MarineHack 2025

Unlocking Innovation for a Sustainable Maritime Future

Organized By:

PiNC

UMS
UNIVERSITI MALAYSIA SABAH

Supporting Organization:

KEMENTERIAN DIGITAL
NATIONAL AI OFFICE

ESG Association of Malaysia
ESGAM®

PIKOM

SME MALAYSIA

Sponsors:

aws

exabytes

GreenFinder Going Forward

EDM Global Tech

BLACKSMITH

Objectives of the Hackathon

Our inspiration

Align innovation with the **United Nations 17 Sustainable Development Goals (SDG)**, focusing on maritime business.

The goal

Encourage students from around Malaysia to create **innovative, sustainable, and commercially viable solutions** for maritime challenges.

Hackathon Theme:

“Navigating Tomorrow: Smart Solutions for a Sustainable Maritime Industry”

Why Maritime Business?

Critical roles in achieving UN SDG 14 and SDG 9

40%

of Malaysia's GDP contributed by Maritime Industry

$5.61b

2032 projected value of maritime software market, increasing from $2.25b in 2024

Source: Polaris Market Research Report, 2024-2032

Prizes and Recognition

1st

RM 10,000 + opportunity to **pilot** the solution with **PinC Technology** (6 months)

2nd

RM 7,500 + **mentorship** from industry leaders

3rd

RM 5,000 + access to **innovation workshop** (up to RM1,000)

Special Awards:

- Most Sustainable Solutions
- Best Technical Implementation

Hackathon Framework

Over **4 months**, groups will have the chance to **propose, refine and test out potential ideas** and projects. Technology solutions can include anything from **AI to IoT**.

Who can participate?

- University students from around Malaysia
  - Specifically targeting computing and business students
- Team of 3-5 members which may include a lecturer as a mentor if groups should choose

Focus areas

1. Route Optimization:

- Build AI-powered tools to optimize vessel routes, reducing fuel consumption and emissions while ensuring user-friendly navigation.

2. Marine Pollution Detection:

- Develop data-driven tools to detect and report marine pollution, using Big Data Analytics for real-time monitoring and response.

3. Safety & Efficiency Solutions:

- Design affordable IoT-based solutions to enhance safety and efficiency for small vessels and ports through real-time monitoring and automation.

Deliverables

1. Conceptual prototype or basic digital model (app mockups, sensor prototypes, dashboards)
2. Simplified business model showing real-world impact and feasibility

Hackathon Framework (Cont..)

Stage 1: Initiation

Date: 1st – 14th July 2025
Duration: 2 weeks
Mode: Online

Groups are to form; brainstorm and submit potential ideas and projects they are interested in developing within the competition guidelines.

Stage 2: Quarter Finals

Date: 1st – 31st August 2025
Duration: 1 month
Mode: Online

Actual development of the projects commences after their ideas have been accepted. Groups will have one month to build a preliminary product for judging into the semi-finals.

Stage 3: Semi-Finals

Date: 15th September – 15th October 2025
Duration: 1 month
Mode: Online

After the 2nd judging and feedback session, those who continue into the finals will be given one more month to refine their projects and resume building their project.

Stage 4: Final Pitches

Date: 15th & 16th November 2025
Duration: Full Day Event
Mode: In-person at UMS, Labuan Campus

Finalists are to present their projects to the judges for evaluation. Audience members, which will include students, other participants, industry members and staff will be able to vote for an audience choice award.

Key Activities

Pre-Hackathon Workshop:

- Introduction to maritime challenges
- Expert talks on SDGs, maritime innovation, and applications of AI, IoT, and Big Data resources needed to complete the project

Finals:

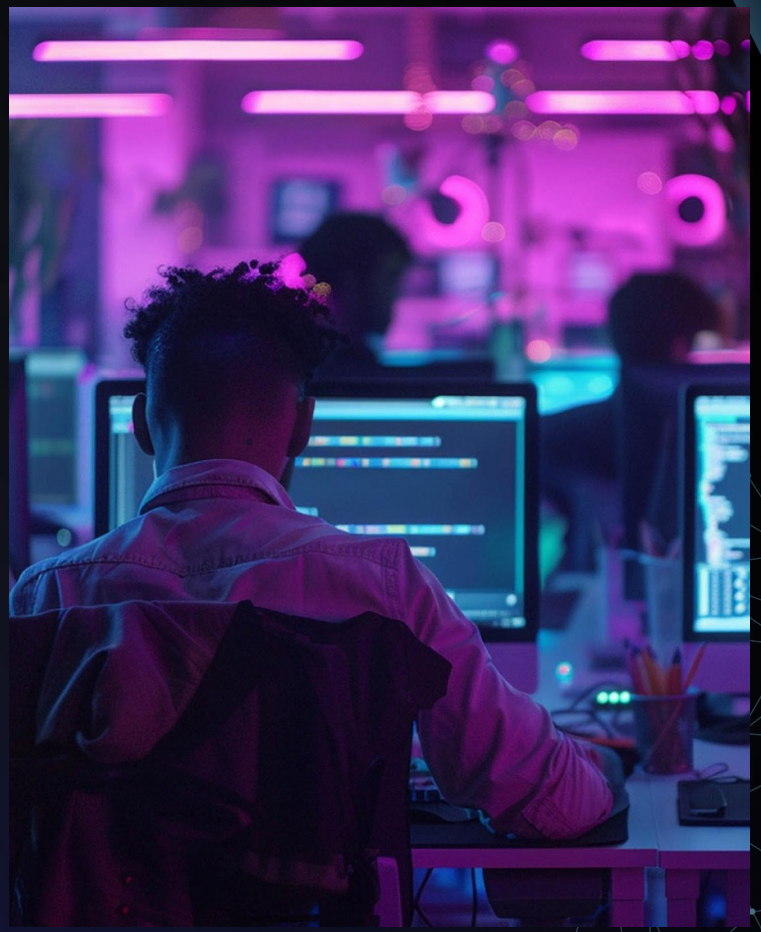
- In-person final pitches to the judges and showcase of what they've achieved within the hackathon
- Sponsors exhibition to engage and network with participants

Hackathon Duration:

- 4 months for solution development

Judging Criteria:

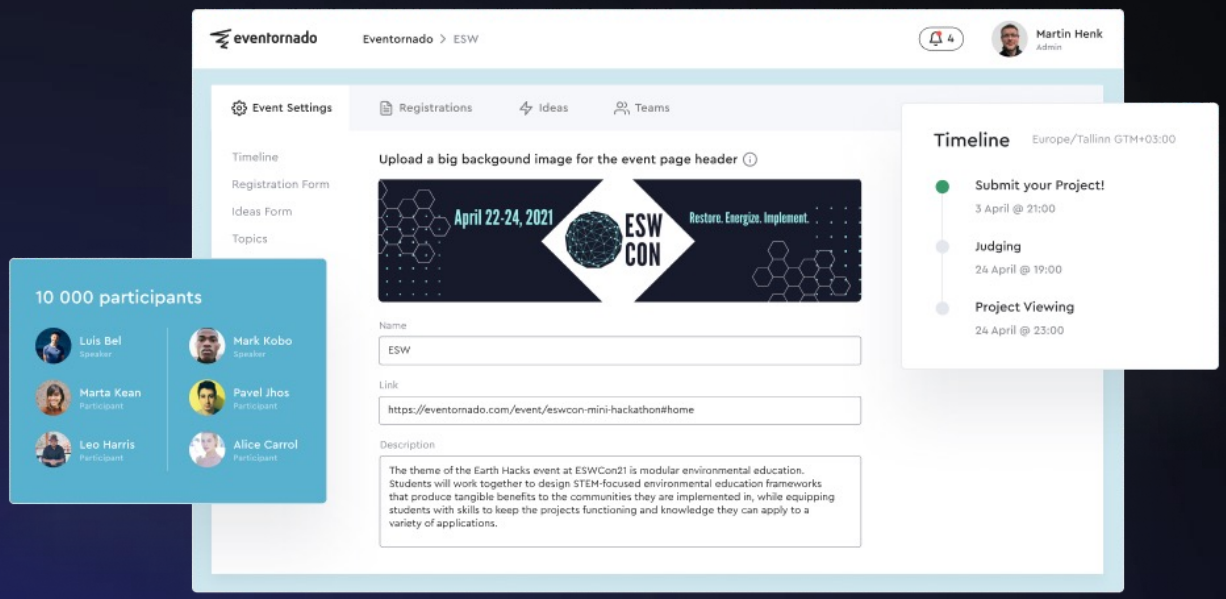
1. **Innovation:** Originality and creativity
2. **Sustainability Impact:** Alignment with SDGs
3. **Feasibility:** Technical viability
4. **Commercial Potential:** Market readiness and scalability



Key Milestones

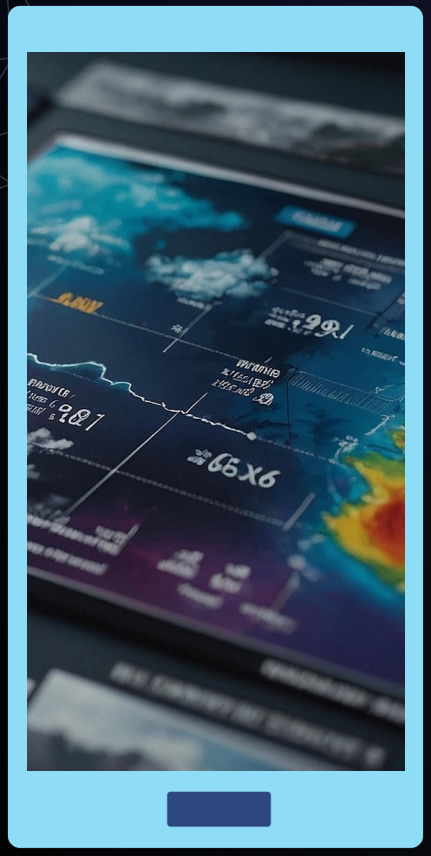
21 May 2025	• Official Launch of MarineHack 2025 • Open for registration
23 June 2025	• Pre-Hackathon Workshop
1 July – 14 July 2025	• Stage 1: Initiation (online) • Online submission of ideas
1 August – 31 August 2025	• Stage 2: Quarter Finals (online)
15 September – 15 October 2025	• Stage 3: Semi Finals (online)
15 November – 16 November 2025	• Stage 4: Final Pitches (in person) • Award Ceremony
January – February 2026	• Post Hackathon Incubation Program

Hackathon Platform



eventornado

- **EventTornado** is a **proven platform** that allows us to run Online and Offline Hackathon event.
- **Single platform** to manage event, registration, team activities, marketing, hackathon submission and evaluation.
- **Compliance** with General Data Protection Regulation (GDPR).



Expected Outcome

1. **Innovation Foundry:** Innovative solutions addressing key maritime challenges through AI, IoT and Big Data Analytics
2. **Talent Development:** Empower participants with practical skills in cutting-edge technologies
3. **Student Marketability:** Showcase students capabilities to potential employers and industry stakeholders, boosting career opportunities

Thanks!

Do you have any questions?

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Take local, make global.