





CONFERENCE PROGRAM 04 - 06 June 2023 Dhahran - Expo

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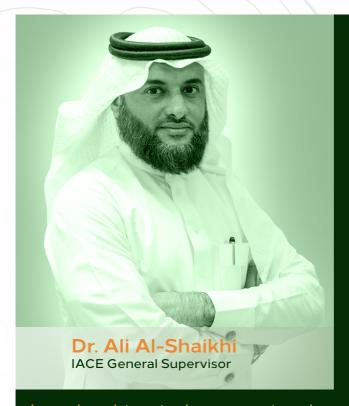




المؤسسة العامة لتحليــة المياه المالحــة Saline Water Conversion Corporation (SWCC)



جامعة الملك عبدالله للعلوم والتقنية King Abdullah University of Science and Technology en In si



I am pleased to extend my warmest welcome to all of our distinguished guests attending the International Algae Conference & Exhibition. In short, ICAE does reflect Saudi Arabia's phenomenal growth and development across all sectors in recent years, including fisheries and algae. As one of the world's most valuable natural resources, algae have enormous potential for promoting food processing industries and developing promising investment opportunities. Furthermore, algae play a crucial role in supplying oxygen to our planet and reducing carbon dioxide emissions. Saudi Government gives due attention to the fisheries sector. Saudi Vision 2030 sets out ambitious goals to expand and further develop aquaculture industry. The sector aims to make a significant contribution to food security. It also serves as a catalyst for the development of communities, manufacturing industries, and support services.

In line with our ambitious national Vision 2030. IACE aims to bring together brotherly and friendly nations from around the world, global and regional organizations, on a single platform to exchange

knowledge, share experiences, promote investment opportunities, and establish regional and international partnerships. The goal is to find innovative solutions to food security issues, comprehensive development, and environmental sustainability.

We are truly pleased that the Kingdom of Saudi Arabia will be the first country in the Middle East to organize an international algae conference, hoping that we will agree with all fellow speakers and participants in presenting our goals and working with international, regional and local partners to promote the development of relevant regulations and laws. We firmly believe in the cooperative and complementary role of our nations in achieving sustainable development goals, which is why we seek to develop and apply world-class standards to algae cultivation for sustainable food, economic development, and investment opportunities.

With a view to implementing an ambitious strategy for developing the fisheries sector, Saudi Arabia Is intent on fully utilizing and exploiting its comparative advantages, know-how capabilities, geographical potential, and environmental diversity. By doing so, it contributes to the development of effective partnerships between the public and private sectors that achieve goals across all sectors.

To conclude, I would like to express my sincere appreciation to His Royal Highness Prince Saud bin Naif bin Abdulaziz Al Saud, Governor of the Eastern Province, for his support and generous sponsorship. My sincere thanks also go to Their Excellencies the Ministers and the Ambassadors, the Conference guests, and all of our distinguished guests for kindly accepting the invitation.

Last but not least I would like to extend sincere appreciation goes out to HE/ Eng. Abdulrahman Abdulmohsen A. AlFadley the Minister of Environment, Water and Agriculture, Chairman of the Board of Directors of the National Livestock and Fisheries Development Program, for his unlimited support and guidance for holding this conference and exhibition. My deep thanks also go out to HE/ Eng. Ahmad Alayadh, Undersecretary of the Ministry of Environment, Water and Agriculture for Agriculture, Vice Chairman of the Board of Directors of NLFDP, for his constant support and keen interest in the success of the conference and exhibition. We sincere hope that these concerted efforts will bear fruits and the conference will come up with tangible recommendations that help create a more sustainable and productive algae industry.



OBJECTIVES

The main objectives of the International Algae Conference & Exhibition, which will be hosted from 04 - 06 June 2023 in Dhahran, Saudi Arabia, alongside the 2nd SIMEC Aquafish - Saudi International Marine Exhibition, is to bring together world class industry and research experts to present the progress made in the production and commercialization of Microalgae and Macroalgae, and to highlight the further potential for growth of this industry regionally and globally, and to discuss challenges for effectively establishing viable commercial projects of Algae.



INFORMATION NOTE

Algae biomass production is one of the fastest growing biotechnology fields globally. Not only is the level of knowledge surrounding the fast pace of the development. but also the increasing number of industries that are opting to use Algae derivatives, in particular the metabolites obtained from Algae in their products. These metabolites provide a wide range for commercial applications, from use for human and animal nutrition. to pharmaceutical, cosmetic, as well as a source of energy (biofuel). and many other applications.

Efforts towards Algae production have been focused on the farming several species, increasing attention on specific industrial applications of Algae has boosted production in regions Especially in the continents of Asia and Europe. and to some extent in the Middle East. Among these applications. and the most promising related to the production bioplastics and the use of high value metabolites extracted from Algae in various industries with the final aim to provide high quality, sustainable raw material.

The commercial culture of Algae is among the Aquaculture priorities under the VISION 2030 of the Kingdom of Saudi Arabia, and to a great extend contribute towards the achievement of a number of the United Nations Sustainable Development Goals (SDGs). efforts Moreover, the towards Microalgae and Macroalgae production will not only contribute to food security regionally and globally, but also will support to the Saudi Green Initiative and the Middle East Green Initiative obiectives.







EXPECTED OUTPUTS

The conference, through the contribution of invited expert speakers, panelists and the active participation of the attendees will aim to:

- Increase awareness regarding the potential for Algae cultivation regionally and globally.
- Present the progress made in the production and commercialization of Microalgae and Macroalgae globally and regionally.
- Identify the most important production, research, and commercialization challenges for the further commercialization of Microalgae and Macroalgae.
- Promote networking and collaboration between relevant research institutes.
- Attract investors for Algae Aquaculture regionally.







PARTICIPANTS

The Conference will be held in hybrid modality (i.e. physical & virtual (on-line) for attendance). As a hybrid conference, participants will be able to join from all over the world. The conference will generally target:









Stakeholders from the Algae / Aquaculture production chain



Academic researchers working on Algae biotechnology















LANGUAGE

Simultaneous interpretation service will be provided during the conference in English and Arabic.

ORGANIZATION OF THE CONFERENCE

The conference is being organized under the patronage of the Ministry of Environment Water and Agriculture (MEWA) of Saudi Arabia, represented by the National Livestock and Fisheries Development Program (NLFDP)







CONFERENCE PROGRAM











Day 1

📋 Sunday04 June 2023 🛮 🚨 |Conference Hall

VIP Guests Welcoming	03:30 PM 04:00 PM
Exhibition Opening	04:00 PM 04:30 PM
Ministry of Environment, Water and Agriculture of Saudi Arabia Opening Remarks Dr. Ali Mohammed Al Shaikhi - CEO - National Livestock & Fisheries Development Program	04:30 PM 04:40 PM
Global Algae industry outlook Mr. Vitor Verdelho - General Manager - EABA / A4F	04:40 PM 05:00 PM
MOU Signing	05:00 PM 05:20 PM
Sponsor Honoring	05:20 PM 05:40 PM
Group Photo	05:40 PM 05:50 PM
Coffee break	
EU support to Algae sector: EU Algae Initiative and - EU for Algae Dr. Gabriel Acien - Vice President - EABA / University of Almeria	06:30 PM 06:50 PM
Session 1 Session topic: State of the Algae industry	
Microalgae industry in China: Biomass Production and Application Dr. Fengzheng Gao - Microalgae Researcher, ETH Zurich, Switzerland	06:50 PM 07:10 PM
State of the Microalgae industry in Europe Dr. Gabriel Acien - Vice President - EABA / University of Almeria	07:10 PM 07:30 PM
State of the Microalgae industry in the world (Exl. China and EU) Dr. John Benemann - Founder / MicroBio Engineering Inc	07:30 PM 07:50 PM
Panel Discussion Moderator: Dr. Yousef Al Hafedh	07:50 PM 08:10 PM
Dinner	09:30 PM

برنامج المؤتمر والمعرض الدولى للطحالب 2











Day 2

International Collaboration towards achieving the FAOs Blue Transformation
goals through the culture and commercialization of Algae

Dr. Ahmed M. Al Mazrouai - Fisheries and Aquaculture Senior officer in the FAORNE Regional office and Excutive Secretary of RECOFI - Food and Agriculture Organization of the United Nations (FAO)

04:00 PM 04:20 PM

08:10 PM

08:30 PM

08:30 PM 09:10 PM

09:30 PM

Session 2
Session topic: Algae Cultivation & Processing Technologies

Prof. Joel L. Cuello - Dep. of Biosystems Engineering / University of Arizona

Panel Discussion

Dinner

Moderator: Mr. Vitor Verdelho

Microalgae Cultivation technologies	04:20 PN
Dr. Luis Costa - Chief Operations Officer / A4F	04:40 PN
Applications & Processing of Algae for Bioplastic	04:40 PM
Dr. Bruno Ferreira - CEO / Biotrend	05:00 PM
Cultivation & Applications of Algae for Aquaculture Eng. Ahmad R. Al Balaa - Chairman / Saudi Aquaculture Society - Deputy Chairman of NAQUA	05:00 PM 05:20 PM
Cultivation & Applications of Seaweeds for Bioplastic	05:20 PM
Mr. Philippe Lavoisier - General Manager / Eranova	05:40 PM
Panel Discussion	05:40 PM
Moderator: Dr. Rahul Vijay Kapoore	06:20 PM
Coffee break	
Session 3 Session topic: Applications of Algae	
Applications of Algae for Food Mr. Jörg Ullmann - Managing Director / Scientific Project Manager- Roquette Klötze GmbH & Co.	06:50 PN 07:10 PN
Applications of Algae for Nutraceuticals	07:10 PM
Mr. Jean Yves Berthon - President / Green Sea, Green Tech	07:30 PM
Applications of Algae for Feed	07:30 PM
Dr. Pi Nyvall Collen - Scientific Director Olmix group	07:50 PM
Applications of Algae for EPA Production Dr. Charles L. Roe - Chief Technology Officer / AlgiSys BioSciences, Inc	07:50 PM 08:10 PM
Microalgae for Carbon Capture and Production of Carbon-Neutral Cement and Bioplastics	08:10 PN





Day 3

Challenges and opportunities for Algae industry

Challenges and opportunities for Algae industry Dr. Jean-Paul Cadoret - Vice President EABA / CSO ALGAMDI	04:00 PM 04:20 PM
Session 4 Session topic: Challenges and Opportunities	
Economies of scale necessary for commercialisation of Microalgae Business Dr. Marco Lizzul - Innovation Manager / Varicon Aq	04:20 PN 04:40 PN
Algae With global impacts And local opportunities Mr. Sander Hazewinkel - CCO / Lgem Synalgae BV	04:40 PN 05:00 PN
Panel Discussion Moderator: Mr. Philippos Papageorgiou	05:00 PN 05:30 PN
Coffee break	05:30 PN 05:50 PN
Towards acceleration of industrial production of Algae in KSA Dr. Claudio Fuentes Grunewald - Algae Program Director / KAUST	05:50 PN 06:10 PN
Panel Discussion: Investing in the Algae Cultivation & Processing Industrie KAUST - SABIC - Council of Saudi Chambers - ARASCO	06:10 PN
Moderator: Mr. Haydar H. Alsahtout	07:20 PM
Conference Closing Speech	07:20 PN 07:40 PN
Dinner (Voco Al Khobar Hotel)	10:00 PM





WORKSHOPS





Sustainable Food Production Cluster and Aquaculture Mr.Timothy Ghraham - Senoir Manager - Aquaculture, Neom Food Sector / NEOM	
Leonardo Gomez - Global Lead, Sustainable Food Production Cluster - Oxagon / NEOM	06:30 PM 07:20 PM
Sustainable Aquaculture: Harnessing Innovation for a Resilient Future	
Mr.Mohammad Tabish - chief executive officer / Aquabridge	07:20 PM 07:40 PM
Algae and Industrial applications Mr.Troy Green - Senior Researcher / SWCC	07:40 PM 08:20 PM
Pure Salmon Technology overview Frédéric Gaumet (Ph.D.) - Head of R&D for Pure Salmon Technologies AS (Norway) / Pure Salmon	08:30 PM 08:50 PM
Aquaculture Feed supplément and premix Nutrition Mr.Julien Roper t- Export Manager / Le Gouessant	08:50 PM 09:10 PM





WORKSHOPS

Sustainable Food Production Cluster and Aquaculture

Monday 05 J

Day 2

& Workshop Hall - Exhibition

Mr.Timothy Ghraham - Senoir Manager - Aquaculture, Neom Food Sector / NEOM Leonardo Gomez - Global Lead, Sustainable Food Production Cluster - Oxagon / NEOM	04:40 PM 05:30 PM
The New Era of first feeding in Hatcheries Mr.Antonio Coli - Global Sales Director / Planktonic	05:30 PM 05:45 PM
Solutions For The Aquaculture Industry Mr. Jordi Comas - Sales Manager - Morenot	05:45 PM 06:00 PM
Cpodz: Flexible larval feed with profound effects in the full production cycle Mr. Rhyder Ramos - sales & Marketing Manager / Cfeed	06:00 PM 06:15 PM
Highlighting the role of the Agricultural Development Fund in financing aquaculture and fisheries, discussing the challenges facing fishermen, and providing technical and administrative consultations. Dr. Bander Alrabiah, Head of Development Impact Section, ADF	
Dr. Yousof Alrashada, Head of Livestock and Fish Production Section, college of agricultural and food sciences, King Faisal University. Dr. Hesham Alsanhwy, Livestock and Fish Production Section, college of agricultural and food sciences, King Faisal University.	06:15 PM 07:15 PM
SALIC's role in enabling the seafood sector Mr.Ahmed Shahini - Chief Local Investment Officer at (SALIC)	07:20 PM 08:00 PM
Healthy applications to protect fish stocks from diseases Professor Doctor Muhammad Bin Fahad Alajmi - Professor of Pharmacognosy, / College of Pharmacy, King Saud University - Advisor to the Undersecretary of the Ministry of Environment, Water and Agriculture. Dr. Mohammed Tabash - Researcher, College of Pharmacy / King Saud University. Dr. Afzal Hussain - Faculty member at the College of Pharmacy / King Saud University	08:00 PM 08:30 PM
Applied Research for the Inland Aquaculture Development KSA Dr. Mohammed Broom - Director of Applied Research for the aquaculture Sector	08:30 PM 09:30 PM
Assessing Consumer Preferences for Aquaculture Species in the Kingdom of Saudi Arabia	
Dr. Miguel -Professor of Marketing, and Academic Director of the Food Industry Management Program / Cornell University	08:30 PM 09:30 PM
Indicators of the health status of inland fisheries. Dr. Mohamad Nafi Solaiman Al-Sabi - Assistant Professor of Parasitology, College of Veterinary Medicine / King Faisal University	08:30 PM 09:30 PM





WORKSHOPS

🛗 Tuesday 06 June 2023

Day 3

& Workshop Hall - Exhibition

Innovating in Seafood Safety and Preservation Mrs. Delia Perez Paya - Vice President Emerging Business / Aptar	04:20 PM 05:00 PM
Benefit from wastewater of date packing plants in algae production Dr. Yousef Ahmed Alkhamis - Director of the Fisheries Research Center / King Faisal University	05:00 PM 05:20 PM
Center for Environment & Marine Studies (CEMS): An Overview Dr.Luai M. Alhems - Director, Applied Research Center for Environment and Marine Studies / King Fahd University of Petroleum and Minerals	05:20 PM 06:00 PM
Advancing marine fisheries research in Saudi Arabia using conventional and state-of-the-art technologies Dr. Rommel H. Maneja - Associate Professor / Research Scientist II King Fahd University of Petroleum and Minerals	06:00 PM 06:30 PM
New Approach in Aquacul- ture with Example of Shrimp Farming: Case Study of Blue Aqua International Farm in Singapore Dr. Farshad Shishehchian - Group CEO, Founder / Blue Aqua International	06:30 PM 07:00 PM
Artificial Intelligence Aquatic Fry Production System Sheng-Chih Shen, PhDProfessor and Vice President for Academic Affairs, / National Cheng Kung University Taiwan Embassy	07:00 PM 07:30 PM
The Future of RAS Training Mr.Mohammed Baz - Learning and Development Manager / Pure Salmon	07:30 PM 08:00 PM



NEOM

NEOM is an accelerator of human progress and a vision of what a New Future might look like. It is a region in northwest Saudi Arabia on the Red Sea being built from the ground up as a living laboratory – a place where entrepreneurship will chart the course for this New Future. It will be a destination and a home for people who dream big and want to be part of building a new model for exceptional livability, creating thriving businesses and reinventing environmental conservation.

NEOM will include hyperconnected, cognitive cities, ports and enterprise zones, research centers, sports and entertainment venues and tourist destinations. As a hub for innovation, entrepreneurs, business leaders and companies will come to research, incubate, and commercialize new technologies and enterprises in groundbreaking ways. Residents of NEOM will embody an international ethos and embrace a culture of exploration, risk-taking and diversity.

In response to the growing demand for seafood and for aquacultural practices that protect and enhance the natural environment, NEOM will pave the way for a new paradigm in regenerative aquaculture, producing high-quality, fresh seafood in the Kingdom of Saudi Arabia.

NEOM will be home to a high-tech aquaculture industrial park, including a state-of-the-art hatchery and breeding center; land-based and sea-based production systems using the best technologies of today and tomorrow; novel and more sustainable feed production infrastructure; and advanced seafood processing facilities. This demonstration project will relieve pressure on our local marine environment and support regenerative food security for NEOM and Saudi Arabia. It will combine marine preservation with a net-positive impact on the Red Sea ecosystem by focusing on native and economically viable local species, ensuring zero-liquid discharge and increasing biomass and marine biodiversity.

نيوم هي مسرّعة للتقدم البشري ورؤية طموحة لما قد يبدو عليه المستقبل الجديد. تقعّ نيوم في شمال غرب المملكة العربية السعودية على البحر الأحمر ويتم بناؤها من الصغر كمختبر حي، وستصبح مكاناً ترسم فيه ريادة الأعمال مسار هذا المستقبل الجديد. ستكون نيوم وجهة وموضاً للحالمين الذين يريدون أن يصبحوا جزءاً من بناء نموذج جديد للعيش الاستثنائي، وإنشاء أعمال مزدهرة والحفاظ على البيئة بطرق غير مسبوقة.

ستضم نيوم مدناً إدراكية فاقق الترابط، وموانئ، ومناطق للمشارك، ومراكز أبداث، وأماكن رياضية وترفيهية ووجهات سياحية، وبصفتها مركزاً للابتكار، سيأتى رواد وقادة الأعمال والشركات إلى نيوم لإجراء البدوث توتني وتسويق التغنيات والمؤسسات الجديدة بطرق رائدة، وسوف يجسد سكان نيوم روحاً دولية، ويتبنون ثقافة الاستكشاف والمخاطرة والتنوع.

استجابة للطلب المتزايد على الأغذية البدرية وممارسات الاستزراع المائي التي تدمي البيئة الطبيعية وتعززها، ستمهد نيوم الطريق لنموذج مبتكر في الاستزراع المائي، وإنتاج الأغذية البدرية الطازجة عالية الجودة في المملكة العربية السعودية.

ستحتضن نيوم مجمعاً صناعياً للاستزراع المائي عالي التقنية، بما في ذلك مركز متقدم للتغريخ والتكاثر، وأنظمة متطورة الإنتاج البري والبحري تستخدم أفضل التقنيات الحالية والمستقبلية. وبنية تحتية جديدة أكثر استدامة لإنتاج الأعلاف، بالإضافة إلى مرافق متقدمة لمعالجة الأعذية البحرية، وسيخفف هذا المشروع التجريبي الضغط على بيئتنا البحرية المحلية ويحمم الأمن الخذائي المتجدد لنيوم والمملكة العربية السعودية، وسيحرص المشروع على الدفاظ على البيئة البحرية وترك أثر إيجابي على النظام البيئي للبحر الأحمر من خلال التركيز على الأنواع المحلية والمجدية اقتصادياً، وزيادة التنوع البيولوجي البحري، وضمان عدم تصريف أي مخلفات تؤثر في البيئة.





KAUST is a deep tech ecosystem unlike anywhere else: a community of the brightest minds brought together on the coast of the Red Sea to meet the future's most urgent challenges.

In world-class labs and classrooms, you'll find scientists, students, start-ups and companies working together to discover new applications for research and develop new technology — all with one ambition: to create remarkable impact

in people's lives.

At KAUST Innovation we bring together researchers, industry leaders, experts and founders to transform Saudi Arabia and the world.

KAUST Beacon Development (KBD) was established by KAUST in 2017 to support projects critical to the development of the Kingdom and achievement of Vision 2030. This unique business brings together expertise in environmental, aquaculture and agricultural science to create

an organization that is bringing Vision 2030 to life. Through our environmental consultancy business, we work in partnership with our clients to make development plans environmentally sustainable. Our aquaculture and agricultural experts undertake strategic research and development programs aimed at transformational change of the aquaculture/agricultural sector to increase capacity using sustainable practices.

توفر كاوست منظومة غير مسبوقة للتقنية العميقة تجمع اكثر العقول تميزا على ساحل البحر الاحمر للعمل معا لمواجهة أيرز تحديات المستقبل.

مختبراتنا و مساحات العمل لدينا تتوافق مع اعلى المعايير العالمية ويتعاون من خلالها العلماء والطلاب والشركات والمؤسسات الناشئة لاكتشاف تطبيقات جديدة للابحاث وتطوير تقنيات مبتكرة، وتحقيق طموحنا المشترك بخلق اثر في حياة الناس .

في كاوست للابتكار نجمـَع الباحثين و رواد التقنية والخبراء و مؤسسسي الشركات الناشئة لدعـم مسيرة التحول في المملكة والعالم.

أسست كاوست المنارة للتطوير في عام ٢٠١٧ لدعم المشاريخ الاساسية لتعزيز مسيرة التنمية في المملكة وتحقيق رؤية ٢٠٢٣.

تضم المنارة للتطوير خبرات متنوعة في العلوم البيئية و الزراعية تجعل منها منظمة رائدة في تحقيق رؤية ٢٠٣٠. انطلاقا من ذالك، يعمل مستشارونا البيئيون جنبا الى جنب مع عملائنا لضمان الاستدامة البيئية لخطط التنمية. ينغذ خبرائنا الزراعيون برامج بحث و تطوير استراتيجية تهدف لاحداث تغيير جذري في القطاع الزارعي بالمملكة وتعزيز قدراته من خلال الممارسات المستدامة.







KBD Brochure



المؤسسة العامة لتحليــة المياه المالحــة (Saline Water Conversion Corporation (SWCC)

The Saline Water Conversion Corporation (SWCC) is a Saudi governmental institution mandated and entrusted with seawater desalination and the delivery of desalinated water to various regions of the Kingdom of Saudi Arabia and beyond. SWCC was established in 1974 as an independent governmental institution of a legal personality.

Vision

Global leadership and excellence in water desalination industry.

Mission

To best meet customer needs of desalinated water more efficiently and reliably at the lowest possible cost and the highest economic return, while effectively invest in and motivate human resources, develop desalination industry, contribute to economic and social development and comply with safety and environmental standards

المؤسسة العامة لتحلية المياه المالحة هي مؤسسة حكومية سعودية تعنى بتحلية مياه البحر، وإيصال المياه المحلاة المنتجة لمختلف مناطق المملكة العربية السعودية، تم إنشاؤها بمرسوم ملكي كريم برقم م/٤٩ في ٢٩٠/١/١٣٩٤ الموافق ٧/٧/١٩٧٤ مكمؤسسة حكومية مستقلة ذات شخصية اعتبارية.

الرؤية:

الريادة والتميز عالمياً في صناعة تحلية المياه.

الرسالة:

تلبية احتياجات عملائنا من المياه المحلاة بكغاءة وموثوقية وبأمّل تكلغة ممكنة وأعلى مردود اقتصادي والاستثمار الفعال في مواردنا البشرية وتحغيزها وتطوير صناعة التحلية والمساهمة في التنمية الاقتصادية والاجتماعية والالتزام بمعايير السلامة والبيئة.











35 دولة مشاركة 35 participating countries













































































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Exhibitors











































































































