

PETRONAS in 2021

A progressive energy and solutions partner enriching lives for a sustainable future

Our Shared Values

- Loyalty
- Integrity
- Professionalism
- Cohesiveness

Petroliam Nasional Berhad (PETRONAS) is a dynamic global energy and solutions company with a core intent to power society's progress responsibly and sustainably. Recognised as one of the largest corporations in the world, included in the Fortune Global 500[®] ranking, we have a total of 46,884 employees with a global reach spanning over 100 countries.

As the custodian of Malaysia's national oil and gas resources, PETRONAS explores, produces and delivers energy, both hydrocarbon and renewables, to ensure the security of energy supply for the nation and our customers around the globe. We have four core businesses -Upstream, Gas + New Energy, Downstream, and Project Delivery and Technology.

PETRONAS is also the largest petrochemical producer in Southeast Asia. The Group delivers petrochemical products such as olefins, polymers, fertilisers, methanol and other basic chemicals and derivative products.

In upholding our commitment as a responsible and conscientious player in the global energy sector, sustainability remains a core consideration of what we do and how we do it. We are committed to growing our business responsibly, positively contributing to society and the environment. Driven by our passion for innovation to serve a lower carbon energy future, every step takes us closer to attaining our aspiration of net zero carbon emissions by 2050 (NZCE 2050).

Competitive Advantage



Our long track record as a global energy and solutions partner

Since 1974, we have transformed PETRONAS from a domestic-based national oil company into a fully integrated oil and gas multinational corporation. This experience has provided us with the winning formula to drive the transition to a lower carbon economy and further contribute to societal progress.



and expansive global reach

We are an organisation with a strong presence in over 100 countries and we strive to seek energy potential across the globe to deliver responsible energy solutions.



which is driven by a dedicated team of people

People are our strength and partners for growth, driving our passion for innovation to progress towards sustainable energy solutions. Our 46,884 employees worldwide continue to be at the forefront of executing our strategic objectives, equipped with the skills and expertise to thrive in a lower-carbon future.



and underpinned by responsible governance

Throughout the Group, we strive to achieve the highest standards of integrity in the conduct of our business and operations. We have robust policies, systems and protocols in place to ensure good governance and ethical business practices.



supports our expanding business and portfolio

We have a long history of success in exploration, development and production of crude oil and natural gas in Malaysia and abroad. Now, as the world's energy systems are transitioning, our portfolio is expanding to include cleaner conventional hydrocarbons, renewable resources and a range of advanced products and adaptive solutions.

PETRONAS Cultural Beliefs



Customer Focused I deliver solutions from the customer



Be Enterprising I seek opportunities



Innovate Now I challenge norms and push



Speak Up I express my views openly



I take action to progress with pace

Brand Positioning: "Passionate About Progress"

Petroliam Nasional Berhad (PETRONAS) (17

Key Highlights

Financial Highlights

Revenue

RM248.0 billion

2020: RM178.7 billion



Profit/(Loss) After Tax

RM48.6 billion

2020: (RM21.0) billion



Cash Flows from Operations (CFFO)

RM 78.6 billion

2020: RM40.7 billion



Total Assets

2020: RM574.1 billion



Return on Average Capital **Employed (ROACE)**

2020: (4.1%)

Business Highlights

Upstream

Recorded a total daily production average of 2,275 thousand of oil equivalent (boe) per day, a 3% increase in comparison to 2020.

Achieved first hydrocarbon for 21 projects – **14 in** Malaysia and 7 abroad (South Sudan (2), Chad (1), Myanmar (1), Turkmenistan (1), Brazil (1) and Indonesia (1)).

Achieved Final Investment Decision (FID) for **22 projects** – Malaysia (18), Indonesia (2), Brazil (1) and Turkmenistan (1).

Made 10 exploration discoveries – Malaysia (7), Indonesia (1), Brunei (1) and United States (1).

Signed 7 Production Sharing Contracts (PSCs) with new and existing players in Malaysia.

Downstream

Overall Equipment Effectiveness (OEE) of 93.3% across all business segments.

Overall marketing sales volume of 21 billion litres from PETRONAS Dagangan Berhad (PDB), Engen Petroleum and PETRONAS Lubricants International Sdn Bhd (PLI), a 200 million litres increase from previous year.

Supplied fuel for the first Malaysia Airlines flight using a blend mixture of **38% sustainable aviation** fuel (SAF) and conventional jet fuel as a cleaner and more viable energy option.

Commenced commercial operations of 8,000 metric tonnes per year silicone blending facility in Gebeng, Pahang, to strengthen position as key silicone manufacturer in the region.

Conducted PETRONAS Marine's first LNG bunkering in Port Klang and Port of Sandakan to provide a cleaner source of fuel in support of the International Maritime Organization's sulphur limit for ships' fuel oil.



Key Highlights

First in the world to produce LNG from two floating facilities: PFLNG Satu and PFLNG Dua.

Delivered 12,000th LNG cargo from PETRONAS LNG Complex in Bintulu, Sarawak, Malaysia, that includes five carbon neutral LNG cargoes.

Completed 960 Virtual Pipeline System and LNG bunkering deliveries across Malaysia, and 2.026 LNG deliveries in ISO tanks to China.

Close to **1 GW of solar capacity** in operation and under development.

Grew Hydrogen expertise through strategic collaborations with Sumitomo Corporation, Tokyo Gas,

ENEOS, JERA and MASDAR.



Project Delivery and Technology

Managed 587 projects valued at more than RM9 billion.

25 key technologies achieved site readiness.

RM25 million registered

in commercialisation revenue through the deployment of 17 technologies and 98 **TechApps softwares**.

Created RM830 million in total value creation through ARIES, our digital enabling engineering solutions.

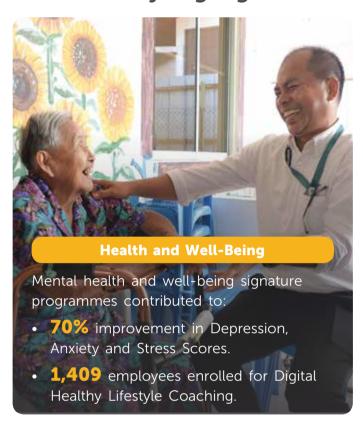
Achieved **RM818** million in cash generation through Alpha **Series**, a digital transformation of our value chain.

Reduction of **6.4%** of **GHG** emissions in support of NZCE 2050.



Key Highlights

Sustainability Highlights



GHG Emissions

- GHG emissions reduced by 6.4%.
- Upstream GHG intensity reduced by 27.3%
- A decrease of an estimated 4.1 million tCO₂e from GHG Emissions Reduction Projects.
- Reduction of an estimated **0.1 million** tonnes of methane emissions.

Anti-Bribery and Corruption

• More than 90% of PETRONAS employees completed online courses on the five Critical Legal Areas: Ethics and Integrity, Data Privacy, Sanctions, Export Control and Competition.

Corporate Governance

Board members attended programmes to keep abreast on matters related to sustainability including human rights, **Just Transition and climate** change.

Environmental Management

• 40% of total waste generated was recycled.



Employee Attraction, Retention and Development

- 2,172 new hires.
- Average 30 hours per employee spent on training.

Key Highlights



Human Rights

- 98% of grievance cases closed.
- 68% of employees completed Human Rights Management e-learning module.



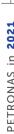
Economic Contribution

- RM48.2 billion contributed to the Federal Government of Malaysia and state governments.
- Contributed **12.000** devices to students worth RM30 million for hybrid learning and teaching.
- More than **RM163 million** invested in the PETRONAS Education Sponsorship Programme (PESP).
- Invested up to RM635.8 million in CSR programmes driven by Yayasan PETRONAS (the Foundation) together with the businesses.

Innovation and Circularity

Identified 19 potential storage sites to offer CCS as an option for carbon management solution.





Awards and Recognitions



We are delighted with our numerous accomplishments over the year. These awards and accolades are a strong testimony to our continuous pursuit of excellence across the PETRONAS Group of Companies.



Key Highlights

2021 Australian Reporting Award (ARA)

PETRONAS Chemicals Group Berhad

- Bronze in General Award: Sustainability Reporting Award

46th International Convention on ICQCC 2021

• PETRONAS Penapisan (Terengganu) Sdn Bhd

 Two PAR Excellence and one Excellence Awards

Annual Report Competition (ARC) Awards International

• PETRONAS Chemicals Group Berhad

- Financial Data (Bronze)
- Specialised Annual Reports - Integrated AR & CSR: Nontraditional Format (Silver)
- Best of Shows (Winner -Malaysia)

APPIES Malaysia 2021 Marketing Campaign Awards

• PETRONAS Dagangan Berhad

 Silver Award in Marketing Innovation Category

BTEC International Institution of the

• Institut Teknologi Petroleum PETRONAS (INSTEP)

- Silver Award

Data Nerd Awards 2021

• PETRONAS Dagangan Berhad

 Winner in Data Creativity Category

Diamond Arrow Award

• Engen Petroleum

- The Most Admired Petroleum/ Diesel Brand in Namibia (Winner)

Dow Jones Sustainability Indices (DJSI) 2021

• PETRONAS Chemicals Group Berhad

- Member of DJSI World Index
- Member of DJSI Emerging Markets Index

Duty of Care Summit and Awards

Group Security, Pandemic **Preparedness and Response Team**

- Honorable Mentions in Remote Resilience Category

FTSE4Good Bursa Malaysia

• PETRONAS Chemicals Group Berhad

- Full 4-Star ESG Rating of Public Listed Companies Assessed in line with the FTSE4Good Bursa Malaysia Review Cycle

• PETRONAS Dagangan Berhad

- Full 4-Star ESG Rating of Public Listed Companies Assessed in line with the FTSE4Good Bursa Malaysia Review Cycle

GasTech Awards 2021

· Malaysia LNG Sdn Bhd

- Engineering Partnership of the Year for Al Driven innovation, STELLAR Project that was codeveloped by Malaysia LNG and PETRONAS Digital

GRADUAN Brand Awards 2021

PETRONAS

 Malaysia's Most Preferred Employer in Oil & Gas Sector

Graduates' Choice Award 2022

PETRONAS

- Top 5 Most Preferred Graduate Employers in Malaysia
- First place in Chemical Sector
- First place in Oil & Gas Sector & **Engineering Sector**
- Top 10 in Convenience Store

Hari Orang Kurang Upaya Sedunia Peringkat Kebangsaan Tahun 2021

PETRONAS

- Anugerah Korporat Prihatin Tahun 2021

HSE Gold Medal Award

Project Delivery and Technology

 HSE Gold Medal Award (PGB – Utilities Kerteh)

IChemE Global Awards 2021

• PETRONAS Penapisan (Terengganu) Sdn Bhd

- Oil & Gas Award "VGSP Eliminates Liquid in Sampling Bombs" (Highly Commended)

IChemE Malaysia Awards 2021

• PETRONAS Penapisan (Terengganu) Sdn Bhd

- Oil & Gas Award "VGSP Eliminates Liquid in Sampling Bombs" (Highly Commended)
- Process Safety Award "Digitalizing & Gamifying Process Safety" (Highly Commended)
- Training & Development Award "Incident Investigation Methodology & Presentation" (Highly Commended)

Project Delivery and Technology

- Process Automation and Digitalisation Award (STELLAR)
- Training and Development Award (Citizen Analytics)

IDC Future Enterprise Awards

• Project Delivery and Technology

- Country Award for Future of Connectedness
- Asia Pacific Award for Future of Connectedness

IPSOS Malaysia

• PETRONAS

- Highest Scoring Organisation in Managing a Crisis Situation



Key Highlights

Awards and Recognitions

KPMG Customer Experience Excellence 2021

• PETRONAS Dagangan Berhad

- First among Malaysia's Top 10 Leaders

Leading Employers Graduates 2021

PETRONAS

- Second in Malaysia's 100 Award
- First in Energy, Oil and Gas, Utilities sector for the fourth consecutive year since 2018

LinkedIn Talent Awards 2021

PETRONAS

- Diversity and Talent Insight Pioneer

Mailis Amanat dan Makan Malam Apresiasi Sempena Ulang Tahun ke-75 Jabatan Kebajikan Masyarakat

PETRONAS

- Anugerah Korporat Prihatin

Majlis Anugerah Pembayar-Pembayar 2019/2020 Cukai Terbaik 2020 dan Most Outstanding Hasilian 2020 Sempena Sambutan Hari Hasil ke-25

- KLCC Property Holdings Berhad
- The Best Taxpayer Award

Malaysia Technology Excellence Awards 2021

- PETRONAS Digital Sdn Bhd and Malaysia LNG Sdn Bhd
- Al: Oil & Gas Award for the entry "Al-driven Live Advisory for LNG Plant Start-Up"
- Analytics: Oil & Gas Award for the entry "PETRONAS Integrated Pipeline Integrity Assurance Solutions (i-PIMS)"
- Digital Oil & Gas Award for the entry "HSSE Analytics Suite"

· Project Delivery and Technology

- HSSE Analytics Suite
- STELLAR: AI
- Integrated Pipeline Integrity Management System (I-PIMS): Digital

Malaysian Society for Occupational Safety & Health (MSOSH)

Upstream

- 15 Gold Merit Awards
- 6 Gold Class Awards

NACS Convenience Summit Asia 2021

• PETRONAS Dagangan Berhad

- Convenience Retail Technology Award (Winner)

National Annual Corporate Report Awards (NACRA) 2021

PETRONAS

 Excellence Awards Non-Listed Organisations -Platinum

• PETRONAS Gas Bhd

- Special Awards Best Designed Annual Report
- Gold

Prime Minister's Hibiscus Award

- PETRONAS Carigali Sdn Bhd (Terengganu Crude Oil Terminal)
 - Excellent Achievement Award
- PETRONAS Carigali Sdn Bhd (Terengganu Gas Terminal)
- Exceptional Achievement Award
- PETRONAS Carigali Sdn Bhd (Sarawak Oil)
 - Notable Achievement Award
- PETRONAS Carigali Sdn Bhd (Sabah Oil & Gas Terminal)
 - Notable Achievement Award
- PETRONAS Penapisan (Terengganu) Sdn Bhd
- Bronze in Special Projects Award
- Exceptional Achievement Award in Environmental Performance

• PETRONAS Gas Berhad (Gas Processing Kerteh)

- Excellent Achievement in Environmental Performance

• PETRONAS Gas Berhad (Gas Processing Santong)

- Notable Achievement in Environmental Performance
- PETRONAS Gas Berhad (Regasification Terminal Sungai Udang)
- Exceptional Achievement in Environmental Performance

• PETRONAS Gas Berhad (Tanjung Sulong Export Terminal)

- Notable Achievement in Environmental Performance

• PETRONAS Gas Berhad (Utilities Gebeng)

- Excellent Achievement in Environmental Performance

• Malaysia LNG Sdn Bhd

- Exceptional Achievement in Environmental Performance

• PETRONAS Chemicals Polyethylene Sdn Bhd

- Exceptional Achievement Award in Environmental Performance

PETRONAS Chemicals Ammonia Sdn Bhd

- Exceptional Achievement Award in Environmental Performance
- Silver in Special Project Award

• PETRONAS Chemicals MTBE Sdn Bhd

- Notable Achievement Award in Environmental Performance

• Institut Teknologi Petroleum PETRONAS (INSTEP)

- Notable Achievement Award in Environmental Performance for the year 2019/2020

Putra Brand Awards

• PETRONAS Dagangan Berhad

- Gold Award in Automotive Fuel, Lubricants and Accessories

Randstad Malaysia Employer Brand **Awards**

PETRONAS

- Inducted into 'Most Attractive Employer' Hall of Fame since 2020

Royal Society for the Prevention of Accidents (RoSPA) 2021

- Institut Teknologi Petroleum PETRONAS (INSTEP)
- Gold Award
- PETRONAS Chemicals Fertiliser Kedah Sdn Bhd
 - Gold Award

Gas + New Energy

- Gold Medal Award (PGB Gas Processing Plant, Santong)
- Gold Medal Award (PGB Tanjung Sulong Export Terminal)
- Gold Medal Award (PGB Utilities Plant Gebeng)
- Gold Medal Award (PGB Utilities Plant Kerteh)

Sarawak Chief Minister **Environmental Award (CMEA)** 2019/2020

• PETRONAS Carigali Sdn Bhd (Sarawak Asset)

- Champion under Large Enterprises Category for Mining & Resource Extraction Sector
- Gold Award under Large Enterprises Category for Mining & Resource Extraction Sector
- Merit Award under Large Enterprises Category for Mining & • MISC Berhad Resource Extraction Sector

Shared Services & Outsourcing Network (SSON) Impact Awards 2021

PETRONAS

- Silver Award in Process Improvement and Value Creation
- Bronze Award in Best Shared Services Team
- Bronze Award in Best Vendor Collaboration
- Honorary Mention in Change Management Award
- Customer Centricity Impact Award

Strategic Trade Act (STA) 2010 **Compliance Award**

- PETRONAS Chemicals Group Berhad
- STA 2020 Compliance Award (Winner)

Sustainable Business Awards 2021

PETRONAS

- Winner, Community Pillar
- Winner, Stakeholder Management Pillar

PETRONAS Chemicals Group **Berhad**

- Winner, Energy Management Pillar
- Winner, Water Management Pillar
- Significant Achievement -Sustainability Strategy Pillar
- Significant Achievement -Workforce Pillar
- Significant Achievement -Stakeholder Management Pillar

- Winner, Waste Productivity & Materiality Pillar
- Winner, Climate Change & Emission Pillar
- Winner, Land Use & Biodiversity
- Significant Achievement, Stakeholder Management Pillar

• KLCC Property Holdings Berhad

- Significant Achievement, Supply Chain Management Pillar
- Significant Achievement, Business Ethics and Responsibility Pillar

Talend Data Masters Awards

- Project Delivery and Technology
- Data Masters Award for the Enterprise Data Hub

The Edge Billion Ringgit Club (BRC) **Awards**

- PETRONAS Chemicals Group
 - Super Big Cap Companies Above RM40 billion market capitilisation - Highest Returns to Shareholders over Three Years

Top Companies South Africa: Reputation Index Award

- Engen Petroleum
- Oil & Gas (Winner)

Key Highlights

Event and Conference Highlights

Throughout 2021, we engaged with key stakeholders at local and international events. Through these events, we exchanged insights and knowledge to drive the industry and nation forward and deepen our understanding of how to unlock our own potential in meeting the energy needs of the future.

Forum [V]

25-29 January

We attended the World Economic Forum, represented by President and Group Chief Executive Officer (GCEO), Datuk Tengku Muhammad Taufik.

World Economic Future Energy Asia [V] 25-27 August 2021

As one of the Sponsors, President and GCEO. Datuk

Tengku Muhammad Taufik and VP LNG Marketing and Trading, Shamsairi Ibrahim spoke at the conference, hosted by the Ministry of Energy Thailand and cohosted by EGAT and PTT.





International Conference on Nation-Building

8-9 September 2021

We were represented by Senior Vice President of Corporate Strategy Mazuin Ismail, who was invited as a conference sneaker

GasTech 2021

21-23 September 2021

President and GCEO, Datuk Tengku Muhammad Taufik and Vice President of LNG Marketing & Trading, Encik Shamsairi Ibrahim respectively spoke on Sustainability and low-carbon commitment, and Growing LNG-to-Power Across Asia in the C-Suite Dialogue Sessions held at GasTech 2021 in Dubai. At the conference, PETRONAS and Malaysia LNG

was announced as Winner for Best Engineering Partnership.

Key Highlights



The Economist: Future of Energy Week [V]

4-7 October 2021

President and GCEO, Datuk Tengku Muhammad Taufik was interviewed by the Editor of The Economist and spoke on "To the Last Drop: The End of Oil and Gas?" at the Plenary Session. We were also one of the event sponsors.

India Energy Forum by CERAWEEK [V] 20-22 October 2021

Thousands of delegates from Indian, regional, and international energy companies, institutions, and governments gathered virtually and in New Delhi for the 5th India Energy Forum by CERAWeek, under the patronage of Hon. Shri Hardeep Singh Puri, Minister of Petroleum and Natural Gas & Housing and Urban Affairs. President and GCEO, Datuk Tengku Muhammad Taufik, participated as one of the speakers under the topic "Creating Resilience to Climate Change: Lessons from the pandemic".

ASEAN Methane Roundtable 2021 [V] 26 October 2021

PETRONAS supported by Thailand's PTT Public Company Limited (PTT), hosted the inaugural ASEAN Energy Sector Methane Roundtable 2021. In his welcoming address, President and GCEO, Datuk Tengku Muhammad Taufik stressed on the importance for ASEAN to embrace a transition strategy that is responsible and equitable to ensure the sustainability of the region's energy system.





ADIPEC 2021

15-18 November 2021

President and GCEO, Datuk Tengku Muhammad Taufik was one of the invited speakers at ADIPEC, hosted by the Abu Dhabi National Oil Company (ADNOC). We also inked four new agreements with technology partners.

CERAWEEK 2021 [V]

1-5 March 2021

As a Strategic Partner and Agora Partner of CERAWEEK 2021, we enhanced our position on the global platform with insightful topics and strategic content presented by our leadership team.



IPTC 2021 (International **Petroleum Technology** Conference) [V]

23-25 March 2021

2021

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We proudly hosted IPTC for the third time, alongside Mubadala Petroleum and Schlumberger. PETRONAS President and GCEO. Datuk Tengku Muhammad Taufik, delivered the keynote address during the Opening Ceremony.





EXPO 2020 DUBAI - Opening Ceremony 4 October 2021

As the Official Premier Partner of the Malaysian Pavilion at the Expo 2020 Dubai, we invested RM5 million in the thirdlargest global event in terms of economic and cultural impact.

Khazanah Megatrends Forum [V]

4 October 2021

President and GCEO. Datuk Tengku Muhammad Taufik spoke at the conference during the Special Address session on "The Great Reset: Shaping a Sustainable Energy Future".



Reuters IMPACT [V]

4-7 October

The event brought together world leaders, big business C-Suite, and forward-thinking pioneers to inspire, drive action and accelerate innovation towards the greatest challenge of our generation: the climate emergency. President and GCEO, Datuk Tengku Muhammad Taufik, participated as a speaker under the topic "Mobilising global business to deliver on climate action."



LNG Producer-Consumer Conference (LPCC) [V]

5 October 2021

President and GCEO, Datuk Tengku Muhammad Taufik delivered a video message, in conjunction with the 10th Anniversary of the Conference



Energy Intelligence Forum (EIF) [V]

5 October 2021

President and GCEO, Datuk Tengku Muhammad Taufik spoke during the Leadership Dialogue session. Meanwhile. EVP and CEO of Upstream, Adif Zulkifli participated in a panel session on the "Advantage Oil and Gas: What Makes the Cut in the Age of Austerity".



PETRONAS FutureTalks [V]

23-24 November 2021

PETRONAS' inaugural FutureTalks focus on region's progress in the energy transition – driven by emerging digital technologies and shifting business-as-usual to business-unusual.



Merdeka Award Grant Ceremony

26 November 2021

As a Merdeka Award Trustee, alongside ExxonMobil and Shell, we selected five young Malaysians to receive grants that offer learning opportunities at world-renowned institutions.

Business Snapshots

Our role as Malaysia's fully integrated energy provider is built on a dynamic value chain. Through our core businesses, we are able to deliver society's growing energy needs and contribute to a better tomorrow for everyone.







Upstream

PETRONAS' Upstream business is a fully integrated business that encompasses Exploration, Development, Production and Malaysia Petroleum Management (MPM), covering a broad portfolio of resources and play types. Upstream's presence extends across more than 20 countries globally, with 247 producing fields, 432 offshore platforms and 30 floating facilities.

Upstream also promotes sustainable and orderly development of Malaysia's petroleum resources through 100 active Petroleum Arrangement Contracts (PACs), including within the Malaysia-Thailand Joint Development Area. We are also involved in 65 PACs internationally.

Business Snapshots







Gas + New Energy

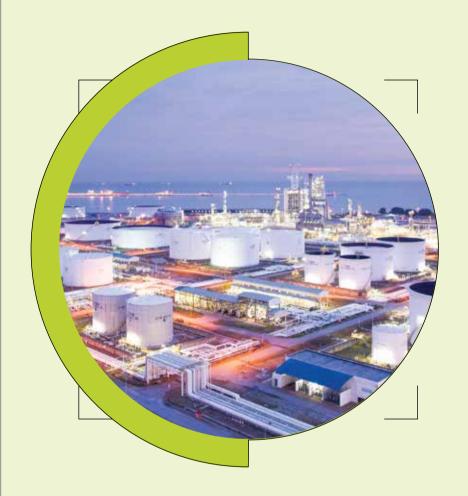
Gas + New Energy (G+NE) business comprises the Liquefied Natural Gas (LNG), Gas and Power, New Energy and Hydrogen business segments.

As PETRONAS' one-stop centre for a reliable and cleaner energy solutions, G+NE provides accessible cleaner energy fueling through our integrated value chain to meet the growing global demand.

In addition, we strive to create sustainable value and profitable growth for PETRONAS and our partners by focusing on customer-centricity, operational and commercial excellence, supported by the right talent, culture and digital innovations.

Business Snapshots

Business Snapshots













Downstream

PETRONAS' Downstream business enhances the value of petroleum resources through the refining, marketing and trading of crude oil and petroleum products, as well as manufacturing and marketing of petrochemicals, specialty chemicals and derivatives.

Downstream owns and operates an extensive retail network of more than 2,000 PETRONAS and Engen stations in Malaysia and sub-Saharan Africa respectively, offering high quality fluids and lubricants, as well as innovative non-fuel solutions to create seamless and frictionless experience for our customers.

Guided by PETRONAS' Sustainability Agenda, the Downstream business also offers cleaner energy solutions including sustainable aviation fuel (SAF), LNG bunkering and electric vehicles (EV) infrastructure and fluids in supporting PETRONAS' NZCE 2050.

Project Delivery and Technology

PETRONAS' Project Delivery and Technology (PD&T) Division innovates and enables tech-digital transformation for PETRONAS, and leverages technology and digital synergy to achieve sustainable and regenerative development. PD&T's role is to service, safeguard, and shape the Group's growth and strategy, backed by distinctive research and technical expertise, innovative solutions, as well as robust systems and processes.

In recent years, PD&T's role has increased significantly as PETRONAS moves into new areas of opportunities beyond oil and gas to meet our NZCE 2050 aspiration. As the engine that drives groupwide growth, PD&T is committed to support the Group's business targets by leveraging data to deliver value via a wide spectrum of technology and digital products and solutions.

Our Integrated Value Chain

Our Integrated Value Chain

Upstream

Exploration

Exploration activities in PETRONAS is a consolidation of exploration functions in Malaysia and internationally, which explores, acquires, extracts and delivers new resources to sustain long-term production. The role also includes the responsibility to attract exploration investment in Malaysia through data enrichment, technical evaluation and overseeing exploration activities as part of the regulatory body for the upstream sector under the umbrella of Malaysia Petroleum Management (MPM) business unit of PETRONAS. Core activities include block promotion, block acquisitions, basin evaluations, play generation, prospect maturation and exploration drilling. Exploration delivers new resource addition through continuous exploration in basins domestically and abroad to provide a pipeline of hydrocarbon resources for a sustained and long-term hydrocarbon production.

Development and Production

Development and Production (D&P) comprises a consolidation of development and production functions for Malaysia Assets. International Assets. and Centre of Excellence (CoE), which provide value-driven, world-class operational delivery, with utmost priority on Health, Safety and Environment (HSE) and Asset Integrity. D&P CoE, which includes Petroleum Engineering, Wells, Operational Excellence, Petroleum Economics, Global Resource Planning and Capability Development and Upstream Digital collectively provide valuedriven operations in both technical and commercial solutions. This is done in collaboration with Assets, Exploration CoE, Project Delivery and Technology (PD&T) and Group Digital to support business growth.

Malaysia Petroleum Management

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PETRONAS

As the custodian of the country's hydrocarbon resources, PETRONAS through MPM plays its role as the oil and gas industry shaper and investment enabler by providing stewardship throughout the lifecycle of the upstream petroleum activities in Malaysia. PETRONAS' success in maximising the long-term value from hydrocarbon resources in Malaysia are realised through our effective partnerships with our Petroleum Arrangement Contractors (PACs), consisting of the oil and gas majors, large independents and specialised oil and gas companies. We continue to develop a competitive and conducive investment environment for our investors by offering

progressive fiscal terms whilst ensuring optimum production is achieved in a prudent and safe manner for people, facilities and the environment. We work with industry players to optimise efficiency throughout the field life by adopting innovative technical and commercial solutions. We also champion collaboration with various stakeholders ranging from government bodies to energy companies, business associations and higher learning institutions to create a strong ecosystem towards the development of a safe and sustainable

Refinina

With a refining capacity of more than 700 kilobarrels per day, our processing plants transform and refine crude oil and various alternative raw materials into high-value petroleum products such as gasoline, kerosene, jet fuel, gasoil, bitumen, fuel oil and lubricant base oil.

Chemicals

We are one of the largest integrated chemicals producer in Southeast Asia, with over 12.8 million tonnes per annum production capacity from 11 manufacturing sites around the world. We manufacture and sell a range of solutions including olefins, polymers, fertilisers. methanols, specialty chemicals and derivative products to our industrial customers in various sectors such as personal care, textile, automotive, construction, packaging, pharmaceutical, among others.

Downstream Lubricants

We manufacture and market a full range of high-quality automotive and industrial products in over 90 markets globally through more than 30 marketing offices located in 27 countries.

Marketing and Trading

We deliver high-quality solutions to customers including automotive, marine and aviation fuels, gas for cooking, heating and electrical power, as well as cleaner energy solutions such as electric vehicles (EV) charging stations. LNG bunkering and sustainable aviation fuel (SAF). In addition to operating the largest fuel retail network in Malaysia and South Africa. we also have retail presence in sub-Saharan Africa

We also market and trade crude oil and petroleum products, including PETRONAS' equity crude where we are internationally present in development and production activities.

Liquefied Natural Gas (LNG)

We are a leading global LNG producer and supplier. We have a diverse portfolio of assets and supply nodes located across Malaysia, Egypt, Australia and soon Canada.

Gas and Power

With a broad range of customer-centric products and solutions, we maximise our position domestically and pursue growth in emerging markets. Our world-class asset performance and diverse customer portfolio allow us to be the ideal solutions partner in delivering natural gas to our

Our venture into hydrogen is built upon our expertise in extracting blue hydrogen from our facilities. We are developing a competitive green hydrogen supply chain by leveraging our expanding renewables portfolio, energy partnerships and advanced R&D in electrolysis. We continue to promote hydrogen as an energy source and grow Malaysia's position as a hydrogen hub and proximity to key demand centres in Asia.

New Energy

Gas + New Energy

We continue to grow our position as an international renewable energy provider through flexible integrated solar and wind solutions. We offer a range of affordable and customer-centric solar energy solutions to ensure customers receive a reliable supply of clean energy. These solutions include on-site rooftop solar, off-site solar, battery storage, hybrid solutions and advanced analytics energy monitoring solutions. To date, we have grown our solar capacity in operation and under development to close to 1 GW locally and internationally, reinforcing our position as one of the key clean energy providers in the region.



Japan:

Macau:

Malaysia:

@ Gas + New

e Project Deliver

Malaysia-Thailand

Joint Development

and Techn

O Upstream

O Upstream

DownstreamProject Delivery

Mvanmar:

Energy

o Gas + New

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South Korea:

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Thailand:

Vietnam:

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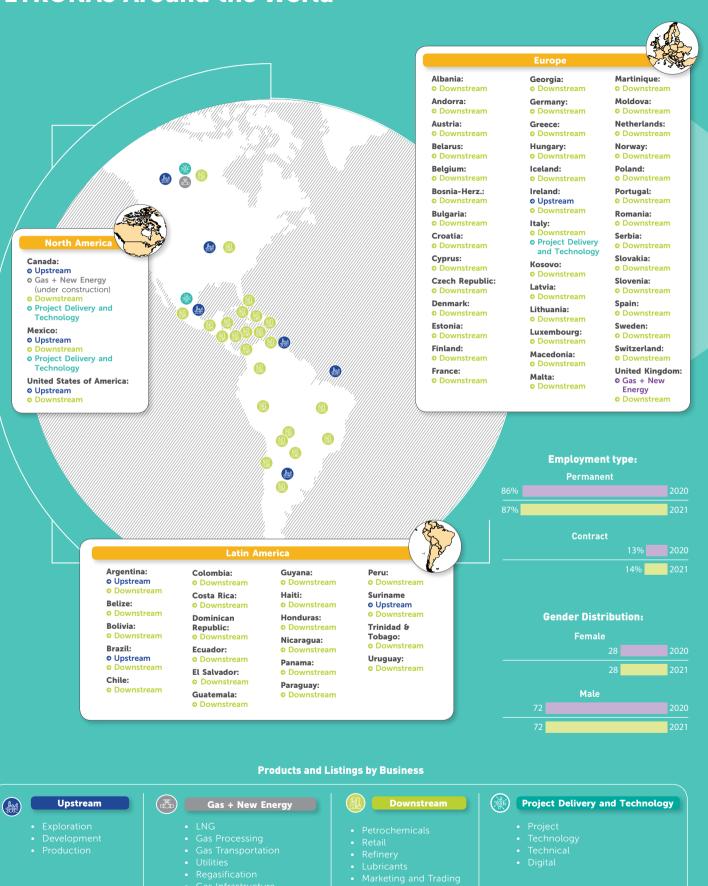
Energy

Downstream

Energy

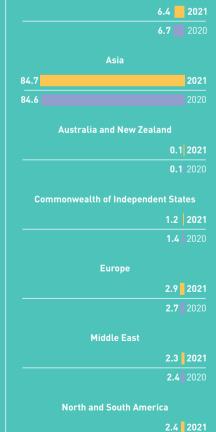
ETRONAS in 2021

PETRONAS Around the World

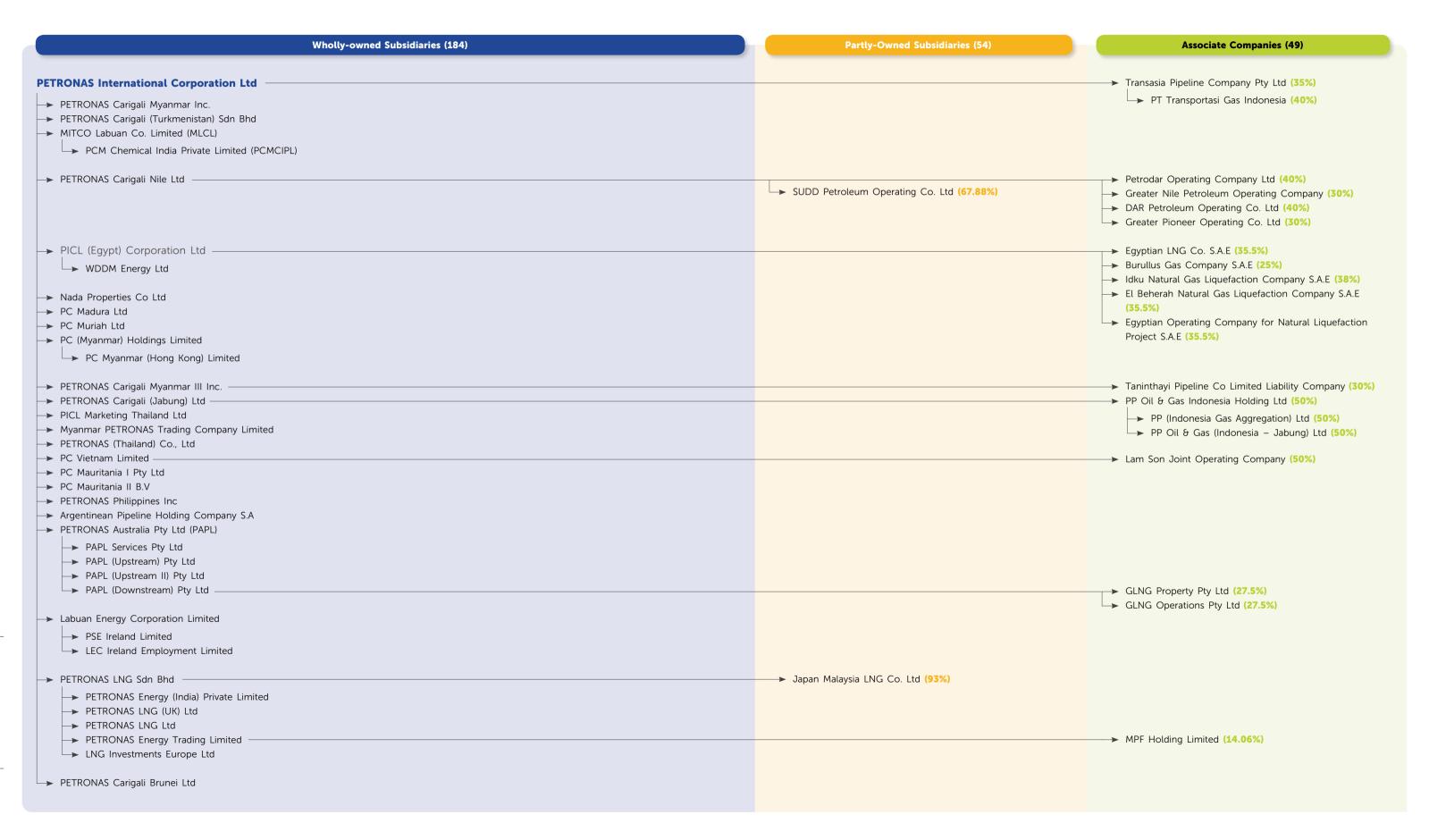


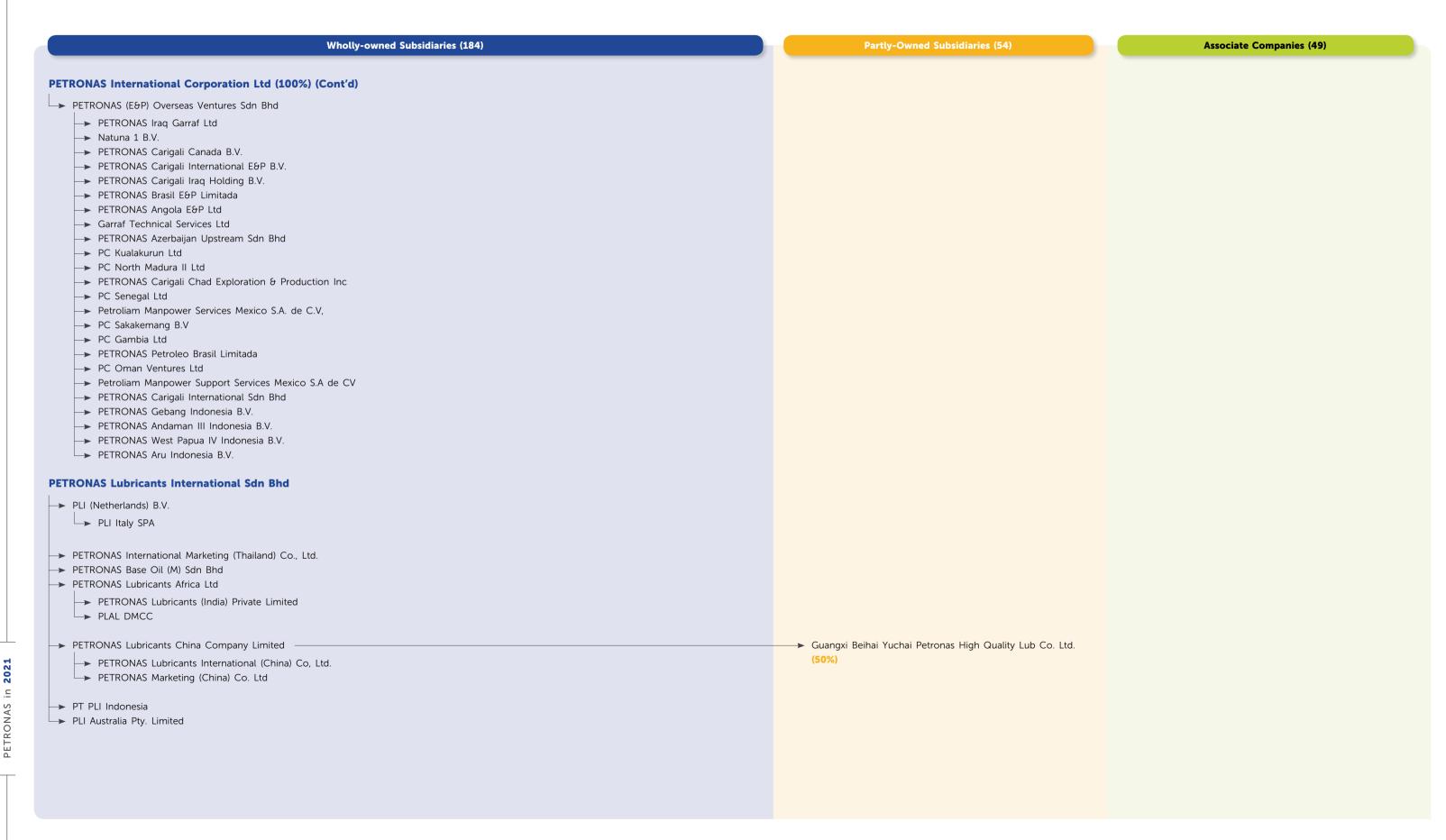


Breakdown of Employees by Region (%)



Wholly-owned Subsidiaries (184)	Partly Owned Subsidiaries (54)	Associate Companies (49)
PETRONAS Carigali Sdn Bhd ———————————————————————————————————		─────────────────────────────────────
→ PETRONAS Carigali Overseas Sdn Bhd		PCPP Operating Company Sdn Bhd (40%)
PETRONAS Carigali Nigeria Limited		
→ PC Randugunting Ltd		
→ PETRONAS Carigali (Ketapang) Ltd → PETRONAS Carigali (West Galagah Kambuna) Ltd		
PETRONAS Carigali (West Galagari Kariburia) Ltd PETRONAS Carigali (Surumana) Ltd		
→ PETRONAS Carigali White Nile (5B) Ltd		
PETRONAS Carigali (Australia) Pty Ltd		
▶ PC JDA Limited —		Carigali Hess Operating Co. Sdn Bhd (50%)
		Carigali-PTTEPI Operating Co. Sdn Bhd (50%)
► E&P Venture Solutions Co. Sdn Bhd		DC Detrolouse Cds Dbd (200/)
E&P O&M Services Sdn Bhd		→ BC Petroleum Sdn Bhd (20%)
EUT OUM SCIVICES SUIT BITU		
► E&P Malaysia Venture Sdn Bhd		
▶ Vestigo Petroleum Sdn Bhd		→ Ophir Production Sdn Bhd (20%)
ETRONAS Assets Sdn Bhd		
► Petrofibre Network (M) Sdn Bhd		
▶ PETRONAS Digital Sdn Bhd		
→ Virtus IP Sdn Bhd		
ETRONAS Hartabina Sdn Bhd		
▶ PRBF Holdings Corporation Sdn Bhd		
PRBF Properties Sdn Bhd		
TRONAS Trading Corporation Sendirian Berhad		
➤ PETCO Trading (UK) Limited		
➤ PETCO Trading Labuan Company Ltd		
➤ PETCO Trading DMCC		
P.T. PETRONAS Niaga Indonesia		
TRONAS Technical Services Sdn Bhd		
► PTSSB DMCC		
PETRONAS Technology Ventures Sdn Bhd		
PTV International Ventures Ltd	·	
► PETRONAS Global Technical Solutions Sdn Bhd	the state of the s	
GP Technical Services Sdn Bhd		
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PETRONAS

Corporate Structure



