



EXPERIENCE **MATTERS**

**2016**

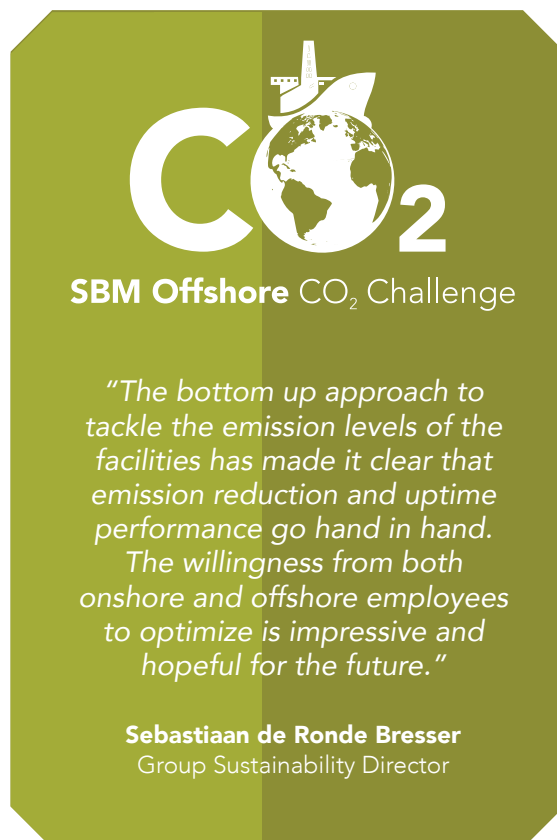
ANNUAL REPORT

## 2 STRATEGY AND PERFORMANCE

The next step is to reduce energy consumption offshore, which is being addressed as part of the Digitization project. By making energy generation and consumption on the units visible, implementation of energy efficient solutions will be facilitated.

### CO<sub>2</sub> Reduction extended to onshore

Following the success of the CO<sub>2</sub> Challenge, an onshore version was created, the CO<sub>2</sub> Office Challenge. It follows a similar concept, challenges the creativity and ingenuity of the staff to find innovative solutions on how to reduce emissions and waste in our offices and shorebases. Teams from around the world competed with each other and the best solutions will be shared and applied Company-wide.

The graphic features a green background with a white silhouette of an offshore oil rig. The rig is positioned over a globe, which is integrated into the letter 'O' of the 'CO<sub>2</sub>' text. Below the graphic, the text 'SBM Offshore CO<sub>2</sub> Challenge' is displayed. A quote is centered below that, followed by the name and title of Sebastiaan de Ronde Bresser.

**SBM Offshore CO<sub>2</sub> Challenge**

*"The bottom up approach to tackle the emission levels of the facilities has made it clear that emission reduction and uptime performance go hand in hand. The willingness from both onshore and offshore employees to optimize is impressive and hopeful for the future."*

**Sebastiaan de Ronde Bresser**  
Group Sustainability Director

## 2.6 OPERATIONAL EXCELLENCE

### MANAGEMENT APPROACH

Group Execution Functions are organized to support operational and assurance functions with the goal of achieving operational excellence in all areas of our business, in what SBM Offshore considers to be a 'Journey to Excellence' going forward.

SBM Offshore created a Group Operational Excellence department dedicated to the maintenance and continuous improvement of the Company's Global Enterprise Management System (GEMS) and the implementation and monitoring of key improvement initiatives notably to:

- Adopt best practice through the application of the ISRS™ (see section 2.6.2) and Process Safety Management frameworks
- Strengthen the Company's incident reporting and investigation methodologies and tools to expand the scope beyond the remits of Health & Safety and Assets Integrity activities
- Enhance existing Management of Change processes and provide more efficient functionality through provision of a globally accessible database
- Develop and deploy a revised lessons learnt process and application to ensure that lessons are embedded in our ways of working

For more information on Operational Governance, please refer to 3.9.1.

### 2016 PERFORMANCE

#### Key achievements

- Finalization of the transition of all 20 of the Executive, Core and Support processes into GEMS.
- Development of GEMS Role Assignment and Workflow tools to enhance user acceptance and improvement of efficiencies



- Support of existing strategic governance through implementation of an 'Operational Excellence Governance Model' to address business ownership, change control and investment decision making structures for GEMS processes, data-sets, information and applications
- Continuation of the deployment of the ISRS plan with all GEMS Process Owners and Business Owners
- Launch of the Incident Management Committee to increase assurance on the Incident Management Process
- Development of a revised life cycle Incident Management process and supporting tool
- Standardization of methodology and training of key personnel in robust Root Cause Analysis
- Development of revised Management of Change processes and tool for the 'Execute' life cycle phase

## FUTURE

The following objectives have been set for 2017:

- Deploy GEMS Role Assignment and Workflow tools
- Further integrate legacy Operations Management System documentation into GEMS
- Process Safety Management strategy and targets as highlighted in Section 2.6.1
- Continuation of the deployment of the ISRS plan with all GEMS Process Owners and Business Owners
- Continued development and deployment of the revised Management of Change processes and tools
- Develop and deliver an enhanced 'Lessons Learnt' tool to support a revised process
- Deployment of revised Incident Management and MoC tools developed in 2016

## 2.6.1 PROCESS SAFETY MANAGEMENT

### MANAGEMENT APPROACH

An important risk for the Company is fire and explosion associated with hydrocarbon releases and loss of structural integrity and stability. As such the Company has endorsed a Process Safety Management (PSM) framework and associated tools for implementation of a comprehensive PSM program based on a well-established industry standard 'Guidelines for Risk Based Process Safety' by the Centre for Chemical Process Safety (CCPS).

When applied throughout the lifecycle of SBM Offshore activities, the PSM framework has the potential to reduce the risk of catastrophic events, with the ultimate aim of minimizing these risks on all of its units worldwide. These priorities consist of a set of activities and practices that are being embedded in the SBM Offshore Global Enterprise Management System (GEMS) and the Group Technical Standards (GTS). They have been aligned with the Company International Sustainability Rating System™ (ISRS) improvement activities.

Any Loss of Primary Containment occurring offshore is reported and communicated to the relevant parties within the organization. Volume of LOPCs are systematically analyzed to verify if they meet the Process Safety Events thresholds of IOGP Report 456, Process Safety – Recommended Practice on Key Performance Indicators. Process Safety performance is analyzed and consolidated on a monthly basis and disclosed annually.<sup>15</sup> The results are compared to the previous years as well as benchmarked against the IOGP averages. The results are recorded and reported in accordance with the IOGP and API guidelines.

<sup>15</sup> SBM Offshore has been reporting its Loss of Primary Containment (LOPC) results since 2014.

## 2 STRATEGY AND PERFORMANCE

### 2016 PERFORMANCE

The following objectives were set in 2016:

- Reduce the frequency of Tier 1 and 2 Process Safety Events to align with IOGP industry average. This meant a target of 0.04 for the frequency of Tier 1 PSE and 0.12 for Tier 2 PSE normalized per 200,000 exposure hours offshore
- Cascade the new PSM program within the organization
- Continue development and drive implementation of PSM

### Key achievements

- Progress has been made on the implementation of identified PSM priorities, including process safety culture, risk analysis, process safety dossier<sup>16</sup>, management of change and incident investigation
- The PSM Training Program has continued to train defined functions across the organization and provide more in-depth focus on PSM requirements and implementation
- A sharepoint microsite was launched to share information with the PSM Community and all employees
- The dedicated PSM department has been strengthened in fleet Operations to ensure implementation of PSM activities in the Operations phase as well as cascading the message of the importance of PSM

### Key results

- A total of 297 Loss of Primary Containment incidents were recorded, of which 100 were oil and gas releases. In total, three were classified as Tier 1 Process Safety Events and 14 as Tier 2 Process Safety Events. Normalized per 200,000 exposure hours offshore, the Tier 1 PSE Frequency was 0.07 and Tier 2 PSE Frequency was 0.34. SBM Offshore has not been able to meet the targets. This result can be attributed

<sup>16</sup> The Process Safety Dossier is the name used at SBM Offshore for a document which contains or refers to process safety critical information. This document is a required part of internal processes implemented in 2016.

mainly to the start-up of three units in 2016, which if excluded, would demonstrate an improved performance over previous reporting years and closer to the IOGP benchmark.

- Since the introduction in 2014 of process safety reporting in line with industry standards, the Company has achieved its best ever performance for Tier 1 events (3 in 2016; 4 in 2015; 6 in 2014). Compared to 2015, the Company has seen a significant increase in the number of minor LOPCs reported. This increase demonstrates an effective reporting process and is a direct result of training, awareness campaigns and reminders on the topic.
- The majority of the liquid related Loss of Primary Containment incidents resulted in releases contained onboard.

### FUTURE

The following objectives have been set for 2017:

- Tier 1 and Tier 2 targets have been set using a bottom-up approach linked to Asset Integrity and monitoring programs, with a view to continuing to reduce LOPC events across all units.
- Specifically targets are set to reduce the frequency of Tier 1 and 2 Process Safety Events (PSE) compared to 2016 i.e. Tier 1 PSE Frequency to be better than 0.05 and Tier 2 PSE Frequency to be better than 0.17.
- Continue development and drive implementation of PSM aligned with ISRS plans.
- Support PSM deployment and increase employees awareness with quarterly PSM campaigns, e-learning modules and inclusion of PSM workshops in the Global SBM Offshore Life Day in 2017.

### 2.6.2 INTERNATIONAL SUSTAINABILITY RATING SYSTEM™

SBM Offshore adopted DNV GL's International Sustainability Rating System™ (ISRS) system in 2014. Implementation of ISRS has allowed SBM

Offshore to measure how the Company compares internally and externally with best-practice in all areas of its business, against a recognized framework. Gaps in performance have been identified and a plan is in place to implement improvement initiatives where required to a defined timescale prioritized according to risk. ISRS is being implemented on a continuous basis throughout the organization.

## 2.7 QUALITY AND REGULATORY

### MANAGEMENT APPROACH

SBM Offshore is committed to performing its business in full compliance with all applicable laws and regulations and to delivering products and services meeting all related regulatory requirements as well as any applicable specifications and requirements imposed by relevant Stakeholders.

As part of the Group Execution Functions, the newly combined Quality & Regulatory Management function is dedicated to ensuring that such objectives are consistently and reliably met by SBM Offshore in the course of its core business performance, notably through:

- Promoting a Quality and Compliance culture across the Organization and ensuring appropriate behaviours from each and every employee
- Ensuring compliance of GEMS with relevant International Standards (including but not limited to ISO 9001) and in turn ensuring compliance of the Company's Organization and business activities with GEMS
- Providing systematic identification of applicable regulatory requirements and ensuring actual follow-up by the Company's Organization
- Ensuring that conformity, compliance and acceptance of the Company products and services are effectively achieved and maintained throughout their lifecycle

## 2016 PERFORMANCE

### Key achievements

- Extension of SBM Offshore's ISO 9001 certification to now include 'Management of Operations' by the Company's Operations division
- Launch of Quality-specific initiatives in the context of SBM Offshore's Journey to Excellence, including notably the development of Quality Rules (to be deployed in 2017)
- Likewise, launch of a Cost-of-Non-Quality initiative involving the development of new processes and improvement of detailed investigations (not limited to specific Quality Incidents)
- Regulatory watch and research as required to support Company's Win, Execute and Operate<sup>17</sup> activities
- In terms of actual regulatory performance, all Company offshore facilities have been duly accepted by all relevant Authorities and Regulators, with all relating permits, licenses, authorizations, notifications and certificates duly granted and maintained valid at all times. Company offshore facilities have also remained in Class at all times as required from both statutory and insurance perspectives.

### Strategy and targets

The following objectives have been set for 2017:

- Leading contribution to the Company's Journey to Excellence, notably with respect to quality and regulatory compliance culture & leadership;
- Reduction of Costs-of-Non-Quality through the development and implementation of a comprehensive program (including but not

<sup>17</sup> SBM Offshore is an integrated contractor committed to early engagements with clients in developing optimal field development solutions. When resulting in a project award (Win) SBM Offshore manages the EPC cycle in which it is accountable for the engineering of the floating solution, procurement of the materials and construction in close cooperation with the subsequent yards (Execute). Upon completion of the execution phase, SBM Offshore welcomes the floating unit to its fleet where it is operated, maintained and, if needed, upgraded over the lifetime after which it is eventually decommissioned (Operate).'