

An example of Industry-University-Research Cooperation for Local Supply Chain SME's Consideration

3. Sharpen your tools in managing the supply chain

Funded by Trade and Industrial Organisation Support Fund

An example of Industry-University-Research Cooperation for Local Supply Chain SMEs' Consideration

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Envy as Evergreen staff get 40-month bonuses

January 3, 2022





- ❖ Taiwan's largest liner operator gave some employees a year-end bonus of as much as 40 months of their salaries.
- ❖ Evergreen has achieved a cumulative net profit of US\$5.69 billion for the first nine months of 2021 and stock analysts believe the company's full-year net profit could be around US\$7.24 billion.
- ❖ In 2020, Evergreen booked a net profit of US\$860 million and dished out 10-month bonuses to staff.
- As the company's 2021 earnings are predicted to jump nearly 10 times, staff bonuses have also grown.

Source: https://container-news.com/envy-as-evergreen-staff-get-40-month-bonuses/

Dislodging massive Evergreen Marine container carrier from Suez Canal could take two days

World | 24 Mar 2021 7:45 pm













Wednesday, March 24, 2021, after it turned sideways in Egypt's Suez Canal, blocking traffic in a crucial East-West waterway for global shipping. An Egyptian official warned Wednesday it could take at least two days to clear the ship

Source: https://www.thestandard.com.hk/breakingnews/section/6/168133/Dislodging-massive-Evergreen-Marine-containercarrier-from-Suez-Canal-could-take-two-days

Megaship blocking Suez Canal may be refloated Saturday: owner

ABS-CBN News

Posted at Mar 27 2021 12:20 PM











A handout picture released by the Suez Canal Authority on Thursday shows the Taiwan-owned MV Ever Given (Evergreen), a 400-meter long and 59-meter wide vessel, lodged sideways and impeding all traffic across the waterway of Egypt's Suez Canal. Egypt's Suez Canal Authority said it was "temporarily suspending navigation" until refloating of the MV Ever Given ship was completed on one of the busiest maritime trade routes. AFP

Source: https://news.abs-cbn.com/overseas/03/27/21/megashipblocking-suez-canal-may-be-refloated-saturday-owner

Yara to start operating the world's first fully emission-free container ship

NOVEMBER 19, 2021

Oslo, 19 November 2021: The world's first electric and self-propelled container ship – Yara Birkeland – has departed for its maiden voyage in the Oslo fjord. Today, the Norwegian Prime Minister was given a tour by CEO of Yara, Svein Tol Holsether.



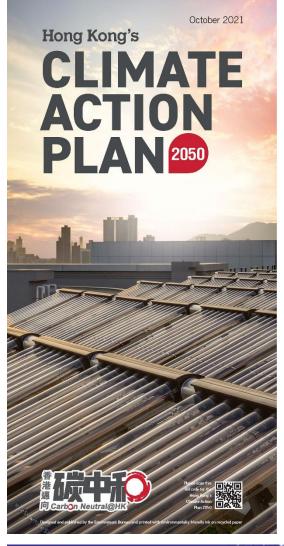
New Trend
Net Zero & Carbon Neutrality
Cop 15 & Cop 26



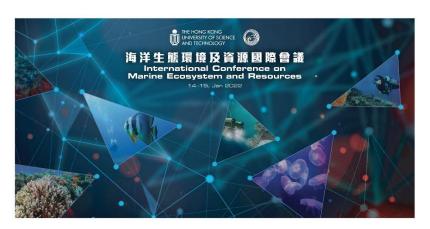


Yara Birkeland, Oslo - The world's first fully electric and soon to be autonomous container vessel

Source: https://www.yara.com/corporate-releases/yara-to-start-operating-the-worlds-first-fully-emission-free-container-ship/



Local SMEs may consider the model of "Industry-University-Research" Cooperation





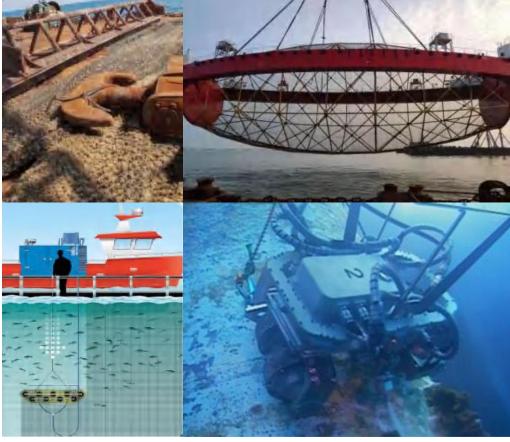


2020年联合国生物多样性大会 2020 UN BIODIVERSITY CONFERENCE

生态文明:共建地球生命共同体

Ecological Civilization: Building a Shared Future for All Life on Earth









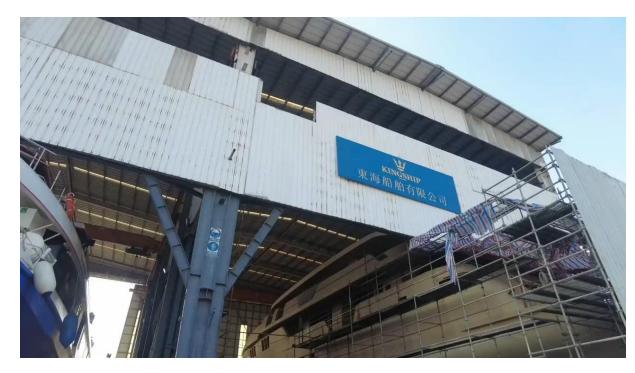


SeaSafe®: a Good Model for "Industry-University-Research" Cooperation

Original Marine Research Discovery

• Research and Development

- Industry Commercialization
- Broad Application to Maritime Industry, such as Maritime Logistics, Aquaculture, and etc.





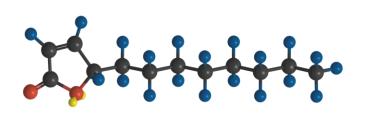








Green Antifouling Coating SeaSafe®



Novel **Technology**

Laboratory Output



Products Benefit to Maritime Industry

Green Antifouling Coating

Addressed Challenges

Huge Market





Biofouling and Corrosion







Marine Environment



Corrosion

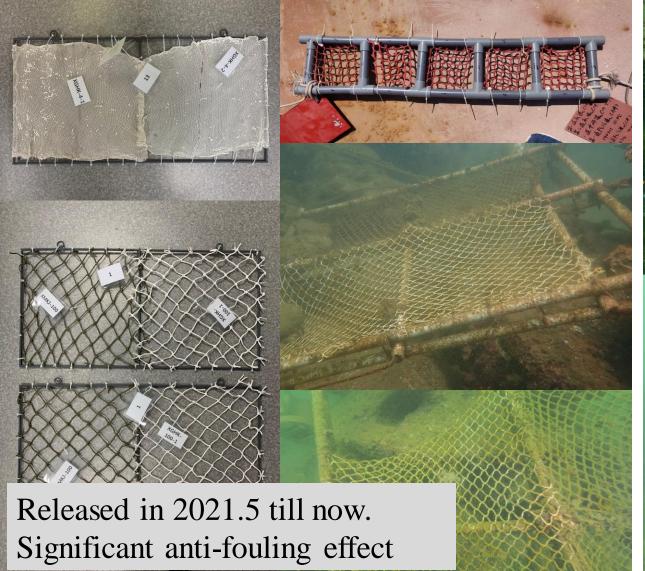
Macrofouling (Attachment of Marine Benthos)







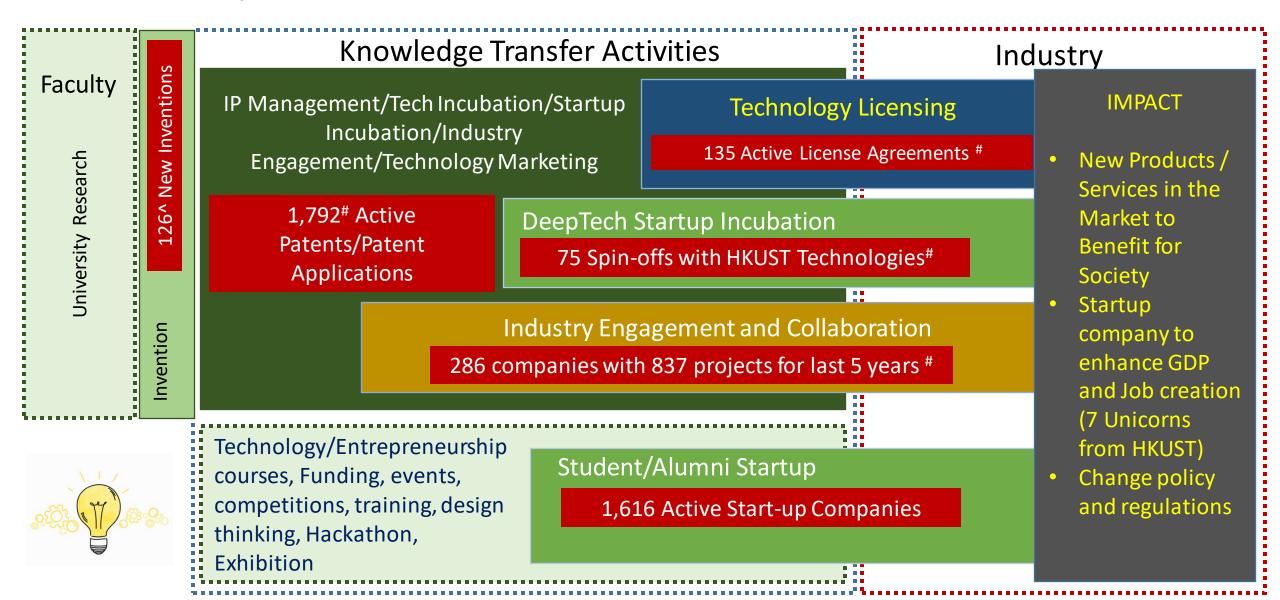
Field Test on Fish Net



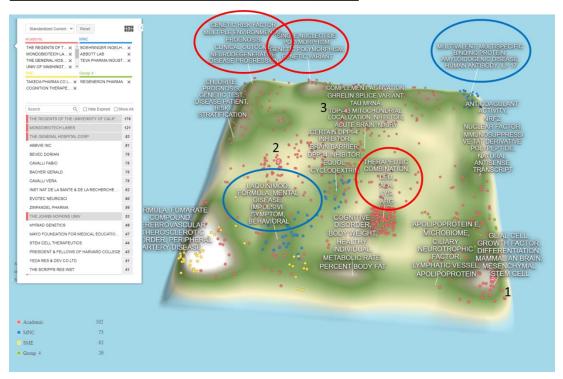
Field Test on Underwater Equipment



Idea to Impact in HKUST



Patent Landscape Analysis



Industry Engagement







ALECTOR





















To learn and understand strategy and current efforts of competitors

To accelerate R&D by identifying potential solutions in patent information.

IP Landscape

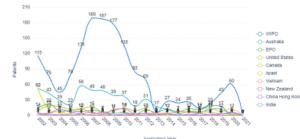
innovate better

To take decisions pertaining to in/out licensing opportunities.

Industry Landscape Analysis

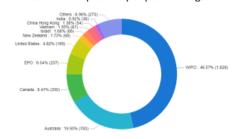
-O- Great Britain - WPO

Application Trend in Countries of Origin

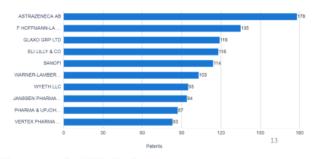


Application Trend in Top Countries

Australia is top country of patent filings



Top Assignees (active patents)

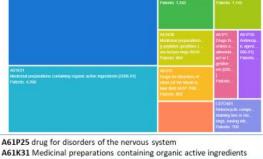


Cell Diagram (pharmaceutical composition is top keyword)



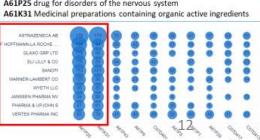








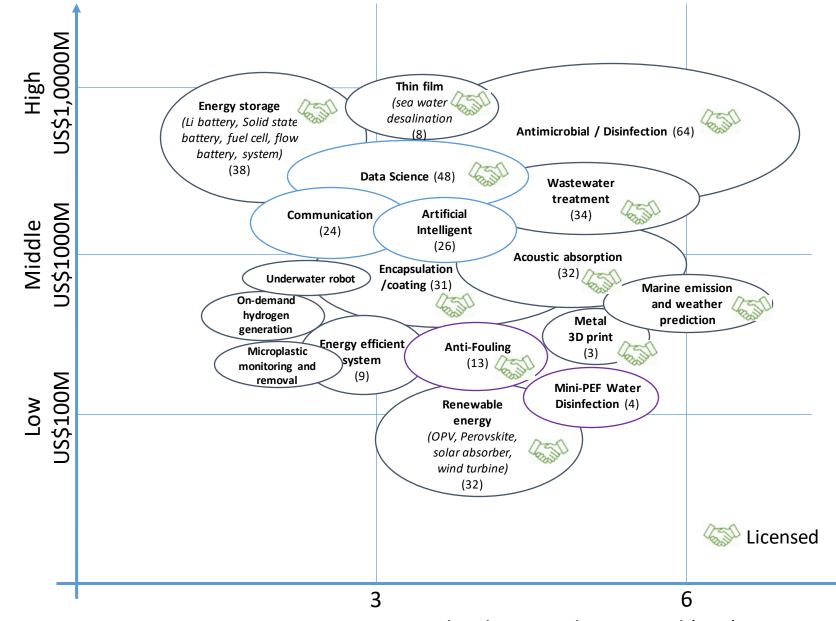








Technologies Portfolio in HKUST related to Marine Economy



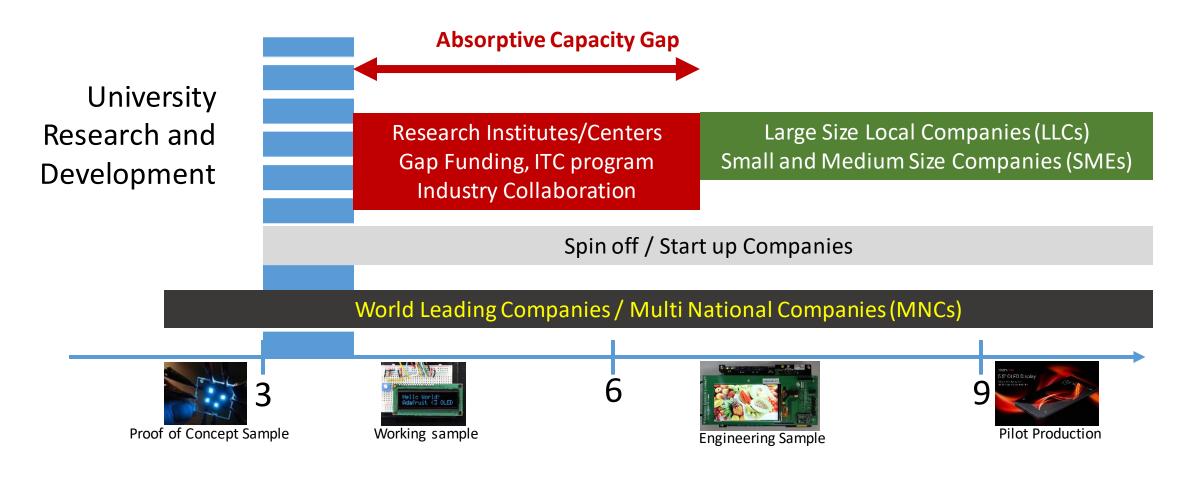
(Annual Addressable Market)

Commercial potential

*AI and big data technology are enabling technologies to facilitate technology development

Engagement Strategy: Bridge the Gap in Absorptive Capacity

Absorptive Capacity: a firm's ability to recognize the value of new idea/technology/information, assimilate it, and apply it to commercial ends ^



Various Industry Engagement

Joint Labs





CHIAPHUA INDUSTRIES LIMITED 捷和實業有限公司

















Joint Research Institutes















HKUST Collaborative Innovation Center in Collaboration with BICI

- Total 47 projects approved with HK\$96M by 2021
- Key areas: construction robotics, advanced materials, IoT, Fintech and Healthcare
- Student internship opportunities with industry partners

Project based collaboration

- Contract Research
- Sponsored Research

Service and Consulting Projects

Joint Application to ITF Funding

ITSP, PRP, PSTS

Industry Contract Research

- HKUST conducted <u>837 Projects with 286 companies</u> for last 5 years
- It enhanced University's research relevance with Industry and contributed companies' product development

7 Unicorns with HKUST DNA



Mr Frank Wang, Founder, CEO and CTO

Master of Philosophy,
Electronic and
Computer
Engineering





Mr Tat Lee, Chief Executive and Executive Director

Bachelor of Engineering, Computer Science



SMARTSENS

Dr Chen Xu, Founder, Chief Executive Officer

> PhD, Mphil, Electronic Engineering



⊘ GOOGOLTECH

Chairman and Cofounder



Professor Zexiang Li Department of Electronic and Computer Engineering





Professor Qiang Yang, Co-founder

> Chair Professor at Department of Computer Science and Engineering



SmartMore

Professor Jiaya Jia, Founder and Chairman

Doctor of Philosophy, Computer Vision



HKUST BLUE Start-ups



AlGreen aims to produce renewable and sustainable biofuels derived from algae to serve the Shipping & Aviation Industry through genetically engineered algae with high oil contents & develop new and efficient extraction and chemical processing protocols.

2 HKUST LIFS Alumni Founder: Dhruy JAIM & Rehaan LULLA

Faculty Advisor: Prof. Karl Tsim 2022 1M Finalist HKSTP Incubation



ePropulsion is a provider of sustainable marine products such as electric outboard motors, water sports equipment and underwater drones. Charting a greener future for the boating community worldwide.

HKUST ECE Alumnus Founder: Danny TAO

Product in market with 200% sales growth in 2021

https://www.epropulsion.com





Zhuhai Yunzhou Intelligence
Technology Ltd. manufactures and
markets unmanned surface vehicles
(USV) for smart water management,
marine engineering, public safety and
water quality monitoring.

HKUST MECH Alumni Founder: Yunfei ZHANG

2011 1M Finalist
Product in market selling to 40+
countries & regions
http://www.yunzhou-tech.com

"Industry-University-Research" Cooperation



material/event (or by members of the project team) do not reflect the views of the Government of the Hong Kong Special Administrative Region, the Innovation and Technology Commission or the Vetting Committee of the

- Team up
- Market needs
- Novel technology
- Government funding











Administrative Region, the Innovation and Technology Commission or the Vetting Committee of the General Support Progr the Innovation and Technology Fund.







