Strategic Sector Cooperation in the Maritime Sector Between Denmark and China
Third phase

Key results:
Increased maritime safety leading to the prevention of future accidents and reduced risk of pollution. Strengthened focus on exchange of best practices on Port State Control (PSC) and a constructive dialogue between experts on enforcement of safety regulation. Safer navigation and more efficient shipping through the use of new technical solutions will improve safety at sea, save energy, and lead to less pollution.

Improved implementation of the goals in China's 14th Five-Year Plan (2021-2025) related to the improvement of the marine environment and reducing emissions from shipping by promotion of Green Maritime Technologies.

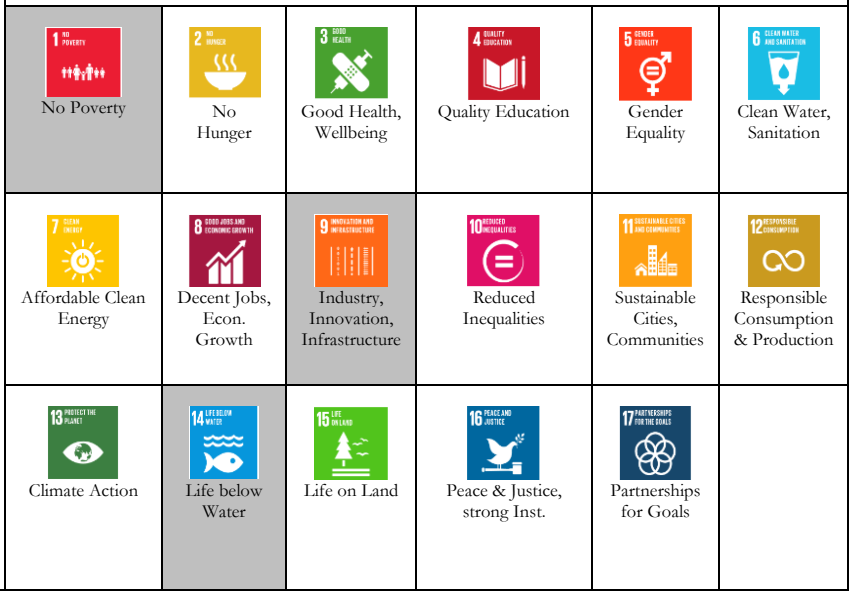
Justification for support:
Phase 3 will primarily seek to consolidate, enhance and make full use of cooperation in areas already covered by the SSC. Thus, phase 3 plans to make even further progress towards capacity building and knowledge sharing.

The work on the green transformation of the shipping sector contributes to lower carbon emissions and an improved environment for people living close to China's coast and along its inland waterways. The benefits of green shipping include reduced fuel costs, improved environmental protection, improved safety, and increased efficiency, which also has a financial upside. The SSC is intended to pave the way and create opportunities for Danish private stakeholders to supply the Chinese market with goods and services.

Major risks and challenges:
Potential risk that activities implemented are not fully followed-up by national authorities. The long and strong partnership is, however expected to find appropriate solutions.

File No.	23/34967			
Country	China			
Responsible Unit	GDK			
Sector	21013 – Transport regulation			
Partner	Ministry of Transport and Ministry of Industry and Information Technology			
DKK	**2024**	**2025**	**2026**	**Total**
Grant	2,557,000	2,637,000	1,806,000	7,000,000
Projected Ann. Disb.	2,557,000	2,637,000	1,806,000	7,000,000
Duration	2024 – 2026. 3 years.			
Previous grants	9,420,554			
Finance Act code	§06.38.02.14			
Head of unit	Karin Poulsen/Anne Hougaard Jensen			
Desk officer	Fin Poulsen			
Reviewed by CFO	Jan Justsen			

Relevant SDGs



Strategic objectives

Strengthened safe and environmental friendly maritime practices and solutions in China. Prevention of future accidents and reduced risk of pollution. Safer navigation and more efficient shipping leading to improved safety at sea, save energy and less pollution.

Environment and climate targeting - Principal objective (100%); Significant objective (50%)

	Climate adaptation	Climate mitigation	Biodiversity	Other green/environment
Indicate 0, 50% or 100%	**50%**	**50%**	**0**	**0**
Total green budget (DKK)	**215.000**	**264.000**		

Justification for choice of partner:

Potential partner authorities are the relevant Chinese authorities. Has been relevant and justified throughout the previous phases.

Summary:

China is a leading maritime nation. The country produces 96 percent of the world's shipping containers and hosts seven of the ten busiest ports in the world. As the nation responsible for the largest maritime GHG emissions in the world, China is expected to be a key player in future reduction efforts for the sector. SSC cooperation offers suitable solutions and innovation.

Budget (engagement as defined in FMI**):**

Personnel – Danish Authority	DKK	3,161,907
Reimbursable costs for Danish Authority Staff	DKK	1,105,180
Activities, including capacity development	DKK	723,000
Consultancies	DKK	1,500,000
Unallocated funds (max. 20% of grand total)	DKK	509,913
Total DKK	**DKK**	**7,000,000**

MFA File No: [insert]

Project Document for Strategic Sector Co-operation in

Maritime sector

Between Denmark and China

General information	MFA File no.
Project Title	Maritime Strategic Sector Cooperation between Denmark and China
Partner Country	China
Project duration	3 years : 1 January 2024 – 31 December 2026
Total budget (DKK)	7.000.000 kr.
Thematic focus	Maritime Safety, Green Shipping, Green Maritime Technologies and Shipbuilding
Partner Public Authority **Contact person and contact details**	**Ministry of Transport (MoT)/China Maritime Safety Administration (MSA)** Ministry of Transport (MoT)/European Affairs Division of International cooperation Department Mrs SHU Lan Section Chief Desk Phone: 65292249 Email shuxiaolu007@163.com Ministry of Transport (MoT)/Maritime Safety Administration Mr. Song Huanhuan,Deputy Director International Department MSA, Beijing. Phone +86 (10) 6529 3038 Email: songhuanhuan2023@163.com **Ministry of Industry and Information Technology (MIIT)** MIIT European Affairs Division of International Cooperation Department Ms GU – Vice Director Desk Phone: 6820 5839 Fax Number: 6601 1370 Email: guyi@MIIT.GOV.CN MIIT Shipbuilding Division of Equipment Department Mr. CHEN Feng-Deputy Director Desk Pone: 6820 5219 Fax Number: 6601 3708 Email: 772579001@qq.com Responsibility: Overall cooperation with Denmark
Responsible Danish Public Authority **Contact person and contact data**	**Danish Maritime Authority (DMA)** Mr. Martin Riis Hansen, Head of Blue Growth and Maritime Policy, Danish Maritime Authority Fjordvænget 30, 4220 Korsør, Denmark Phone: +45 91376189 E-mail: mrh@dma.dk Mr.Emil Meincke Arentoft, Head of Section, Danish Maritime Authority

	Fjordvænget 30, 4220 Korsør, Denmark Phone: +45 91 37 60 61 E-mail: ema@dma.dk
Danish Embassy **Head of Representation** **Sector Counsellor**	**The Royal Danish Embassy in Beijing** Mr. Thomas Østrup Møller, Ambassador of Denmark to China Royal Danish Embassy in Beijing San Li Tun, 1 Dong Wu Jie 100600, Beijing Mr. Klaus Rostell, Maritime Counsellor, Royal Danish Embassy in Beijing San Li Tun, 1 Dong Wu Jie 100600, Beijing Phone: +86 186 1095 1043 E-mail: klaros@um.dk
Summary of background analysis and key strategic choices **(max 2 pages)**	*Background on the maritime sector in China* China is a leading maritime nation. The country's already substantial maritime industry is growing and the influence of China in international maritime affairs appears to be growing with it and may continue to do so for the coming years. Chinese companies are increasingly dominant across the entire global maritime supply chain, controlling the world's largest shipping fleet by gross tonnage and constructing almost half of the world's vessels in 2022 (measured in compensated gross tonnage). China has one of the world's largest transport fleets using inland waterways. The country also produces 96 percent of the world's shipping containers, more than 80 percent of the world's ship-to-shore cranes, and host seven of the ten busiest ports in the world. As the nation responsible for the largest maritime GHG emissions in the world, China is expected to be a key player in future reduction efforts for the sector. China has ambitious goals regarding the continued development of its maritime sector. China continues to pursue economic growth and development for the sector as well as strengthening its possibilities to enhance trade with the rest of the world. China has also recently introduced new goals regarding the improvement of the marine environment and reducing emissions from shipping. This is documented in the 14th Five-Year Plan (2021-2025) on the overall economic and social development as well as in the 14th FYP (2021-2025) on green transportation. Besides efforts to make the fleet more environmental and climate friendly the plan focuses on green port solutions and expanding infrastructures for shore power as well as LNG-bunkering. China also plans to promote the application and production of alternative green fuels such as hydrogen, methanol and ammonia. China has recently taken a more proactive role in the UN's international maritime organization (IMO) on reducing GHG emission from shipping. The challenges with regard to the green transition of the maritime transport sector are huge. Emissions attributable to Chinese ownership e.g. more than doubled between 2012 and 2022, likely reflecting the growth of the merchant fleet. Thousands die in China every year from

	pollution from ships, navigating close to China's coastline, along its inland waterways and berthing in ports. Danish competences, products and maritime services have the potential to contribute to the green transition of China's maritime sector by inspiring authorities to introduce new regulations and guidelines and by enhancing enforcement measures. This will make reaching China's goals on improving the sustainability of the sector more realistic. Supplying Danish maritime green technologies and solutions to China's shipyards will benefit shipping worldwide. This contributes to strengthening the impact of the 13th and the 14th SDG focusing on climate and life below water. Maritime safety and efforts to avoid accidents attracts huge attention in China, as the activity in Chinese waters, port and inland waterways continue to rise. From Chinese side, there continues to be a high-level request for Danish Port State Control (PSC) officers to conduct flag inspections in larger Chinese ports together with China Maritime Safety Agency (China MSA). There is a wish to learn from the Danish experiences, due to a higher detention rate for Chinese ships compared to detention rates of Danish flagged ships. Maritime safety in Chinese waters is crucial for safety of life and property at sea, not only for Chinese ship owners and seafarers, but also for all the international stakeholders involved in shipping activities in Chinese waters. Therefore, it is of great importance that there is an efficient and strong enforcement of international safety regulation on vessels, which is an area, where Denmark and China can learn from each other and share knowledge on best practices. If safety is improved in Chinese waters, it will greatly benefit international crewmembers and assets sailing in Chinese waters. The Sustainable Development Goals (SDGs) 8 and 9 will be pursued in terms of better maritime safety and thereby improved working conditions, along with economic growth and a more efficient industry. *Results from phase 2* The second phase of the strategic sector cooperation (SSC) aimed at further strengthening environmental and safe maritime practices and solutions in China. The project has addressed China's aspirations for increased environmental protection as reflected in the 14th FYP through authority-to-authority cooperation on green shipping, green shipbuilding, green maritime technologies and maritime safety. Phase 2 was approved in March 2020, just when the COVID19-outbreak in China started turning into a global pandemic. China first removed its COVID19-restriction by the end of 2022, including quarantine requirements for inbound travellers. This situation naturally influenced the execution of the planned activities. Scheduled activities had to be rescheduled and postponed not only once but several times. A no-cost extension of the SSC was granted from April 2023 to the end of 2023 and in order to allow for organising the remaining meetings and seminars physically. Denmark and China has during phase 2 significantly enhanced the bilateral dialogue about the work in the IMO on GHG reductions from shipping. A tradition has been set up to organise meetings between DMA

	and MSA experts in advance of the scheduled MEPC/ISW-GHG meetings. Even though there has been a gap in level of ambition and each side does not see eye to eye on all issues on the IMO GHG agenda, China is listening to arguments put forward on a higher ambitions level and a need to introduce binding regulation that can drive the shipping industry faster towards carbon neutrality. GHG reductions from shipping was also the most important topic on the agenda for a meeting between DMA and China's Ministry of Transport in May 2023. Without giving full credit to the enhanced dialogue in the SSC context for China's support for the historic ambitious 2023 GHG strategy adopted in the IMO in July, the constructive dialogue has undoubtedly played a role. On 25th November 2021 the DMA and MSA held a useful and informative webinar on digital certificates for seafarers and digital ship certificates. From both sides there were significant interest in continuing the dialogue on digitalization of certificates and explore next steps for more concrete cooperation in particular with regard to digital certificates for seafarers with specific focus on development of standards for such solutions and in the long-run sign a MoU on digitization. Regarding safety, the already a close cooperation with China MSA on PSC and expert-to-expert dialogue has continued under phase 2. A webinar was held in May 2022 and PSC officers from the DMA visited China in June 2023 in order to hold seminars and carry out joint inspections onboard ships. In particular, the visit illustrated that both sides gain a lot of knowledge and experience for discussing PSC-issues, and for the DMA PSC officers it is important to have access to inspect Danish ships in Chinese ports. Due to the confidentiality on sharing information on concrete maritime accident cases, the maritime accident investigation activities were put on hold until COVID19-travel restrictions were lifted. The visit by Danish Maritime Accident Investigation Board to China 30 October – 2 November 2023 clearly illustrated the value of SSC. MSA was very interested in learning more about DMAIB more modern accident methodology approach and both sides gain significant experience both from sharing information about implementing new technology into accident investigations and from concrete accident cases. The cooperation with China Ministry of Industry and Information Technology (MIIT) was further enhanced by signing of a new, updated MoU on green maritime technologies, green shipbuilding and offshore equipment in May 2021. Three very successful meetings have been held in the Sino-Danish Joint Working Group in which authorities as well as industries share valuable knowledge about green maritime technology developments as drivers for decarbonisation of shipping. A Joint industry driven working group on development of international standards for maritime decarbonisation has been established. MIIT and the Chinese shipbuilding industry clearly wishes to continue the cooperation Danish Authorities and the Danish industry - a wish that was expressed during a visit by a MIIT vice-minister and his delegation to Denmark in September 2023. During phase 2, the SSC project has provided and even broader platform for Danish Chinese Authorities, companies and academia to meet and

	discuss green sustainable transport solutions as well as standards and regulations in relation to maritime equipment and solutions. Mærsk Mc-Kinney Moeller Center for Zero Carbon shipping has played an important role in this context by providing valuable scenarios for decarbonisation of shipping in 2050 at various meetings and seminars. Synergies between SSC and Trade Council activities have been put to use during phase 2. The most prominent example of this is DMA and the Embassy's assistance to Maersk in order to obtain permission by China Ministry of Transport in April 2022 as the first international shipping company to perform cargo relay operations. This involves transporting containers by its own ships between Port of Shanghai and three Northern Ports in China – containers that afterwards are transferred to one of Maersk's ships navigating on one of the major international liner routes to Europe or the US West Coast. China is the most important market for Danish Shipping and one of the most important markets for the Danish marine equipment industry, and the industry continues to acknowledge that the good relations between authorities via the SSC play an important role e.g. by clearing misunderstandings which can hinder maritime export of Danish green solutions to China. *Continuation of the Phase 2s thematic tracks.* During phase 2, the SSC project with China had two tracks 1) Maritime Safety & Green Shipping and 2) Green Shipbuilding. Both tracks have been successfully implemented during phase 2 and have contributed with stronger relations between authorities as well as results for the private sector. Despite the challenges faced during the COVID19-pandemic. Phase 2 of the programme has produced even closer relations between the involved partners, and the results outlined before the start of the phase have been achieved. These results together with new identified challenges from phases 2 will form the basis for the third and final phase. Phase 3 is however expected to have an even greater focus on green shipping and climate action in the cooperation with China MSA, Ministry Transport and MIIT. Phase 3 will primarily seek to consolidate, enhance and make full use of cooperation in areas already covered by the SSC. In addition, Phase 3 will build on the beneficial outcomes from Phase 1 and 2 as well as the work on forming overall enabling framework conditions. Thus, phase 3 plans to make even further progress towards capacity building and knowledge sharing on the development of new regulation, actual implementation of policies, guidelines, demonstration projects, new technologies and elevate late-stage innovation. One particular aspects is for China to learn that in certain areas existing regulation can become a barrier towards the development of innovative green technologies and alternative fuels solutions that are vital for the green transition of shipping. Chinese authorities need to become responsive to new regulation methodologies and certification procedures.

	The work on the green transformation of the shipping sector contributes to lower carbon emissions and an improved environment for people living close to China' s coast and along its inland waterways. The benefits of green shipping include reduced fuel costs, improved environmental protection, improved safety, and increased efficiency, which also has a financial upside. The work on promoting greener and more energy-efficient shipbuilding positively affects climate actions and the marine environment. By strengthening environment friendly maritime practices and solutions in China, the SSC project will contribute to the implementation of China's aspirations for increased environmental protection as reflected in China's 14th Five Year Plan as well as the new ambitious international targets agreed upon in 2023 at the IMO to achieve net-zero emissions for shipping by and around 2050. Apart from the prime focus on SDGs and the bilateral relations, there is also a commercial aspect. The SSC is intended to pave the way and create opportunities for Danish private stakeholders to supply the Chinese market with goods and services. By discussing green shipbuilding and innovative maritime technologies and solutions, the SSC project can enable Danish private companies to do business and sell a wide range of products that are in demand in China alongside having an important positive impact both on the environment and on maritime safety. On average, ships have a life span of 30 years and even small improvements regarding efficiency and the use of advanced maritime solutions, can over time have an impact on the emissions and environmental impact from the ship. As China is the world's largest shipbuilder, inspiration from Danish manufacturers can have a very big impact on emissions. <u>Expected results from phase 3</u> Phase 3 of the project will seek to fully utilize the results and relations built up during previous phases to achieve results in line with the UN SDGs as well as Danish interests in the public and private sector. There is an expectation that the global maritime sector will start to move forward more rapidly with the adoption of new and more sustainable technologies in the coming years. This is especially the case in China, and the activities in phase 3 will make an effort to support the transition in the best possible manner. One of the major challenges with the adoption of new solutions in the maritime sector is how to address safety concerns related to new types of equipment. The planned activities on Port State Control are expected to focus on how to best do inspections on ships with new low-carbon technologies. During the Accident investigation activities, it will likewise be discussed how to approach accidents related to new types of engines and fuels. A workshop dedicated to discussing safety challenges related to new types of fuels and addressing accidents before they happen is also planned. The continued strong focus on safety is not only expected to save lives, but it is also important because major accidents could potentially delay adoption of essential new green technologies significantly.

	A large part of the new solutions expected characterise the future of shipping is expected to be digital in nature. Digital solutions have the potential to improve safety and efficiency and thereby save important energy resources. In phase 3 the project will seek to further work towards a full international implementation of digital certificates for seafarers with the help and support of our Chinese partners in the IMO. The project will also engage our Chinese partners in a discussion on how to best approach and accelerate the international digitalisation of the maritime sector. The result could be that both sides agree to work towards a common framework for future international digitalisation projects. China has signalled an increased focus on sustainability and carbon neutrality in the current 14th five-year-plan. However, there is room for even more ambition from the Chinese side. This project will aim to support Chinese efforts to decarbonise the maritime sector by working together and discussing paths forward that are even more ambitious than the current five-year-plan. During phase 2, regular dialogue meetings based on trust and mutual respect for differing positions was established between Denmark and China concerning green regulation in the IMO MEPC. In July 2023, a new climate strategy was adopted in the IMO with Chinese support, and there is now more to discuss than ever before on how to reach the target of net-zero emissions in 2050. Phase 3 of the project will continue the dialogue on IMO regulation in an effort to find common ground with our Chinese partners on important regulation such as possible economic instruments and midterm measures for the implementation of the IMO climate strategy. MIIT is the most important stakeholder in China when it comes to shipbuilding and development of new technology and standards within shipbuilding. Since China is the largest shipbuilding nation in the world by a significant margin MIIT has a big influence on the green transformation of the shipbuilding sector and how sustainable future ships will be. Phase 3 will expand on the framework established in phase 2 by the annual industry driven joint working group with MIIT on green shipbuilding. The project will seek to encourage more long-term cooperation between Danish and Chinese companies and exchange of expert knowledge in areas such as future standards for sustainable solutions and joint pilot-projects could lead to the building of even more green ships. It is expected, that the good relations with the Chinese maritime authorities will have a positive effect on the private sector in Denmark as well. Several of the planned activities in phase 3 will include introducing green solutions from innovative Danish companies to a Chinese market that has an increasing focus on sustainability. Many Danish companies in the maritime sector are frontrunners on the green transition, and several already have solutions available as well as a significant presence in China. Thereby, there is a great potential to benefit both the commercial interests of Denmark, while also significantly contributing to the decarbonisation of the maritime sector in China.

Linkages to UN Sustainable Development Goals	The SSC is linked to the UN Sustainable Development Goals • 8: Decent work and Economic Growth • 9: Industry, Innovation and Infrastructure • 13: Climate Action • 14: Life below Water
Project Logic **(Theory of Change)** **½-1 page**	There is a need to speed up the green transition of the maritime sector and significantly reduce its carbon emissions. Due to the scale of maritime activity in China, the country plays a key role in this transition – both with regard to making its own fleet and maritime infrastructures greener and more carbon friendly and by building new ships or upgrading already existing ships for local as well as foreign ship-owners. Furthermore, the pollution caused by the maritime sector in China is responsible for death of thousands of people as well as damages to the marine environment. Since a majority of the world' s largest and busiest harbours are within Chinese territory, this makes Chinese waters extra vulnerable for serious accidents, that can affect people's safety as well as the marine environment e.g. through leakages of dangerous cargo. In order to reduce carbon emissions and pollution from the maritime sector in both China as well as globally, ships need to be built with a more energy-efficient design using sustainable maritime products and solutions. For the ocean going fleet, it is vital that there is sufficient amount of green alternative fuels such as methanol as well as bunkering facilities available to service low carbon or zero-emission ships. To increase safety in Chinese waters and harbours with heavy traffic, there has to be a high quality enforcement and compliance of the international regulations and standards regarding the safety at ships. In addition, China needs to be a key partner in the development of new regulation and standards with regard to addressing the safety challenges on handling and storage of alternative marine fuels such as ammonia. By persistently continuing the argument to MSA for carbon neutral shipping in 2050 based on Denmark's own efforts and scientific evidence the likelihood for even stronger commitment by China to the international work on removing GHG from shipping will increase. Stronger commitment to international regulation from China will also be a strong and needed signal to ship-owners that the time is now to invest in sustainable ships and infrastructure in order not to risk stranded assets in the near future. By introducing Danish sustainable maritime solutions and products to MIIT and Chinese shipyards, who are in charge of the shipbuilding in China, the SSC project can contribute to a more sustainable and energy-efficient shipbuilding. By sharing best practices and knowledge on safety issues and enforcement of international regulation, the SSC project can lead to a change of the procedures for port state control and accident investigation in some of the busiest ports in the world.

	A constructive dialogue on specific content within PSC can contribute to better maritime safety. Overall better standards on board the ships entering Chinese harbors, leads to improved safety for thousands of seafarers and lower the number of casualties. By having a constructive dialogue on Maritime Accident Investigation, the lessons learned from previous accidents at sea, can lead to more preventative measures taken by China MSA to avoid future accidents and pollution of the seas.
Main objective of SSC project	Strengthened safe and environmental friendly maritime practices and solutions in China that protects seafarers as well as sustained livelihoods for coastal communities and life below water
Outcome A	Increased maritime safety leading to the prevention of future accidents and reduced risk of pollution.
Output A.1	Improved maritime safety through exchange of best practices on Port State Control (PSC) and the continuation of a constructive dialogue between experts on enforcement of safety regulation.
Activity	Implementation of three activities during the project period in which Chinese and Danish ship surveyors conduct joint inspections and share knowledge on important current issues and future trends for PSC. During the visits, a seminar will be held on PSC safety challenges regarding new types of green fuels.
Output A.2	Improved practices of investigation of accidents at sea as well as continued sharing of knowledge on preventative measures, which could contribute to avoiding casualties and environmental damage from the shipping sector.
Activity	Two seminars with key Chinese officials and DMAIB and DMA with focus on changing practices within maritime accident investigation
Output A.3	Reduced risk of accidents through the promotion of safe practices in the maritime industry. By exploring, the impact of new technologies from a safety perspective and discussing new trends loss of life may be prevented along with environmental pollution.
Activity	A seminar on the safe handling of new types of green fuels in the maritime industry and a workshop on how to prevent and deal with containers lost at sea.
Outcome B	Safer navigation and more efficient shipping through the use of new technical solutions will improve safety at sea, save energy and lead to less pollution.

Output B.1	Optimization of routing leading to more sustainable shipping routes and the reduction of navigational errors, which can cause groundings and other casualties.
Activity	One seminar with focus on improving navigational safety and by introducing relevant stakeholders from Danish and Chinese side for a continued dialogue on optimization of routing and new technologies.
Output B.2	Further encouragement of digitalisation in the maritime sector with the purpose of increasing safety and efficiency, while reducing costs, energy needs and risk of human error.
Activity	Two or three workshops or seminars with focus on digitalization and the associated challenges and opportunities for the maritime sector and continued dialogue on how best to implement digital certificates for seafarers internationally including IMO regulation. Discussions on cooperation on how to achieve a common digital vision for the global maritime sector, with solutions that work across borders as well as a seminar on autonomous shipping systems.
Outcome C	Improved implementation of the goals in China's 14th Five-Year Plan (2021-2025), related to the improvement of the marine environment and reducing emissions from shipping.
Output C.1	Contributions to reaching the recently adopted IMO climate strategy to reach net-zero GHG emissions by around 2050 through dialogue on regulation and the introduction of greener and more energy efficient maritime solutions in China.
Activity	Continued close dialogue on GHG emissions between Denmark and China and a continued dialogue between high-level Chinese and Danish officials on green shipping at annual meetings. Workshops implemented with a focus on implementing green solutions in the Chinese maritime sector and a joint feasibility study on green shipping corridors from Chinese ports.
Output C.2	Contributions to improved and more targeted exposure of Danish green and energy efficient maritime solutions on the Chinese market.
Activity	Three joint working groups on green shipbuilding and green technologies attended by Chinese and Danish high-level officials, Chinese industry associations and shipyards and key Danish maritime equipment and service industry. One workshop on Ballast Water Management (BWM) and the review of the BWMC from IMO MEPC80 in the summer of 2023.

Output C.3	Promotion of Green Maritime Technologies in the form of Danish Offshore vessels, technologies and best practices to ensure fewer accidents at sea and more efficient and safer offshore environment.
Activity	A workshop on ensuring safety while operating vessels in the offshore industry including crew transfer vessels and a workshop on building offshore vessels including recent developments and different types of vessels.
Assumptions and risks **½-1 page**	To realise the Strategic Sector Cooperation's objective; "to strengthen safe and environment friendly maritime practices and solutions in China", the theory of change is founded on following assumptions: Assumption • The activities implemented and knowledge exchanged with China MSA and MIIT will lead to changes in the framework conditions in China that benefit the environment and makes China more ambitious with regard to reducing carbon emissions. Risk factors • There will be little or no follow-up on activities implemented, and therefore limited outcomes or impact if any. • The Chinese authorities will be unable to provide the necessary resources to proper implement the planned activities in the project. Mitigation measures • It is planned to have annual high-level meetings between the DMA and the Chinese partner authorities MSA, MoT and MIIT. It has been the experience from previous phases that such meetings have a very positive impact on commitment from the Chinese authorities and has pushed results and set the stage for follow-up activities and enhanced cooperation from both sides.
Management set-up	The Danish Maritime Authority on the Danish side manages the SSC. The project steering committee takes the form of annual high-level meetings with each of the cooperation partners (China MSA and MIIT), as well as management participation from the Royal Danish Embassy in Beijing. Both parties at DG level attend the annual meeting with MSA, and both parties at DDG level attend the annual meeting with MIIT. DMA also has regular meetings at DG level with PRC Ministry of Transport, which is the parent authority of MSA.

<table>
<tr><td></td><td>During the meetings both parties review the activities held during the past year and discuss possible activities for the coming year. New activities are then agreed on and summarized in a meeting minutes, which is signed by both sides.</td></tr>
<tr><td>Contributions from Danish Public Authority</td><td>The Danish Maritime Authority and Ministry of Industry, Business and Financial Affairs respectively will provide staff, technical expertise, knowledge, practical facilities (e.g. Conference rooms and related equipment in Denmark), manage project economy, and coordinate Danish third parties and experts. The Danish authorities confirm that they will allocate adequate resources and have the means and will to give the necessary prioritization for the timely execution of this program.

When members of the Chinese partner authority attend a seminar or workshop hosted in Denmark, Danish public authorities bear the cost of the arrangement, while the guests pay for their traveling expenses and living cost unless otherwise agreed.</td></tr>
<tr><td>Contributions from partner authority</td><td>China Maritime Safety Administration and Ministry of Transport, as well as Ministry of Industry and Information Technology will provide staff and technical expertise, knowledge, practical facilities (e.g. Conference rooms and related equipment in China).

When members of the Danish partner authority attend a seminar or workshop hosted in China, Chinese public authorities bear the cost of the arrangement, while the guests pay for their traveling expenses and living cost.</td></tr>
<tr><td>Budget</td><td>Please insert the total budget generated with the planning and budgeting tools of annex 5 of the guidelines.

<table>
<tr><td>DKK</td><td>2024</td><td>2025</td><td>2026</td><td>Total</td></tr>
<tr><td>Personnel</td><td>1.038.922</td><td>1.203.812</td><td>919.173</td><td>3.161.907</td></tr>
<tr><td>Reimbursable costs</td><td>406.320</td><td>402.750</td><td>296.110</td><td>1.105.180</td></tr>
<tr><td>Activities, including Capacity development</td><td>261.000</td><td>261.000</td><td>201.000</td><td>723.000</td></tr>
<tr><td>External Consultancies</td><td>500.000</td><td>600.000</td><td>30.000</td><td>1.130.000</td></tr>
<tr><td>Internal Consultancies</td><td>180.000</td><td>0</td><td>190.000</td><td>370.000</td></tr>
<tr><td>Unallocated funds</td><td>170.000</td><td>170.000</td><td>169.913</td><td>509.913</td></tr>
<tr><td>Grand total</td><td>2.556.242</td><td>2.637.562</td><td>1.806.196</td><td>7.000.000</td></tr>
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Authorised Signatures:

Name, date

[Insert name of Danish Public Authority]

Results Framework and Work Plan

(Annual and Final Report)

for

SSC project in maritime-sector

between

Denmark and China

Phase 3

Results Framework and Work Plan for SSC Project in the maritime sector between China and Denmark

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Project period: 2024-2026 **Updated: 2/11 - 2023**

OBJECTIVE of SSC project: Strengthened safe and environmental friendly maritime practices and solutions in China.	**Status at project completion**: Achieved Partly achieved – explain Not achieved – why

OUTCOME A: Increased maritime safety leading to the prevention of future accidents and reduced risk of pollution.	**Status at project completion (if earlier year: ____):** Achieved Partly achieved – explain Not achieved – why

Output A.1: Improved maritime safety through exchange of best practices on Port State Control (PSC) and the continuation of a constructive dialogue between experts on enforcement of safety regulation.	**Status at project completion (if earlier year:____):** Achieved Partly achieved – explain Not achieved - why
Output A.1 indicator: - Implementation of three activities during the project period in which Chinese and Danish ship surveyors discuss and share knowledge on important current issues and future trends for PSC and furthermore conduct joint inspections onboard ships.	**Status at project completion: (if earlier year:____):**

- Seminar to be held on PSC safety challenges regarding new types of green fuels.				
Activity	**Purpose – content - product**	**Partners and resources involved**	**Timing**	**Status year _____:**
A.1.1 *Title:* Three PSC visits.	**Purpose:** Exchange of knowledge on PSC practices and trends, especially regarding safety of new green technologies on ships. **Content:** The PSC visits will utilize the well-established PSC cooperation between DMA and MSA officers to cement a practice of joint inspections as well as implement seminars with the following items : • Exchange of experiences with different approaches to PSC inspections in DK and China. • Share examples of PSC reports and deficiencies to compare methods. • Utilization of remote inspections on ships. • Discussions on new trends regarding the inspection of new types of "intelligent" and low-carbon ships. **Product:** Reports from the three activities will be	PSC officers from the Danish Maritime Authority (DMA) and China Maritime Safety Administration (MSA). 5-10 workdays are expected per activity. The activities should primarily be held in China due to a low amount of Chinese ships in Danish waters.	2Q, 2024-2026.	N/A.

	written by Sector Counsellor with input from the Danish PSC officers (1-2 pages).			

Output A.2: Improved methodologies and practises of investigation of accidents at sea as well as continued sharing of knowledge on preventative measures, which could contribute to avoiding casualties and environmental damage from the shipping sector.	**Status at project completion (if earlier year:____):**
Output A.2 indicator: • Signed MoU between Danish Maritime Accident Investigation Board (DMAIB) and China MSA in respect of marine casualties or marine incidents, which will contribute to DMAIB being able to investigate accidents involving Danish flagged ships in Chinese waters and thereby increase the understanding of how to prevent maritime accidents in China. • Two seminars with key Chinese officials and DMAIB and DMA with focus on changing practices within maritime accident investigation.	**Status at project completion (if earlier year:____):**

Activity	**Purpose – content - product**	**Partners and resources involved**	**Timing**	**Status (year: ____):**
A.2.1 *Title:* Two Seminars on maritime accident investigation.	**Purpose:** The purpose of this activity is to reduce the number of collisions between seagoing vessels. Preventing accidents will prevent loss	Experts from the Danish Maritime Accident Investigation Board (DMAIB).	Q4 2024 & 2026.	N/A.

	of life as well as protect the environment from potential pollution as a result. The seminars will contribute to exchange knowledge and methods on investigating accidents and identifying and understanding the cause of the accident, with the goal of preventing future accidents. **Content:** These seminars will expand on previous dialogue during phase 1 and 2 on how to better understand the circumstances leading to accidents in Chinese waters. At the seminars, the discussion will focus on: • How preventative measures that can be taken by both government authorities and larger shipping companies. • How can we best utilize new digital technologies in order to carry out successful marine accident investigations. • Understanding the context of Chinese fishing ships, which are regularly involved in collisions. How new methodologies and data analysis	Experts from MSA and other relevant Chinese partners. 3 works days are expected for each seminar. The activity could be implemented in both China and Denmark.		

	can be used as tools to gain more detailed knowledge about incidents at sea and human factor issues; thus preventing future accidents. • How to approach investigations on new low and zero carbon ships using new types of green fuels. **Product:** Reports from the different seminars are expected to be written by Sector Counsellor (1-2 pages)			

Output A.3: Reduced risk of accidents through the promotion of safe practices in the maritime industry. By exploring, the impact of new technologies from a safety perspective and discussing new trends loss of life may be prevented along with environmental pollution.		**Status at project completion (if earlier year:____):**		
Output A.3 indicator • A seminar on the safe handling of new types of green fuels in the maritime industry. • A workshop on how to prevent and deal with containers lost at sea.		**Status at project completion (if earlier year:____):**		
Activity	**Purpose – content - product**	**Partners and resources involved**	**Timing**	**Status (year:):**

B.1.1 *Title:* Seminar on Safety challenges presented by new types of green fuels.	**Purpose:** New types of green fuels are essential for reaching net-zero emissions in the shipping industry. However many of the new fuels come with their own sets of new challenges some of which could compromise safety. There is a need to create new international standards, rules and regulations to ensure the safety of crew, ports and harbour cities in the use of the new fuels, and establishing a dialogue between the Danish and the Chinese authorities on this topic would be great first step in this direction. **Content:** During the workshop both sides will share experiences with handling new types of fuel and what measures are required for storage, transport and operating the different fuel types along the supply chain. There should be a focus on what concrete regulations should be put in place to ensure safety for industry workers and seafarers, while also not slowing down the implementation of these new technologies. **Product**:	Experts from China MSA. Experts from DMA. 1 workday is expected for this seminar. The activity is expected to be implemented as an online workshop, or as part of a visit to China focussing on maritime safety.	2025.	N/A.

	Reports from the different seminars are expected to be written by Sector Counsellor (1-2 pages).			
B.1.2 *Title:* Workshop on containers lost at Sea	**Purpose:** As global trade increases, so does the demands for transport of goods. This has led to a trend of stacking containers higher than ever before on container transport vessels. This has in turn led to an increase in containers falling overboard during voyages due to insufficient safety measures. This activity will seek to address the challenge of containers lost at sea in order to improve safety at sea in particular for smaller vessels' risk of colliding with the lost containers as well as preventing dangerous cargo from damaging the marine environment. **Content:** The workshop will focus on exploring the reasons behind the loss of containers at sea and how to best prevent future losses. Both sides will compare data and experience on containers lost from voyages with specific parameters in order to learn more about which configurations of container stacking are safe and which require additional safety measures e.g. in IMO context.	Experts from China MSA Experts from DMA 1 workday is expected for this seminar. The activity is expected to be implemented as an online workshop, or as part of a visit to China focussing on maritime safety.	2025.	N/A.

	Product: Reports from the different seminars are expected to be written by Sector Counsellor (1-2 pages).			

OUTCOME B: Safer navigation and more efficient shipping through the use of new technical solutions will improve safety at sea, save energy and lead to less pollution.	**Status at project completion (if earlier year:____):**

Output B.1: Optimization of routing leading to more sustainable shipping routes and the reduction of navigational errors, which can cause groundings and other casualties.	**Status at project completion (if earlier year:____):**
Output B.1 indicator • One seminar with focus on improving navigational safety and by introducing relevant stakeholders from Danish and Chinese side for a continued dialogue on optimization of routing and new technologies.	**Status at project completion (if earlier year:____):** The workshop was requested by the Chinese partners during phase 2 in order for them to optimize practices and learning of new technology and systems in the field. Unfortunately, the global pandemic and budgetary constraints disrupted the implementation of this activity during phase 2, but the project should seek to implement the activity during phase 3.

Activity	**Purpose – content - product**	**Partners and resources involved**	**Timing**	**Status (year:):**
B.1.1	**Purpose:** The purpose of the activity is to improve	China MSA	Q2 2024.	N/A.

Title: Workshop on Ships Routing and Reporting System	navigational safety and thereby reduce the risk of collision in Chinese waters by sharing best practices and information regarding the use of navigational tools including ship routing systems and reporting systems. **Content:** Seminar on Ships Routing and Reporting Systems with a focus on optimizing routing and reduce risk of navigational errors and accidents. A workshop with Chinese stakeholders could include: • Knowledge sharing concerning new routing implementation (IMO work). • Site visits (VTS/Vessel Traffic Service). • Dialogue on the relationship between the work done of the Danish Navy (who act as the "VTS authority" in accordance with the IMO guidelines) and DMA (competent authority) in the matter. **Product:** A report from the workshop is expected to be written by Sector Counsellor (1-2 pages).	DMA experts. VTS (Vessel Traffic Service) under the Danish Defence. Relevant industry stakeholders. 2 workdays are expected for this seminar. The seminar should be held in Denmark.		

Output B.2: Further encouragement of digitalisation in the maritime sector with the purpose of increasing safety and efficiency, while reducing costs, energy needs and risk of human error.	**Status at project completion (if earlier year:____):**
Output B.2 indicator • Two or three workshops or seminars with focus on digitalization and the associated challenges and opportunities for the maritime sector. • Discussions on cooperation on how to achieve a common digital vision for the global maritime sector, with solutions that work across borders. • Continued dialogue on how best to implement digital certificates for seafarers internationally including IMO regulation.	**Status**

Activity	**Purpose – content - product**	**Partners and resources involved**	**Timing**	**Status (year: ____):**
B.2.1. *Titel:* Workshop on E-certificates for Seafarers	**Purpose:** The purpose of this workshop is to further pave the way for the implementation of digital certificates for seafarers in the shipping sector in both China and Denmark and in a global context. Digital certificates are expected to greatly reduce administrative burdens for both seafarers, ship-owners and authorities, while also greatly increasing security through instant and automatic validation of certificates.	Experts from China MSA. Experts from DMA. 1 workday is expected for this seminar. The activity will either be implemented as an online workshop, or as a part of a visit to china with focus on digitalisation.	Q2 2024.	N/A.

	The DMA have started implementing digital certificates in 2021 through an ongoing pilot project. The workshop will focus on sharing experiences made during the project as well as discussions on how to broaden the implementation internationally. **Content:** The workshop can contain various activities: • A focus on development of international standards for digital certificates. Common standards do not exist today and will be important in order to avoid that different platforms and solutions are developed around the world. • Continue the discussions started at previous workshops on sharing of experiences with different digital solutions. China MSA is an important partner in DMA's pilot project for digital certificates for seafarers. • Follow up on the work in IMO HTW Correspondence Group on digital certificates and prepare for future meetings in IMO.			

	Product: A report from the workshop is expected to be written by Sector Counsellor (1-2 pages).			
B.2.2. *Titel:* Workshop on the future of maritime digitalisation.	**Purpose:** Currently there are many national digitalisation projects, but due to the international nature of the shipping industry, there is a need for countries to work together on joint digital solutions. The purpose of the workshop is to gain a better understanding on how authorities, industry and relevant stakeholders can improve the implementation of digital solutions internationally. Increased digitalisation is expected to improve safety and efficiency across the sector, and lead to significant GHG emission reductions through energy savings. **Content:** A workshop where both sides take a look at the current digitalisation trends in the maritime sector from a helicopter perspective in order to jointly identify paths forward for future international digitalisation projects as	Experts from MSA and DMA. Relevant industry stakeholders. Research institutes. 1 workday is expected for this seminar. The activity will either be implemented as an online workshop, or as a part of a visit to china with focus on digitalisation.	Q2 or Q3 2024.	N/A.

	well as how to best cooperate on common standards and legislation in the IMO. The workshop will also identify the potential need for future workshop in the area of digitalisation. **Product:** A report from the workshop is expected to be written by Sector Counsellor (1-2 pages).			
B.2.3. *Titel*: Additional digitalisation workshop	**Purpose:** Based on findings in the workshop on the future of maritime digitalisation there could be a need to implement additional workshops on areas of digitalisation in order to sustain the momentum on better implementation of international digital solutions in the maritime sector. **Content:** The content of this workshop will depend on the findings in the previous workshops on digitalisation. **Product**: Will be decided by the content of the workshop, but a report written by the sector counsellor is expected (1-2 pages).	Experts from MSA and DMA. Relevant industry stakeholders. Research institutes. Further details will depend on content of workshop.	Q2 2025.	N/A.

Activity	**Purpose – content - product**	**Partners and resources involved**	**Timing**	**Status (year: ____):**
B.2.4. *Titel*: Seminar on autonomous systems and shipping	**Purpose:** Autonomous systems on-board ships are becoming more and more widespread, due to their great potential for efficiency improvements and reducing costs of operation. Improving efficiency also saves energy which is needed to decarbonise the sector. The use of autonomous systems on ships and other seagoing vessels is still relatively unregulated and there is a general lack of rules and guidelines for pioneers to utilise, which leads to slower implementation of pilot projects etc. This seminar seeks to address the current shortcomings in the sector to create better and safer conditions for adopting autonomous solutions. **Content:** The seminar will focus on the work in the IMO regulatory framework for Maritime Autonomous Surface Ships (MASS) and how to ensure that the framework keeps pace with the technological developments in the industry.	Experts from MSA and DMA Relevant industry stakeholders Research institutes 1 workday is expected for this workshop. The activity will either be implemented as an online workshop, or as a part of a visit to china with focus on digitalisation.	Q2 2024 or Q2 2025	N/A.

	Product: A report from the workshop is expected to be written by Sector Counsellor (1-2 pages).			

OUTCOME C: Improved implementation of the goals in China's 14th Five-Year Plan (2021-2025), related to the improvement of the marine environment and reducing emissions from shipping.	**Status at project completion (if earlier year:____):**

Output C.1: Contributions to reaching the recently adopted IMO 2023 climate strategy to reach net-zero GHG emissions by around 2050 through dialogue on regulation and the introduction of greener and more energy efficient maritime solutions in China.	**Status at project completion (if earlier year:____):**
Output C.1 indicator • Enhanced dialogue between Denmark and China about the work in IMO on GHG reductions from ships, cf. new Sino-Danish Joint Green Work Program 2023-2026. • A continued dialogue between high-level Chinese and Danish officials on green shipping at annual meetings. • Workshops implemented with a focus on implementing green solutions in the Chinese maritime sector. • A joint feasibility study on green shipping corridors from Chinese ports.	**Status at project completion (if earlier year:____):**

Activity	**Purpose – content - product**	**Partners and resources involved**	**Timing**	**Status (year:):**
C.1.1 *Titel:* Workshop on Ship Energy Efficiency Management Plan (SEEMP).	**Purpose:** The purpose of the workshop is to exchange knowledge and best practices regarding how the usage of SEEMP has and can be used to improve ships energy efficiency in a cost-effective manner. **Content:** The workshop could focus on various topics: • Ship Energy Efficiency Management Plan (SEEMP), which is an operational measure that establishes a mechanism to improve the energy efficiency of a ship in a cost-effective manner. • Knowledge sharing of experiences from authorities and ship owners in particular focusing on SEEMP Part III which came into effect 1 January 2023. • Discussions on future thoughts/projects for SEEMP workshops and/or delegation visit.	Experts from China MSA and DMA Relevant industry stakeholders 1 workday is expected for this seminar. The activity is expected to be implemented as an online workshop.	Q1 2025	Activity postponed from phase 2 to phase 3 in order to be able to share experience on SEEMP part III..

	Product: A report from the workshop is expected to be written by Sector Counsellor (1-2 pages).			
C.1.2 *Titel:* Dialogue meetings on IMO GHG regulation.	**Purpose:** During phase 1 and 2 experts from DMA and MSA have established a habit of having dialogue meetings before important meetings in the IMO MEPC, which regulates on environmental and climate related maritime issues. This dialogue greatly contributes to easing negotiations on important regulation such as the implementation of the new IMO climate strategy. Phase 3 intends to continue and build on the established dialogue in order to further the agenda of environmental and climate friendly legislation in the IMO. **Content:** - Review of short term measures for the reduction of GHG emissions. - Discussions on mid-term measures and regulation such as standards for new types of fuels and possible	Experts from DMA. Experts from China MSA. ½ workday is expected per meeting. The majority of the meetings are expected to be held as online webinars.	First meeting expected in Q1 2024.	N/A.

	economic instruments for incentivising green transition. - Analysis of the consequences of implementing an IMO climate fund. - Further discussions on implementing the IMO climate strategy. **Product:** Improved quality of negotiation in the IMO and increased chances of necessary environmental and climate friendly regulation being passed.			
Activity	**Purpose – content - product**	**Partners and resources involved**	**Timing**	**Status:**
C.1.3 Titel: Two workshop on standardisation regarding new types of fuel.	**Purpose:** To accelerate the adoption of new green types of fuel by working together towards joint international standards. Joint standards will make it easier for companies to implement new fuel technologies by ensuring they can be applied globally. **Content:** The workshops will explore both the current and future expected need for standards related to both seagoing vessels and on-shore infrastructure for storage and	Experts from DMA. Experts from MIIT. Relevant industry stakeholders. ½ workday is expected per meeting. The majority of the meetings are expected to be held as online webinars.	Q3 2024 and Q4 2025.	N/A.

	bunkering etc. Furthermore, there will be discussions on how to best coordinate efforts to ensure common standards between major maritime nations such as China and Denmark. **Product**: A report from the workshop is expected to be written by Sector Counsellor (1-2 pages).			

Output C.2: Contributions to improved and more targeted exposure of Danish green and energy efficient maritime solutions on the Chinese market.		**Status at project completion (if earlier year:____):**		
Output C.2 indicator • Three joint working groups on green shipbuilding and green technologies attended by Chinese and Danish high-level officials, Chinese industry associations and shipyards and key Danish maritime equipment and service industry. • One workshop on Ballast Water Management (BWM) and the implementation of new IMO regulation from MEPC80 in the summer of 2023.		**Status**		
Activity	**Purpose – content - product**	**Partners and resources involved**	**Timing**	**Status (year: ____):**

C.2.1 *Titel:* Three joint working group meetings on green shipbuilding and green maritime technologies.	**Purpose:** Build on the MoU signed between Denmark and China on green shipbuilding and green maritime technologies and further strengthen the ties between the industries in both countries. Provide insights into the developments towards building low and zero carbon ships in the industry in both Denmark and China. Further, present and discuss new innovative green maritime solutions for ships and the frameworks needed to enable these developments. **Content:** The joint working group (JWG) meetings will feature examples each demonstrating opportunities and lessons learned from different stakeholders across the Danish and Chinese maritime industry. The JWG meetings are expected to include: • The current trends in shipbuilding and retrofitting as well as discussions on how to move forward with transitioning the existing global fleet to become more sustainable.	High level representatives from DMA and MIIT Danish and Chinese companies. Chinese Shipyards. 2-3 workdays are expected for implementing each JWG meeting including company visits. The activity is expected to be implemented in both Denmark and China.	Q3 2024, 2025 and 2026.	N/A.

	• Presentations on new developments on green technologies in the maritime industry. • Visits to relevant companies leading the way in the green transition. **Product:** A joint meeting minutes is expected to be prepared after each JWG meeting. Danish green solutions gain exposure to Chinese stakeholders in the world's largest shipbuilding industry.			
C.2.2 *Titel:* Workshop on Ballast Water Management including the Ballast Water Management Convention	**Purpose:** The purpose of the workshop will be to discuss the review of the IMO BWM Convention as decided at MEPC80 and how to best to utilize the results from the experience building phase. Furthermore, to share best-practices and solutions to prevent, reduce and control pollution of the marine environment Additionally, to build on previous phases and continue to bring together shipbuilders, maritime equipment manufacturers, ship owners and other relevant stakeholders in	Experts from DMA and MSA. Research Institutes. Danish and Chinese companies. 1 workday is expected to implement the workshop.	Q1 2026.	N/A.

	order to exchange ideas and experiences on install, maintain and operate BWM systems. **Content:** The seminar could contain various topics : • To discuss the most important outstanding issues concerning the existing BWMC and possible amendments to the Convention in light of the review of the BWMC taking place in the IMO. • Also discuss the most recent development in technologies and design solutions for ballast water managements systems. • Work towards standardization of BWMS training, sampling, testing, personnel protection, anti-fouling, etc. bilaterally and in relevant international organizations such as, but not limited to, the IMO and ISO; **Product:** A report from the workshop is expected to be written by Sector Counsellor (1-2 pages).	The activity is expected to be implemented as an online webinar.		

Output C.3: Promotion of Green Maritime Technologies in the form of Danish Offshore vessels, technologies and best practices to ensure fewer accidents at sea and more efficient and safer offshore environment.		**Status at project completion (if earlier year:____):**		
Output C.3 indicator • A workshop on ensuring safety while operating vessels in the offshore industry including crew transfer vessels. • A workshop on building offshore vessels including recent developments and different types of vessels.		**Status at project completion (if earlier year:____):**		
Activity	**Purpose – content - product**	**Partners and resources involved**	**Timing**	**Status (year:):**
C.3.1 *Titel:* Workshop on ensuring safety in the offshore industry	**Purpose:** To build on experience from previous workshops and focus on sharing the first-mover experience, that Denmark has developed regarding safety of vessels and crew in the offshore industry. **Content:** The workshop is expected to focus on offshore transfer vessels, which often contain crew that are not trained seafarers. The topics at the workshop are expected to be:	Experts from DMA and MSA. Research institutions. Relevant Danish and Chinese companies. 1 workday is expected to implement the workshop.	Q4 2024.	N/A.

	• Sharing of practical experience with ensuring safety on crew transfer vessels • The different competencies it takes crew members, both on ship and turbine to run a safe and efficient operation. • Recommended certifications and current required certifications in Danish waters as inspiration for Chinese authorities. • Danish standard and regulations concerning the operation of offshore vessels and on-/off boarding turbines from vessels. **Product:** A report from the workshop is expected to be written by Sector Counsellor (1-2 pages).	The activity is expected to be implemented as an online webinar.		
C.3.2 *Title:* Workshop on the building of Offshore vessels	**Purpose:** To further the offshore industry in China by promoting Danish green solutions and technologies related to the offshore industry as well as Danish design and expertise on building offshore vessels. **Content:**	Representatives from DMA and MIIT. Relevant Danish and Chinese companies. Research institutions. Chinese shipyards.	Q3 2026.	N/A.

	A workshop focussed on the building of offshore vessels including sharing of new developments within the industry as well as exploring ways to decarbonise the vessels used in the offshore industry. The activity could include a visit to a company or shipyard that works with green transition of the offshore industry. **Product**: A report from the workshop is expected to be written by Sector Counsellor (1-2 pages).	1-2 workdays are expected to implement the workshop. The activity could be implemented in China and combined with the JWG on green shipbuilding.		

Template 5.F: Total budget

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Country: China Sector: Maritime MFA File No. : 2017-39184

MFA Grant

	2024	2025	2026	2027	Total	
	DKK	DKK	DKK	DKK	DKK	% of grand total
Personnel – Danish Authority	1.038.922	1.203.812	919.173	0	3.161.907	45,2%
Reimbursable costs for Danish Authority Staff	406.320	402.750	296.110	0	1.105.180	15,8%
Activities, including Capacity development	261.000	261.000	201.000	0	723.000	10,3%
External Consultancies (max 30% of grand total)	500.000	600.000	30.000	0	1.130.000	16,1%
Internal Consultancies	180.000	0	190.000	0	370.000	5,3%
Unallocated funds (max. 20% of grand total)	170.000	170.000	169.913		509.913	7,3%
Grand total	**2.556.242**	**2.637.562**	**1.806.196**	**0**	**7.000.000**	100%

Not aplicable for Inception phase.

Share paid by Danish authority

	2024	2025	2026	2027	Total	
	DKK	DKK	DKK	DKK	DKK	% of total personnel
Personnel – Danish Authority	115.436	133.757	102.130	0	351.323	10,00%

MFA file No.	*Date:* 5 oktober, 2023

Concept note for Phase 3 of Strategic Sector Cooperation Project

Country: China

Sector: Maritime

Danish Authorities: Danish Maritime Authority (DMA)

Partner Authorities: Ministry of Transport (MoT)/China Maritime Safety Administration (MSA); Ministry of Industry and Information Technology (MIIT)

Embassy: The Royal Danish Embassy in Beijing

1. Brief context description and summary and key lessons learned during phase 2

China as a maritime nation

Having experienced continuous high annual GDP growth, sometimes reaching double digits, China is one of the most noteworthy countries, in recent times, when it comes to economic and social development. While today being the second biggest economy in the world, China faces several challenges, which could lower potential growth prospects such as adverse demographics, tepid productivity growth and rising constraints to a debt-fueled, investment driven growth model. Within the maritime sector, China is also a leading nation, and is currently receiving more than half of the orders for new built ships worldwide. It also recently achieved the status as the largest shipping nation in the world measured in terms of gross tonnage.

In spite of significant downward pressure related to the aftermath of the Covid-19 pandemic, China's already substantial maritime industry is growing and the influence of China in international maritime affairs appears to be growing with it and may continue to do so for the coming years. Chinese companies are increasingly dominant across the entire global maritime supply chain, controlling the world's second-largest shipping fleet by gross tonnage and constructing almost half of the world's vessels in 2022 (measured in compensated gross tonnage). They also produce 96 percent of the world's shipping containers, more than 80 percent of the world's ship-to-shore cranes, and own seven of the ten busiest ports in the world.

In the 14th Five-Year Plan (2021-2025), China presents ambitious goals regarding the continued development of its maritime sector. China continues to pursue economic growth and development for the sector as well as strengthening its possibilities to enhance trade with the rest of the world, but the plan also has major ambitions regarding the improvement of the marine environment and reducing emissions from shipping. As the nation responsible for the largest maritime GHG emissions in the world, it is expected to be a key player in future reduction efforts for the sector.

China has one of the world's largest transport fleets using inland waterways, and a major focus for China's five-year plan is to make this fleet greener and safer for the environment by expanding infrastructure for shore power facilities and LNG bunkering stations. There is also plans to increase the electrification of the port-infrastructure nationwide as well as the hinterland transportation network. Additionally, China is looking at applying new energy reduction technologies for ships as well as formulating and revising the access standards for the energy consumption limits of operating ships and port machinery and equipment.

China also plans to promote the application and production of alternative green fuels such as hydrogen, methanol and ammonia through increased research and development and by building a market-oriented green technology innovation system to support applied research on the use of new energy transportation equipment and facilities and hydrogen-powered ships. With both major investments in green technology and energy production and a majority of the world's largest ports, China has the potential to become a major hub for supplying and bunkering green fuels in the future.

Furthermore, China wants to improve cooperation and deepen international exchanges in global environmental governance of transportation and to strengthen participation in the negotiation of GHG-emission reduction in international shipping. It also wants to actively research and propose Chinese plans, strengthen international cooperation in low-carbon technologies for ships as well as guide the connection between international rules and domestic development goals, and promote the formation of fair and reasonable international institutional arrangements.

A goal for the Danish government in the maritime sector in the latest Plan for Blue Growth (from 2018), is to strengthen international collaboration with key maritime growth markets such as China in order to improve Danish companies' export opportunities and support global free trade. Another goal is to strengthen Danish maritime companies' access to knowledge of internationalization and export opportunities, including through the enhanced use of digital platforms and targeted coordination of delegation visits.

Export of maritime transport services to China constitutes a big share of Denmark's total export to the country and China is the most important market worldwide for Danish shipping and furthermore one of the most important markets globally for the Danish maritime technology industry. The Danish maritime companies have a significant and strong presence on the Chinese market currently, and they possess many innovative and green solutions, which align well with the ambitions laid out in the latest Chinese five-year plan. Despite the fact that investment interest in China has been falling in recent years due to Chinese economic slowdown, COVID-19 and global geopolitical instability, there continues to be major commercial opportunities in China for the Danish maritime export sector.

According to the Sino-Danish Green Joint Work Programme 2022-2025 from August 2023 China and Denmark will strengthen the dialogue and collaboration, promoting emission reduction of global shipping, in particular under the IMO. The two countries will furthermore continue to exchange knowledge and experience relating to green maritime technology, shipbuilding and offshore equipment, and reducing carbon emissions for new buildings and retrofitting ships with green technologies. Promoting the production of alternative fuels and the establishment of fuel storage, transportation,

refuelling and other infrastructure facilitating the green transition for shipping will also be an important part of the programme.

In the SSC Project, the two national strategies for both China and Denmark as well as the new green joint work program all play important roles and elements of the third phase will be based on some of the opportunities that the government strategies and the work program provide for an even closer cooperation and reciprocity in the relationship.

The Chinese maritime sector has its shortcomings, and this is where cooperation with Denmark becomes very relevant. Denmark and China are both great maritime nations, but where China's maritime strength lies in large-scale manufacturing, Denmark's are within innovation of high quality marine equipment and maritime technologies plus sophisticated shipping concepts. Particularly, Denmark has an expertise in regulation regarding safety and green shipping. These areas of regulation, the cooperation with China has shown great results but also potential and great interest for further exchange of knowledge on relevant topics.

The SSC project with China has two tracks 1) Maritime Safety and Green Shipping; 2) Green shipbuilding and maritime technologies. Both of these has been implemented successfully and have contributed to stronger relations between authorities as well as new cooperation opportunities for the private sector. The seminars and collaboration has been a significant success and there is a big desire to continue from both sides.

The implementation of the second phase has been delayed due to the global Covid-19 pandemic, which made certain activities requiring physical presence impossible. Therefore, a No-Cost Extension of phase 2 to the end of 2023 was granted to give the project the needed time to have the remaining activities implemented.

Lessons learned

During the first and second phase of the SSC, many project activities were hosted by China Maritime Safety Administration (MSA) in cooperation and along with activities with the Ministry of Industry and Information Technology (MIIT). The events and workshops have been a success where both the Danish and Chinese parts were satisfied with the outcome and showed a clear interest in continuing the cooperating. During phase 1 and 2, a basis for future cooperation were created, and the exchange of knowledge has contributed to a better understanding as well as better dialogue between Chinese and Danish stakeholders. The following are lessons learned from the project activities:

- The SSC model appears to have worked very successfully and both China MSA and MIIT have several times expressed their gratitude towards the Danish proactive attitude with regard to the implementation of formal agreements including the development of concrete work plans.

- Despite the difficulties relating to the COVID19 pandemic, the maritime sector cooperation has not lost momentum due to a high level of flexibility and continued efforts to engage with our Chinese partners. The Chinese partners have been very active in the workshops and the planning of future activities and overall there is a great interest in learning from Denmark both

from the Danish Maritime Authority and from the Danish maritime industries. Consequently, the future looks promising with regard to further develop the maritime cooperation and personal relations in coming years.

- The increased focus in China on a greener maritime transportation sector and the various initiatives and actions announced in this regard creates a good basis for an even stronger maritime cooperation between Denmark and China. At the government, China State Council, MOT and MIIT, have published several new plans and strategies focusing on climate actions and on improving the environment. These plans also include actions and initiatives with a view on making maritime transport in China greener and more climate friendly. China has also recently taken a more active role regarding the work in the IMO on GHG reductions from ships. A stronger maritime cooperation between Denmark and China generated through a phase 3 of the maritime SSC will undoubtedly contribute to new actions and initiatives taken by China in order to promote a more environmental and climate friendly maritime transport sector.

- The SSC project has led to the establishment of important contacts across authorities, which has contributed to better understanding and an improved dialogue. Expert-to-expert relations created as part of the SSC project are incredibly important for long-term cooperation. Experience shows that it requires regular initiatives for this contact to be sustained, and it should be a priority in phase 3 to not just make new contacts but work hard to preserve the connections already made.

- Not only at Government but also at industry level the focus on green and climate friendly ships and shipping operations has increased significantly recently. Not only Danish, but also Chinese ship owners are now ordering ships propelled by low or zero carbon fuels. There is a substantial market potential for Danish maritime companies in China, in particular with regard to green maritime solutions. China has huge ambitions on further developing its transport sector and infrastructure, including the waterborne transportation sector, but China is increasingly aware that its carbon emissions threaten global efforts to fight climate change and its broader environmental degradation endangers economic growth, public health and government legitimacy. China has the world's largest waterway freight volume and port throughput and the energy consumption and emissions stemming from maritime activities pose huge environmental challenges to coastal cities and inland rivers. Furthermore, Chinese shipowners control the second largest ocean going fleet in the world and the country is the world's biggest shipbuilder. Consequently, promoting further dialogue between Chinese stakeholders and Danish companies could lead to even more innovative and efficient green solutions being implemented in the large Chinese maritime sector in the future to the benefit of industries in both countries.

- It is important for the project to keep a distinction between the sector counsellor and the Trade Council so interests are not conflated. However, it is also of great importance that the private sector plays a central role in the collaboration with China and that synergies between the maritime SSC and TC are harvested. One prime example of this was the permission granted to Maersk by MoT in April 2022 to be the first international carrier to perform relay of cargo operations in Chinese ports – a permission facilitated by the assistance of DMA and the Danish Embassy in Beijing. This should be an area for continued discussion between DMA and the Embassy.

Expressed need and commitment from China MSA and MIIT

On maritime safety, China MSA has expressed a great interest in continuing and possibly expanding the areas of cooperation. Representatives from MSA has expressed the desire to participate in workshops in both 2023 and in the coming years 2024-2027. Regarding formal agreements, Denmark and China signed a working plan in 2017, which is still in effect. MSA proposed in 2021 to strengthen the cooperation through the signing of a MoU and a draft was prepared between both parties. Then MSA expressed a desire to halt procedures until the MoU could be signed in person after the pandemic. MSA has not since shown interest in resuming the work on a MoU on maritime cooperation in general, however MSA has indicated interest in signing MoUs on specific topics such as digital certificates for ships or seafarers.

On green shipping and shipbuilding, MIIT and DMA discussed the future cooperation during the latest Joint Working Group on green shipbuilding, which were held in September 2023. Deputy Director General Niels Peter Fredslund from DMA and Deputy Director General Li Yi from MIIT agreed on strengthening the cooperation as well as what topics should be focused on in the future.. Among the new topics were efforts to encourage the establishment of a joint technical expert consulting group, in order to serve as an interface for acquiring cooperation demand from maritime industry of both sides. Furthermore, it was suggested by the Chinese side to renew the current MoU between Denmark and China on green maritime technology, shipbuilding, and offshore equipment in the near future.

Relevance of continued cooperation for Danish private sector stakeholders

The relevance of continued cooperation for Danish private sector stakeholders is clearly present and closely linked to the themes of phase three.

When speaking of maritime safety in the cooperation between China and Denmark, the motivation for Danish companies is evident and consists of both monetary and humanitarian factors. Optimizing safety in Chinese waters will benefit both domestic and Danish stakeholders by resulting in a lower rate of accidents. Thereby, fewer crewmembers will be subject to injuries or fatality, assets will be saved, and vessels will be working on schedule. Shipment arriving on time is of paramount importance due to it being an element that, strongly, affects earnings. The strictly commercial aspect of the bilateral cooperation could also offer an opportunity for Danish companies to enlarge their market share on marine equipment related to safety such as life-saving, firefighting and radio equipment and digital solutions.

Sustainability is a high priority on the global agenda and demand for innovative green maritime technologies and solutions is at an all-time peak, which serves as a solid foundation for Danish companies to provide the Chinese partners with their goods and services. Danish maritime technology is held in high regard in China, which creates a vast number of opportunities to do business.

In China, connections to the authorities are vital and for DMA the continuation of the cooperation means that the organization will, not only maintain and strengthen relations to its current partners, but most likely also form new ties within the country during phase three. Enhancing existing ties and establishing new ones will create more possibilities for Danish authorities to expand the bilateral framework and,

thereby, create more opportunities for private stakeholders to do business. All in coherence with the Danish Government's strategy for export enhancement and economics diplomacy.

2. Outline of proposed focus and partner involvement in phase 3

During phase 3 it is the intention to keep working together with the same partners as in phase 1 and 2. The partners on the Chinese side are very motivated to keep cooperating entering phase 3. Furthermore, there is an interest from Danish companies for the SSC partnership to continue, as they have good experiences with the activities from phase 1 and 2 and they can see opportunities in a continued collaboration in phase 3.

The partners involved are as mentioned earlier China Maritime Safety Administration (MSA) and Ministry of Industry and Information Technology (MIIT). These relations are crucial in order to operate in all relevant fields both publicly and on the Chinese market. China MSA is the main partner in the safety and green shipping track where MIIT make up the green shipbuilding and green maritime technology authority in the SSC.

As for private stakeholders involved in the second phase DMA and the embassy in Beijing will cooperate to make more Danish companies with relevant good and services take part and reap the many benefits of the SSC. From Chinese side, there has been a clearly expressed desire from especially MIIT to involve more Danish and Chinese companies in the future activities. This is particularly in regards to green shipbuilding, where there are good business opportunities for Danish companies with regard to both the manufacturing of new zero emission ships and upgrading existing ones with zero or low carbon technologies.

Following individual meetings with partner authorities in China and a hearing on themes it has been agreed that continuation within this overall framework would be desirable given the following: Traction on the project tracks, well-developed partnerships at a project and track level, clear relevance to both the development in China as well as to Danish business interests, and a mutual partner interest in cooperation on these themes..

Focus areas:

Overall, the intention is to cooperate within maritime safety/green shipping track and the green shipbuilding and green maritime technology track as in phase 1 and 2 with some minor adjustments made after meetings held with MIIT and China MSA. Based on lessons learned and consultations of stakeholders, the headlines for activities in Phase 3 are as mentioned:

(1): Maritime Safety with China MSA, hereunder the topics:

Port State Control Inspection

Port State Control (PSC) is the inspection of foreign ships in national ports to verify that the condition of the ship and its equipment complies with the requirements of international conventions and that the ship is manned and operated in compliance with these rules. The aim of PSC is to promote safety of life at sea, to protect the marine environment, and to safeguard decent working and living conditions for seafarers. Exchange of knowledge and thereby improved understanding through dialogue can contribute to preventing unnecessary misunderstandings.

Workshops could focus on a variety of topics based on the mutual interest of the Danish and Chinese partner but could include handling of dangerous cargo, implementation of the Polar Code, MLC, sulphur emissions etc. Short-term staff exchange in this field has been suggested by the China MSA and will be included as an element in the future cooperation.

Prevention of accidents at sea

In recent years, China has experienced several maritime accidents that have claimed the lives of hundreds of people. When investigating such incidents in China, the focus is often on placing responsibility, rather than preventing similar situations in the future. Therefore, there is a great interest in learning Danish methods of investigation, which focus on identifying and understanding the cause of accident, so that accidents can be avoided, and the number of accidents can be lowered onwards. Cooperation between Danish and Chinese partners could include exchange of knowledge within specific fields of Marine Accident Investigation as well as cooperation on reduction of collisions. There has been a very explicit interest from the Chinese partners to cooperate in this field.

When it comes to reducing the number of collisions between commercial and shipping vessels, China is annually, experiencing many collisions between fishing and cargo vessels. The results of these collisions vary from lives lost, material damages to minor pollution of the maritime environment. For the cargo vessels, the collisions rarely result in substantial material damages but may lead to delays and lawsuits. Danish vessels occasionally report the near misses and inform about the challenges they face in Chinese waters. China MSA has stated that they are interested in further Danish expertise on the topic.

New technologies and digitalization

As one of the first countries in the world, Denmark has introduced electronic ship certificates. For the sake of improved safety and efficiency in the maritime sector, exchanging knowledge of digitalization and new technologies can be of great benefit. It is particularly relevant to share experiences with digitalization of ship certificates and seafarer certificates. Furthermore, the DMA has launched a digitalization of the Danish Shipping Register. The exchange of experiences in this regard can help pave the way for further digitalization of the maritime sector in China. From Chinese side there has been an interest in learning more on the Danish projects and general work on digitalization in the maritime sector, and from Danish side, DMA has an interest in showing our projects in order for them to gain international acceptance.

Furthermore, there has been interest from the Chinese side in developing a closer cooperation with DMA in regards to the work at the IMO on safety regulation on autonomous technologies in shipping.

Navigation safety, including exchanging knowledge on pilotage as well as Ships Routing Systems and Ship Reporting Systems

Improving navigation safety is an important aspect when considering maritime safety and the environment because it can reduce the risk of collision and thereby oil spill and pollution. Pilotage means activities related to the navigation of vessels in which the pilot acts as an advisor and as an expert of the local waters. The primary task of pilotage is to ensure maritime safety and prevent environmental damage by reducing the risk of groundings and other maritime accidents. Improving navigation safety is an important aspect when considering maritime safety and the environment because it can reduce the risk of collision and thereby oil spill and pollution. Ships reporting systems and ships routing systems is a contributor to improve safety of navigation at sea. Denmark uses ships routing systems for guidance of vessel traffic, and there has been an interest from Chinese side to learn more of the navigation tools used in Denmark. Today's ships are also much larger than previously and the need for systems to organize the ship traffic and provide the necessary room for maneuvering is increasing.

Dialogue on GHG emissions between Denmark and China

Denmark and China have recently signed a new joint green work programme in which both sides agreed to strengthen the collaboration and promotion of emission reduction of global shipping, in particular under the framework of the International Maritime Organization.

DMA and MSA have in recent years enhanced the dialogue significantly with regard to the work in the International Maritime Organization (IMO) on GHG emission reductions from shipping. A tradition has more or less been established that DMA and MSA organize informal dialogue webinars in advance of the biannual meetings in the IMO Maritime Environmental Protection Committee (MEPC). At these webinars the Chinese and Danish sides discuss the ambition level and other key elements with regard to new IMO strategies and proposals on technical and economic measures due to be adopted in the IMO MEPC. The two sides discuss concrete short, medium term and long term measures, review of Data Collection System and other relevant issues related to IMO's current work on GHG reductions from ships. The discussions have so far been very useful and constructive and both sides agree that a continued dialogue on the topic in the future would be of great benefit.

Safety challenges presented by new types of green fuels

In order for the shipping industry to become carbon neutral there is a need to find appropriate alternatives to the fossil-based fuels, which are used today in most ocean-going cargo vessels. Due to the nature of the industry, complete electrification is not a viable option as in other industries, in particular with regard to the big ocean going ships. Several different fuels types have been proposed as a new alternative to fossil fuels, such as hydrogen, methanol and ammonia.

These new fuel types come which each their own unique new challenges. Particularly regarding safe handling and storage. There is a need to create new international standards, rules and regulations to ensure the safety of crew, ports and harbor cities in the use of the new fuels, and establishing a dialogue between the Danish and the Chinese authorities on this topic would be great first step in this direction.

Ensuring safety in the offshore industry

As China is currently rapidly expanding its offshore energy sector by building new windfarms they face challenges regarding navigational safety around the new facilities as well as regarding crew-transfer and the specialized types of vessels used in the industry.

As a first-mover within wind energy Denmark has developed valuable knowledge in the field, which the Chinese authorities have expressed great interest in discussing, hereunder the frameworks (e.g. spatial planning tools) needed to further enable the developments with wind farms along the Chinese coastline.

(2): Green shipbuilding with MIIT, hereunder the topics:

Sino-Danish Joint Working Group on Green Shipbuilding and Green Maritime Technologies
The annual Sino-Danish Joint Working Group is an event where a number of representatives from government departments, technical universities, research institutions, industrial organizations and companies in the maritime industry in China and Denmark participate to discuss green shipbuilding and green maritime technologies

The latest event were held in September 2023, where the discussions focused on Innovative Technical Solutions and how they play an important role in the efforts to decarbonize the shipping industry. During the meeting, several proposals for future collaboration between Denmark and China on maritime decarbonisation were suggested by both countries, and it was agreed that a continuation of the dialogue on green shipbuilding is of great interest to both sides.

Expert level working groups on standardization and to facilitate cooperation demands from maritime industry
The Danish and Chinese maritime industries already have close ties, but the rapid development of new green technologies in the maritime sector has created a need for further collaboration between the industries in Denmark and China. This is especially true regarding standardization, including but not limited to joint international standards planning and development regarding alternative fuels and technology for energy saving and emission reduction.

Expected results for phase 3

All of the above-mentioned focus areas are derived from topics discussed at meetings with Chinese partners. The Danish private sector has expressed a wish to continue as active part of the collaboration and finds the focus areas and topics relevant.

The expected results for phase 3 are to continue to build on the close relations between Danish and Chinese government authorities and to strengthen the regular exchange of knowledge between government officials.

Furthermore, the goal is to enhance collaboration between Danish and Chinese companies. Working on maritime safety expects to lead to several positive results, as was also the experience from phase 1 and 2. Better knowledge on safety is beneficial for all parties, as lower rates of accidents in Chinese waters will be of great benefit for Danish ship owners, which have a high presence in China, as well as others faring in Chinese waters. Better safety at sea improves the conditions for the crew, spares assets and increases the chance of vessels and ports working on time, which will result in money saved and money earned for both countries.

By discussing green shipbuilding, the SSC project can enable Danish private companies to do business and sell a wide range of product that are in demand in China alongside having an important positive

impact on the environment. These products and services range from offshore installation services to components and equipment that improves safety, reduces pollution and saves energy. The SSC project serves as a Sino-Danish contribution to a greater purpose that potentially has a direct impact on the pursuit of 4 UN Sustainable Development Goals (SDGs).

Apart from the political and business elements that the SSC revolves around, one of the prime motivators that drives the direction of the cooperation are the SDGs, more specifically goal 8, 9, 13 and 14 (displayed below). The two tracks described in this note, largely, go hand in hand with the four SDGs.

In short, the bilateral cooperation between China and Denmark not only benefits the two countries, but also the rest of the world. Over 60% of the world's seaborne cargo and 30% of shipping containers pass through Chinese ports annually, which can result in environmental and safety issues[1]. China has throughout the years, struggled with safety at sea. If safety is improved, it will improve the conditions for both crewmembers and assets for all vessels sailing in Chinese waters.

When it comes to elements that make up obstacles for the achievement of environmentally related SDGs China is a nation of superlatives, which means that everything China does in the name of sustainability affects the rest of the world to a greater or lesser degree. GHG emissions generated from maritime activities in China are the highest in the world and bringing these emissions down swiftly will be vital if the global shipping industry shall deliver in meeting the goals in both the Paris Agreement and the new IMO 2023 Green House Gas strategy for international shipping. Due to the influence and sheer size of the Chinese maritime sector, the potential impact of Danish green technology and Danish-inspired environmental regulations could have in the long run are tremendous. China has during the last couple of years, started to phase in regulation to the benefit of the overall climate and environment and has generally become a lot more ambitious regarding the implementation of a green transition. The Danish competences, products and services have the potential to, not only, greatly help enforce these regulations, but also contribute to making them more realistic. These regulations pared with the right products and services have a great potential to impact the 13th and 14th SDG.

Stronger relations with the Chinese authorities have contributed to fewer detentions of Danish ships by Chinese Port State Control and there is a great benefit for Danish ship owners for the continued cooperation between Danish and Chinese authorities. Crucial government relations will be maintained, enhanced and likely expanded.

3. Timeline and budget

It is suggested that the Phase 3 will commence in January 2024. The duration is suggested to be 3 years, due to several reasons. First of all, the specific time frame has been requested by the Chinese counterpart. Secondly, through experience from phase 1 of the SSC it has been estimated that such a time span should be sufficient. Lastly, the amount of resources allocated for the cooperation fits approximately 3 years.

Item	*Costs*

[1] http://www.climatechangenews.com/2017/04/20/chinas-plan-cut-shipping-emissions/

Fee	
Reimbursable	
Consultant	
Subtotal	
Administrative costs (7%)	
Total	

ANNEX 9: QUALITY ASSURANCE CHECKLIST

File number/360 reference: 23/34967

Project name: Sector Cooperation in the Maritime Sector, 3rd phase

Project period: January 2024 – 31 December 2016

Budget: DKK 7.0 million

Summary:
The proposed project is the third phase of SSC cooperation in the Maritime Sector between the Danish Maritime Authority (DMA), the Chinese Ministry of Transport/China Maritime Safety Administration and the Chinese Ministry of Industry and Information Technology.

The project objective is "Strengthened safe and environmentally friendly maritime practices and solutions in China that protects seafarers as well as sustained livelihoods for coastal communities and life below water", focussing on three areas:

1. Maritime safety (Port State Control and enforcement of regulations) leading to prevention of accidents and reduced risk of pollution
2. New technical solutions (optimization of routing, digital solutions, incl. digital certificates for seafarers) which will improve safety at sea, save energy and lead to less pollution.
3. Improvement of the marine environment and reducing emissions from shipping (green shipping/reduction of CO2).

This Quality Assurance Checklist should be used by the responsible MFA unit to document the quality assurance process of appropriations, where development specialists from either ELK or other units are not involved in the process; i.e.

(i) internal appraisals of appropriations up to DKK 10 Million where this checklist constitutes the appraisal.

Presentation of quality assurance process:
The quality assurance consisted in a thorough review of the project's Project Document, Results Framework, budget and Concept Note by the undersigned. I have not previously in any way been involved with the project or the authority (implementing partner). The project budget was reviewed by Jan Hindhede Justsen, CFO of GDK.

☒☐ The design of the project has been appraised/appraisal checklist filled out, by someone independent who has not been involved in the development of the programme/project.
Comments: Yes, cf. above.

☒☐ *The recommendations of the appraisal/comments in the appraisal checklist have been reflected upon in the final design of the programme/project.*
Comments: Though a dialogue between DMA and MFA/GDK recommendations will be implemented and presented to MFA/GDK within the 6months of implementation.

☒☐ The agreed budget and financial reporting procedures provide an adequate basis for financial monitoring of funds.
Comments: The budget and reporting follow SSC guidelines.

☒☐ The project is found realistic in its time-schedule.
Comments: The project is focused on the three issues and seems realistic.

☒☐ Other donors involved in the same programme/project have been consulted, and possible harmonised common procedures for funding and monitoring have been explored.
Comments: N/A

☒☐ Key programme/project stakeholders have been identified, the choice of partner has been justified and criteria for selection have been documented.
Comments: The project builds on existing and well-known partners to DMA from previous phases.

☒☐ The implementing partner is found to have the capacity to properly manage, implement and report on the funds for the programme/project and lines of management responsibility are clear.
Comments: According to the GDK desk officer, DMA has hitherto satisfactorily fulfilled obligations to properly manage, implement and report on funds for previous phases of the project.

☒☐ Implementing partner(s) has/have been informed about Denmark's zero-tolerance policies towards (i) Anti-corruption; (ii) Child labour; (iii) Sexual exploitation, abuse and harassment (SEAH); and, (iv) Anti-terrorism.
Comments: Yes, according to GDK desk officer

☒☐ Risks involved have been considered and risk management integrated in the project document.
Comments: Risk and mitigation measures have been adequately considered at a level corresponding to this type of projects.

In conclusion, the project can be recommended for approval: yes – however, it is recommended to strengthen the results framework, cf. above

Date and signature of Desk Officer: 15.1223, Winnie Estrup Petersen

Date and signature of Management: 10.1.2024, Karin Poulsen