G+ Global Offshore Wind Health & Safety Organisation

Internationalisation - Taiwan

G+ GLOBAL OFFSHORE WIND HEALTH & SAFETY ORGANISATION 5TH STAKEHOLDER FORUM

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www.gplusoffshorewind.com

In partnership with the

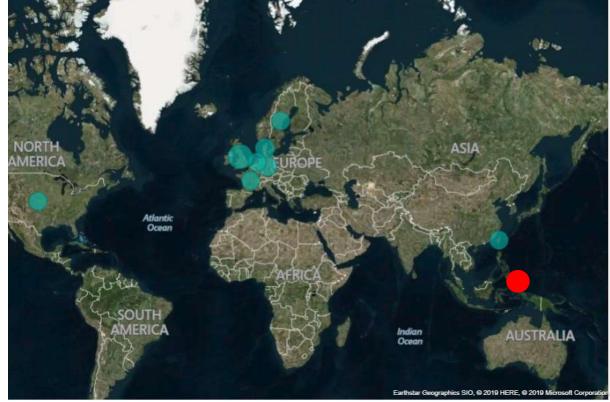




The primary aim of the G+ is to create and deliver world class H&S performance across all activities in the offshore wind industry.

Historically the focus has been on Northern Europe, however as a result of the developing global nature of the offshore wind industry and G+ member's interests in other countries, there is a desire to make the G+ more international and expand beyond its current areas of influence and activity.

But this is NOT about a one size fits all solution, pushing NWE solutions into a different environment



Global distribution of G+ 2018 H&S incident data

G+ Internationalisation

G+ Global Offshore Wind Health & Safety Organisation

Why?

- Majority of Members have international development programs
- Lack of international regulation and experience in the sector
- Greater opportunity for the harmonisation of H&S design and operating practices
- The offshore wind industry utilises a global supply chain; therefore, it is imperative that H&S guidance is not limited by country boundaries.

Aims

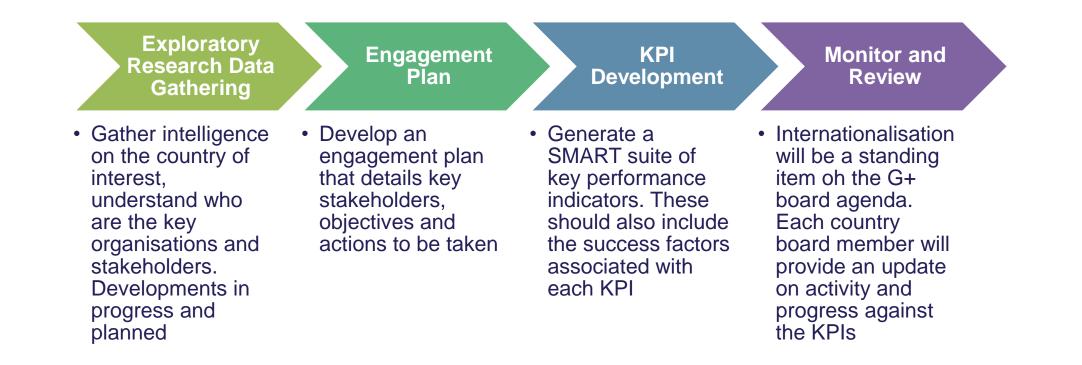
- To minimise confusion and contradiction in standards and practices across the global industry
- To reduce risk and the frequency of H&S related incidents.
- To avoid duplication of effort in developing similar guidelines and avoid the potential risks and costs arising from conflicting requirements being applied in different jurisdictions

Progress so far

- Business plan sets out the strategy and roadmap
- Target Countries have been selected
- Board member country leads have been established

G+ Internationalisation

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HSE Director Soeren Baek March 2019





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General challenges

- Different culture
 - Problems are approached in a meeting in a different way. Western style is much more direct.

It is a new Industry, with a lot of different expectations
 Expectation of a big local industry due to offshore



Localization requirements demand developers to use inexperienced suppliers
 The challenge of developing a local supplier base

General challenges

- No offshore experience in Taiwan (i.e. oil and gas)
 How is existing legislation used offshore
- Developer HSE forum, so that we all talk as one

 CIP, Ørsted, WPD, CSC, Swancor, Northland Power, Macquarie, TaiPower
 We approach the stakeholder with one voice





 Challenges due to Taiwan and China don't recognize each other. A vessel build in China is not allowed in Taiwan. Large part of installation vessels are built in China

Government

- Taiwan government requested the National Marine University to develop an HSE guideline for offshore wind
 All developer have given input
- The split of responsibility in the Government is not always clear
 Marine Port Bureau was coming with HSE requirements
- International training is not recognized, local only available in Mandarin —Electrician, crane operator, HSE
- Legislation in Mandarin, only some are translated and not in a way that can be trusted
 - -The use of the words "Shall and must" is not always correct





Government

- The local fishermen, want to work on the projects, as guard vessel. A need to providing them with HSE training
 - -They have never used and worked with HSE
 - -The vessel standard is low
- Rescue helicopter on site is our responsibility
 - -We have to provide a helicopter that can do rescue between the turbines
- Tug boat on stand by, has to be a developer responsibility

 If a "dead vessel" is drifting towards a turbine ,
 it is our responsibility to move it away







Contractor & supplier

- No offshore experience in Taiwan (i.e. oil and gas)
- Different understanding of HSE with local contractors
 - -HSE is sometimes a desktop thing, not implemented on site
- Localization requirements demand developers to use inexperienced suppliers
- Local content in the supplier pool, requires a lot of new Joint Ventures where a Local and an experienced are joining up

Contractor & supplier

- Training center: nothing was existing in TW and needed to be setup.
 There are center being build
- Medical support: no hospital can currently do it, including step test
 –GWO medical is currently being provided with medical facilities
- PPE: local sourcing (The standard offshore PPE is currently not available, import is difficult)



Next steps

 Training, dialog with local about recognizing European training —Electrician

-Crane operator

- Work hours regulation. The TW require 1 day off per week.
- Different forums approaching government coordination needed
 - -Developers, have already built relationship
 - -ECCT (European Chamber of Commerce Taiwan)

-G+

