



Stakeholder Forum 2021

Core event: Wednesday 3rd March 10:00-13:30 (UTC)

North America regional event: Wednesday 3rd March 10:30-11:30 (UTC – 05:00)

APAC regional event: Thursday 4th March 15:30– 17:00 (UTC +08:00)

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Executive summary

The G+ Stakeholder Forum is an opportunity to present the work done by the G+ and key deliverables to industry and to receive feedback from industry. The Forum also provides a further opportunity for the G+ to engage outside its members. 2021 was the first Stakeholder Forum the G+ held virtually. It was followed by separate regional events for the APAC and North American regions. A total of 297 attendees participated in the event.

The main event consisted of three parts: a summary of the G+'s work, group discussions, and a panel session. The group discussions focused on CTVs, manual handling, and work under suspended loads/lifting. Several common themes on required improvements in those areas emerged during the discussions, these were: improving training, developing communication with personnel, and the importance of improving work planning.

In both the APAC and North America regions, participants were interested in how the G+ worked with local regulatory bodies and organisations, and how to train the local workforce.

The key learnings for future events, extracted from received feedback, were to lengthen group discussion times, reduce the panel sessions, present how the G+ utilises its incident data, and outline the main arguments that underpin the decisions of the work the G+ undertakes.

1. Introduction

The purpose of the G+ Stakeholder Forum is for G+ members to present work in progress and key deliverables to the industry. These include the [incident data work programme](#), [G+ Safe by Design initiative](#), implementation of the [G+ good practice guidelines](#), and sharing learnings from incidents via [Toolbox](#).

The Stakeholder Forum also allows the G+ to receive feedback and direction from the offshore wind farm industry. It is an opportunity for the G+ to engage outside of its membership and for all interested parties to be involved in shaping the direction of health and safety in offshore wind.

G+ Stakeholder Forums are held annually and attended by representatives from G+ member companies, associates, and industry stakeholders. The event provides a platform for important discussions regarding health and safety in the offshore wind industry and include panel sessions with senior industry representatives.

2. Overview

297 attendees from the global offshore wind industry joined the G+ Stakeholder Forum.

The main event was opened by the G+ chair Tove Lunde, Head of Safety, Security and Sustainability for New Energy Solutions at Equinor. Kate Harvey, G+ General Manager, and Beate Hildenbrand, G+ manager, presented the G+ work programme.

This was followed by the breakout sessions, in which attendees were split into six breakout groups, where they discussed four different topics:

1. CTV operations
2. Manual handling
3. Work under suspended loads/ lifting
4. Onshore civil works

The breakout groups discussed key issues and current improvements in the four topics and delved into the further improvements in those four areas, with special emphasis on the role the G+ could play in implementing initiatives effectively. Results from the group discussions can be found in Section 3.

Breakout room discussions were followed by a panel discussion chaired by Jill Lees, Director of Health, Safety and Environment at RWE and G+ Board member. The panel session discussed four topics: improvement in worker involvement, new technologies, challenges for the G+ and implementation of good practice guidelines. The recording of the panel discussion can be found on the Whova Platform, [link](#).

Don Mackay, CTO at EDF-ER and G+ Board member, summarised the discussions that took place during the breakout sessions, to give all attendees a general overview of where the stakeholders saw the main improvements had already taken place, and especially highlight where further improvements within the industry were needed.

North America

The first-ever G+ Stakeholder Forum regional event was chaired by David LaBelle, Vice President – Environmental, Health, Safety & Wellness at Avangrid, and G+ North America

chair. He introduced the aims of the G+ in the US market, emphasising how the G+ is collaborating with regulatory bodies in the US and the priority topics for the G+ in the region, such as electrical safety (NFPA 70E), emergency/response and fire protection. A recording of the event can be found [here](#).

APAC

Nina Su, HSE manager for offshore APAC region at Siemens Gamesa, and G+ APAC chair introduced the G+ APAC Focal Group work to date. This work has been focused on engagement with regulators and associations at a local level. Similarly, the G+ APAC group has been working on sharing the experience of the G+ in the region via the translated G+ material. Future plans for the G+ in the region are to continue expanding in the region, as well as increase the collaborative work with local stakeholders. A recording of the event can be found [here](#).

3. Breakout room discussions main points

During the main event, attendees were separated into six groups to discuss four topics. The main outcomes of those discussions can be found below.

- a) What are the key issues?
- b) What has improved already?
- c) What further improvements could be made?
- d) How do we implement G+ initiatives?

The key issues identified within CTVs were:

- a. Relevance of CTV operations on further offshore wind farms
Suitability of CTVs and daughter crafts, and guidance on procurement
Emergency suit use dependent on temperature and RAMS
- b. G+ good practice guidance on emergency suits risk assessment based on air vs water temperature
ORE Catapult root map for decarbonisation on the offshore wind industry, on the relationships and needs of CTV and SOV
Helicopter use might increase as a cost-saving alternative for further offshore wind farms
- c. Manning levels of CTVs
CTV training improvements – speed of vessel, size, keeping training up to date
Further reviewing of security videos
Communication with vessel crew
Crew involvement
Shift length and fatigue
- d. Stronger stance on a common approach on emergency suit use
G+ small service vessel guidelines

The key issues of working under suspended loads (WUSL) and lifting discussed were:

- a. Design out working under loads where possible
Design any WUSL as safe as possible

- b. Working under suspended loads Safe by design (SafetyOn)
 - Use of cameras to eliminate WUSL
 - Buffer zones - Monitoring systems and alarms
 - Being strict with WUSL
- c. Camera systems to be used to avoid human intervention during liftings
 - Reaching workers at the sharp end
 - Smaller load operation activities need more vigilance
 - Involvement of operation teams during machinery selection process
 - Adapting lifting plants to tasks so technicians do not have to take risks improvising
 - Upgrade of legacy turbines
 - Synergies with SafetyOn to be explored.
- d. Continue discussion and developing solutions
 - Implementation of 'audits'

The key issues of manual handling were:

- a. Worker involvement – mechanisms to allow flow of information from workers to management
 - Accessing and working on certain areas lead to movements and postures that cause manual handling and ergonomic problems
 - Work planning – Improvements needed to avoid as much manual handling activities as possible
- b. Current work by the G+ and University of Portsmouth on physical and fitness standards
 - Site-specific examples of good practice
 - Product innovation – such as kit bags and exo-skeleton
- c. Use of technology to alert workers on their postures
 - Design out manual handling where possible
 - Not everyone takes the GWO training seriously
 - Training could be made more relevant by recreating offshore wind conditions
 - Workers need opportunities to openly feedback on issues
 - Reduce lifting of loads - includes personnel personal bags
 - Workshops on manual handling similar to G+ Safe by Design
 - Embed safety into design risk process - ergonomics and associated risks
 - Access to areas that need maintaining / replacing
- d. Disseminate best practices and technological and scientific advances on manual handling

None of the breakout groups discussed **the key issues of onshore civils works.**

4. Feedback from event and Q&A

Due to time restrictions during the event, not all the questions that were posed by attendees could be answered live. However, the G+ is committed to responding to unanswered questions. All the questions submitted during the event have been reviewed, grouped into themes and answered below.

Design challenges

- How do G+ members collaborate on developing and/or implementing new technologies and on digitalisation initiatives to prevent incidents?
 - o The G+ Focal Groups are continually assessing new ways of working. With incident data, we introduced Power BI and are now investigating machine learning and what that might look like for the G+. With regards to new technologies, the G+ does try and include one workstream each year that is something new for offshore wind, for instance, increased helicopter operations and floating wind. The G+ also welcomes suggestions from industry and asks that these are sent to gplus@energyinst.org.

Incident data

- Does data analysis establish root causes of incidents as this is key to creating the right interventions and improvement actions?
 - o All of the G+ data is available on the G+ website <https://www.gplusoffshorewind.com/work-programme/statistics>.

Whilst publishing this data doesn't reveal the root causes, it does show common themes. Root cause analysis and learnings from incidents can be found in the Toolbox platform, where there is a dedicated section for wind power incidents <https://toolbox.energyinst.org/>.

- Why does the G+ consider that incident statistics are a measure of safety performance?
 - o Safety statistics provide an overview of where and why incidents occur. The G+ utilises a quantitative approach (number of incidents and their classification), as well as a qualitative approach (incident descriptions). By combining these two, we can analyse incidents, allowing the G+ to take action where needed. Using safety statistics as a comparable metric to assess safety performance, in combination with the G+ broad range of expertise on H&S, the G+ and its members can reasonably measure safety performance. The G+ acknowledges that the data doesn't provide all the answers, but it does give an insight into how the industry has performed and allow common themes to be found.
- Has consideration been given to an aligned industry ALARP methodology?
 - o The G+ good practice guidelines, as well as the G+ safe by design workshops, are intended to be used to improve health and safety standards within the industry. These two pillars of the G+ work, provide the industry with standardisation opportunities in design and how to undertake different aspects of work. This includes the consideration of the ALARP principle. However, implementation of the G+ work is not mandatory and is therefore left to the industry players to make the final decisions on their working practices.

To facilitate the use of the G+ work within offshore wind sites, the G+ has developed self-assessment forms, to allow interested parties to measure their H&S practices against the guidelines developed by the G+, hence aiding the industry to align to the G+ standards.

Future of G+

- How can G+ grow and evolve in Europe?
 - o The G+ started in the UK and has then developed across Europe, Asia and more recently North America. It has been a gradual process and the more material that is produced by the G+, the more useful the work becomes. It is anticipated that further growth in Europe will occur by continuing to translate good practice guidance, increasing the information on Toolbox, new members or current members expanding, links with other associations and by word of mouth within industry.
- Does the G+ plan to expand to other markets/countries?
 - o The G+ is currently present in Europe, APAC, and North America. While we are developing within the APAC and North American regions, the G+ is currently analysing the best strategies to further integrate its activities within the countries that compose those two exciting new regions.
- Have you considered inviting Tier 1 Installation Contractors to full membership? Any guidance on getting smaller operators onboard who are unfamiliar with G+?
 - o This has been considered as we are always keen to work closely with installation contractors as we believe it leads to a safer industry. Having the current G+ members and associates leads to around 20 people in a Focal Group meeting. We feel that any more than this is not workable. We have instead built relationships with other organisations that represent groups in the sector and liaise with those parts of the industry in that fashion, for example, IMCA and the Workboat Association. We also hold events that are open to all and all the work we produce is freely available. The G+ will continue to review this way of working and see if changes can and should be made.

Future topics for G+

- Are there any future projects in the G+ work programme specifically targeted at floating offshore windfarms?
 - o Yes, we have a workstream for 2021 that is on floating offshore wind farms. Please get in touch for further details.
- Does G+ cover commercial diving, ROV operations in their suite of guidance documents?
 - o Current G+ work has not yet covered diving and ROV operations. We believe that IMCA are strong in these areas and we therefore seek their support and utilise their guidance on these topics.

Grow G+ in the APAC region

- How can G+ grow in the APAC in the region?
 - o We think further growth in the region will take time. Owners/Operators need to get familiar with G+ and see its benefits and relationships need to be built with regulators and other associations. We are pleased with the progress that has been made to date and think that will only increase over time.
- What are the most directly transferrable skills and what are the main areas where differentiation will be key to succeed?
 - o Being aware of the synergies in operations, the G+ can help the APAC region to learn from the work done in Europe, as well as enable the use of existing good practice guidance. To succeed in the APAC region, the G+ and its members will continue working together with local regulators and contractors to establish safe systems of work that can be followed by the local workforce.
- Has the G+ APAC initiated contacts with regulators in other countries like South Korean, Vietnam, Japan?
 - o The G+ engagement in the APAC region originally started in Taiwan. However, with offshore wind activities expanding through Japan, South Korea, Vietnam and Australia, the G+ is initiating contacts with regulators in those areas.

- Would the G+ Focal Group be willing to engage and share experiences with IMCA Asia Pacific Committee?
 - o The G+ closely collaborates with IMCA via the industry collaboration committee on a range of topics. Safety benefits us all, consequently, the G+ is open to continuing sharing experiences with IMCA and other partner organisations globally.

Training and guidelines

- Will Oil and Gas BOSIET training be recognised on renewable projects?
 - o It is a company decision which training they apply as long as it fulfils the requirements. G+ requests transparency and standardisation within all offshore wind training to maintain and increase health and standards.
- Any comment on training standards and harmonisation with new OPITO Renewables standards and GWO?
 - o As above.
- How many of the IOGP Guidelines get used as a baseline to assist with G+ guidelines and development?
 - o The G+ considers any relevant guidance that is available when developing new G+ guidelines to ensure that duplication is avoided and potential for collaboration, also with other sectors, is maximised with the overall goal to make the offshore wind industry safer.

Key learnings from feedback survey

Attendees to the three events were provided with a feedback survey. After carefully reviewing the received feedback, two clear areas emerged. Attendees would enjoy longer breakout sessions. Given the interesting discussions that emerged during the breakout groups, there is a clear mandate from attendees to extend the time used for this section of the event. The second main area that emerged from the received feedback was that attendees would like the G+ to further express the links between the G+ workstreams and the dataset.

Given these two lines of feedback, the G+ will extend the discussion times during the breakout room sessions in future events. Furthermore, the work done by the G+ will be contextualised utilising our incident data as well as the main arguments that have driven the decisions to undertake our work.

5. Reception and networking session

A reception session was held prior to the event. Attendees had an open discussion on topics related to offshore wind and the work done by the G+.

During the **core event reception session**, participants were interested in discussing how the G+ could help to further improve lifting and rigging operations, better understand the use of data by the G+, how the industry could further harmonise procedures, as well as how to consider behaviour in safety, and worker engagement.

The G+ dataset had revealed that further work was needed to continue improving lifting operations. After consulting with its members in 2020, the G+ commenced with the development of a workshop that can be delivered on-site to impact safety culture and behaviour during lifting. The workshop is expected to launch in 2021.

In terms of worker engagement, the focus was on how to remotely engage workers and vessel crew. COVID-19 has imposed restrictions on standardised management approaches, which has impacted staff working offshore. Consulting with the wider offshore wind industry, the G+ is currently working on several areas to address worker engagement, shore-based management, and behaviour onboard CTVs. The expected outcomes of this workstream will be available by Q4 2021.

During the **North American regional reception session**, attendees expressed their interest in the topic of staff recruitment in the region, considering that the sector is in its early stages. Given the number of layoffs in the oil and gas industry, many saw an opportunity to retrain the workforce with offshore experience. North American stakeholders were also interested in the development of American governance structures in the offshore wind industry. There was an agreement among participants that a bespoke sector structure had to be developed rather than extending the oil and gas governance structures to the wind industry.

In the **APAC region session**, attendees were interested in the G+ efforts to closely work with local regulators to help the industry develop and align safety requirements, being appreciative of the expertise and guidance the G+ brings. A topic that aligns with their American counterparts, is the need for further training the local workforce to work safely within the offshore wind industry.