

YINSON GREENTECH

COMMENTARY BY EIRIK BARCLAY, YINSON GREENTECH CHIEF EXECUTIVE OFFICER

HIGHLIGHTS FYE 2024

ASSETS

>400 installed charging stations

Fleet of **200** EV leasing vehicles

Fleet of **>120** e-bikes

31 e-bike battery swapping stations

2 fully electric harbour craft vessels

Full software stack for charge point operations and fleet management solutions



ENVIRONMENTAL PERFORMANCE

chargEV

3,324.7 MWh
charging energy delivered

Facilitated **~21,000,000 km**
travelled on electricity

1,808.6 tonnes CO₂e carbon emissions
(Scope 3: Category 11)

drivEV

Facilitated **~281,000 km**
travelled on electricity

65.5 MWh
leased fleet energy consumption

35.6 tonnes CO₂e carbon emissions
(Scope 3: Category 13)

BUSINESS IMPACTS

5 integrated businesses

>1,000 charging points supported on e-roaming network across Singapore, Malaysia and Brunei

Participated in **7** industry events

2 partner financial institutions

5 commercial partnerships that leverage our full ecosystem

6 SaaS/API licensing contracts

FYE 2025 PIPELINE

>200 four-wheeler EV charging stations

>50 two-wheeler DC charging stations

1 prototype and **2 commercial** marine megawatt DC fast charging sites

>300 EV leasing vehicles

1,000 e-bikes leased or sold

5 Hydromover vessels over the next two years

2 marine battery swap stations

120 e-bike battery swapping stations

2 SaaS licensing contracts in the region

MEETING OUR STRATEGIC GOALS IN LINE WITH THE ELECTRIFICATION MEGATREND

It is clear that the future of transportation is electric.

Electric vehicle sales break records every year, and 2023 was no different, surpassing 13 million units worldwide. A compound annual growth rate (“CAGR”) of about 94% is projected through to 2028. EV sales in emerging economies such as India, Thailand and Indonesia shot up to 840,000 units, an indicator that EV prices more evenly match Internal combustion engine (“ICE”) vehicles now. EV infrastructure is growing in tandem, with about 4 million public charging points installed globally at end 2023. These trends are set to continue, paving the way for further growth when new models hit the markets in coming years.

In Malaysia, where Yinson GreenTech owns and operates the nation’s charging infrastructure trailblazer, chargEV, the pace of EV adoption is accelerating beyond expectation. Malaysia’s Ministry of Trade and Industry announced that the country surpassed 100,000 registered EVs in December 2023, ahead of projections. This prompted a revision in national EV targets from 15% to 20% by 2030; and 38% to 50% by 2040.

Adoption is spurred by goals set by Malaysia and Singapore governments to reach 10,000 chargers by 2025 and 60,000 chargers by 2030 respectively, alongside supportive regulatory incentives, greater availability and affordability of EV models through local EV automotive manufacturing facilities and improved power infrastructure.

Singapore remains fiercely committed to decarbonising its ports, spurring a flurry of research, innovation and investment into electrifying port operations. In Singapore, about 30%, equating to approximately 550, of existing harbour crafts are now above 20 years of age and are due for replacement. Singapore’s Maritime Port Authority (“MPA”) has announced that by 2030, all new harbour crafts shall either be clean fueled or fully electric. Our Hydromover and Hydroglyder solutions are able to meet the specifications for nearly half of the ICE vessels in the current market that will be due for replacement before 2030, providing ample potential for commercial uptake in the near future.

These market conditions have enabled Yinson GreenTech to make steady progress against our six strategic goals that were set in 2020.

STRATEGIC GOALS (2020 – 2030)	▶ PROGRESS AGAINST OUR GOALS		
<p>Identify and invest in strategic green technology companies and develop assets within the marine, mobility and energy segments.</p>	<p>Investee companies include:</p> <ul style="list-style-type: none"> • Lift Ocean: Advanced hydrofoil system for electric vessels. • Oyika: E-bike and swappable batteries. • MooVita: Autonomous systems for electric buses. • Shift Clean Solutions: Marine energy storage solutions. • eMooVit: Autonomous and robotic technologies. • Zeabuz: Maritime autonomous solutions. 		
<p>Relentlessly drive innovation in alignment with government incentives and industry trends.</p>	<p>Our investments into research and innovation include:</p> <ul style="list-style-type: none"> • <i>National University of Singapore (NUS)</i>: Joint Programme for Autonomous Bus. • <i>Maritime Port Authority of Singapore (MPA)</i>: Electric vessels and charging infrastructure for ports. • <i>Technology Centre for Offshore and Marine Singapore (TCOMS)</i> and <i>Singapore Institute of Technology (SIT)</i>: Digital twins for electric vessels. • <i>Singapore University of Technology and Design (SUTD)</i> and <i>Pelagus 3D</i>: 3D printing of boat hull. • <i>Cyberview Sdn Bhd</i>: Cyberview Malaysia Living Lab and Office. • <i>Singapore Institute of Technology (SIT)</i>: Future Communications Programme grant call for 5G plans and developments. • <i>Ngee Ann Polytechnic</i>: synergy.lab for smart grid solutions. 		
<p>Build low-carbon businesses serving commercial and industrial customers, supporting their own net zero ambitions.</p>	<p>Customers who are partnering with us to decarbonise their business include:</p> <table border="0"> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Pos Malaysia • Starbucks Malaysia • AEON Group • Eco World Development Group Berhad • Berjaya Times Square • UEM Edgenta • Cyberview Sdn Bhd • Iskandar Investment Berhad </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Jurong Port • OPL Services • Lita Ocean • DM Sea Logistics • Kanlian Ferry • Tian San Shipping • RW Marine </td> </tr> </table>	<ul style="list-style-type: none"> • Pos Malaysia • Starbucks Malaysia • AEON Group • Eco World Development Group Berhad • Berjaya Times Square • UEM Edgenta • Cyberview Sdn Bhd • Iskandar Investment Berhad 	<ul style="list-style-type: none"> • Jurong Port • OPL Services • Lita Ocean • DM Sea Logistics • Kanlian Ferry • Tian San Shipping • RW Marine
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STRATEGIC GOALS (2020 – 2030)	▶ PROGRESS AGAINST OUR GOALS
Accelerate business growth by working with like-minded partners and attracting investment capital.	<p>Like-minded partners who are collaborating with us include:</p> <ul style="list-style-type: none"> • Partners in the Goal Zero Consortium, including Seatech Solutions, Shift Clean Solutions, RINA Hong Kong and Lita Ocean • United Overseas Bank Limited (UOB) • Oversea-Chinese Banking Corporation Limited (OCBC) • CelcomDigi • LHN Group • PLUS Malaysia • GoCar Malaysia • Proton's Pro-Net • CDG Engie • JomCharge • Gentari • BEV Charging Company • BMW Malaysia • BYD Malaysia
Establish Yinson as a recognised brand within net zero technologies and businesses.	Yinson GreenTech has gained significant brand visibility as indicated by increased media and social media presence, numerous awards and recognitions and participation in major industry events.
Develop a net zero solutions platform capable of adapting and incorporating novel technologies.	We have established and operationalised the key enablers towards building a smart, integrated, data-driven digital marketplace platform for electrification. This includes platforms for EV Charging, EV Fleet Management, Land Logistics, Marine Logistics and Battery Swapping.

THE YEAR IN REVIEW

It has been another exhilarating year for Yinson GreenTech as we made significant strides towards our quest of electrifying the land and sea transportation ecosystem. Significantly, we officially launched our five businesses to the market, each with a clear market segment, business model and brand proposition. These are:

marinEV	▶ Pioneering the provision of electric vessels for the marine industry.
drivEV	▶ Pioneering the transition of fleets to electric vehicles.
chargEV	▶ Providing technology-driven charging infrastructure for electric vehicles and vessels.
rydeEV	▶ Pioneering the adoption of light electric vehicles, including Battery-as-a-Service.
digitalEV	▶ An integrated marketplace for digital solutions offering enhanced services in electrification.

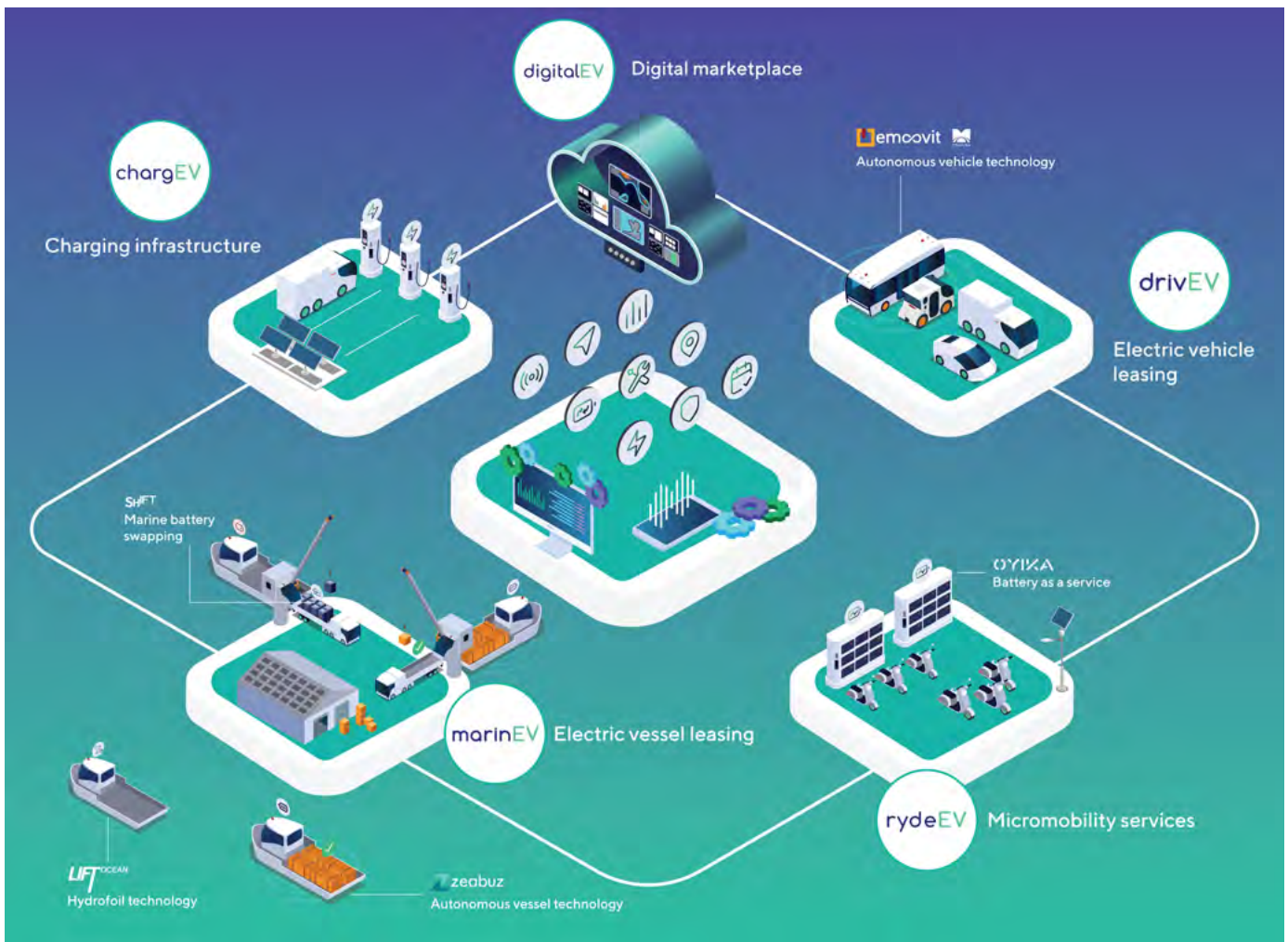
In our marinEV business, together with our Goal Zero Consortium partners, we launched the Hydromover prototype in November 2023 in Raffles Marina, Singapore. This is Singapore's first fully electric cargo vessel, designed with swappable battery solutions from our investee company, Shift Clean Solutions. marinEV has received letters of intent from six offtakers so far who are currently conducting operational trials on the prototype, with a view of incorporation into their fleet operations in the future. Our Hydroglyder prototype completed construction in Melaka, Malaysia, in December 2023. The vessel is now in Singapore waters, undergoing flight testing and regulatory compliances with the flag authorities. Both these projects have received keen interest from financiers for the commercialisation of both vessels. We are pleased to have secured financing from UOB and OCBC for the financing of the Hydromover and Hydroglyder prototypes, respectively.

Our drivEV business solutions have also received a strong uptake from commercial and industrial partners who are keen to champion the transition to decarbonise their fleets. With Pos Malaysia, we were selected to provide a comprehensive electric vehicle fleet solution which includes the deployment of 143 vans that are integrated with telematics, the smartEV app and a fleet management system. In addition, the fleet solution includes the provision of integrated charging solutions at Pos Malaysia depots nationwide, with support from our chargEV business.

chargEV, our charging infrastructure business, expanded into Brunei in 2023 through a partnership with BEV Charging Company. With the e-roaming agreements we have in place, the chargEV app now lists over 1,000 chargers serving over 20,000 users across Malaysia, Singapore and Brunei. Commercial relationships were also forged new with partners such as UEM Edgenta and Iskandar Investment Berhad and expanded with existing partners such as EcoWorld, Starbucks Malaysia and AEON Group.

Our electric two-wheeler segment, rydeEV, made good progress in both its B2B and B2C target markets during the financial year. Since rydeEV’s official launch in June 2023 at our sYnergy event, we have also launched the rydeEV Experience Centre in Petaling Jaya, Malaysia. As of 1 April 2024, we had set up 20 battery swapping stations across Klang Valley and 11 in Johor Bahru. We are in a strong position to capitalise on Electric Motorcycle Use Promotion Scheme (“MARiiCas”), an initiative by the Malaysian government to encourage adoption of e-bikes through attractive rebates. We are also partnering with CelcomDigi to accelerate Malaysia’s e-mobility system, leveraging CelcomDigi’s wide network to provide its users with access to electric mobility in Malaysia. One of the initiatives arising from this partnership was the launch of Malaysia’s first lease-to-own e-bike with a postpaid plan in January 2024.

In our fifth business, digitalEV, we have established and operationalised the key enablers that are needed to build the digital marketplace that integrates our businesses’ assets together, and also offers seamless interoperability with the systems of our potential partners. These enablers are EV Charging, EV Fleet Management, Land Logistics, Marine Logistics and Battery Swapping. With this suite of enablers, we have the leading edge as a pioneer of digital solutions for electrification and the ability to cross sell our digital solutions with our various businesses to add value to our customers. As an example, in 2023, we signed an agreement with Proton’s Pro-Net to integrate our chargEV chargers into Pro-Net’s mobile application and their in-car navigation system, providing users with seamless access to all charging points that are connected to our chargEV network. Other use cases of our digital marketplace include our successful e-roaming functionality integration with Gentari and JomCharge, and separately, with CDG Engie and LHN Group respectively, all which took place in 2023.



RISKS AND OPPORTUNITIES

External environment	Risks	Opportunities	Yinson GreenTech's response
Short to medium-term (1 to 5 years)			
Global economic uncertainties and the relative slowdown of tech development post pandemic.	<ul style="list-style-type: none"> • Stalled growth. • Employee layoffs, hiring freeze. • Lower valuations on existing businesses. • Capital constraints for new businesses. 	<ul style="list-style-type: none"> • Investments in the right technologies can attract investors and yield high returns and successful business outcomes. • Global focus on climate change continues to drive investments in net zero technologies. 	<ul style="list-style-type: none"> • We focus on the megatrend of electrification. • Our team is capable of adapting our strategies to market conditions. • Our integrated ecosystem of solutions is attractive to a world that is eager to decarbonise.
Influx of novel technologies to the market, pressure to mature.	<ul style="list-style-type: none"> • Data security and privacy. • Technology errors and emissions. • IT resiliency. • Failure of new technologies. • Talent shortage and burnout. • Reputational risks. 	<ul style="list-style-type: none"> • The right technologies, backed with sound strategies and investor support, can reach maturity faster. • Early adopters of the right technologies have an edge. 	<ul style="list-style-type: none"> • We entered early in the growth curve in the technology areas we are in. • We have established strong partnerships with other industry leaders, including research institutions. • Our suite of integrated solutions offers a balanced risk profile.
Long-term (6 to 10 years)			
The new technologies space is generally relatively unregulated.	<ul style="list-style-type: none"> • Intellectual property and personal data and privacy risk. • Cybersecurity attacks. • Unforeseen liabilities. • Unprecedented policy and regulatory changes. • Increase in key insurance lines. 	<ul style="list-style-type: none"> • Early adopters can help shape a robust regulatory landscape. • A solid track record of regulatory compliance opens doors to new opportunities. 	<ul style="list-style-type: none"> • We have strong legal, compliance and business teams to keep abreast of latest developments and manage this risk. • We leverage the collective expertise of our network of like-minded partners. • We run awareness training for our team on regulatory matters, including in the area of intellectual property. • We conduct quarterly risk assessments.
Transport segment is going electric and autonomous.	<ul style="list-style-type: none"> • Data security and privacy. • Supply chain constraints and limited raw materials could cause bottlenecks in delivery. • Regulatory compliance risks. • Product and environment liability risks. 	<ul style="list-style-type: none"> • Consolidation among suppliers could make the supply chain more effective. • Early adopters can establish a track record and gain market share. • Strong opportunities for investments into infrastructure, which provide long-term, stable returns. 	<ul style="list-style-type: none"> • We are involved in developing both physical and digital infrastructure in the EV segment. • We are established as a leader in the green technologies space in Malaysia and the region. • We have built a strong supply chain through collaborations and partnerships. • We invest into research.
Continued global focus on clean energy transformation.	<ul style="list-style-type: none"> • Novel green technologies remain out of reach to the more vulnerable in society due to high costs and unequal access. 	<ul style="list-style-type: none"> • Companies that help to facilitate a just transition can capitalise on these opportunities while also addressing societal and environmental concerns. 	<ul style="list-style-type: none"> • Our services offerings are designed for the broader community. • We work with companies and local governments to meet their own decarbonisation goals.

A FOCUS ON GROWING OUR BUSINESSES

When Yinson GreenTech was established in 2020, we initially focused on making strategic green technology investments. These businesses were good investments on their own. But at the same time, and perhaps more importantly, they provided us with a knowledge and resource base to develop our own new businesses.

In starting these new businesses, we started where we were the strongest. In terms of geographical location and where we had the strongest business presence, this was Southeast Asia. In terms of experience and resources, leveraging from our connection with Yinson Group, it was within the marine, mobility and energy segments. The businesses each champion one vertical of the electrification megatrend – marine transport (marinEV), urban mobility (drivEV), micromobility (rydeEV), and charging infrastructure (chargEV). The fifth business, digitalEV, integrates all these verticals together through the provision of an integrated digital marketplace platform.

In 2023, we underwent an intensive exercise to formalise the business models, targets and strategies of our businesses, as well as how they synergise towards the achievement of our goal of establishing an integrated, technology-driven ecosystem of green transportation across land and sea. The exercise gave us a strong framework to operationalise and grow our businesses, which has been our key focus in the year. Internally, we invested in strengthening our management and operational teams, governance and reporting structures, and business processes. Externally, we established partnerships with industry leaders and governments, expanded our territory and delivered better solutions to our customers.

INTRODUCING THE LEADERS OF YINSON GREENTECH'S BUSINESSES



Jan-Viggo Johansen
Managing Director of marinEV



marinEV is a leading catalyst for driving positive transformation in the maritime industry's journey towards decarbonisation. Our commitment to innovation is demonstrated through the delivery of electric vessels. Leveraging our deep technical knowledge and vast experience in the maritime sector, our team is dedicated to promoting sustainability and creating significant environmental impact in this industry.



Kelvin Soon
Managing Director of drivEV



drivEV is an influential force driving a transformative shift in the transportation industry by simplifying the transition to EVs for corporations and organisations. With our dedicated team, we are committed to facilitating a seamless switch to EVs with digitally value-added fleet solutions, creating enduring positive socio-economic and business impacts.



Chua Seng Teong
Managing Director of chargEV



chargEV is a leading EV chargepoint operator in Malaysia, helmed by experienced professionals dedicated to leading the country towards a more sustainable future. We aim to grow chargEV in Southeast Asia by creating business opportunities through vertical integration in the energy and utilities sector. Through the provision of accessible charging stations powered by cleaner energy sources, we can create positive social impact and contribute to a cleaner environment.



Syed Ahmad Faiz
Managing Director of rydeEV

rydeEV

At rydeEV, we aim to facilitate the transition to affordable electric two-wheelers in Southeast Asia, the largest two-wheeler market globally. As a team, our mission is to provide affordable and sustainable two-wheeler and three-wheeler solutions for businesses and consumers, offering fast charging and Battery-as-a-Service options. We are committed to making positive socio-economic impacts to businesses and societies at large.



Sreedhar Sivasambu
Managing Director of digitalEV

digitalEV

digitalEV is leading the development of a robust software stack to support the electrification trend. With a strategic focus on collaborating with like-minded organisations and delivering innovative solutions for the mobility and marine industries, we are dedicated to shaping a greener and more connected future. Our efforts culminate in a digital marketplace of solutions that drive significant business impact in the industry.

Our focus in the coming year is to establish the growth potential of each of our businesses and forge a broader visionary strategy based on vertical synergies. With our own five businesses as the base, we aim to study the value we can bring vertically to the ecosystems that we are seeking to influence: marine, mobility and infrastructure. Here, our digital platform is key, as it is designed to identify new efficiencies that can be gained through cross segment, cross industry and cross organisation collaboration, mapping out the best routes to operational and net zero focused optimisations. We believe that together, we will be able to spark a movement that accelerates the realisation of smart industry ecosystems, such as smart logistics, smart cities, smart energy, intelligent transportation and many more. We will also be focused this year on extending the geographical footprint of all our businesses more deeply and widely into Southeast Asia.

Ultimately, we aim to contribute tangibly a future where novel clean technologies are so accessible and affordable to the everyday man that choosing the cleaner pathway will simply be the most logical choice.



CLOSING REMARKS

The demand for smart technologies and net zero emissions services and solutions will continue to surge in the coming years. Since our establishment four years ago, Yinson GreenTech has relentlessly pursued opportunities and delivered in the spaces where we believe we can contribute most towards the world's net zero agenda. Our agile, bold, and strategic decisions have positioned us as an early/first mover in the industry, opening up amazing opportunities to collaborate with other industry partners to drive the transition forward.

The theme of this Report reverberates. From land to sea, with an ecosystem for all, we will spark a movement we call 'Positively Charged'. It is through collaborations with like-minded partners, determined rollout of our strategies and tireless passion from our leaders and employees that we have achieved such position. We shall continue to champion green, fueled by trust. One breakthrough at a time, we will turn challenges into shared triumphs.