what has marked her the most within these international teams. For Valentina, *“diversity and inclusion are the right things to do in order to give everyone equal opportunity”*.



## ↑ Victoires des Leaders du Capital Humain

At the 8<sup>th</sup> edition of the French Human Resources Awards, Technip Energies won Silver in the “Transformation Support” category. Organized by Décideurs Magazine the “Victoires des Leaders du Capital Humain” (Human Capital Leaders Awards) had more than 80 companies from various sectors competing this year. This award is in recognition of the amazing work of our Human Resources team in the creation of Technip Energies and in paving the path to the energy transition.



## ↑ Finalist in the ExxonMobil Power Play Awards

**Talumba Katawala**, National Content & Public Affairs Manager in Mozambique, was one the finalists in the 2021 prestigious ExxonMobil Power Play Awards, which celebrates the accomplishments of remarkable professionals who uphold the importance of supporting and empowering others in the workplace. Talumba Katawala's remarkable distinction in the “Ambassador category” is a recognition of her relentless efforts to advocate for diversity and inclusion in her country, especially towards African women in the energy sector and more generally in STEM. Through the association “Mozambique Women of Energy”, she seeks to empower African women and men to become leaders in the energy transition.



## ↑ Happy Trainees

For the first time, Technip Energies is ranked in the top 10 companies that offer the best internship and work-study assignments. Based on an annual survey of 37,000 interns and work-study students in France, with questions covering six major themes — professional progress, work environment, management, motivation, pride and fun — ChooseMyCompany analyzed the quality of their professional lives to arrive at this ranking. 91.7% of our trainees recommend working at our company.

## 2021 Dynamic Leader Award

Mumbai-based **Swayantani Ghosh**, VP for Indian Corporate Communications, CSR, Sustainability, received the 2021 Dynamic Leader Award in Media Relations, Communications and CSR, by Asia-GCC Awards. An outstanding and well-deserved recognition for her professional contribution to corporate and social responsibility within our Indian office and local communities where Technip Energies operates in India.





# Our social actions around the world

Discover some examples of our long-term sustainability programs and actions to help local communities gain better access to education and improve their livelihood. Technip Energies is keen to support grassroot efforts that bring concrete and direct benefits for the communities in which the company operates.

## Seeds of Hope, India

This is Technip Energies flagship corporate social responsibility program in India, which is committed to empowering sustainable communities, advancing gender diversity, and ensuring environmental responsibility. Since 2015, this program has been running across ten states and has so far impacted more than 90,000 lives. In practice, we provide education support for children from underprivileged families, as well as support for gender diversity in STEM to improve financial inclusion for women through skills development training.

We promoted clean energy for local communities through the installation of 100 biogas units, 150 smokeless cooking stoves, 80 solar streetlights and the plantation of more than 40,000 saplings to reduce local CO<sub>2</sub> emissions. In addition, we foster a circular economy through waste management (collection and recycling) in Dahej, Gujarat. We have supported more than 52,000 people affected by Covid-19 pandemic in India. Our Indian employees also get involved on the ground through volunteering, a genuine way to give back to society and their communities.



## SHINE Program, Malaysia

Since 2011, Technip Energies in Malaysia has been implementing a series of actions to promote and give access to better education through the SHINE program.

- Quality education and higher education accessibility are two of the more challenging issues in Malaysian society, which is why Technip Energies Malaysia in collaboration with Universiti Teknologi PETRONAS (UTP), set up the SHINE scholarship program which comprises a study fund, an internship and a job opportunity for each recipient. More than 20 students have received a scholarship.
- The SHINE rewards program incentivizes employees' children to participate and perform well in the national examinations. 22 students will be sitting the exams in 2022.
- In the SHINE PINTAR program, Technip Energies adopts schools from the PINTAR Foundation, a not-for-profit organization that aims to inspire future leaders through education, with a focus on under-served communities. We have adopted five schools in 3+1 year program and we have assisted more than 500 children and provided training for 174 teachers in Kuala Lumpur and Sabah since the start of the program.



**5,000**  
volunteering  
hours from  
our employees in  
India in 2020-2021



**159**  
initiatives in  
21 countries  
in 2021



**Around 2,400**  
volunteers contributed  
14,360 volunteering hours in 2021

## Two sustainability programs in Colombia

Technip Energies' Colombia entity, Tipiel S.A., has shown significant commitment to sustainability where two main programs have been implemented to promote Human Rights as well as inclusion and diversity.

- "Let's go to the market together" is an initiative that provides financial support to vulnerable families in Barrancabermeja, to help them develop their businesses in a sustainable way. A whole strategy has been implemented to run the project seriously to stimulate entrepreneurship and job creation, diversify the local economy, empower women in development processes and leadership. This initiative has benefited the population displaced by violence in the region. In 2021, 1,634 small-scale productive projects were awarded, of which 80% were led by women.
- The second program, "Volunteering that cares", aims to offer valuable help to former homeless people in the country's capital city, Bogotá. Regular volunteers from the company support a rehabilitation center which helps vulnerable populations obtain access to education, healthcare and social services. In 2021, our 20 regular volunteers helped 80 men and women through this initiative.



## Community support, Mozambique

Since the end of 2017, Technip Energies has deployed educational actions to contribute to the enhancement of academic skills amongst the young.

We have supported two initiatives which focus on helping vulnerable children to have a better future.

- The first is with the Ocuca Secondary School, where we fund annual full scholarships for 140/400 children, which includes registration fees, books, school materials, uniforms, masks, hygiene products, bicycles and mechanical training for their maintenance. This has already showed benefits, such as more secondary school graduates and candidates vying for top Mozambican Universities.
- Secondly, we partnered with the Arco-Iris orphanage in Maputo to provide educational support and extracurricular activities to develop their STEM skills.



## Technip Energies Relief and Development Fund (TRDF)

The TRDF is an endowment fund established in 2011 to support social and charitable initiatives at the Group level. The fund is coordinated by Technip Energies employees who define the investment policy and select the projects.

The fund supports projects in countries where we have a permanent presence, and that address our sustainability priorities such as health, education, emergency missions, natural disaster relief and other topics related to our ESG Roadmap. Since its creation a decade ago, the TRDF supports around 5 NGOs per year for specific projects in different countries. The TRDF is currently involved in projects in Egypt, France, India, Mozambique, Senegal, and Thailand.



#### Does innovation drive Technip Energies?

Absolutely! I work at our Weymouth Research Center, and we are at the forefront of all the emerging technologies being developed in the Energy Transition field, both for us and for external clients. This allows me to discover new opportunities at a very early stage, evaluate them, and help scale them up from proof-of-concept all the way to commercialization. Very challenging, but never boring!

#### How do you contribute to Technip Energies' R&D?

As an effective team builder and facilitator, I can coordinate all the available resources, within Weymouth and outside, to find innovative solutions to ensure our research programs are executed successfully. It's very gratifying to be part of Technip Energies' progress in sustainable chemistries.



“

I derive a lot of pride and satisfaction working for a company that aims to make a difference in the world especially through continuous efforts towards the Energy Transition.”

TERENCE LOUIS PERIX,  
Safety Graduate Engineer, Malaysia



“

My project execution background covering planning and understanding customer needs helps my team members focus on client satisfaction. We also use new technologies, digital tools and database to achieve optimised commercial results and engage for continuous learning.”

MANDAR KARANDIKAR,  
Head of Modular Manufacturing Yard, Dahej, India

#### How do you contribute to Technip Energies?

I would say the successful execution of the first onshore LNG and first world-class offshore LNG projects, from the Kuala Lumpur office. My biggest reward occurred when the Regional Leadership Team gave me the responsibility of Process Manager, in which I executed these two first-of-a-kind projects, HANAS LNG back in 2009 in China, and PFLNG-Satu EPC Phase 10 years ago in Malaysia.

#### Your view from within?

Despite a challenging initial learning and training effort with the team, I always had the feeling we could do it. I've bent certain rules without breaking them, ignored the constraints, refused to believe that anything was a given and the problems ceased to exist. My convictions percolated at all levels of hierarchy and today we're able to execute Energy Transition projects with ease and agility.



MANIKANDAN NARAYANAN,  
Head of Business & Technologies (APAC), Malaysia

#### What's your motivation working at Technip Energies?

Every day is a new challenge as I work on a variety of game-changing projects. Being part of the team effort to accelerate the Energy Transition gives me the opportunity to work towards a more sustainable future by turning science and technology into applications for low-carbon emission processes.

#### How about the company's mindset?

At Technip Energies we value diversity, and every voice can be heard. Colleagues respect each other. In this environment, I feel I have all the suitable tools to thrive and evolve not only professionally but also personally. This culture puts the company in pole position to develop, design and execute added-value solutions for the market.



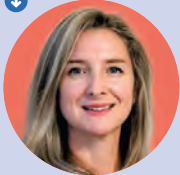
MARIA LIOUTA,  
Junior Product Development Engineer,  
The Netherlands

“

Within Technip Energies I truly believe in this mantra: don't limit your challenges, challenge your limits. This never-stopping opportunity to learn and act is supported by our leadership and mentors who consistently challenge us.”



NAMITA UPADHYAY,  
Digital Transformation Chief Manager,  
India



CAROLINE COTON-TRANAPE,  
Assistant Director, Process Technology,  
Weymouth, USA

## WHAT IT MEANS TO BE PART OF TECHNIP ENERGIES



“

As a member of the Health Safety Environment (HSE) department, I'm able to use my technical knowledge and my know-how in a motivating and supportive context to contribute to a safer working environment.”

KHADIJA ZEDEK,  
HSE Excellence and Behavioral Coach, Singapore Expansion Project

#### What's special about Technip Energies?

I've been in the company for almost 20 years and every day brings a new challenge. We can easily interact with the rest of the world, mostly physically in normal times, with different people and work on a diverse range of projects. I know it sounds a bit cliché, but when life at work remains exciting you keep your level of motivation up, not to mention that we are part of the core of the Energy Transition. And at Technip Energies there is always more ahead.



FRÉDÉRIC BERNAUDON,  
Asian Yards Operational Director,  
Arctic LNG Project, China

# Digitalize to decarbonize:

## the digital journey to Net-Zero

Julie Cranga, Vice President Digital, explains our approach to develop an agile mindset, to encourage a collaborative spirit and foster passion for continuous learning.



“

Our industry is navigating two major transformations that go hand in hand : the energy transition and digital transformation.”

JULIE CRANGA,  
Vice President Digital

### What new skills does the digital transformation require and what training programs are in place to develop these skills?

**Julie Cranga (JC):** I would put the emphasis on mindset rather than new skills. Obviously, we need technical skills for what we do, but it is equally important to develop adaptability and encourage greater collaboration, both internally and externally with partners. We also want to foster passion for continuous learning because both the Energy Transition and digital transformation are still relatively new trends and are evolving very fast. We are putting a lot of effort to transform Technip Energies into a data driven company, so with the support of the ExCom, we have launched a data acceleration plan to promote a data culture and implement best practices in term of data management. We are developing data awareness programs which will be available to all, as well as an advanced training program to build an internal pool of data science talents and foster a community of data specialists who share their knowledge across different business disciplines. Upskilling our organization also involves some external hiring, to bring in new expertise. We are looking to have a good balance of seniority and experience to encourage peer to peer coaching and apply digital skills, such as Artificial Intelligence (AI) and machine learning to transform the way we work.

### To promote a fit-for-purpose digital organization, Technip Energies has created a Digital Services Factory and a Data Office. Can you explain how they work?

**JC:** We need to consider the value that digital transformation can bring to the business, and this involves three approaches. The first approach is to create new business. The role of the Digital Services Factory is to develop a new offering of digital services to address client challenges such as making carbon conscious choices at the design phase, monitoring plant performance or training operators. This team is spread globally, agile, close to the business, and masters new technologies such as cloud computing, data sciences and IoT (Internet of Things); they are dedicated to address client pain points with innovative digital solutions.

The second approach is to support all parts of the business in their data-driven transformation. The role of the Data Office is to put in place a global data governance, promote a data culture and partner with the business to identify areas where we can create more value with our data and deliver data projects with all stakeholders. This includes, for example, leveraging the huge amount of past-project data to better and faster estimate the cost of future projects. There are many ways in which we can leverage data to create value for

Technip Energies and for our clients. Thirdly, we continue to accelerate the digitalization of the way we execute our projects. Our ambition is to adopt a Digital-by-design approach to develop and scale up new energy solutions.

### What is the key to successful digital transformation?

**JC:** Successful digital transformation is ultimately driven by people and through collaboration with the right ecosystem of partners. The human aspect is essential when we develop and adopt new solutions and ways of working, people need to be part of the transformation. This is why having a collaborative mindset and being open to continuous learning is so important. We need to be collectively smarter in the way we work. Platforms and data sharing is a new way of working, it's about building communities of practice, working in networks, and creating a more agile, inclusive and collaborative organization. Collaboration also means working with partners outside the company and the industry. There are a several industries that are more advanced in their digital transformation than the Energy industry, and we can learn from their experience.

### The future will be greener and more digital. What about the carbon footprint of so much data storage?

**JC:** The digital carbon footprint is the CO<sub>2</sub> emissions resulting from the production, use and data transfer of digital devices and infrastructure. Data centers in particular consume a lot of energy and as part of our ESG Roadmap, our target is for all our data centers to be certified Net-Zero by 2025. Microsoft, one of our key cloud service providers, has announced plans to switch to 100% renewable energy to run its data centers by 2025.

But digital solutions also enable significant carbon avoidance, through remote working, reduced travel, remote operations on sites such as inspections, as well the ability to monitor and minimize plant emissions, which means that the carbon balance is still very positive. ●



### Digital-by-design approach

Digital-by-design approach aims to achieve full project lifecycle traceability and optimization from concept through design, execution, and operations. Our strategic partnership with Aras – a leading provider of software technology – is one example of collaboration. It will power the scale-up of Technip Energies digital project execution practices into one single project platform, enabling standardized data flows and seamless collaboration between teams, easy access to past project information to increase engineering re-use, reduce cycle time, data integration for actionable reporting, and creation of a digital twin backbone.

### Reference

**BEYOND BY T.EN™: OUR FULL SUITE OF DIGITAL SERVICES FOR THE ENERGY TRANSITION, THROUGHOUT THE LIFE OF A PLANT**



*Beyond by T.EN™ offering is accessible through a digital platform that connects clients and partners to Technip Energies experts for an improved experience. Our team is mobilized to deliver digital solutions and high value services that solve clients' challenges and evolving needs. The offering spans from plant performance and carbon management solutions to advanced robotic assistance for project delivery and operations.*



In 2021,  
**1/3** of digital budget dedicated to initiatives with direct impact on CO<sub>2</sub> reduction



**20** employees selected for Technip Energies first Data Sciences upskilling program





## Lead responsibly

At Technip Energies the tone has been set from the top, in the goals that we define, and the way that we lead. Our ESG Roadmap supports our business and our future commercial success. It sets a clear direction for the company to achieve its ambition.

# ESG reporting improves transparency

The green taxonomy framework may be complex, but for Bruno Vibert, Chief Financial Officer and Michael McGuinty, Chief Legal Officer, it will drive a change in the way investment decisions are made. Investors and other stakeholders are looking beyond traditional metrics to consider profitability that is sustainable over the long term. Being able to demonstrate progress on ESG measures will be an important differentiator and source of pride.

MICHAEL MCGUINTY, Chief Legal Officer and BRUNO VIBERT, Chief Financial Officer



## This is Technip Energies first sustainability report. What is the importance of this report?

**Michael McGuinty (MM):** First and foremost, it highlights to our employees and our external stakeholders the importance that ESG holds for the company. The report shows how we incorporate ESG considerations into our priorities, our goals and how we operate as an organization. ESG supports our business and will help drive our future commercial success. It sets a clear direction for the company to achieve its ambition.

**Bruno Vibert (BV):** Our ESG Roadmap and strategic focus on the Energy Transition highlights an essential part of Technip Energies that financial reporting on its own fails to capture. It doesn't capture the decarbonization agenda which needs to happen. These aspects are important for investors, for our clients, as well as for other stakeholders. As a new company we want to differentiate in the way we carry out our business, work with partners and clients, attract and retain employees; governance, diversity, environment, all these aspects are relevant. The sustainability report presents this information in a clear and comprehensive way.

## Technip Energies has published its first set of results as an independent company. What have been the highlights for you?

**Bruno Vibert (BV):** We have delivered an exceptional set of results in 2021 and this needs to be viewed in the context of two years of a global pandemic which saw delayed investment decisions, logistical challenges, and the build-up of inflationary pressure. Despite this, we delivered major projects on time and on budget, making it possible to grow revenues by 11%, improve our adjusted recurring EBIT<sup>(1)</sup> margin from 5.5% in 2020 to 6.5% in 2021 and generate positive net cash of €3.1bn. This allows us to pay a dividend to our shareholders for our first year of existence. Our success is the result of our strong business model. Our project delivery business, which forms a major part of our activity, provides long-term visibility and stability to navigate difficult periods such as

we have seen. Our Technology, Products and Services (TPS) business has a much shorter cycle with a differentiated value proposition.

## How do the company financials reflect the progress being made for the Energy Transition?

**BV:** There is no single reporting line to highlight the progress, but we can see clear evidence of the growing importance of the Energy Transition. Two of the major contracts that we were awarded this year, for Qatar NFE and Borouge Petrochemicals, both contained important carbon reduction components. We have also been awarded several FEED studies at the early stage of development, such as Teesside Net-Zero carbon capture project, which are reported in the TPS revenue segment. This segment has grown from €1 billion to €1.2 billion in 2021, partly reflecting increased Energy Transition activity. However, it is our extra-financial ESG reporting which will show actual progress to reach Net-Zero.

## What are the challenges and opportunities of extra-financial reporting and the EU green taxonomy framework?

**BV:** It represents an exciting opportunity to capture and aggregate technical data that were not consolidated before, so it's a new technical challenge for the team. And this will enable a new way of taking informed decisions and realigning investment priorities in a way that is more sustainable. It also provides new information to be compared with peers and across other industries, to track progress, made and still to do, in a consistent way. But there are challenges. We need to compare beyond Europe and to ensure that readers understand how ESG indicators relate to our activity and our trajectory for the future.

**MM:** The implications of green taxonomy go well beyond Europe, because adhering to the taxonomy standards requires the understanding of all our clients, partners, and suppliers. Indirectly, this brings about positive change in areas such as traceability, environmental standards and Human Rights.

One of the challenges Technip Energies faces is how we comply with the different legal frameworks in the countries where we are present while consistently applying our own internal standards. The good news is that we are up to the challenge – we adhere rigorously our internal standards and have more than 60 years' experience working across the globe.

## What do you consider to be the key achievements of Technip Energies in 2021? And what are your expectations for 2022?

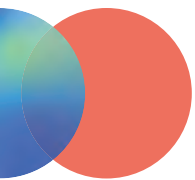
**BV:** The creation of Technip Energies and successful spin-off on February 16, 2021, was a key achievement. With a tight timeframe and in a challenging environment its successful execution and delivery is a credit to all the teams involved. 2021 has seen exceptional operational and commercial performance. We have proven our credibility with investors as an independent company with significant movement in the shareholder base and we have delivered on our commitments.

**MM:** Technip Energies' achievements over this past year can be summed up by its impressive list of operational successes but also, and perhaps more importantly, by the strategy and roadmap that the company has developed which will pave the way for Technip Energies becoming an undisputed leader in the Energy Transition. But we must view this journey not as a sprint, but rather as a marathon and one for which we are well prepared. We have a strong ambition and a clear purpose, a motivated and expert workforce and a growing base of satisfied customers. I think these are the key ingredients that will sustain the company's future success. ●



(1) Adjusted recurring EBIT: adjusted profit before net financial expense and income taxes adjusted for items considered as non-recurring.  
(2) Financial information is presented under an adjusted IFRS framework, which records Technip Energies' proportionate share of equity affiliates and restates the share related to non-controlling interests, and excludes restructuring expenses, merger and integration costs, and litigation costs.





# Leading responsibly, our commitment to excellence

For Technip Energies, our aim to build a better tomorrow means that we lead by example. How we do business is as important as what we do. We have a zero tolerance for corruption, we believe in fair competition, we protect Human Rights, we don't compromise on integrity.



FABIO GOJ, Chief Compliance Officer  
and VENUS MAROUN-VALETTE, Senior Compliance Counsel

Technip Energies' Code of Business Conduct is a fundamental guide, providing a common basis and unwavering reference for business decisions and actions. It covers three key fields of conduct: people and environment, assets and information, business and brand.

Key elements include:

- **Integrity:**  
We foster integrity by providing at risk employees with annual Anti-Bribery & Corruption (ABC) training. We implement strong risk management controls. We comply with the legal requirements wherever we operate, and we promote best practices that go beyond the strict adherence to the law in some cases.
- **Reporting:**  
We encourage reporting and more generally promote a speak-up culture. We do not retaliate.
- **Human Rights and worker welfare:**  
We promote worker welfare as member of Building Responsibly and endeavor to embed respect for Human Rights in our operations and supply chain.
- **Supplier & Subcontractor Integrity Expectations:**  
Our suppliers and subcontractors are required to follow the applicable laws of each country in which they operate and observe the principles of our Code of Business Conduct. We aim to reduce the role of non-mandatory commercial intermediaries.

The protection of Human Rights is a fundamental value for Technip Energies. This means establishing policies, monitoring their application and taking action when standards are not met, as Fabio Goj, Chief Compliance Officer and Venus Maroun-Valette, Senior Compliance Counsel explain.

## What does Human Rights cover and how is this translated into Technip Energies' operations?

**Venus Maroun-Valette (VMV):** Human Rights encompass a broad range of topics, these cover the prohibition of any form of child and forced labor, discrimination and harassment in all forms, while promoting ethical recruitment practices and fair working conditions, the respect of freedom of association and collective bargaining, a healthy, secure and safe working environment and the availability of employee grievance mechanisms. Since Human Rights involve many aspects of our operations, it is a topic that is handled by different functions. We have defined our overall policy by engaging with internal and external stakeholders.

**Fabio Goj (FG):** We follow a risk-based approach to assess where our operations face the highest risks from a Human Rights perspective. We address those risks through appropriate mitigation measures. For selected projects, we define specific actions to mitigate any concerns which includes among other things, dedicated KPIs to be implemented and reported regularly. We establish a clear set of terms and conditions in our contracts from the outset.

In addition, we have a continuous improvement mindset and keep on working at enhancing our compliance program.

Most importantly, the management sets the tone from the top, including from a compliance standpoint.

## How do you measure progress and monitor changes in the Human Rights landscape?

**VMV:** Our ESG Roadmap includes a clear action plan with qualitative and quantitative indicators to assess our performance. All high-risk projects will have a Human Rights Management System including due diligence and audit processes by 2025.

In addition, we are encouraging suppliers to join us in our ESG journey with the creation of ESG councils as defined in our ESG Roadmap.

This is still a learning journey, and we, like our clients, partners, investors and all our other stakeholders, including the communities where we work, expect high standards when it comes to Human Rights. Meeting this challenge is how we will move forward and be true to our beliefs.

## What are the industry standards and how does Technip Energies compare?

**FG:** It can be difficult for companies across a sector to establish a common set of metrics since there are many different norms and standards. We are members of the Steering Committee of Building Responsibly, an organization of leading companies that promote Human Rights and welfare of workers in construction and engineering. It is an interactive forum and we're closely involved in the definition of standards and the development of tools to support the industry supply chain.

Technip Energies Italy is certified to the SA8000 Standard to manifest its commitment to basic human values in the workplace. These requirements are embedded into its project management process and apply on major projects such as the Midor refinery expansion project in Egypt, the Assiut refinery project in Egypt and the Neste Singapore expansion project. ●



The SA8000 Standard is the leading social certification, based on the Universal Declaration of Human Rights and International Labour Organisation (ILO) conventions. It also respects, complements, and supports national labor laws around the world, and currently helps secure ethical working conditions worldwide. Technip Energies Italy is audited on a quarterly basis by an external and independent third party approved by Social Accountability International (SAI).

## Case Study

### Neste HRDD program

Technip Energies Italy is a long-term partner for Neste. In line with our commitment to promote workers' rights in our operations as per SA8000 standard certification, we have been asked by Neste to produce and manage a social monitoring program on the project supply chain, as well as a site grievance mechanism, on the Neste Singapore Expansion Project.

Technip Energies Italy supported Neste to implement a Human Rights Due Diligence (HRDD) program at client construction site to ensure the respect for Human Rights during the execution phase. Despite the scale of work and challenges related to the pandemic, Neste was very satisfied on how Technip Energies Italy executed the assigned scope of work. The HRDD program was an important occasion for Technip Energies Italy and Neste to cooperate in promoting Human Rights protection on construction sites. Most recently, Technip Energies Italy has been asked to implement the same HRDD program and activities on Neste construction site in Rotterdam.





# Quality & HSE, our core priorities

Ensuring the Quality, Health, Safety, Environment and Security (QHSES) protection of our employees, contractors and suppliers is embedded in Technip Energies' DNA. We do not compromise on safety and integrity. This is one of our five Values.



## Quality constantly monitored

Technip Energies continuously improves its quality process and customer satisfaction, in line with the ISO 9001 Standard requirements. Our people in the quality and commercial teams measure customer satisfaction at different times of our projects: during the win-it phase, by collecting feedback on tenders we have won or lost and during the do-it phase. Surveys cover quality but also HSE, project management and execution, relationship with clients, schedule and compliance, adequacy of resources, commercial management, and post-delivery performance. We collect more than 200 surveys per year and get a high approval rating of 8.6/10 in 2021 as per our Quality Global Standard Method. It's a great achievement, that we aim to sustain in the long-term.

## HSE performance first

Safety is at the core of Technip Energies' values and an area of our business we will never be compromised on. This is a primary concern for our employees and the people working with us, and a reason why we never stop strengthening our health, safety & environment culture and leadership among our employees and contract staff. Our Total Recordable Incident Rate (TRIR) has decreased

from 0.25 in 2017 to 0.08 in 2021. Our serious incident and fatality rate has dropped from 0.05 in 2017 to 0.01 in 2021. We deeply regret that three subcontractors died in China in 2021 on BOMESC's yard, during the construction of Arctic LNG2 Project modules. We carefully enquire into these incidents to take actions to prevent them in the future. Yet, our serious incident and fatality rate remains very low and every causality is carefully investigated. Finally, we have hardly any Lost Time Injuries (0.02 rate in 2021) in our major projects, not to mention 50 million man hours (MMH) without LTI in our HURL project (India), 48 MMH in Arctic LNG2 Project (Russia) and 41 MMH LTI-free in our BAPCO Project (Bahrain).

## PULSE: lead the beat on HSE

PULSE is our dedicated Global HSE culture and engagement program and is revised regularly to meet new safety requirements. Its 2021 reboot has made our HSE processes and tools even more effective to create an incident-free working environment. In practice, PULSE includes new training and visual contents, engages new HSE leaders and reinforces our people collaboration and care around HSE daily matters. All our employees are concerned, but also our contractors and suppliers, who can



“

Technip Energies' HSE protocol is efficient, with regular engagement with clients and subcontractors, regular safety walkdowns and focus campaigns. Any issues highlighted are dealt with efficiently.”

VINCENT REBOUL SALZE,  
Head of Projects Israel & Regional Development at Eneargan

attend classroom workshops, online learning, coaching and mentoring, build networks and forums, or be involved locally on the ground. For Technip Energies, PULSE is not only about training. It is meant to influence our mindset and behaviours in such a way that HSE is part of everything we do, from the work we complete, issues we report, risk assessments we carry out and instructions we follow.

## Run HSE campaigns globally

Technip Energies has construction sites in a dozen countries all over the world and runs global HSE improvement campaigns, in addition to its PULSE program. For instance, our Risk Reduction Project program is a proactive prevention process in which risk mitigation measures are identified, designed, implemented and shared before an incident occurs. This way we can identify hazards and eliminate or reduce risk. In 2021 we ran 167 risk reduction projects.

## Addressing Covid-19

Technip Energies' response to the Covid-19 health crisis has met the same level of professionalism we adopt daily on the ground. A limited number of our employees were affected, and all were cared for and treated in their home country or country of assignment. Our global and local incident management teams have worked hard to adapt the work conditions to health requirements. They remain very active in 2022, monitoring the situation in line with World Health Organization, Centers for Disease Control and Prevention and local governments to ensure a smooth and safe transition to a full working environment. Working from home has successfully involved a significant number of our employees, thanks to our IT solutions and access to the latest VPN software and remote access technology. New forms of remote activities were thus implemented, such as audits, site inspections and virtual HSE leadership visits on major construction sites.



“

Dealing with Health, Safety and Environment is our first value, an area of our business we will never be compromised on. Our PULSE program puts HSE at the heart of everything we do.”

ADAM PALASZ,  
Vice President QHSES





# Impact Book

Our financial and non-financial performance are presented in the following tables.

An independent practitioner performed procedures on a selection of sustainability information for the year ended December 31, 2021, identified in the tables with an asterisk (\*), and issued a limited assurance report on it.

In line with our ESG roadmap, we are committed to strengthening our ESG accountability and report on progress. In addition to the results presented below, the 2022 Sustainability Report will be audited and aligned with EU Taxonomy and international frameworks (TCFD, SASB, CDP<sup>(1)</sup>) and will include further reporting of scope 3 greenhouse gas emissions.



SEE ANNUAL REPORT 2021

<sup>(1)</sup> TCFD = Task force on Climate Related Financial Disclosures, SASB = Sustainability Accounting Standards Boards, CDP = Carbon Disclosure Project.

## Environment

Indicator	Unit	2021	2020
<b>ENVIRONMENT</b>			
<b>Greenhouse Gas Emissions – Equity Share Approach<sup>(1)</sup></b>			
<b>Scope 1 (direct)*</b>	tonnes CO <sub>2</sub> eq	2,824	2,129
› Offices	tonnes CO <sub>2</sub> eq	2,142	1,596
› Industrial sites	tonnes CO <sub>2</sub> eq	682	533
<b>Scope 2 (indirect)*</b>	tonnes CO <sub>2</sub> eq	16,014	16,409
› Offices	tonnes CO <sub>2</sub> eq	14,969	15,061
› Industrial activities	tonnes CO <sub>2</sub> eq	1,045	1,348
Total scope 1 (direct) & scope 2 (indirect)*		18,838	18,538
Absolute scope 1 & 2 reduction versus base year (2019 with 20,460 tCO <sub>2</sub> eq)	%	7.9	9.4
<b>Scope 3 (indirect) – Upstream*</b>			
1. Purchased goods and services		Partial reporting, in progress	
› Purchased goods and services for subcontracted construction activities to projects for our clients	tonnes CO <sub>2</sub> eq	225,097	103,673
2. Capital Goods	tonnes CO <sub>2</sub> eq	In progress	--
3. Fuel-and energy-related activities (not included in scope 1 and scope 2)	tonnes CO <sub>2</sub> eq	In progress	--
4. Upstream transportation and distribution	tonnes CO <sub>2</sub> eq	In progress	--
5. Waste generated in operations	tonnes CO <sub>2</sub> eq	In progress	--
6. Business travel	tonnes CO <sub>2</sub> eq	In progress	--
7. Employee commuting	tonnes CO <sub>2</sub> eq	In progress	--
8. Upstream leased assets (not included in scope 1 or 2)	tonnes CO <sub>2</sub> eq	In progress	--
<b>Scope 3 (indirect) – Downstream</b>			
9. Downstream transportation and distribution	tonnes CO <sub>2</sub> eq	Not applicable	--
10. Processing of sold products	tonnes CO <sub>2</sub> eq	Not applicable	--
11. Use of sold products (our clients' plants operation)	tonnes CO <sub>2</sub> eq	In progress	--
12. End-of-life treatment of sold products (our clients' plants)	tonnes CO <sub>2</sub> eq	In progress	--
13. Downstream leased assets (leased or sub-leased assets not included in scope 1 or 2)	tonnes CO <sub>2</sub> eq	Not applicable	--
14. Franchises	tonnes CO <sub>2</sub> eq	Not applicable	--
15. Investments (legal entities with equity share under 15%)	tonnes CO <sub>2</sub> eq	In progress	--
<b>Scope 4 (avoided and saved emissions)</b>	tonnes CO <sub>2</sub> eq	In progress	--

<sup>(1)</sup> Refer to the methodology detailed in GHG Protocol – A Corporate Accounting and Reporting Standard – Revised Edition March 2004.



# Environment

Indicator	Unit	2021	2020
<b>Energy</b>			
Energy consumption*	MWh	649,667	338,317
Energy consumption per activity*			
› Offices	MWh	49,622	44,118
› Industrial sites	MWh	7,751	7,570
› Construction sites and yards	MWh	592,294	286,629
Percentage of renewable electricity <sup>(1)</sup>	%	6.9	3.1
<b>Water</b>			
Water withdrawal*	m <sup>3</sup>	1,983,789	882,949
Water withdrawal per activity*			
› Offices	m <sup>3</sup>	173,677	121,331
› Industrial sites	m <sup>3</sup>	15,316	17,490
› Construction sites and yards	m <sup>3</sup>	1,794,796	744,128
Water withdrawal by source			
› Percentage from recycled or reused sources <sup>(2)</sup>	%	21.3	6.2
<b>Wastewater</b>			
Wastewater generated*	m <sup>3</sup>	1,199,769	846,780
Wastewater generated per activity*			
› Offices	m <sup>3</sup>	128,575	100,350
› Industrial sites	m <sup>3</sup>	6,888	5,479
› Construction sites and yards	m <sup>3</sup>	1,064,306	740,951
Wastewater generated by destination			
› Percentage discharged into the environment after quality control	%	26.8	33.8
› Percentage sent to external wastewater treatment plant	%	47.5	39.6
› Percentage recycled or reused internally	%	25.6	19

(1) Includes all energy consumed coming from external renewable sources and from internal production (through solar panels or heating).  
 (2) Wastewater from another organization, wastewater treated and reused internally, and rainwater collected and stored for reuse.

# Environment

Indicator	Unit	2021	2020
<b>Waste</b>			
Waste generated*	tonnes	65,513	299,963
Waste generated by activity*			
› Offices	tonnes	1,406	585
› Industrial sites	tonnes	624	786
› Construction sites and yards	tonnes	63,483	298,592
Waste generated by type			
› Percentage of hazardous waste <sup>(1)</sup>	%	3.4	0.12
› Percentage of non-hazardous waste <sup>(2)</sup>	%	96.6	99.88
Waste generated by destination			
› Percentage of waste diverted from disposal (reuse, recycling, recovery and composting)	%	76.0	96.2
› Percentage of waste sent to landfill or mass burn incineration	%	23.5	3.7
<b>Environmental Management</b>			
Number of main operating centers certified ISO14001*	number	21	--
Percentage of main operating centers certified ISO14001*	%	64	--
Number of environmental incidents			
› Adverse impact <sup>(3)</sup>	number	2	0
› Limited impact <sup>(4)</sup>	number	6	2
<b>Air Emissions<sup>(5)</sup></b>			
Nitrogen Oxides (NO <sub>x</sub> )	tonnes	7,323	4,864
Sulphur Oxides (SO <sub>x</sub> )	tonnes	597	393

(1) Hazardous waste: contaminated soil, waste soil, medical waste, photocopier/printer toner, electrical equipment, batteries, waste paints, solvents and other hazardous waste.  
 (2) Non-hazardous waste: concrete, food waste, glass, mixed domestic waste, soil, rock, paper, cardboard, plastic, scrap metal, wood and other non-hazardous waste.  
 (3) Adverse Impact: Short term (3 months) non-persistent change or pollution with reversible effects on the environment.  
 (4) Limited Impact: Non-persistent change or pollution with reversible effects on the environment and short duration (less than 1 week).  
 (5) Scope of air emissions reporting: construction sites and yards located in Azerbaijan, Bahrain, China, Russia and Singapore.

# Social

Indicator	Unit	2021	2020
<b>SOCIAL</b>			
<b>Safety<sup>(1)</sup></b>			
Number of Lost Time Injuries	number	25	7
Lost Time Injuries Rate (LTIR)*	ratio per 200,000 hours worked	0.02	0.01
Number of Total Recordable Incidents	number	94	23
Total Recordable Incidents Rate (TRIR)*	ratio per 200,000 hours worked	0.08	0.04
Number of fatalities	number	3	1
Serious Incident and Fatality Rate (SIFR)*	ratio per 200,000 hours worked	0.01	0.03
Worked man-hours	hours	228,248,194	126,340,251
Lost workdays	days	1,197	493
Number of HSE leadership visits <sup>(2)</sup>	number	382	385
Risk Reduction Projects <sup>(3)</sup>	number	167	40
SIF Control Index <sup>(4)</sup>	ratio	3.67	3.60
<b>Employment</b>			
Total number of permanent and temporary employees*	number	15,586	14,657
Breakdown of payroll workforce by geographical areas			
› Americas	number	1,343	1,504
› Asia-Pacific	number	2,228	2,320
› Europe	number	7,186	6,487
› India	number	2,770	2,640
› Middle-East/Africa	number	2,059	1,706
Breakdown of payroll workforce by type of contract			
› Permanent contract	%	77.7	--
› Fixed-term contract	%	23.3	--
Breakdown of payroll workforce for permanent contract by seniority			
› ≤ 5 years	%	40.7	--
› 6-10 years	%	22.0	--
› 11-15 years	%	18.2	--
› ≥ 16 years	%	19.1	--

(1) All safety indicators are related to employees and contractors staff

(2) Leadership team: Technip Energies Executive Team, Chief Officers (CEO, COO, CFO, CLO, CTO), Senior Vice Presidents, Vice Presidents, Directors; Leaders that directly report to, or that are nominated & approved by the above group.

(3) Risk Reduction Project: Mitigation measure identified, designed, implemented and shared in order to eliminate an identified hazard or reduce its risk.

Risk prevention projects are tracked through the "Hazard Observation" module in Synergi.

(4) SIF Control Index: Average of the highest implemented corrective action level for each Serious Incident and Fatality (SIF) incidents. Level refers to the HSE Hierarchy of Controls.

# Social

Indicator	Unit	2021	2020
<b>SOCIAL</b>			
<b>People Development</b>			
Total hours learning for Legal and Compliance	hours	5,293	--
Total hours learning for Diversity and Inclusion	hours	16,373	--
Number of employees participating in core disciplines programs <sup>(1)</sup>	number	1,665	--
Percentage of employees who completed the Global Inclusion course*	%	94	--
Percentage of employees who completed the Code of Business Conduct e-learning	%	94	--
<b>Diversity and Inclusion</b>			
Percentage of women on payroll workforce*	%	27	27
Percentage of men on payroll workforce*	%	73	73
Percentage of women into graduate intake*	%	50	--
Percentage of men into graduate intake*	%	50	--
Percentage of women in leadership positions (band 15 and above in our grading system)	%	12	--
Percentage of men in leadership positions (band 15 and above in our grading system)	%	88	--
Breakdown of payroll workforce by age			
› ≤ 30 years	%	10.8	--
› 31-40 years	%	32.6	--
› 41-50 years	%	32.8	--
› ≥ 51 years	%	23.8	--
Number of nationalities represented in the payroll workforce	number	108	104
<b>Communities</b>			
Number of local community initiatives*	number	159 (incl. 34 STEM)	121 (incl. 33 STEM)
Number of employees acting as volunteers	number	2,371	6,874 <sup>(2)</sup>
Number of volunteering hours*	number	14,360	15,238
Number of countries where we had local initiatives	number	21 (incl. 10 STEM)	21 (incl. 9 STEM)

(1) Core disciplines: Project Management, Engineering and Technology.

(2) Including 4,737 volunteers involved in 2 specific initiatives in India (a Covid-19 relief fundraising and a sapling plantation).



## Finance

Adjusted IFRS <sup>(1)</sup>	Unit	FY 2021	FY 2020
<b>FINANCE</b>			
Adjusted Revenue	In € millions	6,667.2	6,014.5
Adjusted Recurring EBIT	In € millions	431.0	353.8
Adjusted Recurring EBIT Margin	%	6.5	5.9
Adjusted Effective Tax Rate	%	29.7	33.0
Adjusted Net Profit <sup>(2)</sup>	In € millions	251.4	206.7
Diluted Earnings per Share <sup>(3)</sup>	In €	1.39	1.15
Adjusted Operating Cash Flow	In € millions	992.7	1,064.4
Adjusted Net Cash	In € billions	3.1	2.2 <sup>(4)</sup>
Adjusted Order Intake	In € millions	9,789.9	4,291.9
Adjusted Backlog	In € millions	16,388.3	12,745.0

(1) Financial information is presented under an adjusted IFRS framework, which records Technip Energies' proportionate share of equity affiliates and restates the share related to non-controlling interests, and excludes restructuring expenses, merger and integration costs, and litigation costs.

(2) Net profit attributable to Technip Energies Group. FY 2020 net profit benefited from favorable litigation settlement of €102.9 million.

(3) FY 2021 and FY 2020 diluted earnings per share have been calculated using the weighted average number of outstanding shares of 180,328,838 and 179,813,880 respectively.

(4) After impact of the separation and distribution agreement.

## EU Taxonomy

The EU Taxonomy Regulation came into force July 22, 2021. It sets out the conditions an economic activity must meet to qualify as environmentally sustainable. The regulation establishes six environmental objectives. In accordance with Article 8 of the Taxonomy Regulation and Article 10-(2) of the Article 8 Delegated Act, we set forth the share of our Group's revenue, capital expenditure (Capex) and operating expenditure (Opex) for the reporting period 2021, which are associated with Taxonomy-eligible economic activities related to the first two environmental objectives (climate change mitigation and climate change adaptation). The reporting requirements for 2021 are limited to the disclosure of eligible economic activities.

**Summary:** Based on an exhaustive analysis performed during 2021, our turnover is Taxonomy-non-eligible because our activities are not covered by the Climate Delegated Act to date and, therefore, the capital and operating expenditure related to our activities are also Taxonomy-non-eligible. In addition, the capital expenditure (Capex) to be reported also includes those that are related to the purchase of output from Taxonomy-aligned economic activities. Lastly, our total operating expenses that comply with the EU Taxonomy are non-significant in comparison with our total consolidated operating expenses and we chose to use the materiality exemption option offered by the regulation. Consequently, we report on Capex as mentioned in the table below.

Indicator	Unit	2021
		<b>Capital expenditures (Capex)</b>
Proportion of Taxonomy - Eligible economic activities	%	56
Proportion of Taxonomy - Non-eligible economic activities	%	44

**Core business activities:** The EU Taxonomy targets the manufacture of products and technologies or the operation of the facilities but not the construction of the facilities. Though our activities are not eligible to the EU Taxonomy, we nevertheless contribute as a leading engineering and technology company to the Energy Transition and enable our clients to generate sustainable electricity.

**Eligible capital expenditures (Capex):** In 2021, our Taxonomy-eligible Capex mainly comprised the increase in right of use related to our new Headquarters "Origine" in Nanterre, France. Based on the current available documentation, we have performed a preliminary analysis of the alignment and assessed that our new headquarters complies with the technical screening criteria.

**Eligible operating expenses (Opex):** Due to our economic activities and our economic model, our operating expenses consist primarily of cost of sales, representing more than 90% of the total consolidated Opex in 2021. Consequently, our total operating expenses that comply with the EU Taxonomy (denominator), represents for the 2021 financial year around €66 million (1.1% of our total consolidated operating expenses). We therefore chose to use the materiality exemption offered by the Regulation, and not to present this indicator.

For more information, refer to Technip Energies Annual Financial Report 2021.

# Glossary

## A

**ABC:** Anti-Bribery and Corruption.

**AGM:** Annual General Meeting.

## B

**BBS:** Behavior Based Safety is a program aiming at observing and analyzing the workers' behaviors to reduce and/or prevent incidents through a positive HSE approach, while offering feedback to and from workers for continuous improvement.

## C

**CAPEX:** Capital expenditures company's major, long-term expenses.

**CCS (Carbon Capture and Storage):** CCS is a solution for reducing greenhouse gas emissions from industrial installations in response to global warming.

**CCUS:** Carbon Capture Utilization and Storage.

**CDP:** is a not-for-profit organization that runs the global environmental disclosure system.

**CSR (Corporate Social Responsibility):** A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis. CSR concerns actions by companies over and above their legal obligations towards society and the environment.

## E

**E&T:** Engineering and Technology.

**ENVID:** Environmental Aspects and Impacts Identification.

**EPC (Engineering, Procurement, Construction):** Type of contract comprising management and engineering services, procurement of equipment and materials, and construction.

**EPC (Engineering, Procurement, Construction and Commissioning):** Type of contract comprising management and engineering services, procurement of equipment and materials, construction and commissioning.

**EPCIC (Engineering, Procurement, Construction, Installation, Commissioning and Startup):** Type of contract comprising management and engineering services, procurement of equipment and materials, construction, commissioning and startup.

**EPCm (Engineering, Procurement and Construction Management):** Type of contract comprising management and engineering services, procurement of equipment and construction management.

**ESG:** Environmental, Social and Governance.

**ESG materiality assessment:** A methodology used to identify and prioritize ESG issues that are the most critical and/or relevant for an organization.

**Ethylene:** Widely used in the production of consumer goods, such as plastics or polymers, ethylene is a hydrocarbon produced in the petrochemical industry by steam cracking, i.e. transformation of hydrocarbons by pyrolysis above 820°C.

## F

**FEED:** Front-End Engineering Design.

**FLNG (Floating Liquefied Natural Gas unit):** In an FLNG solution, the gas liquefaction installations are situated directly above the offshore gas field, thus making the construction of long subsea pipelines and large onshore infrastructure unnecessary.

**FPSO (Floating, Production, Storage and Offloading):** A converted ship or custom-built vessel used as a support of oil and gas installations and for temporary storage of the oil prior to transport.

## G

**GHG emissions:** Greenhouse Gas emissions. Any of the atmospheric gases that contribute to the greenhouse effect by absorbing infrared radiation produced by the solar warming of the Earth's surface. Greenhouse gases include carbon dioxide, methane, nitrous oxide and water vapor. These gases can be naturally occurring or produced by human activity.

**GHG Protocol:** Series of international standards designed to provide a framework for businesses, governments, and other entities to measure and report their greenhouse gas emissions in ways that support their missions and goals.

**GTL (Gas-to-Liquids):** Transformation of natural gas into liquid fuels.

## H

**H2:** Hydrogen.

**HSE (Health, Safety and Environment):** Defines all measures taken by Technip Energies to guarantee the occupational health and safety of individuals and the protection of the environment during the performance of its business activities, whether in offices or on construction sites.

**Hydrogen:** Hydrogen is widely used in petroleum refining processes to remove impurities found in crude oil such as sulfur, olefins and aromatics to meet the product fuels specifications. Removing these components allows gasoline and diesel to burn cleaner and thus makes hydrogen a critical component in the production of cleaner fuels needed by modern, efficient internal combustion engines.

## I

**ISO 14001:** An ISO standard dealing with environmental management systems.

## K

**KPI:** Key Performance Indicator.

## L

**LNG (Liquefied Natural Gas):** Natural gas, liquefied by cooling its temperature to -162°C, thus reducing its volume 600 times, allowing its transport by boat.

**LTI:** Lost Time Injury.

**LTIR:** Lost Time Injury Rate. LTIR = Number of Lost Time Injury Incidents (LTI) x 200,000 / Worked hours.

## O

**OPEX:** Operating expenses company's day-to-day expenses.

## P

**PET:** Polyethylene Terephthalate.

**Petrochemicals:** Industry relating to chemical compounds derived from hydrocarbons.

**PTA:** Purified Terephthalic Acid.

**Pulse:** A program aiming to develop a positive HSE culture through leadership and communication.

**PX:** Paraxylene.

## Q

**QHSES:** Quality, Health, Safety, Environment and Security.

## S

**SAS8000 (Social Accountability 8000):** An international certification standard that encourages organizations to develop, maintain and apply socially acceptable practices in the workplace, developed by Social Accountability International (SAI).

**SAF:** Sustainable Aviation Fuel.

**SBTi:** The Science Based Targets initiative (SBTi) drives ambitious climate action in the private sector by enabling companies to set science-based emissions reduction targets aligned with the Paris Agreement.

**STEM:** Stands for Science, Technology, Engineering and Mathematics; it is a broad term used to group together these academic disciplines.

## T

**TCFD:** Task Force on Climate-related Financial Disclosures.

**TPS:** Technology, Products and Services.

**TRIR:** Total Recordable Incident Rate. TRIR = Total number of Recordable Cases (RC) x 200,000 / Worked hours.

## U

**UN Global Compact:** International initiative of the United Nations, launched in 2000. It unites public and private businesses around 10 universal principles relating to human rights, labor and the environment.

**UN SDG:** The United Nations Sustainable Development Goals.

## W

**Waste valorized:** Waste reused, recycled, composted, and recovery (including energy recovery).



Thank you to all the contributors to this report, both internally and externally, and to all the participants to our 2021 internal photo contest from which several photos have been selected for this report. The cover page is the Grand Prize winner “Earth Rising”.



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