

2021 国际海洋经济合作发展论坛

International Marine Economic Cooperation and Development Forum 2021

日程 Program



中国海洋经济博览会 CHINA MARINE ECONOMY EXPO

科创赋能 · 共享深蓝

SHARING THE DEEP BLUE THROUGH TECHNOLOGICAL INNOVATION

时间: 2021年11月25日-27日 地点: 深圳 福田 会展中心

TIME: November 25-27, 2021 VENUE: Shenzhen Convention & Exhibition Center, Futian District, Shenzhen

执行单位 | EXECUTED BY

Shenzhen SEZ Construction and Development Group Co., Ltd. Shenzhen Marine Economy Expo Co., Ltd.
深圳市特区建设发展集团有限公司 深圳海博会有限公司

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International Marine Economic Cooperation and Development Forum 2021

详细日程 Program

2021 年 11 月 25 日 星期四 Thursday, Nov 25th 2021

13:15 开始	来宾签到 Registration of Participants
14:00-14:30	论坛开幕式 Official Opening Ceremony
14:30-15:40	<p>全体会议 1 中国，全球蓝色经济重要力推者</p> <p>How can China deepen its participation in global ocean governance and expand its role in the global ocean economy? What areas for priority attention?</p> <p>《中国国民经济和社会发展第十四个五年规划和 2035 年远景目标纲要》文件中指出：要建设现代海洋产业体系、打造可持续海洋生态环境、深度参与全球海洋治理。这意味着中国不仅需要大力发展海洋产业、提高蓝色经济占 GDP 的比重，更需要转向可持续的发展模式，并积极促进全球治理的共识达成。在推动全球蓝色经济的发展过程中，中国取得的成绩有目共睹，但也存在着一系列新的挑战。China's 14th Five-Year Plan (2021-2025) Report has put the emphasis on deepening China's involvement in global ocean governance. At the same time, the priority remains to increase the share of marine activities in the overall economy. However, despite the very significant progress achieved in the last few years, China's ocean development continues to face a number of issues and challenges. What will be needed in the coming years for China's to strengthen its role as a global blue economy player and what kind of initiatives could highlight the country as an active participant in global ocean governance rules-setting?</p> <p>✓哪些行动可以加速中国海洋经济的发展，提升其在全球蓝色经济中的作用？如何更快地加速新兴的高科技海洋产业发展，从而推动传统产业转型升级？What actions could accelerate the development of China's marine economy and increase its role in the global Blue economy? How to move faster with emerging, high-tech, marine industries to replace traditional ones?</p> <p>✓中国目前的海洋资源利用率仍低于美国、德国和英国等领先的海洋强国，接下来中国应该从哪些方面入手，改变产业结构、提升能源利用率，在提高经济效率的同时实现可持续发展目标？How to develop China's marine resource utilization efficiency which remains below that of the US, Germany or the UK?</p> <p>✓回顾过去五到十年中国蓝色经济的发展，有哪些经验可以总结？未来应该如何更好地贯彻“十四五”文件精神，做大做强蓝色经济？When looking at the experiences of the last five or ten years what is the most important initiative that could be taken to improve significantly the efficiency of global ocean governance?</p> <p>✓中国需要从哪些方面承担更多的国际责任，推动海洋产业发展的同时，帮助打造更加公平、透明的海洋发展环境？What initiatives could China develop - or be more actively involved in - to address the governance issues relating to new opportunities that disruptive technologies generate for increasing value-creation from the world's</p>

	<p>oceans? How to address issues of transparency, ownership, and equity?</p> <p>✓中国可以在公海治理的过程中扮演哪些重要角色？如何更好地参与全球新的治理框架的构建？如何更深度地参与全球蓝色经济的发展？Existing global marine governance frameworks do not adequately ensure the protection and sustainable use of biodiversity in high-seas areas. What could help accelerate the negotiation of a new international agreement to achieve this crucial priority?</p>
15:50-17:00	<p>全体会议 2 共同打造可持续发展海洋经济</p> <p>What Government policies and corporate initiatives in China and at the international level to achieve long-term sustainability for the ocean economy?</p> <p>由于快速发展海洋经济，全球的海洋资源和海洋生态系统持续恶化，而且面临的压力越来越大。塑料污染的急剧增加，现在已成为对海洋生态系统的主要威胁，而长期存在的过度捕捞等问题，已经引发严重后果：根据世界粮农组织的报告，全球近 90% 的海洋鱼类资源已被充分开发、过度开发、甚至枯竭。由此可见，“可持续性”这一概念变得至关重要。2021 年正式启动的联合国“海洋十年”，是联合国促进海洋可持续发展的重要决议，也是未来十年最重要的全球性海洋科学倡议。那么在此基础之上，建立全球协调机构，并制定国际准则，促进国家之间海洋经济利益共享与风险共担，促进全球各国采用包容性的治理和决策，推动和鼓励跨国家、跨学科的海洋科学研究等，则变得非常重要。The 14th Five Year Plan has introduced for the first time the notion of sustainability regarding the marine economy in a five-year plan document. This notion has now become crucial as a fast-expanding ocean economy means an increasing pressure on marine resources and ecosystems already affected by a very serious deterioration of their condition. The dramatic increase of plastic pollution has now become a major threat to ocean ecosystems, as well as issues such as overfishing as almost 90% of global marine fish stocks are fully exploited, over-exploited, or depleted according to a Report from the Food and Agriculture Organization (FAO). How to leverage better transformative ocean science and technology solutions for a more sustainable development? What is required for achieving long-term sustainability in areas such as distant waters fishing or protection of blue diversity?</p> <p>✓涉海公司可以采取哪些行动来转变自身的产业价值链，转向更健康、更环保的商业模式，以帮助实现长期可持续性？What actions can blue economy companies take to transform their value chains, moving towards circular, less resource- and waste-intensive business models to help achieve long-term sustainability?</p> <p>✓如何促使全球尽快达成关于海洋物种多样性保护和科学利用海洋资源战略共识，推动整个海洋资源的可持续开发？What priority actions for a Biodiversity Strategy for the conservation of marine ecosystems and the restoration of those which have been degraded, to ensure the sustainability of ocean resources?</p> <p>✓众所周知，过度捕捞是海洋可持续性发展的主要威胁之一，而限制过度捕捞的国际协议谈判在过去二十年陷入僵局，如何才能解决这一难题，在推动全球海洋资源可持续发展的同时，也确保渔民的收入和渔业的发展？What can be done to break the deadlock and achieve an international agreement against overfishing which could be implemented while ensuring fair revenues for the fishermen and the fishing</p>

	<p>industry?</p> <p>✓整个海洋实现可持续发展，需要有长期的政策和足够的资金支持。为此，全球的各企业、各国政府和相关国际组织应该如何通力合作、协调资源，以便更好地为海洋可持续发展提供必需的政策和资金支持？A sustainable ocean economy requires adequate financing of the policies and actions needed to achieve that goal, such as the development of more sustainable products, technology, and gaining access to sustainability-friendly markets. How could corporations, government and international organizations coordinate financing resources to that end?</p> <p>✓岸线旅游是促进经济增长的好办法，如何能够在促进旅游产业发展的同时，推动可持续资源保护？企业和政府应该扮演哪些角色？What corporate actions and government policies for the long-term sustainability of the coastal environment as China and other countries develop coastal tourism as a significant source of economic activity and growth?</p> <p>✓回顾过去十年全球海洋经济的发展，有哪些值得总结和思考？海洋经济的可持续发展已经成为学界和政府的共识，但尚未成为商界和大众的关注重点，未来应该如何在不断蓝色经济的同时，吸引更多广泛的行业精英参与？In the last ten years the ocean resources sustainability was already a major concern for experts and academic but was not really a major public concern. What lessons could be drawn to define the actions needed to accelerate the development of public awareness and involvement about the importance of this issue?</p>
17:10-18:15	<p>全体会议 3 深圳，打造全球海洋中心城市 Building Shenzhen as a global marine center</p> <p>地处南海之滨的深圳，不仅是中国改革开放的窗口，也是 21 世纪海上丝绸之路枢纽城市和粤港澳大湾区领军城市。尽管目前深圳的海洋产业并不能在全球位列前茅，甚至在中国也不是最为突出的，但深圳的优越的地理位置、完善的产业链和领先的创新能力，使之具备了打造“全球海洋中心城市”的蓝色基因。强大的科技实力与面向未来的海洋资源相结合，将会为深圳带来更大的发展机遇。与此同时，深圳也需要激发整个城市的潜力与能力，持续地创造新的价值和资源，从深圳湾出发，为中国的下一轮经济增长起到引领和带动作用。Despite the fact that Shenzhen's marine industry is smaller in size than Shanghai's, the city has been slated to become a global ocean center city. And it has a number of great attributes and assets for becoming a major global hub for blue economy activities given its geographical location, its long coastline, its very strong technological innovation capabilities which have already made of the city a global high-tech center, its close integration in the global economy and its academic resources. What actions are required to leverage more optimally city's assets, create new capabilities and resources to establish the Shenzhen bay area as a global hub for the blue economy – and thus to have the city make an even larger contribution to China's overall economy?</p> <p>✓中央支持深圳建设社会主义先行示范区，对于深圳打造“全球海洋中心城市”有何推动作用？这两者如何同频共振，共同推动深圳的未来发展？How the central government decision to turn Shenzhen into a 'core engine' of reform to power growth and</p>

	<p>innovation could contribute to position the city as a global hub for the Blue economy?</p> <p>✓上海、香港、新加坡、汉堡、伦敦等全球领先的海事之都，各有哪些优势值得深圳进行学习和借鉴？深圳如何提升自身吸引力，从全球众多海洋城市中脱颖而出，成为名副其实的“全球海洋中心城市”？What actions to increase the attractiveness of Shenzhen as a global Blue economy hub in the face of well established competitors such as Shanghai, Hong Kong or Singapore or Hamburg or London?</p> <p>✓以金融为代表的高端服务业是全球海洋中心城市必备的要素之一，如何提高服务业占比？作为“经济特区”的深圳可否成为“政治特区”，推动更多开放的政策和创新的制度在此实践？A global ocean center city requires the presence of a well-developed, sophisticated, financial services industry? What should be done to develop this sector in Shenzhen?</p> <p>✓科技实力和创新能力的深圳城市实力的代表，如何能够把这些优势与海洋产业结合，赋能蓝色经济，进而创造出更大的价值？How to create more synergies between Shenzhen's dynamic high-tech sector and its innovation capabilities and the city's ocean activities – thus strengthening its position as a pioneer and innovative hub.</p> <p>✓如何能够使深圳持续不断地保持强大的研发创新能力，为城市持续创造新价值和新资源？What actions to strengthen Shenzhen's R&D and innovation capabilities to establish a thought leadership positioning on the Blue ocean economy for the city?</p> <p>✓回顾深圳过去十年的发展，取得了巨大的进步，这带给了整个中国哪些成功的经验？又有哪些值得总结和思考的问题？未来深圳应该如何更好地发展，以便取得更大的成功？Looking at the spectacular development of Shenzhen in the last ten years or so, what lessons to be drawn to ensure an even more efficient and smoother expansion of the city in the coming years?</p>
19:15-20:00	<p>全体会议 4 星辰大海，人类从未止步</p> <p>A better Blue economy? Look at the mysteries of the oceans</p> <p>我们所在的星球虽然叫地球，但是约有 71% 的面积都是海洋。从遥远的年代开始，渴望征服的人类就把大海当成冒险的乐园，从古至今有无数的航海家和探险家，在大海上演绎出了一段段传奇，也开启了人类的全球化时代。今天我们将邀请到全球知名的航海家、科学家，共同分享人类对星辰大海的探索，以及背后的精彩故事，以帮助我们更好地了解海洋、走进海洋。</p> <p>Although the oceans represent more than 70% of our planet and are crucial for the weather, for fighting climate change and are a major source of economic activity and of food supplies, among other things, 80% of the ocean's surface remains unexplored and we still have a lot to discover about oceans secrets and understand about ocean dynamics. Moving ahead in a better knowledge of the oceans will be crucial for achieving a truly long-term sustainable Blue economy.</p> <p>✓现代的航海家从哪些方面对大海进行探索？在茫茫大海中，会经历哪些危险和挑战？哪些新的技术和理念能够帮助我们更好地对未知的海洋进行探索？What are today our capabilities to better explore the seas? What are the challenges? How will</p>

	<p>technology help us take us further in deciphering the still mysterious dynamics of the oceans?</p> <p>✓人类在探索神秘海洋的历史中，有哪些难忘的故事和经历？What are the unforgettable stories and experiences in discovering some elements of the mysteries of the oceans?</p> <p>✓人类可以从与海洋生物之间精彩的互动中得到哪些启发？What do we learn from the wonderful interactions between humans and marine life?</p> <p>✓越来越多的普通人希望参与海洋相关的活动，例如航海、帆船赛、深海科技探险等，如何把大众的兴趣更好地转化为走进海洋、探索海洋的动力？More and more people want to participate in marine-related activities, such as sailing, regattas, deep-sea expeditions, etc. How to use this growing interest to create the necessary respect for the ocean ecosystems and their importance ?</p>
20:15-21:00	<p>全体会议 5 海洋文明与新一代蓝色企业</p> <p>The new generation of Blue economy entrepreneurs</p> <p>越来越多的年轻企业家进入蓝色经济领域，中国全球化的进程为他们带来更加国际化的视野，海洋文明的锤炼则塑造了他们更加创新、更加多元的理念，毫无疑问，他们将为中国的蓝色经济带来新的变化。新一代蓝色企业家们如何帮助中国打造出更加开放、竞争、创新、包容、协作的海洋文明？如何帮助中国获得更多的认可，在海外建立更多价值共识，推动中国经济和全球市场融合发展？A number of startups founders are now beginning to leverage the potentialities of disruptive technologies to create new products and services that will contribute to making Blue economy activities not only more productive and profitable but also more sustainable. Who are these entrepreneurs? What are the emerging success stories? How could they contribute to help other Chinese Blue economy companies become more competitive and integrate into an open, competitive, innovative, inclusive, marine civilization?</p> <p>✓在蓝色经济领域进行创新，需要面对比其他领域更高的风险和挑战。社会和大众可以从哪些方面为蓝色企业家们提供更多的支持和帮助？Innovation in the marine economy sectors is often considered as more financially risky than in other domains. How to ensure that Blue economy entrepreneurs can have access to the funds needed to develop their projects?</p> <p>✓政府为年轻的蓝色创业者提供了一系列的支持和帮助，其中包括优惠贷款和相关培训等。那么对于风险投资家而言，如何看待蓝色经济的创业？他们可以从哪些方面给予支持和帮助？The government has provided a number of advantages for youth innovators, like small security loans and training programs. How private sector VCs look at the Blue economy activities? Where do they see the greatest potential for successful entrepreneurs?</p> <p>✓年轻一代的企业家们如何借助海洋文明推动中国社会的进步、帮助构建更好的环境、帮助培育现代企业家精神？同时还能更好地在全球建立价值共识，为中国获得更多认可？How can Blue economy entrepreneurs use the new awareness about the importance of the oceans and their resources for mankind to promote the progress of Chinese society, help build a better environment, and help develop a consensus on shared</p>

values?

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2021 年 11 月 26 日 星期五 Friday, Nov 26th, 2021

全体会议 6 粤港澳大湾区，正在崛起的全球新经济增长极

Unleashing the full business opportunities of the Greater Bay area

“湾区经济”已成为带动全球经济发展的重要增长极和引领技术变革的领头羊。作为湾区中的新军，由香港、澳门两个特别行政区和广东省广州、深圳、珠海、佛山、惠州、东莞、中山、江门、肇庆这九个珠三角城市组成的粤港澳大湾区，凭借着发达的商业交通网络、开放的经济结构、高效的资源配置能力、庞大的经济体量和强大的产业集群效应等，正在成为世界经济版图中的一个亮点。我们所熟知的珠江三角洲已经从世界工厂走向全球高科技制造、科技创新、金融服务、贸易运输和物流中心。The Outline Development Plan for Guangdong HK Macao Greater Bay Area aims to transform the Pearl River Delta from the factory of the world to a global center for high-tech manufacturing, technological innovation, financial services, trade transport and logistics.

The nine cities plus Hong Kong and Macau comprising the Greater Bay Area combine the assets and business proposition of providing a strong manufacturing base, very significant high-technology capabilities, academic and scientific resources and the attractiveness of global tourism and leisure centers. The whole area also benefits from the gigantic infrastructure developments of the last few years which have considerably reduced travel time between the different centers of the area.

08:45-09:55

✓未来如何进一步提升区域的协同效应和政策活力，将该地区打造成为真正的国际科技创新中心？How can businesses and local governments create additional synergies to develop the region into a major center for technology and innovation?

✓如何将该地区发展成为支持中国经济和国际区域经济发展的金融服务中心？有哪些更加开放的金融政策将在这里落地？What additional actions are needed to develop the region into a major financial services center – especially considering the opening up of financial services activities to foreign companies?

✓粤港澳大湾区横跨三种不同的制度体系，如何能够进一步协调该区域内不同的法律制度、经济结构、税收制度和货币体系，最终打造出有利于全球商业发展的营商环境？What steps to further coordinate the development of a favorable business environment between three different legal systems, economic structures, tax systems and currencies.

✓随着大湾区城市化的加速和互联互通程度的加深，如何能够持续打造出更加绿色可持续发展的产业政策来推动整个区域的长期发展，以便更好地吸引全球更高端的产业链落地？As the Greater Bay Area becomes even more urbanized and connected what policies are required to ensure a coordinated green and the sustainable development of the whole region as a key success factor to attract talent and high added value activities?

	<p>✓回顾大湾区过去五到十年的发展历程，从经济和商业角度有哪些值得总结的经验？随着大湾区融合的加速，未来有哪些新的商业机会？如何推动该地区的蓝色经济高速发展？ what are the lessons to be summed up from an economic and commercial perspective when reviewing the economic development of Great Bay Area in the last decade? What new opportunities will the further integration of the Greater Bay Area region provide to businesses?</p>
10:05-11:10	<p>全体会议 7 海洋能源供应链变革与中国新机遇 Developing a viable ocean energy supply chain</p> <p>《巴黎气候协定》全部签署国都宣布了各自的减排目标和时间表，世界正在朝着共同构建一个更加有效的全球气候治理体系而努力，而这背后是全球能源转型大势所趋。可再生能源的交易正在成为全球能源的核心内容，随着更多国家、企业的加入，技术发展、新的商业模式和行业整合等，全球能源供应链正在重塑，以海洋能源为代表的新能源将获得重要发展，这也给中国电力和新能源产业全球化带来了前所未有的机遇。With the goal endorsed by all the signatories of the Paris Climate accords to fully decarbonizing the power sector renewable energy deal making is now steadily increasing as companies, utilities, and governments prepare to meet climate targets. Consolidation is likely to occur across the ocean renewable energy value chain. Offshore wind development – and especially floating offshore wind - holds a great potential, with oil and gas companies increasing their investment in this domain. In the same way, the potential from tidal and wave energy is just beginning to be leveraged. Technological developments, new business models and sector consolidation are on the verge of reshaping the global offshore renewable energy sector.</p> <p>✓如何扩大浮动风电场的适用范围，使其成为未来绿色电力的重要组成部分？ How to expand floating wind farms to make them a major part of the future of green electricity</p> <p>✓如何加速机器人的开发和使用？如何利用人工智能和传感技术来减轻海上可再生能源扩张对海洋生态系统的影响？ What could be done to accelerate the development and use of robots, A.I. and sensing technology to lessen the impact of the expansion of offshore renewable energy on the oceans' ecosystems?</p> <p>✓碳中和的目标要求中国企业加速开发使用新型能源，但随着国家相关补贴的陆续结束，企业需要如何平衡新的可持续发展要求和盈利前景？ As Chinese companies accelerate the installation of offshore wind turbines in view of the carbon neutrality goal set for 2060, what will be needed to ensure the profitability of their projects as national subsidies should be terminated at the end of this year?</p> <p>✓除了海洋可再生能源专项资金等政策支持外，还有哪些办法可以加速中国海洋能产业的技术创新发展？ What is needed to accelerate the development of technological innovations in China's ocean energy industry, beyond initiatives such as the the Special Funds for Marine Renewable Energy?</p>
11:20-12:20	<p>全体会议 8 那些即将改变世界的海洋高科技 The technological innovations that will impact on the development of the marine</p>

economy in the next five to ten years

以深海生物基因为代表的生物医药技术、海洋卫星、高科技新材料、人工智能与大数据、芯片传感器等，越来越多的颠覆性技术已经对海洋经济产生了革命性影响。世界各国的政府、企业、研究机构正在加大投资和研发力度，不断寻求创新的办法，突破更多技术难点，为海洋经济带来更大变革，从而推动国家经济增长和社会进步。接下来五到十年，有哪些关键高科技技术将会改变整个海洋产业？如何通过政策、金融等支持，帮助更多高科技企业实现突破性发展？如何将高科技转化为商业价值，进而造福人类？ From Advanced Materials to Biotechnology, from sensors and imaging to autonomous systems and big data analytics, several disruptive technologies are already beginning to have a transformational impact on the marine economy. In many countries the scientific and business communities are now increasing efforts to look at innovative approaches to optimize the impact that all these technologies will have on the development of every sector of the ocean economy. This involves among other things a more integrated approach to understanding the oceans; the search for technology synergies, the need for academia and business to promote a new culture of education and skills.

✓回收技术为海洋生态系统保护提供了巨大的潜力，但目前海洋污染——尤其是塑料等带来的危害急剧增长，有哪些新的技术能够改变现状？ Recycling technologies offer tremendous potential for new business and for oceans' ecosystems preservation, as ocean pollution – especially plastic pollution – is dramatically increasing. What could be done to develop existing technologies and develop new ones?

✓海藻等各种藻类为制药、食品等领域的新应用提供了巨大的潜力。根据世界银行的数据，世界上 10% 的食物可能来自于海藻。此外海藻还可以制作化妆品、作物营养/生物肥料、生物包装等，用途非常广泛。企业可以采取哪些行动在这个领域进行发展？中国如何在这一领域挖掘出巨大潜力？ Seaweed and algae offer tremendous potential for new applications in sectors such as pharmaceuticals, food - 10% of the world's food could come from seaweed according to the World Bank - cosmetics, crop nutrition/bio-fertilizers, bio-packaging etc. What government and business actions to develop China's great potential in this domain?

✓如何利用数字化和人工智能等前沿技术来提高水产养殖业的效率和生产力？ How to leverage digitalization and big data technology, machine learning and AI to increase the efficiency and productivity of the aquaculture sector?

✓有哪些新的技术运用和赋能转化，帮助航运业打造创新生态系统、提升竞争力和服务能力，以应对后疫情时代急速变化的市场需求和不断提升的可持续发展的要求？ How to accelerate the development and implementation of autonomous shipping technology to increase efficiency and reduce the environment footprint of the shipping industry?

✓生物遗传资源被认为是继石油之后又一战略资源。深海，正是生物遗传资源的重要来源。全球各国对这个领域的研究正在不断深入，未来将有更多的成果应用于人类的医疗和食品等诸多领域。目前，全球深海生物基因工程的发展情况如何？如何解决已经出现的问题和挑战？ The deep-sea is a large source of marine biogenetic resources (MGR), with many potential uses and has become a growing area of research. Much more

understanding of this domain is needed and we are still at a preliminary phase in being able to leverage its use for new pharmaceutical products and food resources. What is the status in terms of knowledge of the biogenetic engineering potential of the deep-sea? How to address the main challenges in developing the different applications that are already emerging?

✓卫星是一种极其强大的海洋观测工具，可以为我们提供更多关于海洋演进的信息，尤其是海平面以下的诸多关键信息，例如海底地形、海面温度、海平面变化、珊瑚礁的信息等，它们甚至可以帮助跟踪海洋中塑料碎片的运动。如何更好地发展海洋卫星，使之发挥更大的作用？如何优化卫星数据和服务，使之更好地帮助人类了解和管理海洋和海岸线？Satellites are an extremely powerful tool for observing the ocean, providing much more information on the evolution of the seas that could be obtained just from the surface. Satellites can tell us a lot about submarine topography, sea surface temperature, sea levels changes, coral reefs, and they can even help tracking the movement of pieces of plastic in the ocean. How to optimize the use of satellite data and services for understanding and managing better oceans and coasts?

全体会议 9 全球海洋人才争夺战

Winning the war for marine talent

经济繁荣靠科技，科技发展靠人才，人才是经济发展和社会进步的根本。海洋经济越来越受到世界各国重视，对于海洋人才的争夺也进入白热化。近年来，在高速发展海洋经济的同时，中国正在致力于培养和吸引更多高层次的行业人才，包括深圳在内的多个城市将陆续兴建不同的海洋高等院校。中国也正在推出一系列政策措施，以吸引包括科学家、工程师、企业家、投资人等全球人才。可以预见，新一轮的世界性人才争夺战正在拉开序幕。In the last few years China has been setting up a number of institutes and other academic centers devoted to the formation of talents in ocean-related and Blue economy domains. How can the government and related organizations connect with enterprises to help them cultivate and select high-quality talents? If Shenzhen wants to build a global ocean center city, it must innovate to attract global talent.

13:30-14:30

✓在全球蓝色经济领域，最稀缺的人才是哪些类型？如何才能持续培养这样的人才？如何建立科学的人才培养体系？

What kind of talents and skills will the Blue economy need to sustain high growth in the coming years ?

✓如何鼓励更多的高水平人才进入海洋产业？政府、学术机构和企业应该如何相互配合，帮助更多年轻人获得更为广阔的发展空间？

How to incentivize talented young people to acquire the skills that will open them the doors to high added value employment positions in the Blue economy?

✓有哪些措施可以鼓励蓝色经济领域的创新和创业？如何才能吸引到全球的创新者、创业者来到中国？

What measures to support innovation and startups creation in the ocean economy domain?

✓如何把目前培养科学和技术型的专业人才的体系，转变成为蓝色经济培养新一代复合型人才和创新者的新模式？How to move from creating the strong technical and

	<p>engineering skills to producing a new generation of problem-solvers and innovators for the Blue economy?</p>
14:40-15:40	<p>全体会议 10 疫情后经济重启，抓住海洋经济的高速成长期</p> <p>The Blue economy in the global post Covid recovery</p> <p>新冠肺炎疫情之下，全球经济增长放缓，世界产业发展格局面临新变革，包括海洋在内的新兴产业正日益成为全球经济发展的焦点。相关机构预测，疫情过后的蓝色经济增速将两倍于全球经济增长，这不仅会进一步推动世界复苏，同时还对海洋生态保护有着深远影响。Blue economy sectors such as travel and coastal tourism, shipping, fisheries and seafood production have been badly hit by the Covid 19 pandemic. However, as some sectors of the ocean economy are expected to register a growth rate which is double the growth rate of the global economy targeted investments and incentives policies in these sectors could not only help accelerate the pace of economic recovery but also reinforce the protection of ocean ecosystems.</p> <p>✓后疫情时代，对于绿色能源的需求和碳中和的要求，蓝色经济作为实现可持续发展重要的助推力，会获得更为广阔的发展空间。对于企业而言，如何尽快转向可持续发展的新商业模式，以便更好应对蓝色经济的更高要求？The Post-Covid recovery with the new emphasis on green energies and carbon neutral activities could increase the role of the Blue economy as a growth driver and a key factor in the fight against climate change. How could businesses fully implement circular economy processes to accelerate the development of green marine activities?</p> <p>✓研究表明，目前的蓝色经济领域中有超过 1/3 的投资由于不能满足可持续发展的要求，将在 2030 年之前被叫停。政府应该如何进行投资引导，使得企业和金融投资机构更快地转向既能保护海洋环境、又能带来长期商业增长的投资呢？According to a study, one third of investments in the blue economy could be unsustainable by 2030. What government policies and corporate actions to involve all financial players to shift investments towards activities that preserve the ocean and ensure long-term growth?</p> <p>✓下一阶段，蓝色经济将进入快速发展期，增速将两倍于全球经济增长，在这个过程中，有哪些新的领域值得重点关注和提前布局？What new investments in the Blue economy would have the greater and faster impact in boosting sustainable long-term economic growth?</p> <p>✓蓝色经济前景广阔，但现阶段却仍面临很多难题，尤其是在融资方面。海洋投资属于高风险领域，如何建立多层次的海洋投融资资本市场，帮助不同企业更好地进行融资？如何提升海洋投资的交易规模，吸引更多的资本进入？How to address the present shortcomings in the financing of a Post-Covid Ocean economy – such as the higher risk profile of ocean investments or the shortage of investible projects with appropriate deal size and risk-return ratios?</p> <p>✓新冠疫情将全球划分为了疫情前时代和疫情后时代，纵观疫情前后的经济发展情况，有哪些新的挑战？在后疫情时代，中国应该如何抓住蓝色经济的发展机遇，推动 GDP 的增长？Looking at the developments of the Blue economy in the last ten years, what lessons can be drawn to ensure an even faster of integration of the technologies that will help accelerate the expansion of this economic sector and increase its</p>

	share of in China's overall GDP?
15:50-16:50	<p>全体会议 11 我们的海洋，我们的责任 Restoring the ocean environment as an urgent imperative</p> <p>中国约有一半的人口居住在沿海地区，这些地区为中国贡献了超过 60% 的 GDP。在享受海洋带来的经济繁荣的同时，人类也给海洋带来了严重的污染，海洋生态因为这些经济活动正在遭受着严峻挑战。爱护海洋是世界上每一位公民的责任和义务，“保护海洋生物多样性、人与自然和谐共生”作为今年世界海洋日的主题，就充分反映了这一点。政府、行业、金融、学界等不同领域正在形成共识，越来越多的普通民众也参与到了这场海洋保卫战中。Over half of China's population resides along the coast and the coastal areas account for about 60% of the country's GDP. China – like all coastal nations – has suffered from the decline of the ocean environment degradation due to the rapid development of the marine economy and the increase in the rejection of pollutants of all kinds – especially now plastic pollution. However, there has been a growing awareness about the need to restore and protect the ocean environment and a convergence is emerging between local governments, industries, the financial sector and academia to focus on the ocean environment preservation. This was illustrated last June, as China, marked this year's World Oceans Day with the emphasis on protecting marine biodiversity and raising public awareness on the need for harmonious coexistence between humankind and nature.</p> <p>√如何让更多的企业参与到海洋保护当中来？有哪些机制和鼓励措施能够将企业所倡导的 ESG（环境、社会与治理）与海洋可持续发展结合起来？What initiatives to involve more Chinese corporations in marine environment protection activities? How to leverage the growing trend toward adoption of ESG standards?</p> <p>√除了现有的法律法规之外，还需要尽快出台哪些新的措施，以便更好地应对日益严峻的海洋污染问题？What additional regulations are needed to tighten to ensure a better protection of the ocean environment?</p> <p>√如何在政府、企业、民众之间建立更有效的协同机制，调动更多的社会资源参与到海洋可持续发展当中来？How to create synergies and coordination between government policies, communities and business involvement and academia research to develop efficient actions for restoration and conservation of the ocean environment?</p> <p>√大众教育和媒体传播可以扮演怎么样的角色？哪些行动可以帮助提高公众对海洋环境保护的生态意识？Education and communication: What actions could help enhance the public ecological awareness with respect to ocean environment protection?</p> <p>√中国需要如何监管包括海洋塑料污染等在内的生态问题？如何制定量化指标？How to improve China's management of waste and plastics entering the Oceans to ensure a drastic reduction from present levels?</p>
17:00-18:15	<p>全体会议 12 通向碳中和未来的“蓝色道路” 2030 and beyond: The road to a carbon neutral Blue economy</p>

由气候变化所引发的全球性生态问题正在成为焦点，如何科学地管理地球、持续地高质量发展是世界各国最为关注的话题。2021 年 3 月，中国向世界提出“二氧化碳排放力争于 2030 年前达到峰值，努力争取 2060 年前实现碳中和”的战略目标，标志着中国全面向可持续发展迈进，这背后将是一场广泛而深刻的经济社会系统性变革。作为覆盖地球面积最大的区域，海洋在“碳达峰”“碳中和”过程中将扮演重要的角色，例如，备受瞩目的“蓝碳”技术，就是利用海洋活动及海洋生物吸收大气中的二氧化碳，并将其固定和储存在海洋中的过程、活动和机制，这将会有效地帮助捕获和隔离人类活动产生的有机碳。与此同时，风能、太阳能、氢动力等新技术的不断引入，由大量化石燃料驱动发动机推动远洋巨轮的场景将在不远的未来成为历史。包括中国在内的世界各国，正在尝试各种办法，减少因人类活动而产生的二氧化碳足迹，朝着碳中和的目标迈进。Major changes in ocean economy activities are crucial to help achieve carbon neutrality not only with respect to these activities as a very significant contribution to reaching overall global carbon neutrality, but also to protect and restore the oceans' ecosystems which until now have played a major role in capturing and sequestering organic carbon created by human activities. This buried "blue carbon" has resulted in a significant limitation of the level of total carbon emissions; but the degradation of marine ecosystems is now reducing the capacity of capturing and burying this "blue carbon".

So, the days of huge ocean vessels, propelled by high fossil fuel consumption engines are numbered. Other marine industry activities are facing the same increasing pressures and new regulations to reduce the marine industry's CO2 footprint and move towards carbon neutrality. Wind, solar electric, and hydrogen-powered ships and new technologies introduced in the development of other marine industries activities are beginning to provide innovative low- or no-carbon alternatives.

✓按照排放量来计算，航运业所排放的二氧化碳总量已经超过德国，成为全球第六大排放来源。氢和氨基燃料在航运业实现碳中和方面的潜力有多大？什么时候可以有明确的大规模商用的时间？Global shipping is the world's sixth carbon emitter, producing more than Germany's CO2 emissions. What is the potential of hydrogen and ammonia-based fuel to achieve carbon neutral shipping? Where do we stand with the technology? What could be the possible timeline?

✓如何利用创新金融来调动投资，加快蓝色经济向碳中和的演进？How to leverage innovative finance to mobilize the investments to speed up the evolution towards a carbon neutral Blue economy?

✓需要进行哪些监管改革，以便推动渔业等传统产业进行转型升级，尤其是从政策性补贴转向鼓励行业采用碳中和技术和做法？What regulatory reforms are needed to promote best practices in climate-adaptive fisheries management, including a shift from harmful subsidies to incentives for industry adoption of carbon neutral technologies and practices?

✓如何推动更多国家和企业发展“蓝碳”？如何借助金融手段打造碳汇交易市场来推动“碳中和”，助力可持续发展？What should be done to develop Blue Carbon as the basis for a new industry, which means the development by companies of sea grasses,

	<p>mangroves and tidal marshes plantations that will capture carbon which can be traded - as carbon trading emissions markets are developing in many countries including China.</p> <p>✓如何真正发挥蓝色生物技术的关键作用，创造基于植物的新型材料和其他石化应用替代品，从而减少碳排放？ Developing the crucial role that Blue biotechnology can play to create plant-based alternatives to plastics and other petrochemical applications, thus reducing carbon emissions.</p> <p>✓中国设定了碳达峰和碳中和目标，对于企业而言，应该如何进行产业升级和管理流程创新，以应对更高的可持续发展要求？对于政府而言，如何进行有效监管？ As China is launching its national carbon market companies will be facing new constraints and pressures to set net zero carbon emission targets. How will corporate leaders prepare to carry out carbon accounting, transform and upgrade their process and technology, implement energy-saving and emission reduction projects ?</p>
18:15-18:30	总结会议 Closing Summary