

MACRO TRENDS

Even though we operate in an area of business that has been fulfilling the world's primary energy needs for nearly 150 years, never have key paradigms which have been the tenets of our industry become almost intractable paradoxes. In certain jurisdictions, governments are demanding greater levels of production in the interest of energy security, to keep oil and gas prices down and inflation levels manageable. However, instead of providing greater incentives to catalyse more investment into development projects to bring onstream higher levels of production, there has been a tendency for the implementation of inimical taxation policies. Investment allowances included to offset some of the effects of the enhanced fiscal load placed on exploration and production (E&P) companies and to encourage investment have only resulted in a "grab" for the services and equipment required to undertake capital and routine maintenance related projects. This "grab" for equipment and services has resulted in a sharp increase in the corresponding procurement costs, which has then disadvantaged the economics of projects being sanctioned. This "grab" being currently observed also includes a movement of experienced human capital as organisations compete for this scarce resource.

The impatience of the global population, chasing an accelerated pursuit of a green, clean agenda continues but it is now becoming clear that this race is one of the key contributors to the current situation, in which the gap between what is desired and that which can be delivered is clearly being reflected in the energy markets. Technology, investment and an access to raw materials (primarily rare earth materials) are all lagging idealistic goals and the reality is that clean energy sources will require a longer gestation before they are ready to materially replace established fossil-fuel based solutions.

In western Europe, with the shortage of primary energy sources (whether clean or oil and gas based) becoming acute in certain jurisdictions, coal, the most damaging from a greenhouse gas (GHG) emissions perspective, is seeing very strong demand. In countries most impacted by the effects of sanctions in Russia, this form of hydrocarbon is providing a "safety net" and coal-based power stations that were in the process of being moth-balled are now instead, being rejuvenated. In fact, energy needs currently cannot be managed from supply side solutions alone but instead, soft forms of rationing are an integral part of the solutions being deployed. As examples, in a bid to conserve energy, Parisian city officials announced on 13 September 2022 that they would commence a programme of measures to reduce demand.

Amongst the measures disclosed were:

- turning off the lights that illuminate the iconic Eiffel Tower more than an hour earlier daily than was usually the case (i.e. 11:45 p.m. instead of 1:00 a.m.);
- lowering the temperature inside public buildings from 19 to 18 Celsius during normal business hours, and to 16 Celsius on nights and weekends; and
- turning on the heat in public buildings in mid-November 2022, rather than mid-October 2022.

Several other cities in Europe are pursuing similar initiatives. London has created special lanes and reduced speed limits for motor vehicles on many roads to 20 miles per hour (mph) to make it safer for the increasing number of cyclists now using electric and manual bicycles. In fact, in September 2022, an announcement was made that a 15 mph speed limit would soon be enforced in many areas.

The most confusing of strategic signals, at this time, come from the largest and oldest industry players in the oil and gas sector. At a time of some of the highest oil and gas prices seen in the past decade, with energy security of grave concern in Western Europe and elsewhere, boardroom and courtroom disagreements have seen these companies reduce their investments and geographical footprints in their core business area and instead, venture aggressively into the space of clean energy technologies. With the largest companies unwilling to flex their Balance Sheets to close visible gaps in the oil and gas supply/demand equation, markets are only further tightening.

It is clear that the oil and gas business is being seen, at least from some political and many social perspectives, to be a "necessary evil". It is also now being accepted that the political sprint, seen in the past three years, towards fulfilling the popular narrative of a clean, green dream and a sustainable world is partly responsible for the inflation, recession and this period of economic hardship that is currently being endured. The Russian aggression seen in the Ukraine is also another significant factor. It has appeared to tip the energy security/clean energy agenda discourse with energy security and a more gradual transition to cleaner forms of primary energy being prioritised ahead of an accelerated climate change agenda.

These recent macro trends are changing the landscape of our industry sector and certain factors are emerging for detailed consideration by industry participants going forward. These developments, their drivers and effects are further elaborated in the following paragraphs:

1. Political Trends

Until the end of 2021, the governments of Western Europe led the charge away from the use of fossil fuels. Aggressive climate related targets were set in some countries, in certain nations, these were gazetted into law. The introduction of the European Commission's (EC) European Green Deal (EGD) is aimed to transition the European Union (EU) market towards a greater resource efficiency base and a more competitive, sustainable, and circular economy. Achievement of the EC's goals by 2050 was projected to require a combination of policies supported by both compliance and forward-looking technology. A key assumption for the implementation of the EGD was peace and stability in Europe.

Since the end of World War II, Europe has been in a relatively peaceful state. There was the dissolution of the Soviet Union event which resulted in the end of the country's and its federal government's existence as a sovereign state, thereby resulting in its constituent republics gaining full sovereignty on 26 December 1991. There was also the breakup of Yugoslavia which occurred as a result of a series of political and economic upheavals and conflicts during the late 1980s and early 1990s. But apart from these events, peace and stability have been hallmarks of the European continent.

Thus, the aggressive military action taken by Russian armed forces in the Ukraine caused much concern as it unfolded in early 2022. The subsequent slew of economic sanctions implemented against the Russian state and its notable business luminaries by the EU and the United States (US) in the main induced a tit for tat response from Russia. The Russian Government used the fact that approximately 40% of gas demand from Europe was sourced from Russia, and its action of choking back that gas supply to its European neighbours has had far reaching direct and indirect consequences, causing, amongst others:

- an acute gas shortage in Europe;
- the prioritisation of energy security goals by the EU countries over climate change objectives for the current time;
- a reversion back to a reliance on coal;
- a re-mapping of global energy flows in response to Western sanctions;
- the re-making of geopolitical alliances in the Middle East;

- the introduction of gas and nuclear power into the taxonomy of the EU clean energy agenda; and
- a disproportionate increase globally of the price of liquified natural gas (LNG) when compared to oil.

Security issues, market uncertainty, supply chain constraints and an expectation that during the forthcoming winter, some gas fired power plants located in Western Europe may revert to the use of oil have also caused crude to sell at a premium. Not only is the direct shortage of gas of concern but there are several additional knock-on negative effects that are part and parcel of a gas shortage. Natural gas provides the feedstock for agricultural fertilisers which enhance yields of crops. Furthermore, a considerable portion of the grain supply for Europe and the rest of the world originates from Ukraine. With the Ukraine engaged in a war with Russia and fertiliser production in Europe under threat as a result of a lack of feedstock gas, food supply chains could also be at risk if the Russian – Ukrainian conflict persists.

Overall, it appears that Western Europe has pursued a strategy that has now placed it in a position in which it has little control of its energy supply solution. In an effort to recover some control of its energy supply dilemma, the President of the EU announced on 14 September 2022 that the EU had plans to launch a "deep and comprehensive" reform of the electricity markets by decoupling the effect of the price of gas on the price of electricity. The mechanism to do this would likely be through the introduction of gas price caps and an implementation of windfall taxes imposed on oil and gas companies.

The political situations in both our primary areas of business are also uncertain at this time. In Malaysia, as this Annual Report 2021/2022 goes to print, a General Election is anticipated whilst in the United Kingdom (UK), a change in the Prime Minister has resulted in a new Cabinet. The early indications from the new leadership in the UK appears to be pro oil and gas with domestic energy independence a key objective.

The increase in the current cost of energy has also not been well received by US President Biden. Whilst the Democratic Party has been pushing a green/clean energy agenda in the US, he has had to attempt to secure output of additional volumes of oil from the Organization of the Petroleum Exporting Countries (OPEC) to stop crude prices from escalating. To date, his efforts have been largely unsuccessful. With few options remaining and the cost of crude oil increasing, driving inflation

and the cost of living upwards, the US was forced to release volumes from its Strategic Petroleum Reserve (SPR) and at the time of this Annual Report 2021/2022, the US SPR is now at circa 416 million barrels, down from about 618 million barrels about a year ago. In the meantime, US shale and tight gas producers are gradually increasing production to take advantage of LNG supply opportunities into Western Europe, caused by sanctions on Russian gas producers.

In China, a zero tolerance for COVID-19 has resulted in sporadic lockdowns with the consequent impact of a fluctuating level of energy demand. At the time of this Annual Report 2021/2022, it appears that the Chinese Government is gradually relaxing on the enforcement of this policy as COVID-19 becomes less prevalent. More economic activity in China will only tighten energy markets further.

Amidst all the supply shortfalls, OPEC and its alliance partners (OPEC+) have remained disciplined. OPEC+ members have continuously not been able to meet permitted production quotas, a consequence of many years of reduced levels of capital deployment to grow or maintain capacity. At the time of this Annual Report 2021/2022 being published, it appears that OPEC+, after months of increasing production quotas, is currently in the process of reducing quotas with price management now seemingly the priority.

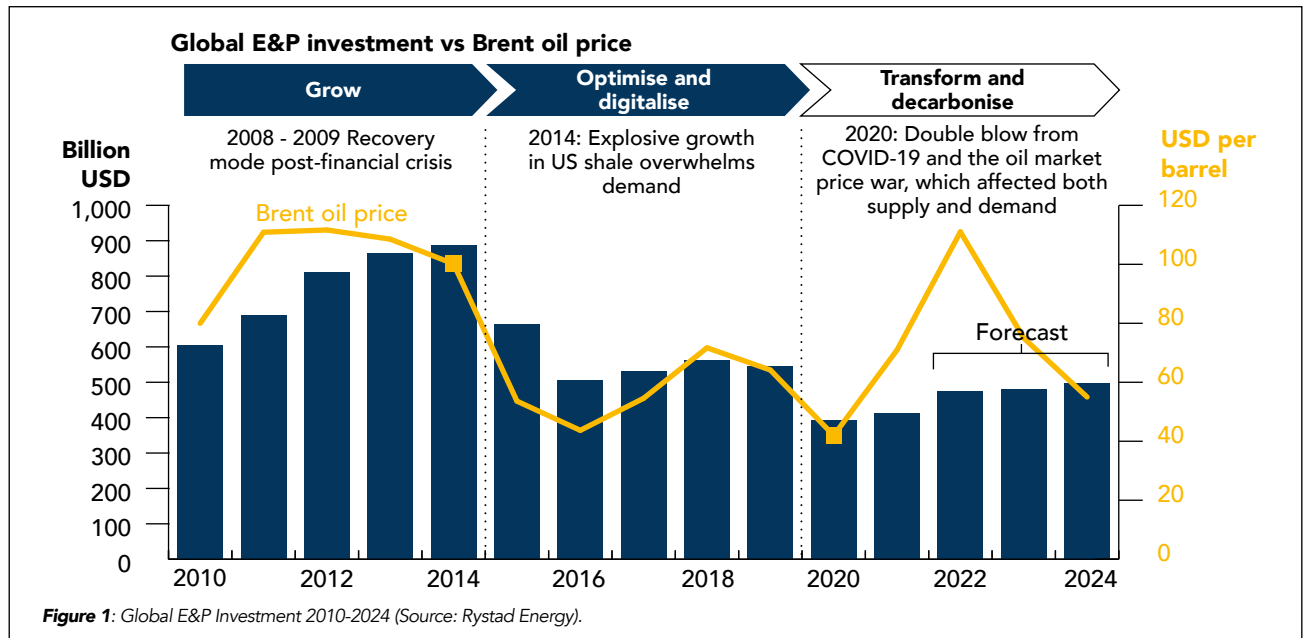
2. Economic and Business Trends

With the world slowly exiting the COVID-19 pandemic, what was undesired was a scenario of relatively high oil and gas prices. Unfortunately, with the generally low and volatile oil price regime that had prevailed for more than 5 years, the lack of prior investment in opportunities became clearly visible as supply tightened concurrent with a demand increase, with no spare capacity on-hand. The second blow to a smooth economic recovery after the pandemic was the Russian incursion into the Ukraine which precipitated in further shocks to the gas, oil and food supply chains. Primary energy price escalation was quickly followed by a general cost of living increase. As oil companies started reporting bumper profits, share buy-backs and dividend pay-outs, many governments imposed so called "windfall taxes" to redistribute the economic benefits of the prevailing crude oil and gas price spikes, causing a further slowdown to sector reinvestment momentum.

In its second quarter (Q2) 2022 Financial Review, the Energy Information Administration (EIA) reported the following headlines:

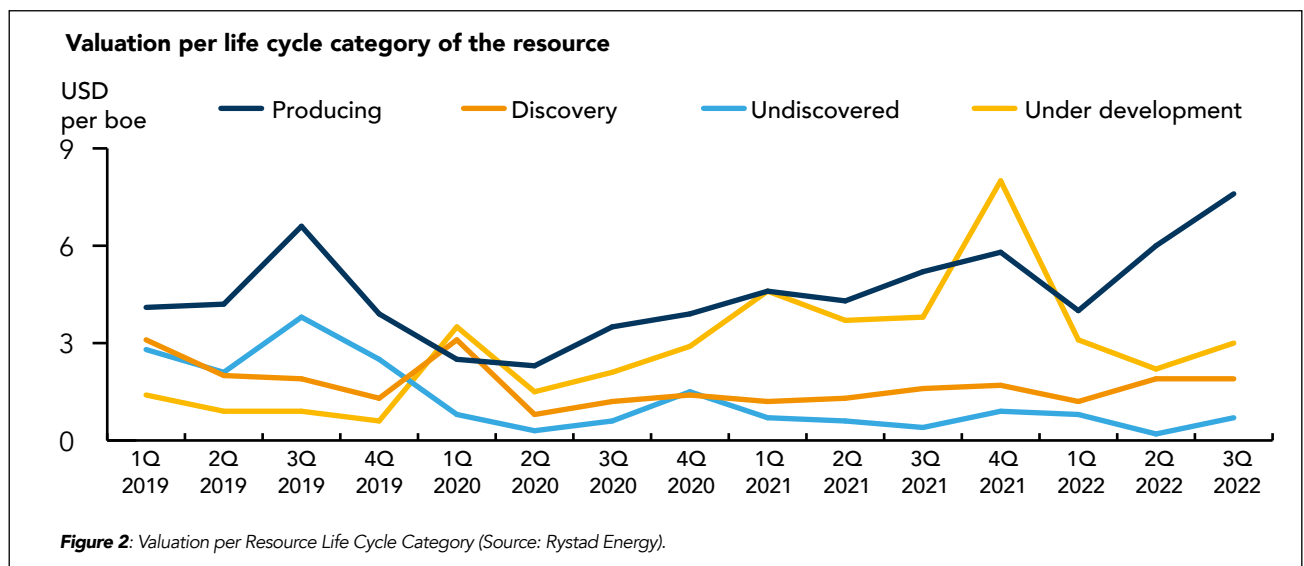
- Brent crude oil daily average prices were 62% higher in Q2 2022 than in Q2 2021 and averaged USD112 per barrel. Henry Hub daily gas average prices were 152% higher over the same period and averaged USD7.50 per million British Thermal Unit;
- In a sample of 143 energy companies from around the world:
 - o combined petroleum liquids production decreased 3.6% in Q2 2022 when compared to Q2 2021, with western divestment of assets located in Russia contributing to lower production. However, natural gas production increased 4.8% during the same period;
 - o Cash from operations in Q2 2022 totalled USD203 billion, the highest in the 2017 to 2022 period;
 - o Capital expenditure in Q2 2022 totalled USD59 billion, 8% higher than in Q2 2021.
 - o About 88% of the companies had positive free cashflow, and 95% of companies reported positive upstream earnings in Q2 2022;
 - o Net losses from hedging derivatives were USD9 billion in Q2 2022;
 - o Distributions to shareholders via dividends and share repurchases reached USD45 billion, the highest four-quarter average in the 2017 to 2022 period;
 - o The companies decreased debt by USD33 billion in Q2 2022, and the long-term debt-to-equity ratio decreased to 40% for energy companies, lower than long-term debt-to-equity ratio for US manufacturing companies of 53%; and
 - o The return on equity for the energy companies increased to 22% on a four-quarter average basis ending in Q2 2022, surpassing US manufacturing companies' returns for the first time in the 2017 to 2022 period.

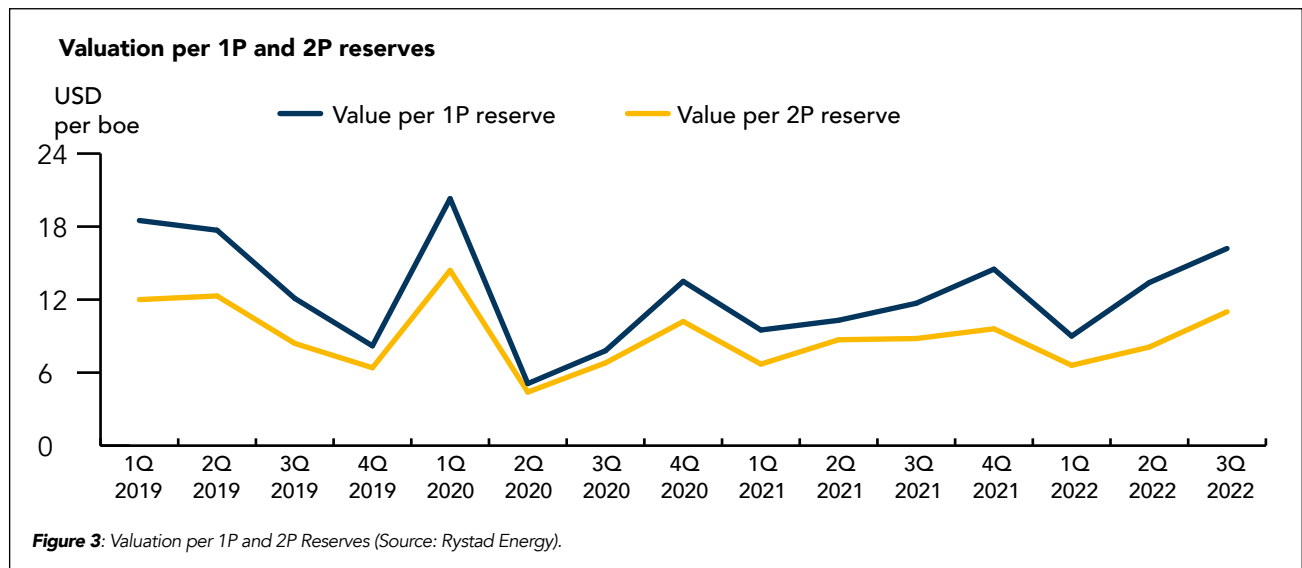
The extent of the under-investment in the E&P sector is also visible from the chart in Figure 1 which estimates that overall E&P investment for 2022 is expected to be 46% that of 2014.



In terms of M&A activity, in its September 2022 M&A report Rystad Energy notes that:

- discovered and producing resources continued to account for most of the resources traded. The share of traded resources in the production phase increased in North America and Europe, attributed to the high commodity price environment, which is spurring sellers to seek maximum value for their assets, while buyers want to capitalise through higher cashflows; and
- the valuation of producing assets has increased in tandem with the rising price of crude oil. The deal value per resource for producing assets climbed to USD8 per barrel of oil equivalent (boe) in the current quarter from nearly USD5 per boe in the third quarter of last year (see Figure 2). Simultaneously, the value per resource for under-development assets more than halved this year, to USD3 per boe currently from nearly USD8 per boe at the end of 2021 (Figure 3). The current high commodity price environment has pushed the value per 1P and 2P reserves up towards pre-pandemic levels. The valuation now stands at USD16 per boe for 1P reserves and USD11 per boe for 2P reserves. By comparison, traded reserves reached recently high valuations in the first quarter of 2020 of USD20 per boe for 1P reserves and USD14 per boe for 2P reserves.





National oil companies and the supermajors are also being drawn concurrently in different directions because of uncertainty and volatility in stakeholder expectations. Dividends, share buy-backs and new energy investments are being demanded but existing and near term cashflow generation are premised on reserves replacement and the corresponding investments to continue production at current levels. All these competing priorities are a stress on the finances of the E&P companies, particularly those that are mid-sized and small. In parallel, debt is becoming increasingly difficult to secure and with global interest rates on the rise, to curb inflation, it appears that efforts to increase the supply of fossil fuels will only get more difficult going forward.

3. Social Trends

The Climate Change Movement's prioritisation of a clean and green based energy agenda has taken root in the mindset of senior leaders from Wall Street to the back roads. However, with the available clean energy supply infrastructure base not being able to fulfil demand, and fossil fuel supply being subject to sanctions in various parts of the world (Iran, Venezuela and Russia), economic hardship and difficulties have descended on a wide scale. This energy supply gap is not easily closed. There are also other social trends which are being observed.

Firstly, the drop in energy demand and resultant work activity during the COVID-19 pandemic caused many experienced professionals to leave the oil and gas industry. In addition, the continuous and repeated public media attacks on the fossil fuels industry have resulted in no new talent readily seeking career paths in this important area. Thus, the sector is experiencing a dearth of qualified human capital to contribute to the closing of supply gaps.

In parallel, environment-friendly groups have leveraged on social media, political parties and emotive media broadcasts to slant opinion of the institutional investing and lending community against the fossil fuel business. The result is that from a financial standpoint, oil and gas companies are increasingly having to rely on equity as a source of funding and with equity investors also expecting greater levels of yield, there is less corporate financial firepower available to fund opportunities that aim to close the energy supply gap. With no increased production, oil and gas prices may well remain higher for longer.

The global adoption of electric vehicles (EV) in the years ahead is expected to reduce demand. Oil demand for vehicular consumption is projected to decline slowly up to 2030 but recent shortages in the areas of semiconductors and rare earth materials, both critical elements of the EV supply chain, may impede the rate of take-up of such cleaner forms of transport.

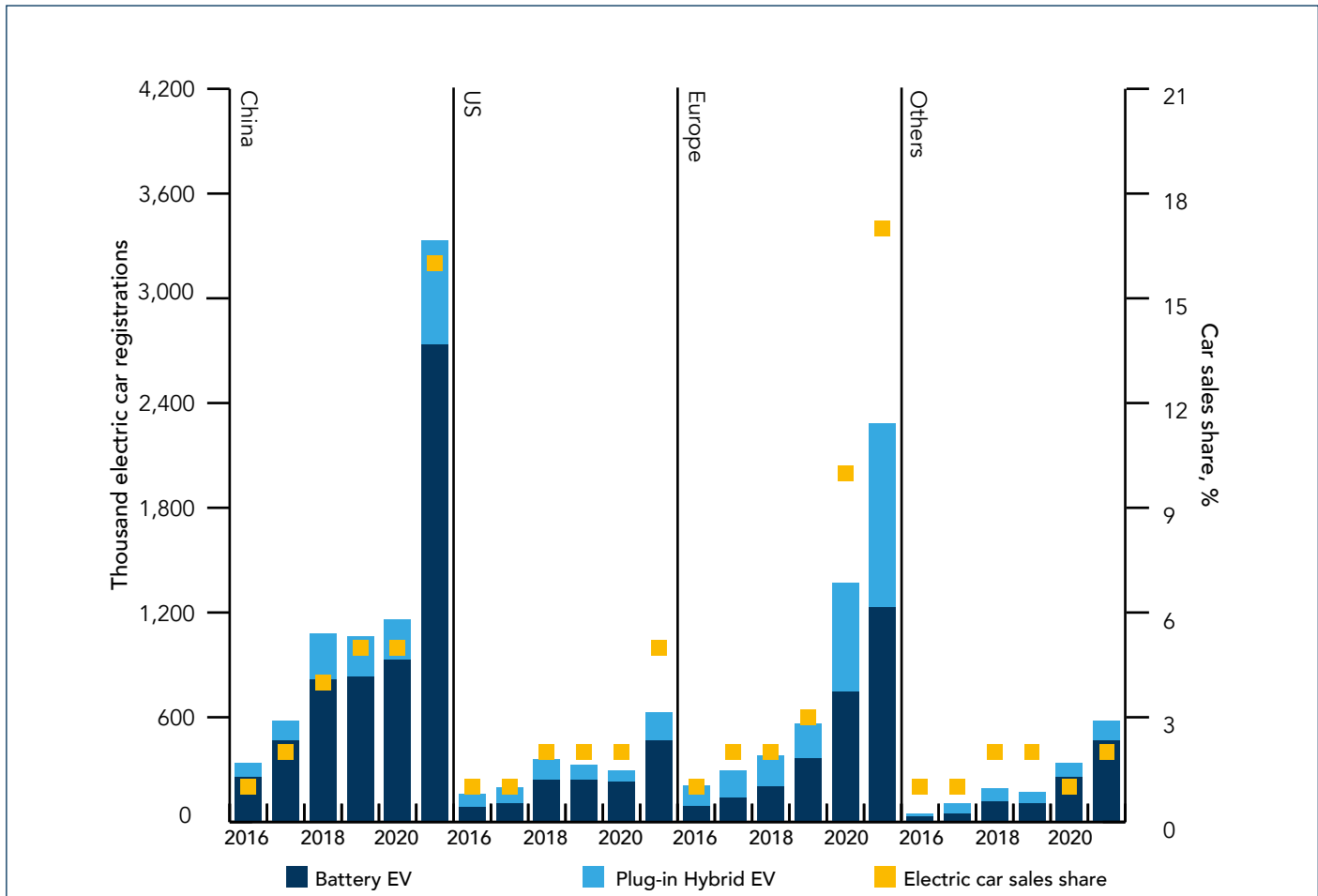


Figure 4: EV Adoption by Country/Region (Source: EIA Global EV Outlook 2022).

4. Technological Trends

In previous years, we have presented developments in the areas of:

- robotics;
- four-dimensional (4D) seismic processing technology and Enhanced Oil Recovery (EOR) techniques;
- wearable technologies; and
- Artificial Intelligence (AI), Blockchain and Machine Learning (ML) algorithms

relevant to the oil and gas industry.

With there being a dearth of qualified human capital available to address technical issues that arise in the oilfield and a concern about the reduction of the carbon footprint associated with the conduct of our work, various state-of-the-art technologies are being packaged for utilisation in the oil and gas industry. An area that is emerging is the access oil and gas companies are now able to obtain through web-based visual platforms which use technology to build a digital walkthrough of the asset using 360° High Definition photography.

This innovative web-based tool enhances operational and engineering functionality whilst delivering material cost benefits to our clients and reduces emissions originating from the need to transport engineering and surveying teams to a particular site to procure accurate measurements of items to be engineered or replaced.

5. The Malaysian Situation

The discussion in the preceding paragraphs has focused on the trends impacting our industry on the global business landscape. Our Company is a Malaysian listed entity with a substantial portion of our business in Malaysia. Over the past year, on the back of increasing oil prices, we observe that the domestic Government is relying on higher levels of dividends from the Malaysian regulator, Petroleum Nasional Berhad (PETRONAS), as a means of subsidising the increasing cost of energy. Thus, there has been more focus on enhancing production from the various assets we have in Malaysia.

We also note that various agencies under the purview of the Malaysian Government are in the initial stages of implementing a Voluntary Carbon Exchange. We believe that this could become a platform for a future in which emissions are taxed, as is the case in first world economies.

As this Management Discussion and Analysis is being prepared, it appears work and travel restrictions associated COVID-19 have been totally withdrawn and with a domestic election on the horizon, it is expected that an investment friendly National Budget will be implemented.