Block 1: Using alternative sustainable fuels. Lessons-learnt from alternative fuel use by shipowners

• Mr. Xavier Leclerc, Director CMA Ships, CMA-CGM

Xavier Leclercq is heading CMA Ships a 100% subsidiary of the CMA CGM Group based in Marseille France and in charge of the Owned Fleet (200 vessels), Fleet Upgrade & Retrofit and the CMA CGM Newbuilding portfolio. Prior to becoming VP CMA Ships, Xavier held the position of Senior Vice President Newbuilding and Innovation at The Royal Caribbean Cruise Line based in Miami, in USA where he was in charge of the newbuilding portfolio. He was previously holding a position for 14 years, as SVP in charge of the design at Chantiers de l'Atlantique'. Xavier graduated from the 'Ecole Nationale de la Marine Marchande' with a master's degree in Naval Engineering and has over 35 years of experience in the shipping industry.

• Mr. Paul Hexter, President, Waterfront Shipping Company Ltd.

As the President of Waterfront Shipping, a wholly-owned subsidiary of Methanex Corporation, Paul Hexter manages the world's largest fleet of methanol tankers and is responsible for commercial and operational leadership as well as renewal and expansion of the Waterfront Shipping fleet. Mr. Hexter has been with Waterfront Shipping for over 19 years, where he held various Operations and Commercial positions prior to being appointed to his current leadership role in 2017. Mr. Hexter is an active member of the BC Chamber of Shipping and a supporter of the Mission for Seafarers, a global network of centres offering a warm and hospitable 'home away from home' to visiting ship's crew. He also teaches a tanker chartering module as part of a Business of Shipping course to other shipping professionals in Vancouver, BC.

• Mr. Cyril Ducau, CEO, Eastern Pacific Shipping

Cyril Ducau is the Chief Executive Officer of Eastern Pacific Shipping (EPS), a shipping company committed to the green and technology driven growth of the maritime industry. Fulfilling that commitment are 5,000 employees who manage a versatile fleet of 15M DWT. As CEO, Cyril oversees the development and execution of EPS' shortand long-term strategy, all business operations, and company profitability. In addition, he is the driving force behind EPS' culture of safety and excellence. He has 20 years of experience in the shipping and finance sectors. Prior to becoming the CEO of EPS, he held various leadership roles for the company in Singapore including Head of Business Development and Deputy CFO. He was previously Head of Business Development for the Quantum Pacific Group and Vice President in the Investment Banking Division of Morgan Stanley in London. Cyril graduated from ESCP Europe Business School (Paris, Oxford, Berlin) and holds a MSc in business administration. He also currently serves as the Chairman of Kenon Holdings and previously acted as the Chairman of Pacific Drilling.

• Mr. Toshi Nakamura, General Manager, Green Business Group, NYK Line Green Business Group

Mr. Toshi Nakamura is Senior General Manager, Green Business Group of NYK. Based in Tokyo, he is responsible for NYK's renewable-energy business relating to offshore wind, hydrogen, ammonia etc. as well as LNG-as-marine-fuel supply business all over the world. With a career spanning 30 years working for NYK, he has been leading start-up of new business for NYK in recent years. Offshore oil & gas business (2008-2014), auto-logistics business (2014-2017), and now, green business since 2017.

 Mr. Simon Bergulf, Director of Regulatory Affairs for A.P. MØLLER – MAERSK Simon Bergulf joined A.P. Møller – Maersk as Director Regulatory Affairs in 2017. He is in charge of Maersk's positioning and outreach on key regulatory topics including climate change and environmental issues. Before joining Maersk, Simon headed the Danish Shipowners' Association's Brussels representation from 2009 to 2017. From 2001 to 2008, Simon worked as a public affairs consultant with Hill & Knowlton Brussels. Here, he headed the Food and Consumer Protection Practice Group as well as the Digital Communications Practice Group. Simon holds a BA from the Université Libre de Bruxelles and the Universidad de Granada in political science as well as an MA in public and political management from the Institut Supérieur de Management Publique et Polique Européen.

Block 2: Building alternative fuel-ready ships. State-of-play in shipyards, ship designers and technology providers

• **Mr. Peng Guisheng, Senior Engineer, Dalian Shipbuilding Industry Co. (DSIC)** Guisheng Peng, Section Chief of Merchant Ship Development Section of DSIC, Lead Engineer of the world first Areo-foil assisted VLCC (the New Vitality), deeply involved in the ammonia-fuelled 23,000 TEU ultra-large container ship concept design project. He has long been committed to green ship and green shipbuilding technologies.

• Dr. Junkeon Ahn

Dr. Ahn is a researcher in the Korea Maritime Transportation Safety Authority (KOMSA), where he has participated to make a draft to the *2030 Greenship-K Initiative* supported by the Ministry of Oceans and Fishery. His research is the areas of maritime power machinery such as fuel cell system, gas turbine and combined cycle, as well as LNG fuel-supply process, refrigeration cycle, energy storage system. Dr. Ahn's work recently focuses on the IMO GHG issues with regards to the EEDI, EEXI, and EEOI considering an eco-efficiency.

• Mr. Takeo Akamatsu, Deputy General Manager, Marine Department, Itochu Corporation

Mr. Takeo Akamatsu joined the Marine Department of ITOCHU Corporation in 1992 after university. Since then, he has been working for newbuilding projects with shipyards for overseas clients mainly in Europe (including time as London representative from 2005 to 2010). In 2011, he was assigned as Manager of Marine Section No. 3, which focused on investment for LNG Carriers and off-shore. In 2019, he was assigned as Deputy General Manager to support the General Manager for covering all activity by the Marine Department, but mainly for the development of new business such as decarbonization.

• Mr. Ralf Oldenburg, EUROMOT

Ralf Oldenburg graduated from the University of Applied Sciences Flensburg, Germany. He served as Marine Engineer onboard various containerships before joining the aftersales division of MAN Energy Solutions as their Superintendent Engineer and Managing Director in Panama. Since 2012 Ralf has taken over the position of the company's Head of Regulatory Affairs and got elected chair of the EUROMOT-Group Marine Seagoing. In this role , he also represents EUROMOT as Head of Delegation at IMO and as their principal representative at the European Sustainable Shipping Forum (ESSF) platform of the European Commission - DG Mobility and Transport.

 Mr. Gavin Allwright, Secretary-General, International Windship Association (IWSA)

Gavin Allwright is the Secretary General of the International Windship Association (IWSA). Established in 2014, this not-for-profit has grown to 130+ members from across the shipping industry and is working to promote and facilitate the uptake of wind propulsion solutions in commercial shipping. Alongside his work as association secretary, he also leads the policy work stream, requiring regular attendance at IMO, EU and national government level meetings and sits on the stakeholders advisory committee for the MTCC network at the International Maritime Organization (IMO). Gavin is also a non-executive board member for the World Wind Energy Association (WWEA), a work package leader on the EU Interreg Wind Assist Ship Propulsion (WASP) and advisor on various shipping decarbonization projects. He is a regular guest lecturer at the UN World Maritime University (WMU) and holds a Masters degree in Sustainable Development, specializing in small scale sustainable shipping and logistics in developing countries and was an expert reviewer for the IPCC special report on 1.5C climate change.

Block 3: Providing alternative fuels; building the supply-chain and required infrastructure. State-of-play of preparing for use of alternative fuels in the wider maritime industry

• Mr. Peter Alkema, port of Amsterdam, Chair of the IAPH Working Group on Clean Marine Fuels

Peter Alkema is a strategic policy advisor and project manager within the harbour master's division of Port of Amsterdam. He is responsible for innovation and development projects in the areas of sustainability, port optimization, autonomous shipping and port (cyber) security. In this role Peter cooperates with organisations and ports both nationally in The Netherlands and internationally. At present he serves as chairman of Clean Marine Fuels working group of the International Association of Ports and Harbors. Peter holds an unlimited master mariners licence and has, before joining Port of Amsterdam, been sailing as an officer and captain in the merchant navy and offshore industry for over 20 years, with a specialization in dynamic positioning. Peter has skills in software programming, quality management and has a strong interest in emerging technologies.

• Ms. Linda Hammer, Principal Consultant, Environment Advisory, DNV-GL

Linda Hammer is currently Principal Consultant in DNV GL Maritime Advisory in the section for Environment Advisory with special focus on decarbonization and alternative fuels. Linda completed her master's degree in marine technology at the Norwegian University of Science and Technology before she joined DNV as a trainee surveyor in 2001. Linda has 17 years of experience as approval engineer, doing approval of ship

piping systems and arrangements. Another important part of her job has been development and maintenance of class rules for installations for onboard vapor processing, transportation of low flashpoint liquids, recovered oil reception and transportation, and gas fuelled ships. Linda has been technical advisor to the Norwegian Maritime Authorities in work related to the development of the International Code of Safety for Ship Using Gases or Other Low-flashpoint Fuels (IGF Code) in IMO and also project manager for the project team in IACS supporting the development of the IGF Code. Linda has been trainer in gas fuel courses forming part of the qualification scheme for DNV GL surveyors. She has also been trainer in gas fuel courses for external clients. Linda has extensive experience with approval of gas fuelled ships and assessment of novel designs related to alternative fuels.

• Dr. Sotirios Mamalis, ABS

Dr. Sotirios Mamalis is the Manager of Sustainability - Fuels & Technology at ABS, located in Houston, Texas. In this role, Sotirios explores fuels and technologies that promote the environmental sustainability of the marine and offshore vessels and assets. Sotirios has a background on internal combustion engine research and development using conventional and alternative fuels. He holds a Ph.D. degree from the University of Michigan.

• Mr. Daryl Wilson, Executive Director, Hydrogen Council

Daryl Wilson is a versatile leader with more than 35 years of progressive industrial management experience in environmental technology, operations, manufacturing, human resources, product development, and organisational change developed in world class organisations, including Dofasco, Toyota, and Zenon Environmental. For the last 14 years, Daryl Wilson served as CEO of Hydrogenics, a leading provider of advanced hydrogen solutions.

• Dr. Bryan Comer, Marine Program Lead, International Council on Clean Transportation (ICCT)

Bryan Comer leads the ICCT marine program. The marine program is dedicated to providing policymakers with the data and analysis they need to avoid, reduce, and eliminate pollution from the global shipping sector. Bryan is one of the lead authors of the Fourth IMO Greenhouse Gas Study and is an expert on fuel use and life-cycle emissions from marine fuels. Bryan's work highlights how maritime transportation can transition away from fossil-fueled ships to zero-emission vessels. Bryan holds a Ph.D. in Environmental Science and Policy from the SUNY College of Environmental Science and Forestry, as well as an M.S. and B.S. in Public Policy from the Rochester Institute of Technology.

Block 4: Prospects for alternative sustainable fuels. Research & Development and demonstration projects, including involvement / opportunities for developing countries in the production and utilization of alternative sustainable marine fuels

• Prof. Roberto Schaeffer,

Full Professor of Energy Economics at the Energy Planning Program of the Federal University of Rio de Janeiro, Brazil. Holds a PhD in Energy Policy from the University of Pennsylvania and works in the field of Integrated Assessment Models for climate mitigation. Collaborates with the United Nations Intergovernmental Panel on Climate Change (IPCC) since 1998. Associate-editor of ENERGY-The International Journal since 1999. Member of the Science Advisory Council (SAC) of the Stockholm Environment Institute (SEI), Sweden, since 2014. Member of the Scientific Steering Committee (SSC) of the Integrated Assessment Modeling Consortium (IAMC) since 2015. Co-recipient, along with other scientists, of the Nobel Peace Prize 2007 for the research contributions of the IPCC. Recipient of the 2020 "IAMC Award for extraordinary contribution to the field of IAM". As of 2021, Vulnerability, Impacts, Adaptation and Climate Services (VIACS) Advisory Board Member for the Coupled Model Intercomparison Project Phase 6 (CMIP6), and member of the Brazilian Academy of Science (ABC).

• Mr. Jesse Fahnestock, Getting to Zero Coalition

Jesse Fahnestock is Project Director at the Global Maritime Forum, where he leads the work on First Movers towards Zero-Emission Shipping. His background is in energy and climate, having worked in business, research and civil society on delivering the energy transition. In the early 2000's he helped establish the Global Risks program at the World Economic Forum, where his focus was on climate and energy security risks. He then served as climate policy advisor for the Swedish power company Vattenfall, and later as head of energy and policy foresight at the Swedish national research institute RISE. Before joining the Global Maritime Forum he was global lead for the Energy Transition at WWF International. Jesse holds a B.A. in history from Princeton University and an MBA from the University of Oxford. He lives in Stockholm, Sweden.

• Benjamín Maluenda-Philippi, Ministry of Energy, Chile

Benjamin is Unit Head for New Energy Carriers at the Ministry of Energy of Chile. From this newly created Unit, he leads the Ministry's work on green hydrogen and its derivates, developing strategic plans and coordinating regulatory developments, support for projects, and international outreach. Benjamin is a Mechanical Engineer and holds a MSc in Electrical Engineering from the Pontificia Universidad Católica de Chile.

• Pr. Jasmine Lam, director, Maritime Energy and Sustainable Development (MESD) Centre of Excellence

Prof Dr Jasmine Lam is Associate Professor and Centre Director, Maritime Energy and Sustainable Development Centre of Excellence at Nanyang Technological University, Singapore. She has been invited by many organisations as a keynote speaker, chair and panelist at international conferences and seminars. Leading a research team and working closely with the industry and government agencies, Prof Lam has completed over 50 R&D projects. She is an active scholar having more than 270 publications in leading international journals, books and conferences. She serves as the editor/board member of 10 international journals, including the flagship maritime journal Maritime Policy & Management. She is a Global Maritime Technology Cooperation Centres Network Stakeholders' Committee member, invited by International Maritime Organization. She is also the recipient of many awards, including the National Day Honours Commendation Medal awarded by the President of Singapore, 8 times Best Paper Awards, Eagle Prize (Outstanding Scholar and Promising Leader), and Erasmus Mundus Scholars Award awarded by European Commission.

Ms. Morna Cannon, Acting Deputy Director at Department for Transport (DfT), UK

Morna Cannon is currently Deputy Divisional Manager at the UK Department for Transport, with a brief covering Maritime Environment, Technology and International Policy. She has been with the UK Government for 3 years, prior to which she led permitting and consenting for large offshore windfarms for a multinational energy company. She has an academic background in international environmental economics.

• Mr. Gwilym Stone, Assistant Director for Ship Standards at the Maritime Coastguard Agency (UK MCA)

Gwilym Stone is the Assistant Director for Ship Standards at the Maritime Coastguard Agency, heading up a team of 30 policy officials covering environmental and safety issues across full range of vessels sizes and types. He has been in this role for 3 years, and with the MCA for 14 years, with previous roles including covering a range of topics as part of UK's IMO delegation, and working on the implementation of Vessel Traffic Monitoring and Maritime Surveillance systems.

• Mr. Ashley Stehr, Assistant Director of the Maritime Future Technologies team at the Maritime and Coastguard Agency (UK MCA)

Ashley Stehr is currently the Assistant Director of the Maritime Future Technologies team at the Maritime and Coastguard Agency. This newly formed team is aiming to drive forward and support the implementation of cutting-edge innovation in both Emission Reduction and Autonomy in the Maritime sector. He has been with the MCA for 18 months having previously worked in a leading systems engineering consultancy firm across multiple domains with a focus on innovative disruptive technologies."