LOS ANGELES - LONG BEACH - SINGAPORE GREEN AND DIGITAL SHIPPING CORRIDOR

Partnership Strategy
We are excited to see this partnership grow from strength to strength with the Green and Digital Shipping Corridor Partnership Strategy. We have embarked on evaluating the various digital solutions and zero and near-zero fuels options that could be trialled along the route between Singapore and the San Pedro Bay Port Complex. We look forward to the support of all the corridor stakeholders over the coming months to conduct trials and potentially scale them for wider adoption.

Over the last two decades, we’ve learned that collaboration between maritime industry partners is the key to making meaningful progress in reducing emissions and cleaning the air. This trans-Pacific green shipping corridor takes this concept global. The strategies we develop here can be used as a roadmap by a larger network of seaports and supply chain companies to invest in programs, technologies, software and infrastructure to decarbonize international trade everywhere.

This Partnership Strategy document is the foundation upon which we’ll build the future of maritime shipping. Our success requires the resolve and dedication of the three partnering ports as well as our industry partners. Together, we will model the collaboration necessary to achieve our climate and efficiency goals.

C40 is proud to support our port partners in delivering this Partnership Strategy. The advancement of this Green and Digital Shipping Corridor brings the shipping sector one step closer to a 1.5°C-aligned trajectory. Green shipping is only achievable through collaboration because no one stakeholder can afford to move unless they know others are likely to follow. That’s where C40 is delighted to help, bringing our network of world leading cities, which include most of the world’s largest and most forward-looking ports.

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**Endorsements**

**Teo Eng Dih,**
Chief Executive,
Maritime and Port Authority of Singapore (MPA)

**Mario Cordero,**
Chief Executive Officer,
Port of Long Beach (POLB)

**Gene Seroka,**
Executive Director,
Port of Los Angeles (POLA)

**Mark Watts,**
Executive Director,
C40 Cities
Background and Context

As leading global hub ports, Singapore, Los Angeles and Long Beach are vital nodes on the trans-Pacific shipping lane and key actors in the maritime sector’s green and digital transition. In 2022, vessels calling these ports carried more than 56 million twenty-foot equivalent units – making up around 7% of the world’s total container trade.¹

The Maritime and Port Authority of Singapore (MPA), Port of Los Angeles (POLA) and Port of Long Beach (POLB), with the support of C40 Cities, have established a Green and Digital Shipping Corridor (GDSC) with the aim to accelerate decarbonisation of the maritime industry and the development and deployment of digital technology solutions and enablers.

The three ports and C40 Cities announced their intention to collaborate on the GDSC in November 2022 at the 27th United Nations Climate Change Conference (COP27/CMP17/CMA4) in Sharm el-Sheikh, Egypt. A Memorandum of Understanding (MoU) was subsequently signed at Singapore Maritime Week in April 2023 by leaders from the three ports, formalising the scope of cooperation between the partners.

Following the adoption of the International Maritime Organisation (IMO) Revised Strategy in July 2023, this collaboration supports the decarbonisation of the maritime industry in line with the goals of IMO², and Singapore’s and the United States’ respective Nationally Determined Contributions (NDCs).

Spanning 14,000km across the Pacific Ocean, the GDSC between Singapore and the San Pedro Bay port complex will support the development and uptake of low- and zero-carbon fuels and vessels and identify digital and technology solutions to enhance voyage and route optimisation.

The GDSC also builds on the ports’ long-standing cooperation through platforms such as the Port Authorities’ Roundtable (PAR) and chainPORT and complements bilateral initiatives between Singapore and the United States such as the U.S.-Singapore Climate Partnership and the U.S.-Singapore Partnership for Growth and Innovation. The partnership is further strengthened by the collective expertise and stakeholder network that the three ports bring from existing corridor initiatives.

This Los Angeles – Long Beach – Singapore Green and Digital Shipping Corridor (GDSC) Partnership Strategy document aims to:

- Communicate the GDSC Partnership’s vision, aims and objectives for the corridor.
- Describe how the GDSC partnership will govern itself and work with stakeholders to achieve its aims.
- Mobilise value chain actors and other stakeholders to participate in or support the implementation of the GDSC.

¹ Source: 2022 statistics from UNCTAD, Port of Los Angeles, Port of Long Beach and Port of Singapore

² The Revised Strategy commits Member States to peak Greenhouse Gas (GHG) emissions from international shipping as soon as possible and not later than by 2030, taking into account different national circumstances, whilst pursuing efforts to phase them out. The Revised Strategy was adopted by the Conference of the Contracting Parties to the Paris Agreement at its Sixth Session, held in Glasgow, United Kingdom, on 13 November 2021.
Vision, Aims and Scope of Cooperation

Vision
Accelerate decarbonization of the maritime shipping industry by enabling first movers to achieve net-zero GHG emissions by the earliest feasible date, in support of the goals defined by the 2023 IMO GHG Strategy.

Aims
Through the Los Angeles - Long Beach - Singapore Green and Digital Shipping Corridor, the partners will work together and with value-chain stakeholders from the fuel and maritime sectors towards the following aims:

• Catalyse and coordinate efforts to enable ships calling at the Port of Singapore, Port of Los Angeles, and Port of Long Beach to achieve net-zero GHG emissions by the earliest feasible date.
• Build consensus around green shipping best practices and standards.
• Accelerate the development and deployment of technology and digital solutions to support supply chain efficiency, resilience and decarbonization, as well as reduce costs and improve reliability of cargo movement.
• Actively work with other first mover green shipping corridors, including those established by the three ports and other third parties, to help scale the uptake of zero and near-zero technologies, fuels and/or energy sources.

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Scope of Cooperation
The three ports have agreed to collaborate across several areas to achieve the above aims, as outlined in the table below.

<table>
<thead>
<tr>
<th>AREA OF COOPERATION</th>
<th>OBJECTIVES</th>
<th>SUCCESS INDICATORS</th>
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</thead>
<tbody>
<tr>
<td><strong>Facilitating the transition to zero and near-zero emission marine fuels</strong></td>
<td>Support the transition to zero and near-zero emission fuels on the shipping route between Singapore and the San Pedro Bay Port Complex. Facilitate the supply and adoption of a range of fuels that are demonstrated to achieve the transition to net-zero GHG emissions from shipping, including development of the necessary infrastructure and standards required for bunkering.</td>
<td>The ports communicate their readiness to facilitate the supply of zero and near-zero emission fuels, including an indicative timeline for preparing the necessary infrastructure for bunkering in alignment with applicable standards. The ports would explore the use of industry metrics, such as the Port Readiness Level (PRL) indicator developed by the World Ports Climate Action Programme (WPCAP). The GDSC acts as a catalyst for collaboration between the ports and stakeholders across the shipping and fuel value chains. By 2030, 10% of the energy used by international shipping operating on the corridor is met by using zero or near-zero GHG emission technologies, fuels and/or energy sources.3</td>
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<tr>
<td><strong>Technology Advancement</strong></td>
<td>Identify and collaborate on pilot and demonstration projects, along with initiatives to advance the development and transition to zero and near-zero emission fuels and technologies to support decarbonization and emissions reduction. In addition, advance the development, demonstration and adoption of digital technologies by the maritime shipping industry that improve efficiencies and support decarbonization.</td>
<td>The GDSC identifies promising GHG emissions reduction technologies applicable to the route, supports their development, and incentivises their uptake on the corridor. The three ports will seek to increase the integration of their port digital systems.</td>
</tr>
<tr>
<td><strong>Standard Setting and Knowledge Exchange</strong></td>
<td>Promote best practices and encourage standard setting across the maritime shipping and supply chain industries that can support decarbonisation and enhanced digital systems interoperability, including cyber security and training. Share knowledge and information in support of the Green and Digital Shipping Corridor’s goals.</td>
<td>The GDSC supports development and promotes standards and best practices for bunkering of green marine fuels and digital systems interoperability. The GDSC actively cooperates and exchanges knowledge with other green and digital shipping corridor initiatives, bilaterally and through multi-stakeholder or industry forums, to disseminate learnings from the corridor activities. The GDSC will explore opportunities to expand this outreach more broadly to other value-chain stakeholders.</td>
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<tr>
<td><strong>Advocacy &amp; Amplification</strong></td>
<td>Provide advocacy and thought leadership globally and to industry to communicate and amplify the aims, benefits and projects of the Green and Digital Shipping Corridor.</td>
<td>The GDSC builds thought leadership amongst maritime governments, port authorities, and industry by advocating at global multilateral and industry platforms, including IMO, the Port Authorities Roundtable, and United Nations Climate Change conferences (e.g. the Conference of the Parties (COP)). Additionally, the GDSC finds opportunities to reach audiences outside of the shipping and energy sectors - including local communities, end-consumers, and environmental groups - to support an inclusive and equitable transition.</td>
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</table>

3 The IMO 2023 Strategy indicates a goal for “uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources to represent at least 3%, striving for 10%, of the energy used by international shipping by 2030.”
Goverance and Partnership Engagement

A partnership structure and governance mechanism have been developed to provide clarity on the roles and responsibilities of GDSC partners and participants in developing and implementing the corridor. These are subject to change and development as the GDSC evolves.

Roles and responsibilities

There would be three categories of representation in the corridor:

- **Founding Partners** lead strategic decision making and programme management of the corridor’s activities through the Partner Steering Committee. Having defined the shared aims and goals of the corridor, as set out in this document, the Founding Partners are committed to providing sufficient resources to oversee and participate in the GDSC’s delivery. The Founding Partners include the Port of Los Angeles, Port of Long Beach, and the Maritime & Port Authority of Singapore. C40 is supporting the development and implementation of the GDSC through convening, facilitation, coordination, and communication activities as well as by actively participating in relevant implementation activities.

- **Participants** take an operational role in implementation activities as part of one or more working groups under the corridor. Participants could include but are not limited to shipping lines, fuel suppliers, cargo owners, and green and digital technology developers. Participants are expected to commit to specific activities and deliverables that align with the GDSC’s vision and aims, and to provide the necessary resources and expertise financially or in-kind.

- **Supporters** provide support for the corridor through various means, such as external advocacy or consultation on specific topics, but do not necessarily commit to specific activities or resource provision. They are not actively involved in strategic decision-making or implementation activities.

<table>
<thead>
<tr>
<th>GROUP</th>
<th>MEMBERSHIP</th>
<th>ORGANISATION</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner</td>
<td>Name Lead and Deputy representatives from each of</td>
<td>Led by the Ports, the Steering Committee meetings would include:</td>
<td>The Steering Committee is responsible for management of the corridor. Roles will include:</td>
</tr>
<tr>
<td>Steering</td>
<td>the Founding Partners and C40 Cities</td>
<td>• Monthly partnership management calls.</td>
<td>• Strategic decision-making.</td>
</tr>
<tr>
<td>Committee</td>
<td></td>
<td>• Ad-hoc working sessions.</td>
<td>• Programme management.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Stakeholder engagement.</td>
<td>• Developing partnership material (e.g. Implementation Plan).</td>
</tr>
<tr>
<td>Working</td>
<td>Representatives from Founding Partners,</td>
<td>C40 Cities supports the Ports by scheduling meetings, producing agendas/</td>
<td>• Selection and approval of new corridor participants.</td>
</tr>
<tr>
<td>Groups</td>
<td>Participants and C40 Cities (as appropriate)</td>
<td>minutes, facilitation, and coordinating corridor activities.</td>
<td>• Establishing new working groups and monitoring progress.</td>
</tr>
</tbody>
</table>

The leadership of each working group will be agreed upon its establishment.
New Participants

The Founding Partners will actively engage key organisations that share the corridor’s aims and are able to commit resources to deliver on the corridor’s goals and activities, to join as Participants.

- **Identifying potential Participants.** The Founding Partners have already begun a process of engagement with their customers and stakeholders which includes the aim of identifying potential Participants and Supporters. However, any other parties from across the shipping, digital and fuel sectors that are interested in becoming Participants, as well as broader stakeholders such as community and environmental groups that are interested in becoming Supporters, are invited to contact the Founding Partners to express interest in the corridor.

- **Expectations of Participants.** Corridor Participants will be expected to commit to specific goals and activities that align with the corridor’s vision and aims and participate in the development of an implementation plan setting out how these will be achieved. Ideally, Participants should identify specific actions or plans that they intend to undertake to support the interests of the GDSC. To this end, they should be able to allocate suitable resources to the corridor, including a dedicated point of contact that has the capacity and expertise to take part in working sessions pertinent to the management and implementation of the corridor. The point of contact should be empowered to act and take decisions on behalf of their organisation.

- **Approving new Participants.** The Steering Committee would approve any new Participants in the corridor.

- **Formalising new Participants.** Once approved by the Steering Committee, a formal commitment, such as a Letter of Intent (LoI), will be made by the new Participant. The commitment will detail the agreement by the new Participant including the specific goals, activities, and resources being committed to the corridor. Depending on the nature of the collaboration, mechanisms for the management of confidentiality and intellectual property may be required and will be discussed and agreed on a case-by-case basis.

- **Exiting the Corridor.** Should a Participant wish to end their participation in the corridor or specific working group cease to be relevant (i.e., through completion of a certain project or institutional change), the Steering Committee will dissolve the Participant’s membership. Said Participant would be expected to carry out the necessary handover and knowledge transfer processes to ensure continued smooth operation of corridor activities.

Decision-Making Processes

The Founding Partners will be the primary decision makers in the corridor and will have final sign off on any projects associated with the corridor, external communications regarding corridor activities, or strategic decisions that affect the vision, aims or objectives of the corridor. As a voluntary initiative, the GDSC does not seek to assert authority over Participants or their organisational strategies, investments, or operations undertaken outside the scope of the corridor.

Decision making will require unanimous approval from all Founding Partners. However, to expedite completion of particular activities, some decisions may be delegated to a single partner with the other Founding Partners’ agreement. The Founding Partners recognise that some decisions may require separate approval through their own organisation’s internal governance processes.

Decision making may take place at meetings, workshops, or by email. Records will be kept of decisions made and will be communicated to the other Participants and Supporters, for example through meeting minutes or progress reports.

Some autonomy will be given to working groups to deliver action planning and implementation activities without having to escalate decisions to the Founding Partners; this will be defined when the working groups are established.

Dispute Resolution, Confidentiality, and Intellectual Property

For any jointly executed projects in the future, the corridor Founding Partners will discuss dispute resolution, confidentiality, and intellectual property provisions to be included in project specific implementation documents, as appropriate.

Financial Management

Third party studies and other implementation activities may require funding contributions from Founding Partners, Participants or Supporters. Specific funding arrangements will be discussed on a case-by-case basis. It is recognised that the allocation of funding may require approval through each entities’ internal corporate governance processes.
MPA, POLA, POLB and C40 Cities’ inaugural meeting at Los Angeles in January 2023