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Hong Kong Transport Decarbonisation Blueprint

Abstract

February 2025

The better the question.
The better the answer.
The better the world works.

Foreword

As we have reached a critical juncture in the pursuit of carbon neutrality before 2050, it is essential to keep a firm focus on the transport sector, which accounts for approximately 18% of Hong Kong's total carbon emissions, making it the second-largest source of emissions, after electricity generation.

To decarbonise transport, vehicle electrification plays the primary role (especially for road transport), considering its higher energy conversion efficiency over other forms of low carbon alternative fuels, which are more commonly used in hard-to-abate transport sectors such as aviation and international shipping.

The Hong Kong SAR Government has implemented policies to popularise passenger electric vehicles since 2021. Nonetheless, the energy transition of commercial vehicles, which contribute more significantly to greenhouse gas emissions, is seen to be more complex. Notwithstanding the challenges ahead, the Government promulgated the Green Transformation Roadmap for Public Buses and Taxis in December 2024. Apart from road transport, globally, shore power is being implemented in many major ports and near shore marine vessels are trending towards electrification as a means to decarbonise. In Hong Kong, the Government has initiated several trials among local ferries.

Indeed, the international market is keen on driving electrification developments in both the commercial vehicle and maritime sectors, with significant progress made in recent years. This study is conducted at a good time, as it provides a platform for both the Government and the business sector to understand the barriers and opportunities of transport electrification for the transport sector in the Hong Kong context, and develop suitable strategies to collectively accelerate the transition. The evidence-based findings in this study would provide us with knowledgeable insights on the appropriate policies, technologies and financing to scale up commercial vehicle and maritime electrification. As a membership organisation galvanising business actions towards environmental excellence and net zero in Hong Kong, Business Environment Council is committed to engaging the wider business community to accelerate such a positive move within the transport sector.

Simon Ng
Chief Executive Officer
Business Environment Council

1

The imperative to decarbonise Hong Kong
Global trends and why Hong Kong needs to utilise transport as a central enabler to realise its decarbonisation ambitions

2

Pathways to decarbonisation
What alternative fuel options does Hong Kong have and which segments make most sense for electrification?

3

Challenges and pragmatic recommendations
What challenges do industry stakeholders face today related to transport and what does global experience tell us about how to tackle them?

4

Framework and prioritised actions to accelerate the transition
How should Hong Kong take next steps to deliver on a world class eMobility ecosystem in an efficient and effective manner?

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1

Global scale decarbonisation gaining significant momentum

The global drive to combat climate change has reached unprecedented levels, with significant focus on reducing emissions from the transport sector, which contributes approximately 20% of global greenhouse gas emissions. The United Nations COP28 conference emphasized the critical need for a holistic transition to zero-carbon technologies across both land and marine transport systems.

Land Transport

Electric vehicle (EV) adoption has surged globally, driven by consumer demand, policy commitments, and technological advancements. Commercial transport is following suit, particularly in the electric light goods vehicle (LGV) and electric bus segments. In the medium and heavy-goods vehicle range sales are also gaining momentum – the global sales of electric truck increased 35% in 2023 compared to 2022. This is largely due to significant investments from governments and the industry to achieve ambitious decarbonisation targets. Challenges persist however, especially in deploying sufficient charging infrastructure to support transition of commercial vehicles at scale.

Marine Transport

The marine sector has seen a slower but increasingly determined shift towards decarbonisation, with a growing emphasis on alternative fuels like LNG, methanol, and ammonia for ocean going shipping, alongside expansion in shore power infrastructure and electrification of harbour craft to tackle emissions produced within ports. Leading examples include China Mainland's extensive shore power capabilities and Singapore's emergence as a bunkering hub for alternative fuels, with both jurisdictions also investing heavily in electrification of domestic harbour craft and, in China mainland's case, cargo vessels operating throughout the jurisdiction's extensive inland waterways.

Leading jurisdictions are driving decarbonisation in three key ways.

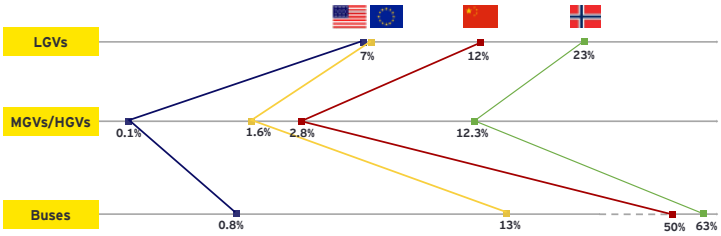
In all cases, jurisdictions at the forefront of the transition to zero carbon (Norway, China Mainland, EU) are focusing strategies around three key areas to drive market adoption of zero carbon energy solutions. These are broadly described as follows.

Policies and incentives: Clear segment-level near, medium, and long-term targets to provide clarity and direction to the market. Targets are typically supported by incentives that help alleviate financial challenges associated with transition.

Charging infrastructure: Well-planned deployment of charging infrastructure, sufficient in type, density, location and volume to meet the needs of both public and commercial operators. This is typically managed in close coordination with key market players.

Market (and consumer) confidence: Improved access to and affordability of technologies, leading by example (large corporations, government, quasi-government entities transitioning their own fleets), encouraging collaboration with OEMs, operators and financial institutions alike.

% new sales share of EVs across commercial segments are driven by policies & incentives, charging infrastructure and customer confidence



The economic and environmental stakes for Hong Kong are high.

The city's exposure to extreme weather events and its need to maintain competitive port operations underscore the urgency of decarbonising transport. Failure to act decisively could result in economic losses, degraded air quality and missed opportunities in the global push towards sustainability and city's journey to realising its vision in becoming an international finance, trade and shipping hub.

Land

Despite the significant public uptake of EVs in Hong Kong in recent years, the total emissions of commercial vehicles and buses are disproportionately higher on a per vehicle basis compared with private vehicles.

This suggests more action would be prudent for Hong Kong to achieve its 2050 net zero ambitions, with decisions in investing in new fleet vehicles having resulting impacts for the next 15 years.

The opportunity for decarbonisation revolves around the transition of trucks and buses which are the largest contributor of air pollutants in Hong Kong, accounting for 81% of vehicle NOx emissions despite representing only 19% of the total vehicles on the road.

Maritime

Combined emissions from ocean going vessels and local harbour fleet account for more than a quarter of key air pollutants in Hong Kong. In total, there are around 21,000 licensed vessels across the four vessel classes established in Hong Kong. Of these, commercial ferries (Class I) and work vessels (Class II) represent the largest share of Scope 1 emissions from harbour fleet vessels and are hence a focus of this report. Many of these vessels are approaching or have reached the end of their operational lifespan and are due for replacement.

The time to act is now, based on industry feedback, many operators are planning to replace their existing ageing vessels which will remain in operation well beyond 2050 with new vessels producing carbon emissions and air pollutants for the next ~30 years, effectively putting Hong Kong's 2050 emissions reduction targets at risk. Pressure to act now is further exacerbated by prolonged lead time of vessel procurement and infrastructure development.

Opportunity – Decarbonisation of commercial vehicles and harbour fleet vessels and provision of shore power could reduce Hong Kong's transport-related emissions by up to and 2,500-5,000 kilotonnes by 2050, accounting for 40-80% of the city's current transport emissions.

Hong Kong strategic technology pathway choices have to be made now with consideration of factors such as Speed and Scale of technology, Availability of Fuel, Transition Cost and Consumer Confidence.

Call for action

Hong Kong is uniquely positioned to become a leader in transport decarbonisation, leveraging its dense urban environment, advanced public transport system, and strategic port facilities. However, achieving this will require the next set of policy decisions, significant investment in infrastructure, and strong collaboration between public and private sectors to accelerate land commercial, harbour fleet transition, develop green shipping hub through investment in shore power and alternative fuels.

2

Electrification is the most feasible option for Hong Kong's transport decarbonisation

Global trends and technology advancement indicates that while multiple pathways to decarbonisation exist, electrification emerges as the most promising and practical option for Hong Kong's commercial land and marine transport sectors (especially for commercial ferries and work vessels). The conclusion is based on assessing potential reductions in carbon emissions and other air pollutants against technology advancement, fuel availability and infrastructure complexity in HK.

Land

Sustainability Impact: BEV technology currently offers the biggest reduction in carbon emissions, and grid decarbonisation plans in Hong Kong will see this further improve by 2030.

While hydrogen also shows potential to significantly reduce carbon emissions, current supply consists mostly of "grey" hydrogen. As such, BEVs will continue to perform better from a sustainability standpoint until "green" hydrogen becomes more readily available.

Operational Suitability: Hong Kong's limited geography offers unique opportunities in decarbonisation as typical daily ranges (70-220km) for commercial trucks fall well within what current BEV technologies are capable of. Furthermore, Hong Kong's existing electricity grid and the momentum in EV adoption provide a strong foundation for scaling up BEV infrastructure.

Targeted investment in charging stations across key locations, especially fast and ultrafast chargers suitable for commercial applications, will be crucial for the next successful leap of transport electrification.

Evolution of energy options for land by 2035

BEVs are expected to continue to lead as charging infrastructure expands to over 250,000 EV charge points in HK by 2035, technology further advances and the grid continues to decarbonise. EVs have been proven to be a safe technology that can operate within the highly dense cities, including Hong Kong.

Despite expected improvement hydrogen fuel availability, renewables costs and improving electrolyser technologies the cost of operating Fuel Cell Vehicles to end users is likely to cost more. And perhaps most critically, waiting for the development of green hydrogen's supply chain and advancements in technology will result in delaying decarbonisation of transport; likely to result in missing Hong Kong's 2050 net zero goals.

Fuel technology suitability assessment in Hong Kong (2024-2027)

Fuels → / Vehicle type ↓	Parameters ↓	BEV	PHEV	Hydrogen	CNG	LPG
Private Cars	Overall suitability	High	Moderate	Moderate	Low	Low
	Operational suitability	High	Moderate	Moderate	Low	Low
	Sustainability impact	High	Low	Moderate	Moderate	Low
Light Goods Vehicle	Overall suitability	High	Moderate	Moderate	Low	Low
	Operational suitability	High	High	Moderate	Moderate	Low
	Sustainability impact	High	Low	Moderate	Moderate	Low
Medium Goods Vehicle	Overall suitability	High	Low	Moderate	Moderate	Low
	Operational suitability	High	High	Moderate	High	Low
	Sustainability impact	High	Low	Moderate	Moderate	Low
Heavy Goods Vehicle	Overall suitability	High	Low	High	Moderate	Low
	Operational suitability	High	Low	High	High	Low
	Sustainability impact	High	Low	Moderate	Moderate	Low
Buses	Overall suitability	High	Low	Moderate	Low	Low
	Operational suitability	High	Low	Moderate	High	Low
	Sustainability impact	High	Low	Moderate	Moderate	Low

Source: EY analysis; Secondary research

KEY: Low / Moderate / High — Overall Suitability; Low → High — Operational Suitability / Sustainability impact

Maritime

The maritime sector is exploring a mix of alternative fuels (e.g., methanol, ammonia, LNG) and electrification. For ocean-going vessels, alternative fuels like methanol are gaining traction, while electrification is starting to trend globally as the preferred solution for domestic harbour craft due to advancements in battery technology and the development of battery swap systems supporting all electric operations.

Sustainability Impact: With lower well-to-wake emissions, as with BEVs, electric vessel technology offers a significant reduction in carbon emissions, though methanol performs marginally better. With green methanol production projects under development in Mainland China, and grid decarbonisation plans in Hong Kong, both solutions are expected to continue to improve from a sustainability standpoint.

Operational Suitability: Given the city's reliable power supply and advancements in the development and deployment of electric vessel technology, electrification represents the most suitable pathway for decarbonisation of Class I and II harbour fleet vessels in the immediate and near term.

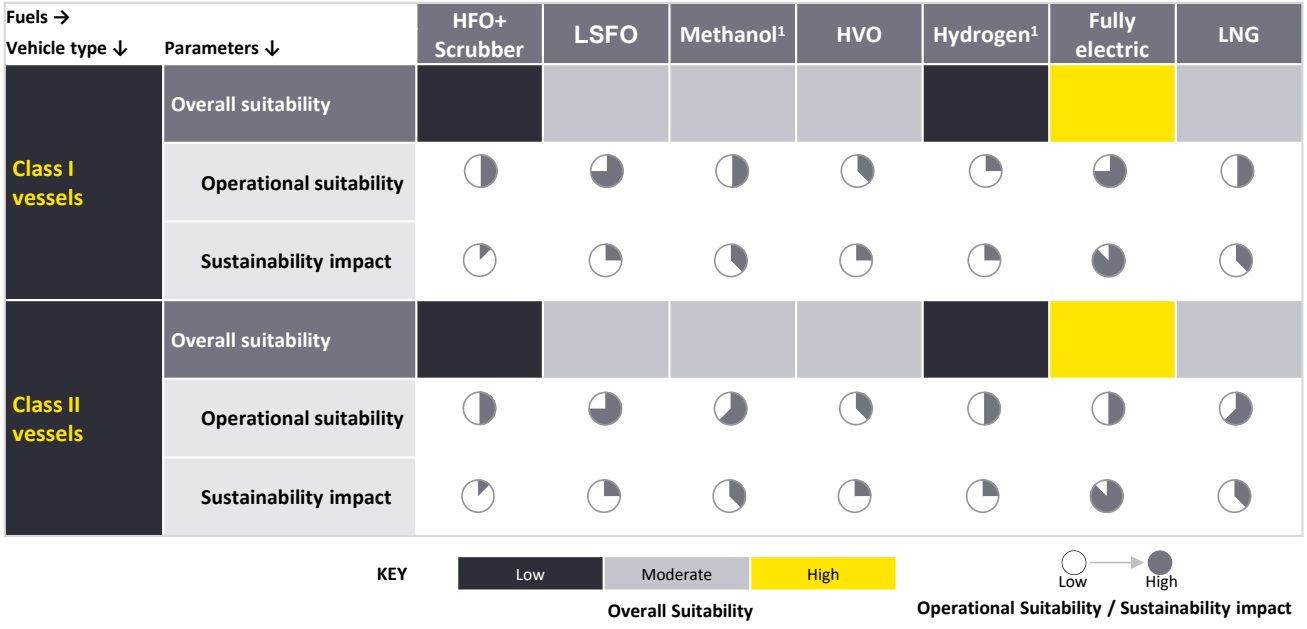
While methanol may have a role to play, production is currently constrained against demand with a priority on supply to ocean going vessels. Global trends indicate a market preference for electrification given the relative safety and ease of implementation.

Evolution of energy options for maritime class I & II vessels by 2035

Fully electric powertrains are expected to remain the most suitable technology for both commercial ferries and work vessels in 2035, particularly as battery technologies are expected to continue to make significant advancements. Methanol is also an emerging option to meet operational needs, however has more stringent handling requirements as well as expected competition for green methanol supply by ocean-going vessels.

Hong Kong will also see an increase in green hydrogen supply, however costs are expected to remain higher than alternatives.

Fuel technology suitability assessment in Hong Kong (2024-2027)



Note: 1. Grey methanol and grey hydrogen is considered in the analysis due to its better short-term availability in global markets, including Hong Kong. 2. Ammonia is not assessed further due to its high flammability and toxicity, which pose significant safety concerns, particularly for passenger vessels. Also, significant modifications would be required to adapt existing engines on Class I and Class II vessels, making its commercial viability for these types of vessels unfeasible.

Customer Lens – cost economics indicate that electrification is viable today.

With the increasing ubiquity of electric vehicles and vessels globally, the transition towards green mobility is becoming less of a technological challenge for fleet operators and more of a financial one. This is largely due to the higher capital cost of electric powered vehicles and vessels versus conventional Internal Combustion Engines (ICE), despite this being potentially offset in the long run by reduced operational and maintenance costs.

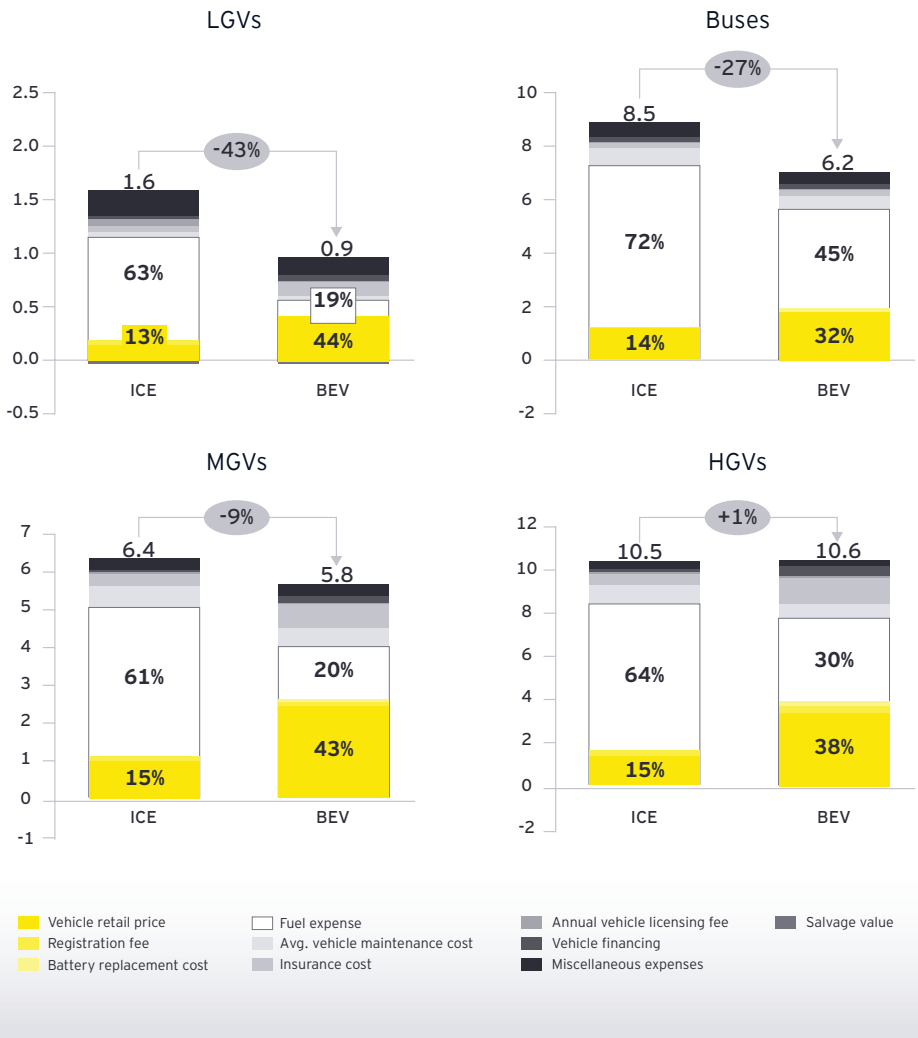
To understand and illustrate the financial challenges and opportunities owners or operators are facing, EY teams undertook a high-level analysis of the Total Cost of Ownership (TCO) of electric and ICE technology equivalent vehicles and vessels.

Land

Despite higher purchase cost (two to three times the cost of a conventional ICE vehicle) EVs in Hong Kong have lower TCO across all light-duty and medium-duty vehicles compared to ICE vehicles, driven by the difference in costs between diesel and electricity

- Fuel costs contribute ~61-72% to the total costs of ICE vehicle, compared to only 19-45% for BEVs across vehicle types
- Electric-Light Goods Vehicles (LGVs) demonstrate a 43% reduction in TCO, highest across all vehicle segments
- In the heavy-duty segment, Electric-Buses and Electric-Medium goods vehicles (MGV) show a 27% and 9% lower TCO respectively; while, Heavy Goods Vehicles (HGV) at breakeven

Land – TCO by powertrain ($HK millions)



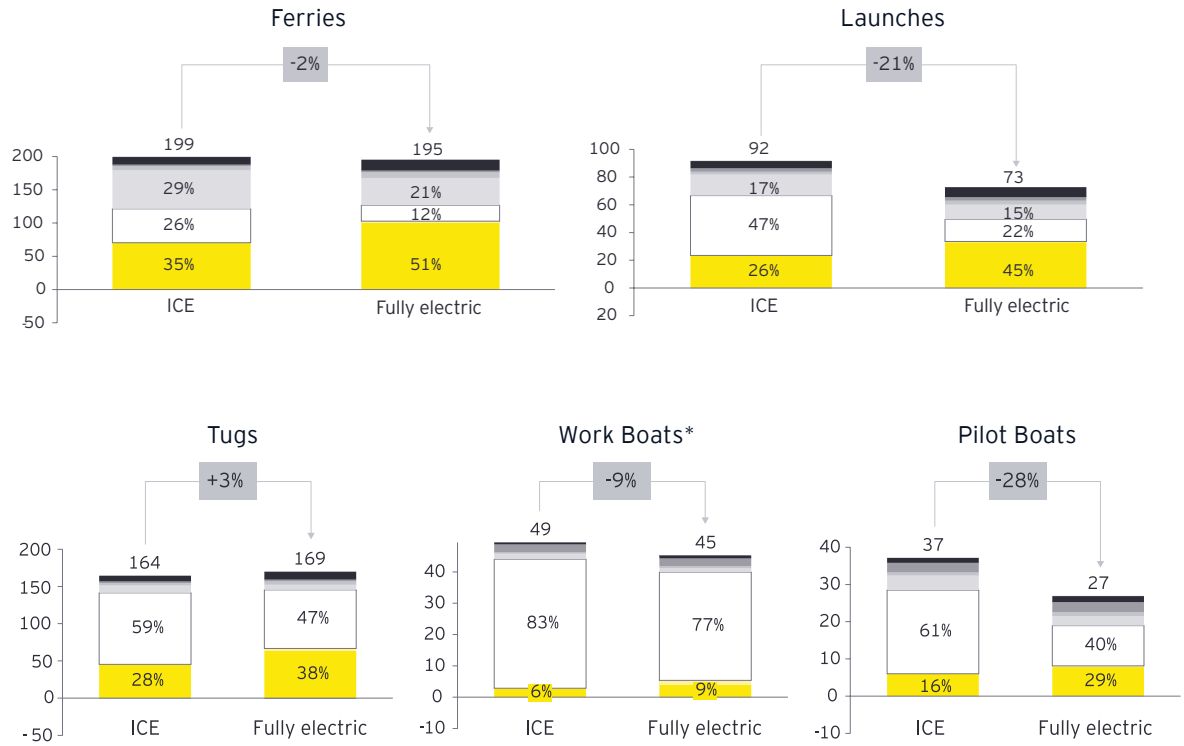
Maritime

Electric commercial ferries and launches are already favourable compared to their diesel counterparts in terms of lifecycle costs, offering cost savings of up to 21%, depending on the vessel type and driven by fuel price difference. Smaller Class II vessels – work boats and pilot boats – also demonstrate a favourable TCO for electric vessels with up to 28% savings. However, for larger vessels (tugs), the TCO for electric vessels is slightly higher compared to the diesel counterparts. With expected battery technology advancements, TCO savings is likely to trend towards fully electric.

In both cases, electric offers reduced maintenance costs. During the course of this study, engagement with industry cited the lack of qualified mechanical engineers in Hong Kong as a growing concern and one of the benefits of switching to lower maintenance electrical propulsion.

The TCO analysis for both sectors does not include the costs of charging infrastructure, where costs can vary greatly depending on the situation, such as when chargers can be shared between multiple fleets or operators.

Maritime – TCO by powertrain ($HK millions)



***Note:** Electric work boats may offer up to 25% better TCO depending on usage and function | Based on sensitivity analysis checks on TCO

The well-planned deployment of suitable charging infrastructure is vital.

To fulfil Hong Kong's green transport ambition and meet 2050 decarbonisation targets, the well-planned support and deployment of robust charging infrastructure will be vital. To understand the scope of this challenge and the unique needs of both land and marine transport, EY teams undertook an analysis of charging needs vehicle and vessel segments.

Land

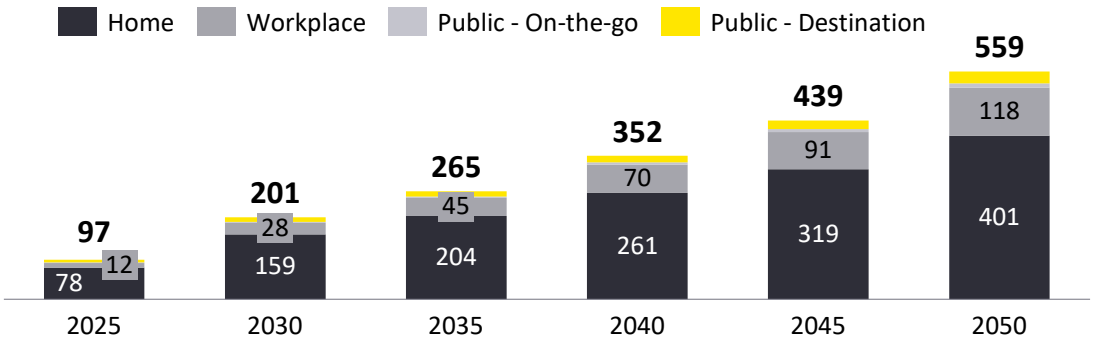
With electrification potential as high as 93-99% across all the segments by 2050, EY teams estimate approximately 560k chargers will be needed to service an estimated 1.1M EVs in Hong Kong.

A closer look at Hong Kong's charging segment mix reveals the current and planned charging installations are much higher at 'Home' and 'Workplace', catering to the needs of private car owners. Hence, commercial fleet operators are cautious on BEV's operationally suitability and will require developments that support their needs.

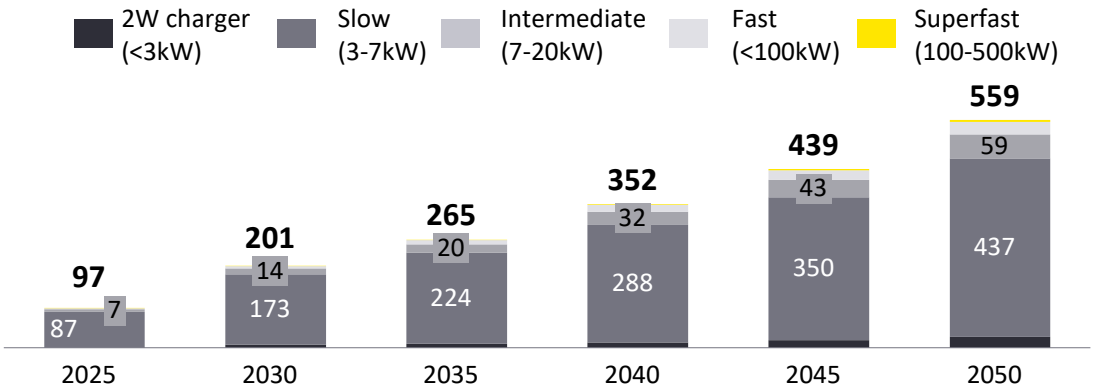
With Hong Kong's land constraints, it will be critical to effectively utilise the existing 690k parking spaces available, of which 495k are designated for private use. This includes the right mix of incentives and policy to drive private market players to install charging fit for commercial vehicles and are available for public use where possible.

To design an effective ecosystem that encourages EV uptake across all vehicle segments the following planning considerations have been made.

Charger requirement by charging location (000s)



Charger requirement by charger type (000s)



Charging locations	Future planning considerations
Home	▸ By 2027/28, home charger demand is expected to rise to 110-130K, in line with the government's target of 140,000. ▸ Majority of the population resides in high-rise apartment buildings. To meet the charging demand, public charging and workplace (e.g. at commercial buildings) will have to compensate this demand.
Workplace	▸ Across workplace and public destination sites, 28,000 chargers are needed by 2030, nearly double the current number available as of February 2024 (~16K). ▸ Public transport interchanges (PTIs) and depot charging will likely be necessary to encourage and enable the electrification of commercial fleets, buses, and taxis. Examples of strategic locations include - industrial estates such as Tai Po, Fo Tan, Kwun Tong, Yuen Long and similar commercial and industrial hubs.
Public – Destination	▸ Approximately 10,000 public destination chargers will be required by 2030. ▸ Examples of strategic locations include loading and unloading bays in key commercial areas, car parks with commercial vehicle parking, shopping malls and logistics centres.

Public – On-the-Go	▸ Demand for public on-the-go charging is expected to increase to 2,500 by 2030, and 10,000 by 2050.
	▸ Urgent planning focus will be needed on 'Public on-the-go' fast (60-200kW) infrastructure. Examples of strategic locations include:
	  ▸ Major on-route destinations like the Kwai Tsing container terminals and the Hong Kong International Airport
	  ▸ Other under-utilised public spaces near high commercial traffic zones, such as areas under major flyovers across Hong Kong

Maritime

With limited market data available, the projection of electrification across for maritime was limited to Hong Kong's current fleet composition within Class I (commercial ferries) and II vessels (work boats). Indicative analysis suggests electrification potential between 65% to 90% for Class I and 40% to 70% for Class II vessels by 2050 with assumed timely policy interventions and a proactive coordinated ecosystem approach to maximise decarbonisation benefits.

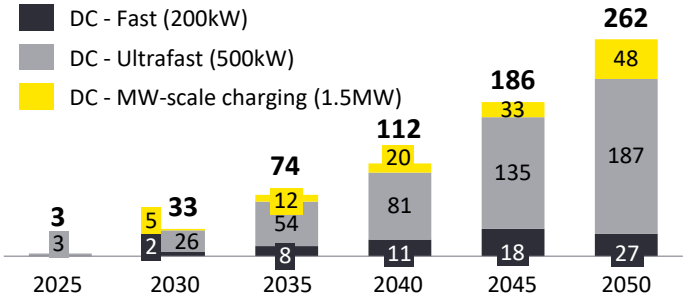
Approximately 30+ chargers will be required to meet the charging demands of 65+ Class I & II e-vessels by 2030. By 2050, this figure may increase to 250+ chargers to support the charging needs of 550+ Class I and II e-vessels.

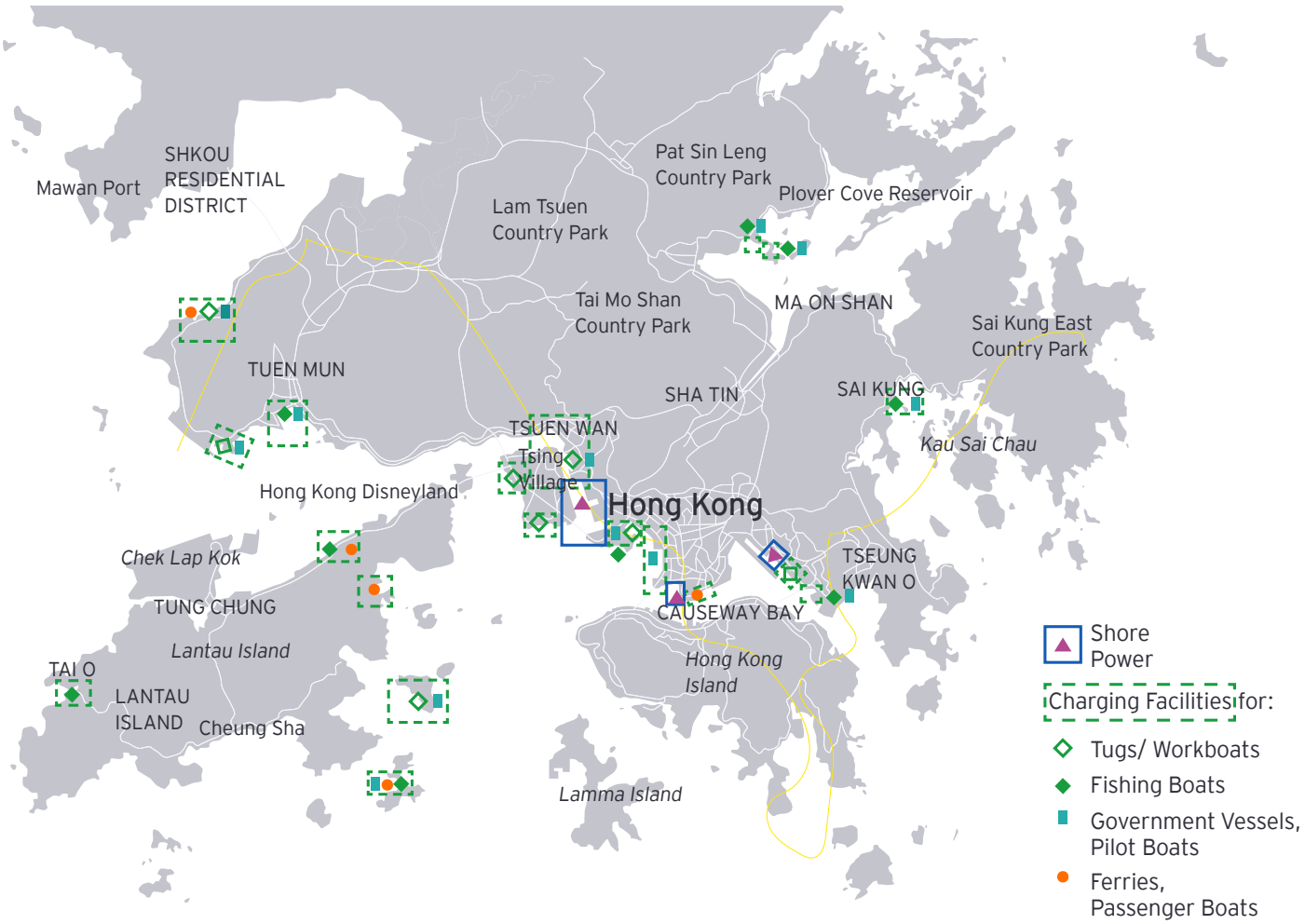
Due to the length of time required to construct an electric vessel and for infrastructure implementation (vessel procurement – approx., 26 months, infrastructure build approx., 12-36 months), deployment of chargers will require a high level of coordination and consultation amongst stakeholders.

Initially, installation of chargers in strategic locations that offer mutual convenience for the most operators will be essential to promoting and supporting fleet electrification. Through consultation with industry stakeholders, several potential locations have been identified taking into account user operating profiles, sufficient water depth (>7m) and land space to accommodate charging and power grid infrastructure.

In most cases these charging locations could serve multiple types of vessels (see the map below) including tugs/workboats, government vessels, pilot boats, ferries and fishing boats. With expected collective benefits (both environmental and economic) among maritime industry operators the strategic charging locations present opportunity to be the most efficient solution to accelerating electrification of harbour fleet in Hong Kong in the near term.

Charger requirement by charger type





Note: The analysis of these locations were constructed based on feedback from stakeholder interviews covering Kowloon, New Territories and Outlying Islands only and will need to be supplemented with HK Island locations.

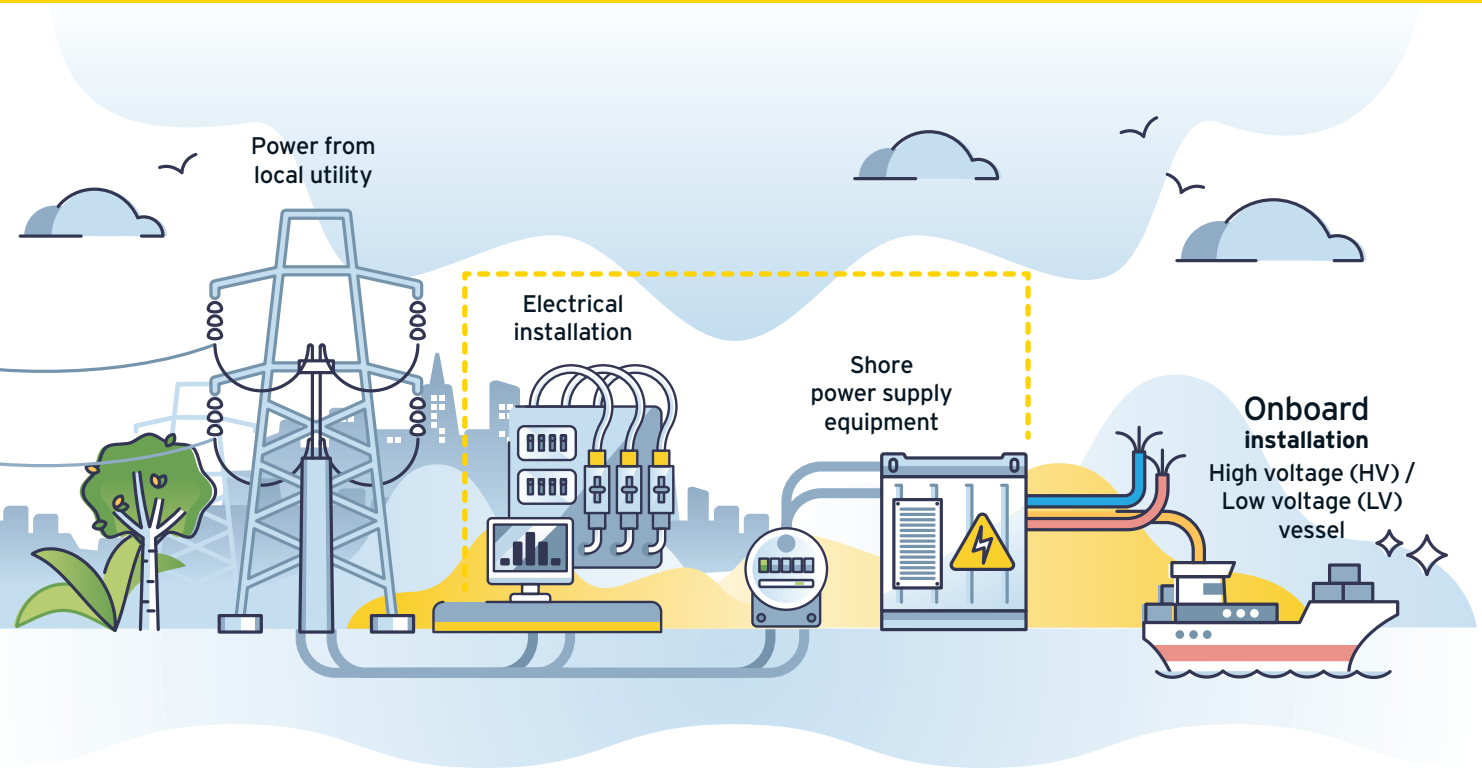
As shipping and cruise companies continue to retrofit vessels to accept shore power and with the order book of new build ships reflecting a strong trend towards shore power compatibility in response to IMO targets and new emissions penalties, it is important for Hong Kong to maintain pace with other global ports or risk being left behind.

The potential economic impact of this cannot be understated, where the absence of onshore power supply (OPS) may result in shipping companies opting to call at regional ports instead of Hong Kong Ports in order to meet their sustainability targets and avoid carbon taxes.

Both the Chinese mainland and EU's ports already have widespread implementation of OPS, with more than 400 berths across 21 coastal ports in the Chinese mainland providing OPS and the majority of European ports aiming to offer OPS facilities to vessels by 2030.

The infrastructure, however, is costly and space in Hong Kong is limited. Terminal operators are unlikely to invest without government support and a charging operator will be required for the ongoing operation and maintenance of the OPS. The potential benefits (both environmental and economic) however, are too great to ignore.

Shore power infrastructure



3 Voice of the Market – Challenges and Recommendations

Land Transport: Key Challenges and Recommendations

As Hong Kong advances its transition to electric powertrains in both commercial land and maritime transport, several critical challenges and recommendations have been identified, through consultations with over 30 local stakeholders and extensive research into global best practices. Below is the summary of the challenges and recommendations for Land and Marine, with further detail provided in the report.

Policy and Regulation

Challenge(s)

The need for certainty and signal as well as streamlined regulations to drive adoption of commercial EVs

Recommendation(s)

- **L1. Develop segment level targets for commercial transport:** in phased approach, i.e. earlier, more ambitious targets for segments like LGVs (given TCO and technological readiness), followed by medium to heavy good vehicles.
- **L2. Establish a central coordinating taskforce:** to coordinate planning and implementation across the complex stakeholder landscape.
- **L3. Streamline and update regulations:** focus on those governing vehicle weight and charging infrastructure to better accommodate EVs.

Operational Feasibility

Challenge(s)

Limited suitable EV models and lack of successful local reference cases undermine confidence in fleet electrification

Recommendation(s)

- **L4. Simplify type-approval process and collaborate with OEMs:** to reduce time-to-market for EVs and expand model availability in Hong Kong
- **L5. Foster industry partnerships:** eg. Fleet operators partnering with OEMs, smaller fleets forming alliances to increase their collective purchasing power.
- **L6. Prioritise corporate, quasi-public and government fleet electrification:** these fleet operators should lead by example to build market confidence.
- **L7. Launch pilot programmes to boost operator's confidence in technology:** to give fleet operators the opportunity to experience EVs first-hand.

Land

Charging Infrastructure

Challenge(s)

Current charging infrastructure for commercial use is insufficient and the process of building chargers is complex and requires coordination

Additional power supply required in existing premises to support larger scale transport electrification

Recommendation(s)

- **L8. Develop a robust charging network for commercial vehicles:** adopt a multi-faceted approach across different industrial estates and major on-route destinations in key commercial areas (identified by industry stakeholders)
- **L9. Establish standards and data interoperability:** digital infrastructure and data standards to facilitate data exchange and enable development of new eMobility services
- **L10. Utilities to support with grid infrastructure development:** assess grid impacts & risks, collaborate on grid-city-transport planning, invest in smart-digital grid.

Economic Considerations

Challenge(s)

High upfront costs for EVs and charging infrastructure are barriers for fleet operators

Recommendation(s)

- **L11. Targeted levers to accelerate commercial vehicle electrification:** target subsidies and incentives toward high impact vehicle segments like MGVs & HGVs and invest in public charging infrastructure.
- **L12. Encourage innovative business models:** promote models like "Truck-as-a-Service" and facilitate access to capital through public-private partnerships and financial collaborations.

Supporting Ecosystem

Challenge(s)

The broader ecosystem required to support widespread EV adoption is underdeveloped

Recommendation(s)

- **L13. Develop supporting EV ecosystems:** implement targeted initiatives to create a sustainable and holistic EV ecosystem. E.g. workforce training local battery disposal and recycling market.

Maritime Transport: Key Challenges and Recommendations

Policy and Regulation

Challenge(s)

The maritime industry lacks clear decarbonisation targets and alignment

Recommendation(s)

- **M1. Set decarbonisation targets and roadmap:** develop near, medium, and long-term decarbonisation targets for the maritime sector and address key challenges.
- **M2. Establish a central coordinating taskforce:** a central task force, including experts from both land and maritime transport sectors, should be established.

Operational Feasibility

Challenge(s)

There is limited awareness of available electric vessel technologies and local successful reference cases

Recommendation(s)

- **M3. Increase awareness of electric vessel technologies:** create platforms to share knowledge and showcase global case studies, demonstrating the feasibility of electric vessels in Hong Kong.
- **M4. Create local successful reference cases:** target electrification of Govt and local fleets as well as promote successful local trials.

Charging Infrastructure

Challenge(s)

The maritime sector faces significant barriers related to underdeveloped charging infrastructure, including high capital costs and complex approval processes.

Recommendation(s)

- **M5. Holistically plan charging infrastructure and simplify the process:** start with shared charging in strategic locations and establish clear guidelines on implementation requirements and processes.
- **M6. Financial support for shore power development:** robust financial support is critical to effectively deploy the necessary shore power facilities.

Maritim

Economic Considerations

Challenge(s)

High capital costs for electric vessels and charging infrastructure

There is a supply and demand mismatch in shore power, with terminals slow to invest due to high upfront costs despite global trends towards shore power adoption.

Recommendation(s)

- **M7. Provide support for high impact vessels:** targeted support for high-use vessels, such as ferries and tugboats.
- **M8. Facilitate access to capital:** improve access to capital and consider public-private partnerships to share the financial risk of infrastructure development.
- **M9. Accelerate investment in shore power:** provide financial support and clear guidance for the development of shore power infrastructure, alongside mandates for its use by compatible vessels.

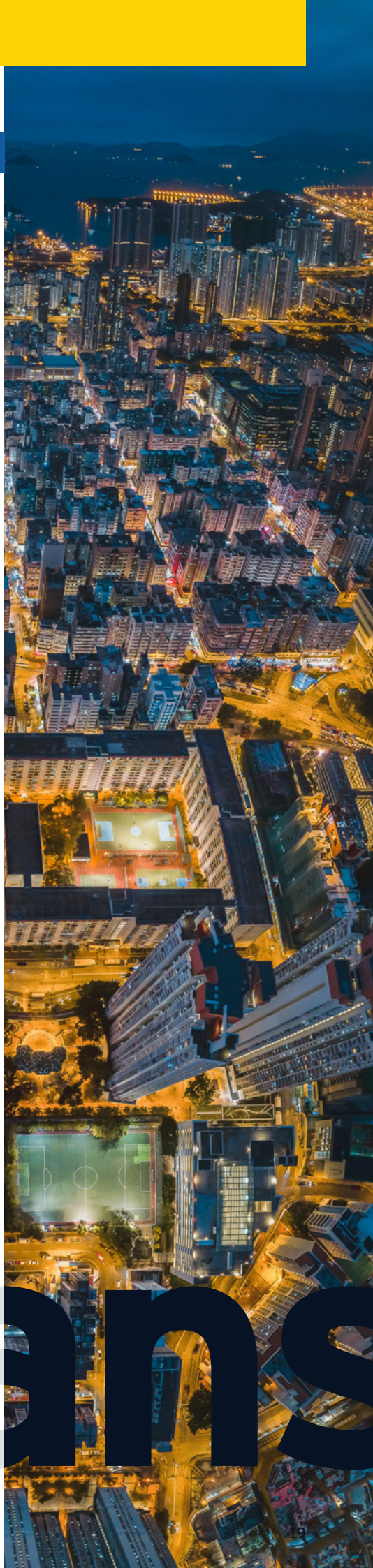
Supporting Ecosystem

Challenge(s)

The broader ecosystem required to support widespread adoption is underdeveloped

Recommendation(s)

- **M10. Targeted initiatives to support wider ecosystem:** implement targeted initiatives to create a sustainable and holistic EV ecosystem. E.g. workforce training, local battery disposal and recycling market.



4 The Blueprint to accelerated and efficient transition to eMobility

Below, we set out the sequence for the enablement of the decarbonisation transition of commercial land and marine transport.

Align (2024) – take a holistic view, align and reconcile of the various perspectives on how the city can move forward in its transition to green transportation.

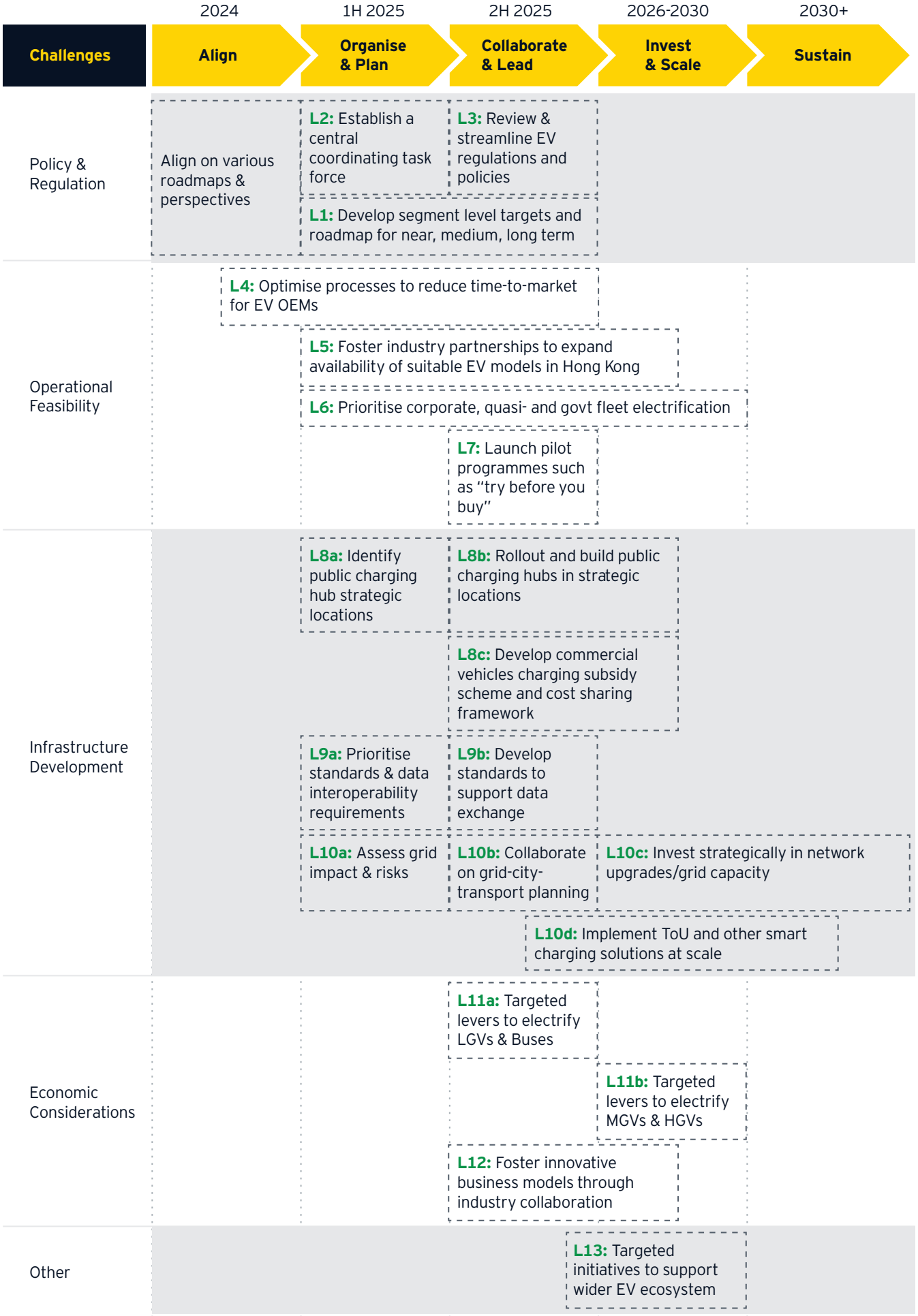
Organise & Plan (2H 2025) – coordination within government and across the landscape of diverse stakeholders and ecosystem players, setting direction and layout plan, streamlining existing practices hindering transition to eMobility.

Collaborate and Lead (2H 2025) – with a clear target, roadmap, and plan in place, the next step is to create local success stories of transport electrification.

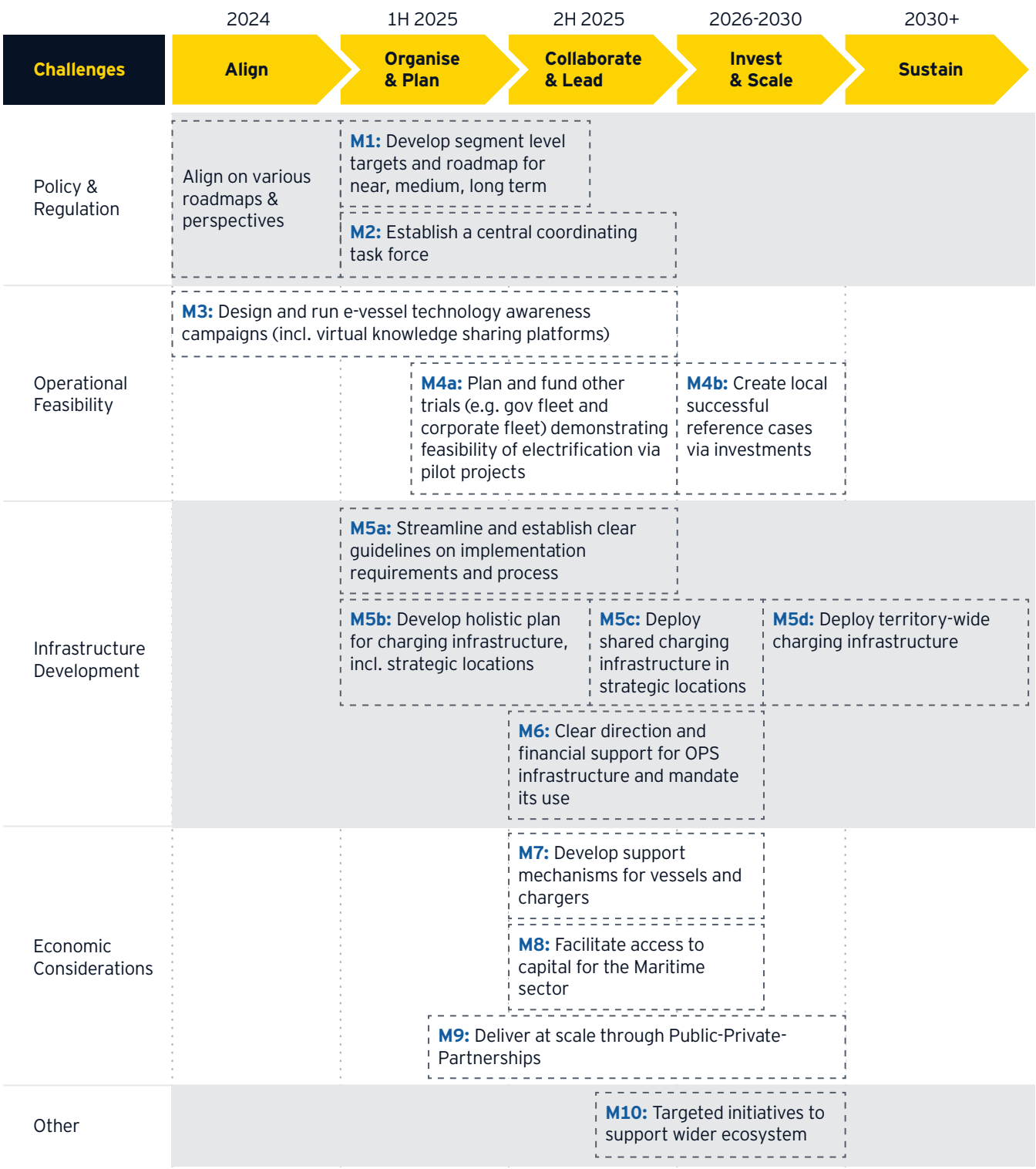
Invest and Scale (2026 – 2030) – take a phased approach, targeting segments with the highest ROI.

Sustain (2030+) – undertake these initiatives and activities, buying-in to a new era of transportation within the city beyond this decade and therefore sustaining a change that benefits all citizens and visitors of this bustling metropolitan.

Hong Kong Transport Decarbonisation Blueprint (Land)



Hong Kong Transport Decarbonisation Blueprint (Marine)



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