TOMAX NEWS

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MARKET SUMMARY

• As we await a market conditions update on the China-Australia trade-lane once China gets back to work next week, it will be interesting to see what happens with ocean freight rates. Rates have been almost in free fall over the last 6 weeks, but there was a rush of freight just prior to the China October week long holiday beginning. Will freight volumes recover in the lead up to Christmas or remain fairly stagnant is anyone's guess. Warehouses in Australia remain over capacity and there is little room at all to make way for additional cargo volumes to be imported. Stay tuned for more rates news on this important trade-lane over the coming few weeks.

• Airfreight services remain limited on many routes as flight numbers only gradually increase in line with passenger demand. Rates remain relatively high as a result of the decreased number of flight options. Flights to and from China are the most affected at the moment due to the continuing lockdown and restrictions on travel in and out of the country.

TARIFF CONCESSIONS GAZETTE (TC)

Tariff Concession Orders (TCOs) are an Australian Government revenue concession that exists where there are no known Australian manufacturers of goods that are substitutable for imported goods. The weekly Tomax Client Newsletter will contain a link to the latest Gazette document so that you can stay updated.

CLICK TO VIEW LATEST GAZETTE

LATEST NEWS

IMPACTS OF ‘PARCELISATION’ ON AIR CARGO

As business-to-business e-commerce continues to grow, ‘parcelisation’ is one of the key trends predicted to impact air cargo.

According to last month’s report, the global B2B e-commerce market is estimated to increase from $8.5 billion last year to $18.7 billion by 2027. Already, the impact is being felt in air cargo states Michiel Greeven from DHL Express, who believes, “the e-commerce trend of B2B will be the biggest thing coming up. Normally, customers work with importers and distributors. That will reduce over time. We will see smaller shipments, going straight to the end customer, and this is already happening. It is the parcelisation of trade. Multinationals are selling straight online to end customers. Parcelisation is happening, and will accelerate.”

The trend towards B2B e-commerce – smaller parcels sent more frequently and faster – could lead to changes in the industry, involving a need for full digitisation, a reliance on smaller freighters and potential changes to destinations as e-commerce distributors target non-passenger hubs.

The news will benefit some aspects of the market. Air freight rates are currently in decline, with Freightos reporting today that transpacific prices have fallen 32%, month on month, to half the level of a year ago, while China-Europe rates have dropped 19%. Additionally, with soft demand, older inefficient aircraft are likely to leave the market. During the past two years, quick or hybrid conversions without large cargo doors have become popular, and are best suited for e-commerce.

Avensis Aviation is producing a reversible conversion and Inflight Canada is offering a combi conversion with no cargo door. Airlines such as Eastern, are undergoing hybrid-style conversions and could benefit from the continued growth in B2B e-commerce.

One airline said, “we already carry a lot of volumetric e-commerce. It is labelled as general cargo, but you can tell from the packages.” He added that while older large freighters were expected to leave the market, the continued interest in e-commerce was likely to keep smaller freighters in demand.

Lennane, A. (2022). ‘Parcelisation’ the next big thing as B2B e-commerce sparks change in air cargo. Retrieved from https://theloadstar.com/parcelisation-the-next-big-thing-as-b2b-e-commerce-sparks-change-in-air-cargo/ on 5th October, 2022.

LARGEST CONTAINER VESSEL BERTHS AT PORT BOTANY

Patrick Terminals was excited to welcome CMA CGM's Estelle into Port Botany, breaking the record as the greatest number of containers onboard a vessel to ever visit Australia. The vessel had a carrying capacity of 10,926 TEU which is more than double the average container vessel visiting Australia (which has a capacity of roughly 4500 TEU). The vessel was built in 2018 and measured 299.9 metres in length, weighs 95,256 tonnes and has a 14.5 metre draft and 48.2m breadth.

Patrick Terminals advised this was a joint service by MSC and CMA CGM on the NEMO Australia Express Service between Europe, the Indian Ocean and Australia.

Michael Jovicic, Patrick Terminals C.E.O says, "the CMA CGM Estelle is an impressive sight alongside our Patrick Terminals quay line being worked upon by the largest ship-to-shore cranes in Australia."

Marika Calfas, NSW Ports C.E.O. says, "Patrick Terminals has invested significantly to accommodate the next generation of larger container vessels and is well equipped to service these ships." Marika believes the ship's arrival highlighted Port Botany's infrastructure capabilities. Additionally, she notes that an estimated 42% of all goods in the average Sydney home arrived via a container into Port Botany. Ships such as Estelle are responsible for delivering essential and non-essential goods which Sydney residents rely on such as food, beverages, white goods, electronics and building products such as paints and flooring. She continued, "Port Botany handles about one third of the nation's container trade and as the record-breaking Estelle shows, the port's deep-water shipping channel, premier infrastructure and berth facilities are well established to manage vessels of this size."

Thousands of containers were offloaded from the CMA CGM Estelle before it departed Port Botany and headed south to Melbourne.

Misuraca, J. (2022). Largest container ship berths at Port Botany. Retrieved from https://mhdsupplychain.com.au/2022/10/04/largest-container-ship-berths-at-port-botany/ on 5th October, 2022.

AUSTRALIA POST DELIVERING NET ZERO

Being the first Commonwealth Government Business Enterprise to do so, Australia Post has launched its 2025 Sustainability Roadmap, in support of the Australian government's commitment to net zero by 2050. Australia Post will undertake a comprehensive range of initiatives to reduce Scopes 1, 2 and 3 emissions.

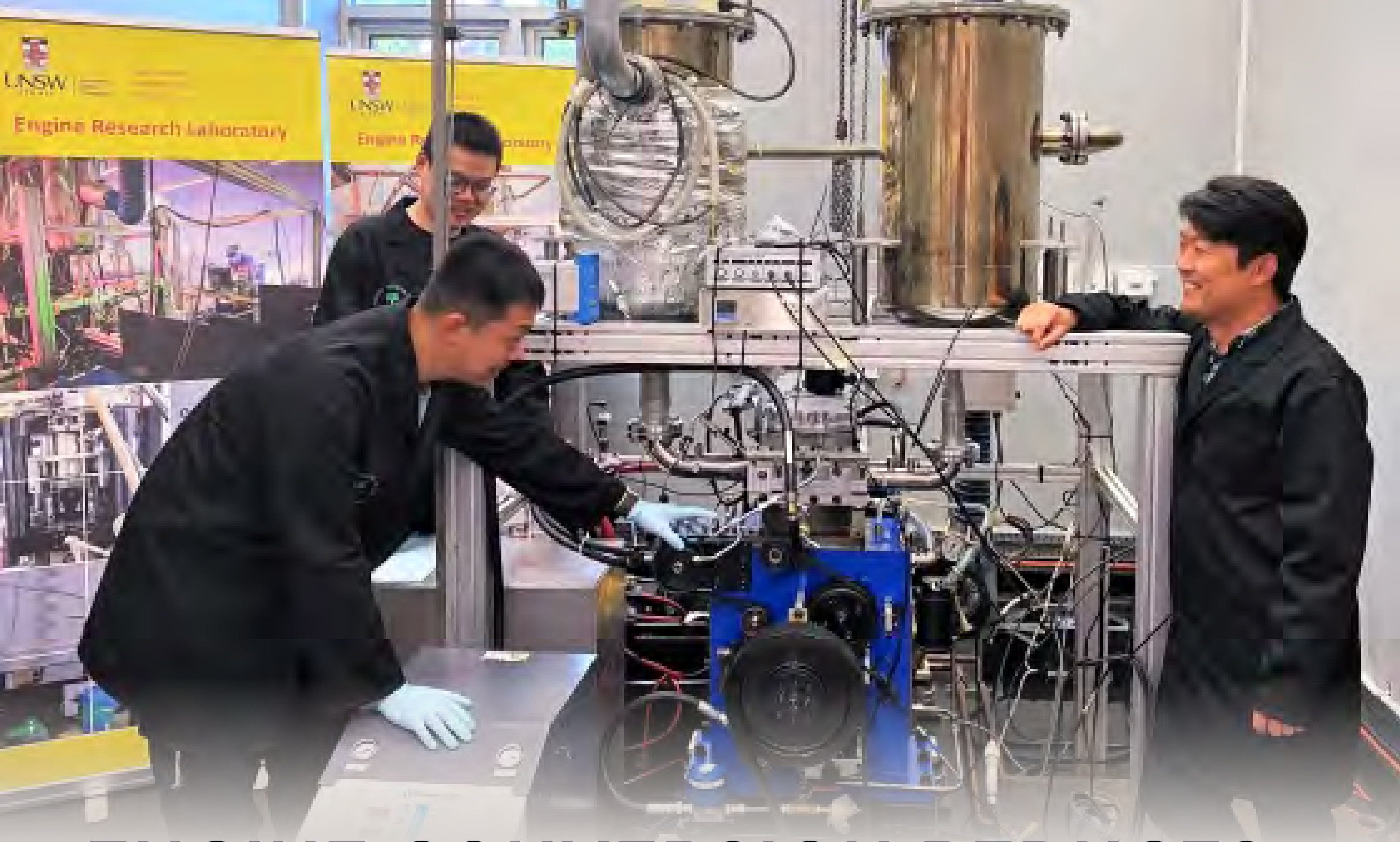
Paul Graham, Group Chief Executive Officer and Managing Director, says, "I am incredibly proud of our sustainability credentials. Over the past few years, we have seen unprecedented growth in our parcels business because of the pandemic."

The roadmap outlines a science-based approach which aligns with the aims of the UN Paris Agreement and includes a 2025 emissions reduction target validated by the Science Based Targets Initiative in 2021. Reaching target net zero emissions by 2050 will involve investments in renewables and its electric fleet. Australia Post houses Australia's largest fleet of electric delivery vehicles and its roadmap outlines a range of targets to deliver a sustainable future which will benefit all Australians. The roadmap also highlights opportunities for collaboration and innovation across the supply chain, including crucial initiatives to invest in sustainable aviation fuel.

Paul added, "over the past few years, we have seen unprecedented growth in our parcels business because of the pandemic. Although, as our revenue has climbed, our carbon intensity has dropped. In fact, the carbon emissions per parcel associated with sending the average domestic parcel via Parcel Post halved between FY18 and FY21. We hope as Australia's longest running business, with one of the country's largest and most diverse workforces, that our transformation can inspire other organisations to follow suit. If we can do it, so can you."

Minister for Communications, Michelle Rowland, welcomed Australia Post's initiative to target net zero following the passing of the federal government's Climate Change Bill through parliament in September. She said, "Australia is serious about reducing emissions and it is fantastic to see Australia Post, one of the oldest and most established institutions in the country, supporting our net zero ambitions."

MISURACA, J. (2022). Australia Post delivering net zero. Retrieved from https://mhdsupplychain.com.au/2022/10/05/australia-post-delivering-net-zero/ on 7th October, 2022.



ENGINE CONVERSION REDUCES CO2 EMISSIONS

Engineers and researchers from the University of New South Wales have successfully converted a diesel engine to run as a hydrogen-diesel hybrid engine – reducing CO2 emissions by more than 85% in the process.

The team, led by Professor Shawn Kook from the School of Mechanical and Manufacturing Engineering, spent about 18 months developing the Hydrogen-Diesel Direct Injection Dual-Fuel System, which will enable existing diesel engines to run using 90% hydrogen as fuel.

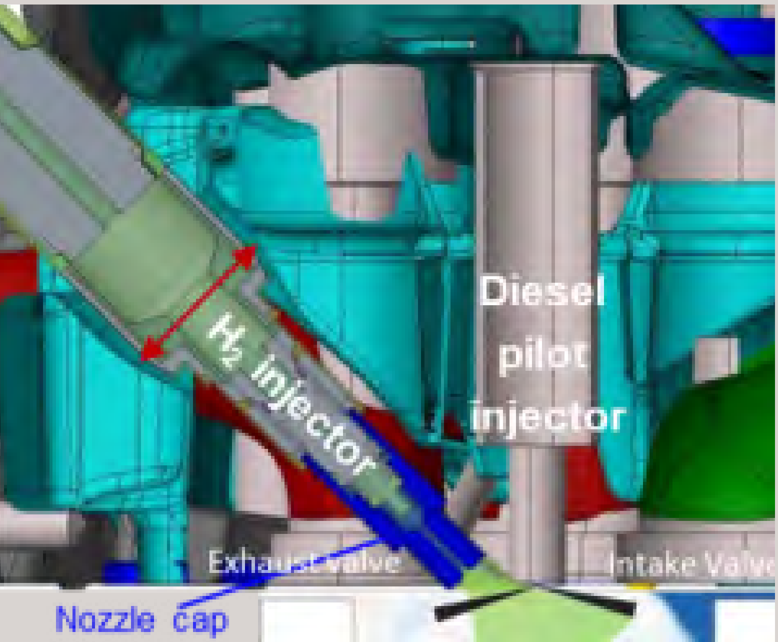
In just a couple of months, the researchers stated that any diesel engine used in trucks and power equipment in the transportation, agriculture and mining industries could ultimately be retrofitted to the new hybrid system.

Green hydrogen, which is produced using clean renewable energy sources such as wind and solar, is much more environmentally friendly than diesel.

In a paper published in the International Journal of Hydrogen Energy, Prof. Kook's team show that using their patented hydrogen injection system reduces CO2 emissions to just 90 g/kWh – 85.9 per cent below the amount produced by the diesel powered engine.
Kook said, "this new technology significantly reduces CO2 emissions from existing diesel engines, so it could play a big part in making our carbon footprint much smaller, especially in Australia with all our mining, agriculture and other heavy industries where diesel engines are widely used. We have shown that we can take those existing diesel engines and convert them into cleaner engines that burn hydrogen fuel. Being able to retrofit diesel engines that are already out there is much quicker than waiting for the development of completely new fuel cell systems that might not be commercially available at a larger scale for at least a decade. With the problem of carbon emissions and climate change, we need some more immediate solutions to deal with the issue of these many diesel engines currently in use."

HIGH-PRESSURE HYDROGEN DIRECT INJECTION

According to the UNSW team, their solution to the problem maintains the original diesel



Most notably, the researchers say their new Hydrogen-Diesel Direct Injection Dual-Fuel System does not require extremely high purity hydrogen which must be used in alternative hydrogen fuel cell systems and is more expensive to produce. In comparison to existing diesel engines, an efficiency improvement of more than 26% is evident in the diesel-hydrogen hybrid. That improved efficiency is achieved by independent control of hydrogen direct injection timing, as well as diesel injection timing, enabling full control of combustion modes – premixed or mixing-controlled hydrogen combustion.

The research team envision commercialising the new system in the next 1-2 years and are welcoming any prospective investors. The most immediate potential use for the new technology is in industrial locations where permanent hydrogen fuel supply lines are already in place, such as mining sites. Currently, the Australian market for diesel-only power generators is estimated to be worth around $765 million.

Kook continued, "at mining sites, where hydrogen is piped in, we can convert the existing diesel engines that are used to generate power. In terms of applications where the hydrogen fuel would need to be stored and moved around, for example in a truck engine that currently runs purely on diesel, then we would also need to implement a hydrogen storage system to be integrated into our injection system. I do think the general technology with regards to mobile hydrogen storage needs to be developed further because at the moment that is quite a challenge."

Fully Loaded. (2022). NEW SYSTEM RETROFITS DIESEL ENGINES TO RUN ON 90 PER CENT HYDROGEN. Retrieved from https://www.fullyloaded.com.au/industry-news/2210/new-system-retrofits-diesel-engines-to-run-on-90-per-cent-hydrogen on 7th October, 2022

TRADE GROWTH SLOWS DOWN IN 2023

According to the World Trade Organisation, world trade is expected to lose momentum during the second half of 2022 and remain subdued in 2023 as multiple shocks weigh on the global economy. Recent forecast estimates from the WTO, predict the world GDP at market exchange rates will grow by 2.8% in 2022 and by 2.3% in 2023, which is 1% lower than previously anticipated by economists.

The WTO believe its GDP projections for 2022 turned out to be broadly correct. However, estimates for 2023 now appear overly optimistic, due to energy prices skyrocketing, inflation becoming more broad-based and the war "showing no sign of letting up". The current forecast expects trade growth to "slow sharply but remain positive" in 2023.

Ngozi Okonjo-Iweala, WTO director-general, said policymakers are now bombarded with the responsibilities of finding balance among tackling inflation, maintaining full employment and advancing important policy goals such as transitioning to clean energy. She said, "trade is a vital tool for enhancing the global supply of goods and services, as well as for lowering the cost of getting to net-zero carbon emissions. While trade restrictions may be a tempting response to the supply vulnerabilities that have been exposed by the shocks of the past two years, a retrenchment of global supply chains would only deepen inflationary pressures, leading to slower economic growth and reduced living standards over time." Ms Okonjo-Iweala advised a deeper, more diversified and less concentrated base is needed for producing goods and services, stating, "in addition to boosting economic growth, this would contribute to supply resilience and long-term price stability by mitigating exposure to extreme weather events and other localised disruptions."

As a result of the Ukraine crisis, prices have been elevated for primary commodities, particularly fuels, food, and fertilisers. August this year saw energy prices up by 78% year-on-year, led by natural gas, which was up 250%. The 36% increase in the price of crude oil over the same period was small by comparison but still significant for consumers. WTO economists also predict global merchandise trade volumes will grow by 3.5% in 2022, which is slightly better than the 3% forecast in April. Although, for 2023, they predict an increase of only 1%, down sharply from the previous estimate of 3.4%.

As growth slows in major economies for various reasons, import demand is expected to soften. In Europe, high energy prices evolving from the Russia-Ukraine war are expected to stiffen household spending and raise manufacturing costs. Meanwhile, in the United States, monetary policy tightening will hit interest-sensitive spending in areas such as housing, motor vehicles and fixed investment. In China, grappling with COVID outbreaks and production disruptions paired with weak external demand will continue. Finally, growing import bills for fuels, food and fertilisers could lead to food insecurity and debt distress in developing countries.

Williams, A. (2022). TRADE GROWTH TO SLOW SHARPLY IN 2023, WORLD TRADE ORGANIZATION SAYS. Retrieved from https://www.thedcn.com.au/news/containers-and-container-shipping/trade-growth-to-slow-sharply-in-2023-world-trade-organization-says/ on 6th October, 2022.

STAFF SPOTLIGHT

CORNELIUS KWAMBAI

WAREHOUSE ASSISTANT

TOMAX WAREHOUSING PERTH

What do you do at Tomax?
I am a Warehouse Assistant at Tomax Perth.

What are your hobbies/interests?
I love reading biography books and playing pool (billiards) with friends.

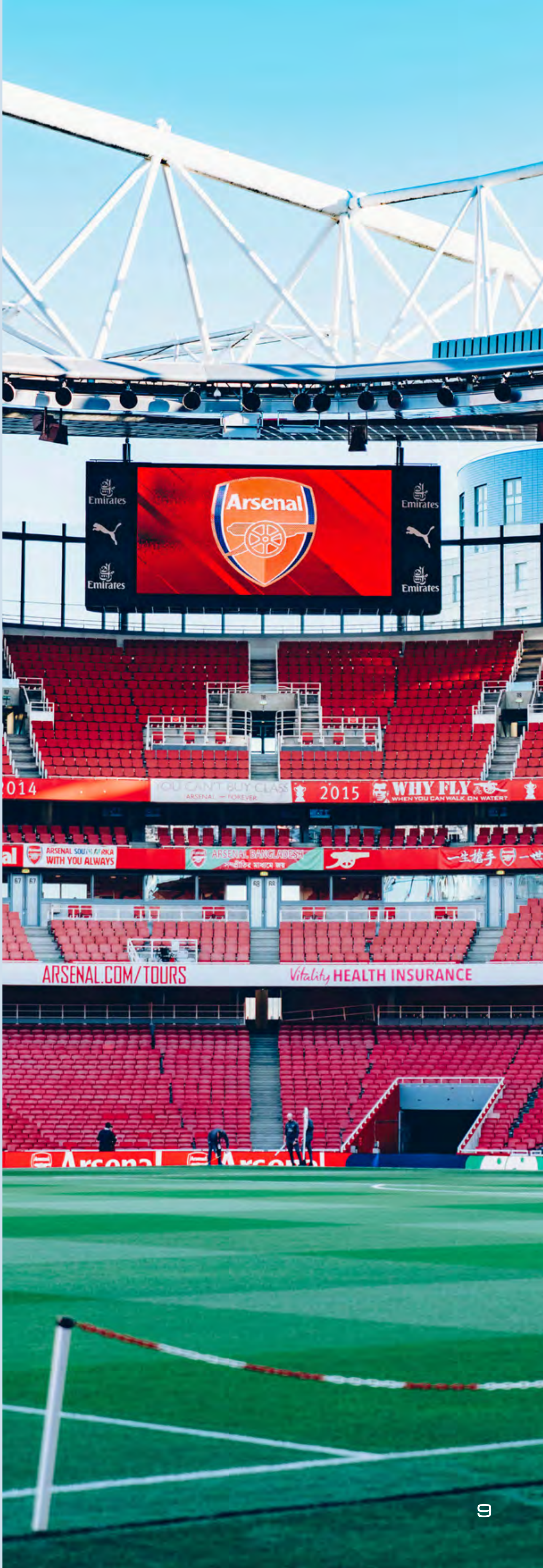
If you could meet any celebrity alive or dead, who would it be?
I would have loved to meet Michael Jackson.

What is your favourite sport and who is your favourite team?
I love soccer and my favourite team is Arsenal FC.

Your proudest moment?
My proudest moment was obtaining my Masters Degree in Project Management.

A song that never fails to get you on the dance floor?
My favourite song is “Glory of Love” by Peter Cetera.

What was your first ever job?
My first job was a procurement assistant.



WORD SCRAMBLE

See if you can unjumble the following industry related words below!

1. STIMCOENNGN	C _ N S _ _ _ _ E _ _
2. GAFMUITINO	_ _ M _ G _ T _ O _
3. TTRNMESIHNAP	T _ _ _ S H _ _ _ E _ T
4. RIFTAF	_ A _ _ F _
5. ACEIRRR	_ _ R _ _ _ R
6. CLL	_ _ _
7. UDYT	_ U _ _
8. RACCNLEAE	_ L E _ _ _ _ C _
9. KIRNUGCT	_ _ _ C K _ _ G
10. RDMEGRUAE	_ E _ U _ _ A _ _

Answers: 1) Consignment, 2) Fumigation, 3) Transhipment, 4) Tariff, 5) Carrier, 6) LCL, 7) Duty, 8) Clearance, 9) Trucking, 10) Demurrage

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