

# 5<sup>TH</sup> STAKEHOLDER FORUM Work Program Summary



G+ GLOBAL OFFSHORE WIND HEALTH & SAFETY  
ORGANISATION 5<sup>TH</sup> STAKEHOLDER FORUM

06 March 2019

Tony Lyon, G+ Deputy Chairman

[www.gplusoffshorewind.com](http://www.gplusoffshorewind.com)

In partnership with the



# What does G+ produce?



## Incident data reports

- Understanding of offshore wind industry risk profile
- Evidence base to inform interventions
- Accurate assessment of industry H&S performance
- Tool for comparison of H&S performance against other comparable industries



## Good practice guidelines

- Recommendations for procedures, controls, ways of working at offshore wind farms
- Minimum standard expected for meeting industry H&S expectations
- G+ members self check compliance against content of GPGs
- Referenced in site and company corporate documents



## Safe by Design workshops / reports

- Examine the current design controls relating to the topic, discuss where current design has potentially failed, and identify potential opportunities for improvement
- Outputs published and used as a reference by the industry
- Act as a catalyst for further discussion and research within the industry

# Who does all the work?



## Focal Group Members – 2019

Secretariat:  *energy institute* Director: Martin Maeso General Manager: Kate Harvey Technical Manager: Beate Hildenbrand Technical Officer: Arturo Andersen Chinbuah



**HSE Focal Group**

Michelle Ruane	Pablo Temiño	Rich Sykes	René Schade	Darren Tape	Marcus Peters	John Yorston	Hasse Andreasen	Garry Bradford
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**Associated Partners**

							
Alison Forrest	Fritz Wiedemann	Roland Gutbrod	Jesper Lykke Carstensen	Bruce Turner	Michael Hannibal	Lisa Mallon	From 2019

# How do we decide what's needs doing?

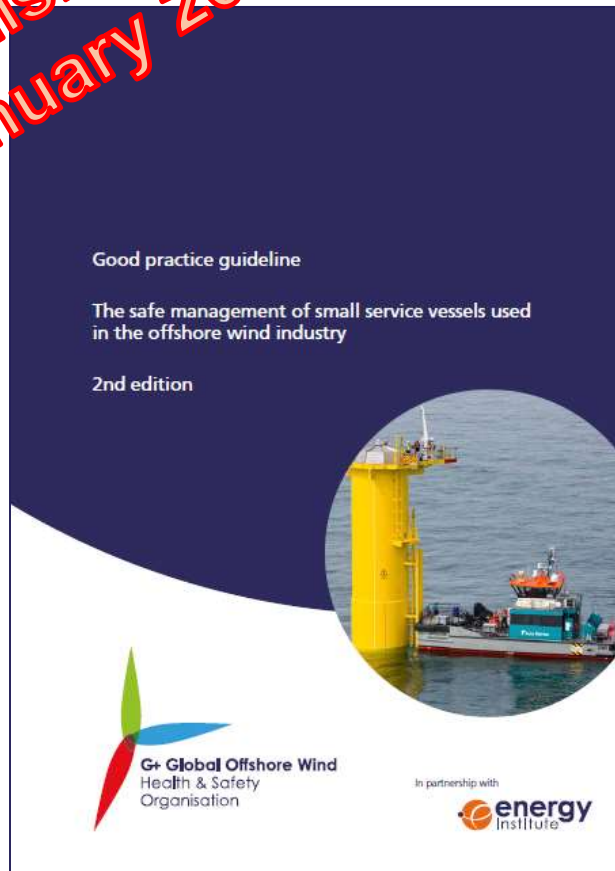
## Business Planning cycle



# What have we done since the last Stakeholder Day



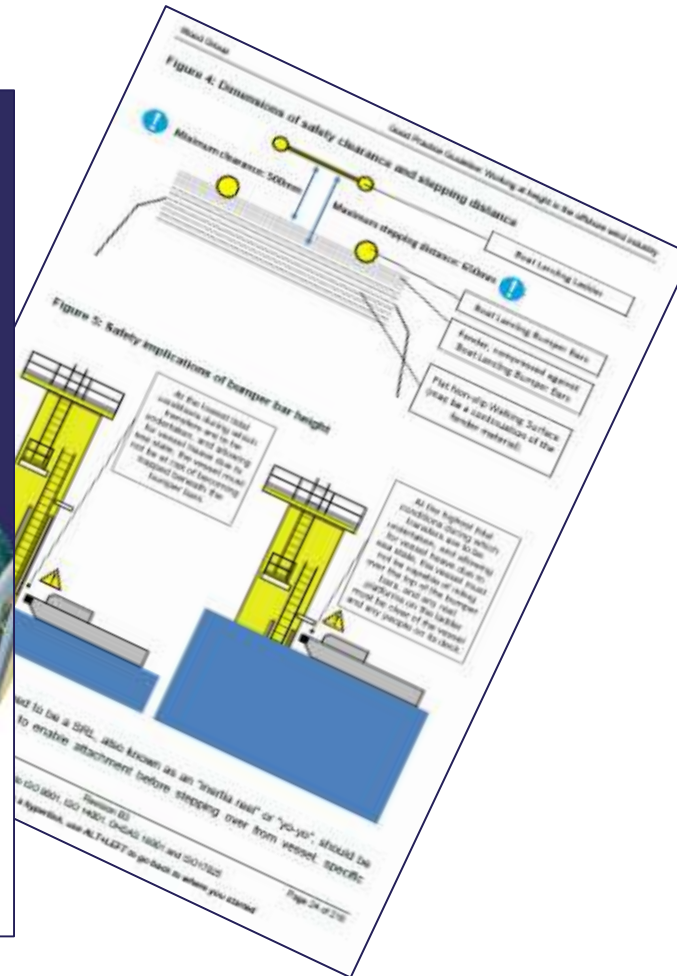
Published in  
January 2018



- Development overseen by G+ working group (including NWA representation)
- Utilised Energy Institute processes for guideline development / consensus building on new content
- 22 different organisations provided feedback during the consultation period
- ~200 comments required resolution to ensure all stakeholder feedback satisfactorily addressed
- G+ members balloted for approval to publish content in Q4 2017
- Launched at G+ event January 2018, available to download FOC from G+ website

# Good practice guidelines: working at height

Published in  
July 2018



- The revised edition also covers wider regulatory requirements, expanding its focus from EU countries to consider China, Japan, Taiwan and the USA.
- Launched at the Wind Europe 2018 conference in Hamburg, Germany



# G+ 2017 incident data report



**Published in  
September 2018**



- The G+ is committed to providing the industry with information that will improve health and safety performance. Since the formation of the G+, members have been providing HSE information and statistics for analysis and in order to share lessons learned.
- The data collected in 2017 has been analysed and presented in a report, which builds on the previous annual reports, allowing the industry as a whole to evaluate its performance through the publication of LTIF and TRIR benchmark metrics. A separate Annex B is available to download which lists the complete 2017 incident data.
- The report was launched at the Wind Europe 2018 conference in Hamburg, Germany

# Offshore wind leaders event report: Aims, action and industry commitment



Published in  
October 2018

Offshore wind leaders event report:  
Aims, action and industry commitment



- HSE and G+ hosted a review workshop in Bootle on 26 April 2018.
- The purpose of the event was to review progress against the specific leadership commitments that the G+ (G9, at that time) made at the Offshore Wind Leaders event in Bootle in November 2015.
- The report details the outcomes of the workshop.





# A detailed ergonomic assessment of ladder climbing

Published in  
November 2018

A detailed ergonomic assessment of ladder climbing: key risks (short- and long-term) to technicians in the offshore wind industry



- University of Portsmouth was contracted to provide a detailed ergonomics assessment, identifying the key risks to technicians (short- and long-term), associated with ladder climbing in the offshore wind industry.
- The report provides the outcomes from a review and analysis of existing literature on ladder climbing.
- It identifies the key risks to technicians and includes the results from an ergonomic assessment of ladder climbing and provides recommendations.
- It also provides recommendations for future work and research.

# G+ Safe by design workshop report: WTG access to the transition piece (below airtight deck)

Published in  
November 2018

G+ Safe by design

Workshop report: WTG access to the transition piece (below airtight deck)



in partnership with



2.2 Analysis and findings

A large number of activities, from construction to decommissioning, requiring personnel descending below the airtight deck were identified. Most of the activities fall under DAM, decommissioning, or maintenance. These activities are often performed by experienced workers, with a high level of knowledge and expertise. The activities are often performed in a confined space, with a high level of risk.

The list of activities split by life cycle phase is shown in Figure A1. It should be noted that Figure A1 does not reflect the likely frequency, duration or location (e.g. construction activities below the airtight deck on a yearly or low-yearly basis) of the activities.



Life Cycle Phase	Percentage
Construction	38%
Decommissioning	37%
Maintenance	25%

1. Identified activities split by life cycle phase

Reasoning for only two activities assigned against it due to very limited experience performing monopile decommissioning.

It identified very significantly. With the exception of the diving hazards, which is not airtight deck.

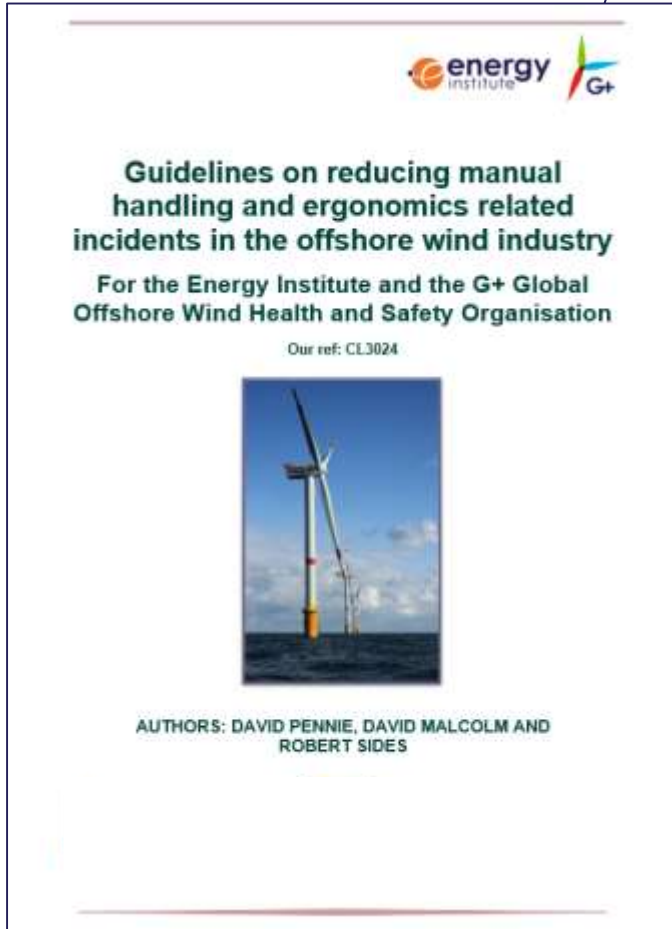
Most of activities performed is highly design-specific. As multiple different projects at various stages along their life were present at the workshop, it was difficult to place a specific frequency number to below the airtight deck in new designs (e.g. two-yearly in some cases) was workshop participants.

Design approach is perceived to be used in the industry, including in the design of the transition piece and decommissioning with at least one of the participants, which are not fully fit for purpose, and consequently result in an increase of potential H&S hazards. As highlighted by the workshop participants, it is often not optimally designed to facilitate access. They were possibly

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- This report presents the findings from the G+ Safe by Design workshop, which focused on the issues associated with access below the airtight deck in a Wind Turbine Generator (WTG). This included the design/infrastructure of the WTG and human factors.
- The workshop, comprising several data gathering and data analysis activities, and was held in Berlin
- The workshop format was developed to explore reasons for access below the airtight deck in monopiles and the associated hazards and issues, with a focus on the Safe by Design principles.

# Good practice guidelines: manual handling



- **Scenario based guidance provided for:**
  1. Preparation of items in the warehouse;
  2. Movement of items between warehouse and CTV loading area;
  3. Movement of items between CTV and Asset;
  4. Movement of items between TP and other areas of the Asset (e.g. Foundation, Nacelle, Yaw section & Hub);
  5. Working on an offshore Asset – Foundation, TP or Tower levels;
  6. Working on an offshore Asset – Yaw Deck;
  7. Working on an offshore Asset – Nacelle/Blade Hub;
  8. Construction Task – bolt insertion and torquing;
  9. Construction task – attaching the rigging for lifting.
- **Final version agreed**
- **Due for publication in Q2 2019**

## G+ ongoing and current work streams - Status Updates



- Workstream 1: Communication (Lead: EI Secretariat)
- Workstream 2 Immersion Suit Review (Lead: Ørsted & SGRE)
- Workstream 3 Physical and medical requirement for OW workforce (Lead: SSE & Eon)
- Workstream 4 Awareness of health and Well Being Issues (Lead: Innogy & EDF)
- Safe by Design workshops in March and November (tbc) 2019 (Lead: Eon)
- Internationalisation (Lead: EI Secretariat)



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