



IMPROVING SAFETY

ABSTRACT

GeoSea, a member of the DEME Group, was presented with the International Association of Dredging Companies' (IADC) Safety Award 2016 for its "Enhanced muster station" initiative on board the jack-up vessel, *Neptune*. The aim of the IADC Safety Award is to further the development of safety skills in the workplace and reward those who clearly show that they are intensely concerned with safety.

Based on this new idea, the somewhat chaotic muster stations were improved by the simple solution of painting numbered circles on the deck. This helped the ship's captain ascertain if all crew members were accounted for more easily and efficiently. The improved muster station system had previously won the "DEME Innovation Award", an internal company competition for innovative initiatives. Innovation in safety has long been a focus of the company and it has been promoting a safety culture among its employees with various initiatives such as "CHILD" and the new and improved "CHILD5".

INTRODUCTION

GeoSea, a member of the DEME Group, won the International Association of Dredging Companies' (IADC) Safety Award 2016. The IADC Safety Award aims to further the development of safety skills in the workplace and reward those who show special diligence in safety awareness in the dredging industry at large.

GeoSea is DEME's specialist in complex offshore marine engineering projects and offers a wide variety of services. It specialises in offshore construction projects, such as the installation of wind farms, using among other equipment, large jack-up platforms. GeoSea won the IADC Safety Award for its innovative initiative of the "Enhanced muster station" on board the jack-up vessel, *Neptune*. At the suggestion of the ship's captain, muster stations were enhanced by painting numbered circles on deck upon which each crew member could stand and be counted.

Above: The DEME Group encourages innovative ideas for safety. Muster stations on board jack-up vessel, *Neptune* have been enhanced by painting circles with numbers on the deck.

MUSTERING WITH NUMBERED CIRCLES

Safety is always a priority for the organisation – risk prevention and control are embedded in the integrated management system and are carried out throughout the company, down to the smallest operational project. In a long-standing policy, DEME encourages its employees to proactively share ideas to improve safety in the workplace. This policy is supported from the top echelons. Alain Bernard, CEO of the DEME Group, has granted each employee explicit permission to immediately stop any work whenever a dangerous situation occurs.

Working in this atmosphere of encouraging personnel participation, the enhanced muster station was the idea of Dirk Pauwels, captain on board the *Neptune*, the group's second largest jack-up platform. At his suggestion, the muster stations on board jack-up vessel, *Neptune* have been improved by painting circles with numbers on the floor (Figure 1). Although this was a simple change, it has proven to be highly effective when it comes to safety. Prior to this innovation, mustering could be a chaotic affair when it came to counting crew at the muster stations. During emergency situations, there was a great deal of noise and sometimes the voices of crew members could not be heard above the din.



Figure 1: The muster station was enhanced by painting numbered circles on the deck.

This resulted in valuable time being lost at critical moments.

Currently, the *Neptune* has two muster stations with circles on the deck in rows of six. Each circle has its own number. The first person to arrive at the muster station stands on the circle numbered one, the second person on number two, and so on (Figure 2). The captain of the ship draws up a crew list for every departure and this list is put up near the muster stations. For instance, when there are 43 crew members on the list, one can easily see if anyone is missing by looking at the numbers on the floor. Should a circle remain unoccupied, indicating someone is missing, the crews' sleeping quarters are immediately checked to ensure that no one stayed behind because they did not hear the alarm. In this way, the number of missing persons can be quickly and easily identified.

During drills or emergency situations, amidst noise and uncertainty, these numbered circles help establish the presence of the people gathered at the muster stations and if this is in accord with the captain's list. Employees on board the *Neptune* have found the enhanced muster stations to be a great improvement on safety.

One important aspect of the enhanced muster station system is that it can be applied on all ship types and it requires neither a high cost nor great effort. It can easily be implemented with only a brush and paint.

There are various emergency situations in which gathering the crew is of vital importance. The most serious situations occur when the crew are forced to leave the ship, for instance, in case of fire on board, or when there is a man overboard. But the system can



Figure 2: Top left and right: Muster station before painting numbered circles; Bottom left and right: Crew muster efficiently at station with painted numbered circles.

DEME WINS 2016 SAFETY AWARD

The enhanced muster station system works best when complemented with supporting safety initiatives. For instance, those who board the *Neptune* can see the portraits of all employees working on board hanging in the staircase. This is an immediate signal that everyone cares about each person on board. Safety clearly flourishes best in such an environment.

The "Enhanced muster station" and placing all portraits of the crew members on board in the staircase also show that efficient safety measures do not need to be complicated. At the same time, they show the leadership and commitment of the captain and crew. And they create a positive image for the entire company, toward potential employees as well as clients.



President of IADC, Peter de Ridder (right), presents the IADC Safety Award to Luc Vandebulcke (middle), managing director of GeoSea and Lieven Durt, director of QHSE-S DEME (left).

also prove useful in less dramatic circumstances. For instance, once a month a drill is held. In addition, everyone has to meet at the muster stations when, during changes of shifts, 25 per cent of the crew on board are new. The system is also applied, for instance, when a vessel calls at a port and the crew are allowed to leave the ship and go onshore for a while. In these cases it is useful to be able to check quickly whether everyone has returned to the ship.

The system does, however, has its limitations. It appears that on a ship with more than 60 crew members mustering can again become chaotic. In such a case, with such large numbers, investing in an electronic system with an ID card might be a better option.

This "Enhanced muster station" initiative has also won the "DEME Innovation Award", an

internal competition for innovative initiatives. Its success on the *Neptune* has led to plans to implement it in the entire DEME fleet.

SAFETY FIRST

For many years, personal protective equipment (PPE) was considered ideal to help improve accident statistics. However, once this effort was fully implemented, it quickly became clear that no progress would be made using only PPE. A fatal accident of an employee in Angola in 2009 was a rude awakening for DEME. Since then, safety is considered number one in the organisation's core values, and the prevention of all incidents is a top priority.

From this tragedy, the "CHILD" (Colleagues Help Injuries Leave DEME) initiative was born and it has been the driving force behind bringing safety behaviour to a new and unprecedented level in the company. It

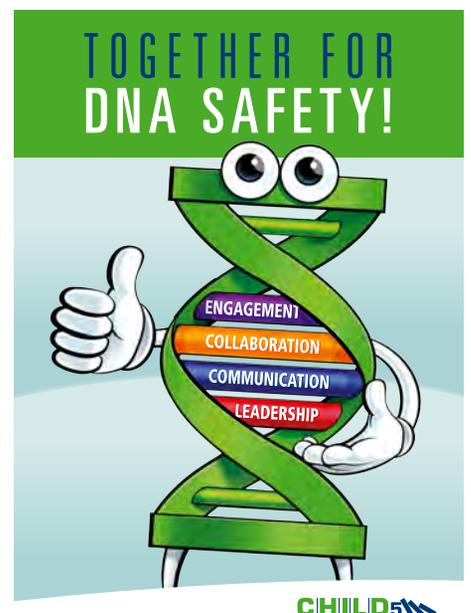


Figure 3: The "CHILD5" initiative aims to implement a "safety DNA culture" in DEME employees.



LIEVEN DURT

is a member of the management team of the DEME Group and the director of QHSE-S Department. He has more than two decades of experience in project and area management of marine engineering works. He oversees the implementation of the company's QHSE-S policy which is an integral part of DEME's Integrated Management System (IMS). In the past few years, he has launched the "CHILD" (Colleagues Help Injuries Leave DEME) campaign, to reinforce safety awareness and foster safety behaviour among all DEME employees.



ILSE QUIRYNEN

graduated with a M.Sc in Civil Engineering and joined DEME in 2009. As DEME's manager of QHSE-S, she is responsible for QHSE-S related issues of all DEME member companies. She gives guidelines and endorses strategies in DEME's QHSE-S management. To strengthen the company's QHSE-S performance, she is the driving force in the constitution of proactive safety. As a leading member of the "CHILD" (Colleagues Help Injuries Leave DEME) workgroup, she is the advocate of safety DNA within DEME.

resulted in a shift from reactive to proactive behaviour among employees. Procedures, risk analyses, work preparation and safety awareness were developed in parallel among all DEME employees. Meanwhile, each DEME employee knows that safety is a shared responsibility. It has been five years since "CHILD" was first implemented and the goal remains to have zero incidents, but the struggle to achieve this continues.

Therefore, to maintain this strict focus on safety, DEME has recently launched its new "CHILDS" campaign. "CHILDS" goes further than the basic concept of "CHILD" and does more than just improve safety alertness. By launching the "CHILDS" campaign, DEME aims to make the switch from "alertness to safety" to a system where safety is a part of DEME's DNA (Figure 3).

CONTINUOUS IMPROVEMENT

In order to keep improving safety, constant efforts and investments are necessary, both in people and in communication. In order to implement a safety culture, DEME focuses on the following four elements:

- engagement
- cooperation
- communication
- leadership

Currently, posters that promote this message have been put up in all departments. However, the organisation is not only making efforts for safety at its headquarters, but also in projects all over the world. Engagement, collaboration and communication are the central themes. This leads to safety becoming an integral part of the DNA of all employees.

Just as in the first "CHILD" campaign, at least 2,000 employees will be invited to a safety seminar to introduce and explain "CHILDS". These meetings are intended mainly to inspire people with real-life examples to transform their safety attitude to real safety behaviour. The seminars take participants back in time to confront them with safety behaviour from the past. For this, DEME's film archives were unraveled for compiling DEME's "bad movie". Some video materials are really eye opening showing wrong safety behaviour.

Furthermore, "CHILDS" motivates employees to apply the same safety behaviour at home when carrying out all kind of tasks. For example, a light bulb is replaced with a ladder, and not with a chair. Clearly, the personal commitment and initiative of each individual employee is a prerequisite to achieve the ideal working environment without incidents.

STRIVE

Finally, DEME has established a set of standards applicable to its business units and subsidiaries worldwide. The company also expects its suppliers, subcontractors and partners to work to these standards. The core values at the very foundation of DEME are summarised by the acronym STRIVE.

This acronym stands for Safety, Technical Leadership, Respect & Integrity, Innovation, Value Creation and Environment. It serves as a compass for the company to work together and with customers, business partners, suppliers and the local communities. Safety, health and well-being play a leading role in this effort and shareholders as well strongly believe that applying the core values and DNA safety culture will ensure a sustainable future for the company.

CONCLUSIONS

Safety is a part of the core values of the DEME and prevention of any incidents is a top priority for the company. The "Enhanced muster station" initiative that won the IADC Safety Award 2016 and its internal innovation award is a simple, innovative and an easy system to implement on all vessels.

The company continues to invest heavily in other innovative safety ideas and initiatives including the launching of the new "CHILDS" safety campaign. "CHILDS" aims to transform employees' safety behaviour from reactive to proactive.

DEME's innovation contest in the safety category will continue to be on the company's agenda in the future. The hope is that such ideas will contribute to the well-being of others in the dredging industry and will enhance the reputation and sustainable future of the entire industry.