



# DOF Workbook

Creating & supporting  
a values-driven organisation





# Welcome.

Before you read further,  
take a moment to reflect on each of our values:

Safe  the RITE way<sup>©</sup>

*Promoting a values-driven organisation.*

# The DOF WORKBOOK

## INDEX

Module 1	Introducing the DOF Workbook	4
Module 2	A values-driven organisation	10
Module 3	Leadership	20
Module 4	Business Integrity & Ethics	32
Module 5	Enterprise Risk Management	44
Module 6	Occupational Health & Safety Management	64
Module 7	Environmental Sustainability	88
Module 8	Security	102
Module 9	Emergency Response	118
Module 10	Investigation	134
Module 11	Physical, Mental, & Social Well-being	150
Module 12	Communication	168
Module 13	Operational Performance & Technical Reliability	180
Module 14	Project Management & Execution	202
Module 15	Vendor & Partner Evaluation	212
Module 16	Audit, Improvement, & Monitoring	220
Module 17	Finance for Non-finance Managers	238

" Wherever we are in the world, whatever our role in the company, our individual efforts combine with the effort of others to keep us on course to achieve our vision. "

Value moment icebreaker:  
**Above all we are SAFE**

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From Mons S Aase, CEO, DOF Group:  
"Each of us has an important role within the Group and in our future success. The workbook is here to support us in our various roles.

DISCUSS: how does the above relate to "Above all we are SAFE"?



# MODULE 1

## Introducing the DOF Workbook

PART OF THE DOF TEAM

6

## Part of the DOF Team

The DOF Group has a proud decades-long history operating in the offshore energy sector with a keen focus on the future.

Our reputation as a resourceful, flexible and reliable partner for offshore operations, is built on experience, an expert team, world-class assets, capability and strong safety culture.

Over time, the key to our success remains unchanged - our people. Wherever we are in the world, whatever our role in the Company, our individual efforts combine with the effort of others to keep us on course to achieve our vision. Each of us has an important role within the Group and in our future success.



### **The DOF Group's Vision**

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"The DOF Group is a trusted and leading partner, delivering services globally for a sustainable utilisation of offshore energy and other subsea resources".



### **Local teams, backed by global-resources**

*DOF has built a global infrastructure of expert teams, world-class fleets, supplier networks and facilities, all close to our client's operations.*

*Local teams and fleets are backed with global resources, standardised procedures and practices to make DOF a leading 24/7 offshore operations partner.*

### **Shared responsibility**

At the DOF Group, what we do is as important as the way in which we do it. Just as each of us has a part in achieving our vision, we also share a responsibility to uphold a culture of operational excellence, corporate compliance, and ethical behaviour.

### **Welcome to the DOF Workbook**

The DOF Workbook is here to support each of us in our various roles and can be used on several levels. You'll find out about 'what we do' and 'the way in which we do it'.

Use the DOF Workbook as a resource to understand the disciplines and practical tools we have in place to manage our business and activities. In addition, it supports more detailed training materials.

It is important to DOF Group to be a sustainable organisation - conducting business responsibly, efficiently and safely. We hope the DOF Workbook helps everyone undertake their role maintaining the highest standards and operational excellence wherever we do business, and understand why we all need to do so.

The workbook is supported by theory, business rationale and suggested reading. It also acts as a 'how to' guide for us all; helping us find the resources and information we need to work as part of the DOF team.

## About the DOF Workbook

We hope the DOF Workbook helps everyone undertake their role maintaining the highest standards and operational excellence wherever we do business, and understand why we all need to do so.

You will find a combination of technical and practical activities, including exercises and group discussions to allow participants to gain the knowledge and insight needed for high standards and operational excellence.

Core modules provide a great foundation as they take you through DOF Group's guiding principles, the way in which we conduct business and why it's important for us all to work in the right way. Other modules are connected to specific disciplines and competencies.

The DOF Workbook works in close conjunction to the current training and competence regime in the Group, and as such, is guided by the training requirements in our management system.

The book is organised in various chapters that work independently as well as in combination together.





<b>INTRODUCTION</b> <b>FROM MONS S AASE, CEO, DOF GROUP</b> Each of us has an important role within the Group and in our future success. The workbook is here to support us in our various roles.	<b>VALUES-DRIVEN ORGANISATION</b> At the DOF Group 'what we do', is as important as the 'way in which we do it'. Learn why we conduct business responsibly and what role we all have in assuring compliance.
<b>LEADERSHIP</b> In order to fully understand the principles of leadership, it is important to know the different roles of a leader and DOF expectations for our leaders.	<b>BUSINESS INTEGRITY AND ETHICS</b> A culture of operational excellence, corporate compliance, ethical behaviour and good corporate governance: what it means to us all.
<b>ENTERPRISE RISK MANAGEMENT</b> Balancing risk and opportunity in a sustainable way: learn how value is created and protected by managing risk, supporting decision making to improve performance.	<b>OCCUPATIONAL HEALTH AND SAFETY</b> Occupational health and safety (OHS) is a multidisciplinary field concerned with the safety, health, and welfare of people at work. Learn how we work to safeguard people and their welfare.
<b>ENVIRONMENTAL SUSTAINABILITY</b> Harnessing our values for sustainable development, it is fundamental we protect the environment, learn what this means to Group and how we manage our impacts.	<b>SECURITY</b> We operate in developing areas, adopt new technologies and are increasingly connected the Internet. Focus on Security, learn how to safeguard yourself and colleagues from threats.
<b>EMERGENCY RESPONSE</b> The main purpose of crisis and emergency response preparedness is to prevent or limit the consequences of accidents and near accidents. In addition, efforts are made to maintain business continuity. Learn more about our ER preparedness.	<b>INVESTIGATION</b> We learn about our vulnerabilities and how to avoid them in the future by having comprehensive incident management and investigation processes and procedures in place.
<b>PHYSICAL, MENTAL &amp; SOCIAL WELL-BEING</b> The WHO's definition of health as contained in its constitution: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Learn more about the aspects of well-being.	<b>COMMUNICATION</b> Every form of communication produced by the company, whether formal or informal, impacts the Group's reputation and relationships with stakeholders. We are all "reputation managers" for the group, whether we work on-board or on-shore.
<b>OPERATIONAL PERFORMANCE AND TECHNICAL RELIABILITY</b> Gain an insight into our core activities: learn about marine and subsea operations and understand the importance of technical reliability.	<b>PROJECT MANAGEMENT AND EXECUTION</b> Gain an insight into our core activities: Project management is the practice of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria at the specified time.
<b>VENDOR AND PARTNER EVALUATION</b> DOF Group's vendor evaluation platform ensures UN global compact universal principles are upheld along our supply chain: learn how and why the benefits gained.	<b>AUDIT IMPROVEMENT &amp; MONITORING</b> Monitoring and reviewing our business and work processes is a key to controlling risk, capturing opportunities and driving improvement.
<b>FINANCE FOR NON-FINANCE MANAGERS</b> Gain an understanding of your role and responsibility with regard to the organisation's financial perspective, as well as understanding the finance department's role in the organisation, and the processes in which they should be involved.	

" What we do is as important as the way in which we do it..."

Value moment icebreaker:

**Respect**

At the DOF Group 'what we do', is as important as the 'way in which we do it'. Learn why we conduct business responsibly and what role we all have in assuring compliance.

DISCUSS: how does the above relate to "Respect"?



## MODULE 2

### A values-driven organisation

INTRODUCTION	12
THE DOF GROUP: A VALUES-DRIVEN ORGANISATION	13
SUSTAINABLE OPERATIONS: HARNESSING OUR VALUES	15
OUR BMS AND HOW IT WORKS	16

# Introduction

Welcome. In this module we will explore 'what we do', the 'way in which we do it' and why they are important to the DOF Group and our stakeholders.

We will learn about the backbone of our Company: our principles, core values, policies, ambitions and organisational management. We take a look at the broader considerations and factors a sustainable company must satisfy, why organisations aspire to the universal principles of sustainability, and how the DOF Group applies them.

We introduce you to the Business Management System (BMS), where governing documents, best practice, knowledge and expertise are captured and centralised to provide the framework for uniform business decisions, processes, procedures and tasks, showing us how to undertake our work and activities. Having a fully integrated BMS means we are safe, reliable, efficient, mitigate risk, and work to the highest principles globally, thus we meet goals and objectives of a profit organisation and satisfy customer needs and expectations.

Finally, you will understand why the way in which we conduct our business is so important and the role we all play in upholding a culture of compliance.

## Aim of the Course

What you should have learned during the module:

- Understand what it means to be a values-driven organisation and the part we all have creating one.
- Know where to find the DOF Group's corporate principles, values, policies, and documents for organisational management, understand why we have them and how to comply with them.
- Understand the principle of 'what we do', is as important as the 'way in which we do it'
- Be introduced to the reporting mechanisms and measures the DOF Group applies for transparent and internationally recognised, sustainability performance.
- Recognise how a fully integrated BMS means we are safe, reliable, efficient, mitigate risk, and work to the highest principles globally, thus we meet goals and objectives of a profit organisation and satisfy customer needs and expectations.

## Key definitions

- **Values-Driven Organisation** - is a culture shaped by a clear set of ground rules that set the foundation and guiding principles for decision-making, actions and create a sense of community.
- **Stakeholders** - are individuals, groups or organisations that are affected by the activity of the business.
- **The-Code-of-Business-Conduct** - Built on our core values, the COBC guides behaviour and supports sound judgement and common sense and in turn supports the Company to achieve our vision safely and ethically.
- **Sustainability** - The quality of being able to continue over a period of time.
- **Business Management System (BMS)** - Find governing documents, best practice, knowledge and expertise, in a single location to provide the framework for uniform business decisions, processes, procedures and tasks, showing us how to undertake our work and activities.
- **Compliance and the DOF Watertight Integrity Test** - Compliance means conforming with stated requirements – know and use the watertight integrity test as a simple way to support good decision making.

## The DOF Group: a values-driven organisation

"A values-driven organisation is a culture shaped by a clear set of ground rules establishing a foundation and guiding principles for decision-making, actions, and a sense of community.

### Why are we a values-driven organisation?

In business 'the only constant is change'.

The advantage of having a solid set of beliefs and values is it means the organisation can adapt rapidly to situational or commercial change, but always with an 'anchor' of beliefs and values'.

This is the essence of a sustainable organisation: where our values guide our actions to respond to relevant economic, environmental and social factors. We meet stakeholder expectations and navigate daily challenges, large and small, by having a deep understanding of our values, clear priorities and reporting mechanisms.

"What we do is as important as the way in which we do it."



Our values:  
nominated by our people

At DOF our actions and decisions are always guided by and grounded in our core values – respect, integrity, teamwork, excellence – and above all we are safe. Our core values are embedded in our policies, our Code of Business Conduct and they guide a strong safe and ethical culture. We all play a part in fostering a culture of operational excellence, corporate compliance, ethical behaviour and good corporate governance.

**The Code of Business Conduct** - Today, we rely on one another more than ever before to uphold a

culture of safe, legal and regulatory compliance. In a complex world, safeguarding people and maintaining the highest principles, wherever we do business, is a modern business challenge. The Code of Business Conduct (COBC) is the most important document in the Group because it helps us all meet this challenge. Built on our core values, the COBC guides behaviour and supports sound judgement and common-sense and in turn supports the Company to achieve our vision safely and ethically.

### Key words

- **Our Vision** - The DOF Group is a trusted and leading partner, delivering services globally for a sustainable utilisation of offshore energy and other subsea resources.
- **Our Values** - Respect, Integrity, Teamwork, Excellence – and above all we are SAFE.
- **Our Conduct** - Conducting business ethically and with integrity, safeguarding people and maintaining the highest principles, wherever we do business
- **The way we work** - is within a clear set of ground rules that set the foundation and guiding principles for decision-making, actions and create a sense of community.

## A values-driven organisation

### ***The Safe the RITE way©***

The DOF Group strives to be the leader in the field of safety, health and working environment and our ambition is to be an incident-free organisation. The Group has built our safety culture on the 'Safe the RITE way' programme. Strengthening the global safety culture, the program and related initiatives, underpin safety behaviour and understanding in the Group.

### ***Ethical business along our supply-chain***

The DOF Group's digital vendor evaluation platform is designed to ensure universal principles are upheld along our supply chain. Vendor evaluation is mandatory for all suppliers. Levels of scrutiny and corresponding requirements are set depending on the proof of pre-existing controls for ethical and sound business, for example, third-party certification, or the measures the vendor has taken to protect against child labour.

### ***We are all compliance officers:***

#### ***DOF Watertight Integrity Test***

We all make an important contribution in fostering a culture of operational excellence, corporate compliance, ethical behaviour and good corporate governance. The "DOF Watertight Integrity Test" (see more on page 35) is an easy to remember tool which can be applied to support decision making in any situation. If you are ever in doubt ask yourself these five simple questions – if you answer no to any of them – STOP (so long as it is safe to do so), ask for guidance.

### ***Tools for transparency and accountability:***

#### ***The Ethics Helpline***

The Group introduced the 'DOF ethics helpline' to give stakeholders the tools to report concerns. The service supports queries and offers a secure, accessible platform to report unlawful, unethical acts or unacceptable conduct. The ethical helpline is hosted by a third-party provider and facilitates the investigation, case follow-up and archive of all reports received.

**What drives us** - DOF is a trusted and leading partner delivering services globally for a sustainable utilisation of offshore energy and other subsea resources.

**Our values** - DOF values: Respect, Integrity, Teamwork, Excellence, and above all we are SAFE. "Safe the RITE way" integrates our values into how we approach our activities.

**Our strategies** - Our debt structure, business model, and portfolio will provide **sustainable revenue and competitive returns on capital**. We will **develop our technical capability, experience, and assets globally** to deliver dedicated, sustainable subsea and marine services for our clients in an evolving subsea and offshore energy sector. **DOF will earn our reputation for flexibility and rapid adaptation**, positioning the Group for growth in existing markets and at the forefront of development in new segments.

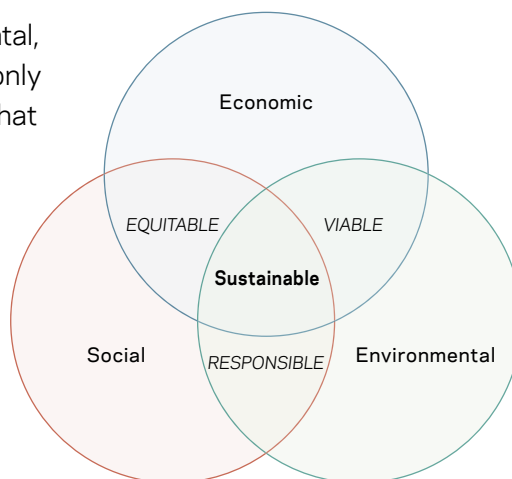
## Creating value for all our stakeholders

	VALUE DRIVERS	OUTPUTS	VALUE CREATED
FINANCE	<b>Financial performance</b>	Providing predictable revenue streams by securing contract backlog Maximising revenues through cost control	<b>Sustainable returns</b> make DOF's business attractive to future investors enabling DOF to invest in people and relevant assets for the future.
	<b>Governance</b>	Securing sustainable capital structure	<b>Upholding good governance</b> and standards ensures decent work, generates wealth for employees, local communities, and along our supply chain, as well as wider society by generating taxes.
MARKET	<b>Environmental performance</b>	Successfully developing technology & digital solutions for greater operational efficiency Managing the environmental and societal impacts of our business Enabling integrity along the supply chain with supplier social screening	<b>We care about the environment</b> in which we live. Improved performance benefits all stakeholders. There are also efficiency and innovation gains to be realised by responding to these critical issues. <b>Generating wealth and opportunity</b> by engaging local business and suppliers and ensuring integrity along the supply chain by auditing for human rights.
	<b>Marine and Subsea service delivery</b>	Providing accessible services to support a changing market Building strong relationships with our clients	<b>Subsea and Marine services</b> are the core value generating work of our business. Building strong relationships and ensuring we have the right assets and capability to support our customers in the evolving subsea and offshore energy sector, is key to our future and therefore benefits all stakeholders.
PEOPLE	<b>Occupational health and safety</b>	Enabling a strong health and safety culture and systems in values-based environment	<b>Ensuring strong health and safety</b> systems and culture is our highest priority. It's a right that benefits all employees, their families, our whole supply chain and investors. It is a requirement for business.
	<b>People</b>	Fostering a diverse and inclusive workforce Motivating engaged and enabled colleagues	<b>Companies are their People.</b> Working for a sustainable company, offering fair work, with career prospects creates an engaged workforce which benefits customers, investors, and suppliers. Training and careers programs benefit local communities creating career paths and long-term benefits.

## Sustainable operations: Harnessing our values

DOF must be **EQUITABLE** as a business, **VIABLE** economically and within the external environmental, and **RESPONSIBLE** socially. It is only when these factors are in place, that sustainable operations can occur.

We measure strategic, economic, social and environmental performance in line with the Global Reporting Initiative (GRI) and the relevant United Nations Sustainability Development Goals (SDGs). The results are published in the Group's annual reporting.



**Economic sustainability:**  
Assumes DOF uses its resources efficiently to create consistent revenue, enabling DOF to manage both environmental & social considerations.

**Social sustainability:**  
Assumes the social well-being of DOF's internal & external stakeholders are able to flourish, balanced with both financial & environmental performance considerations.

**Environmental sustainability:**  
Assumes DOF is working within the means of its external environment & resources, balanced with economic feasibility & social considerations.

Read more here: [www.dof.com/sustainability](http://www.dof.com/sustainability).

### Transparency:

### Reporting to internationally recognised standards & goals

#### **UN Sustainable Development Goals (SDGs)**

The SDGs were introduced to “address the global challenges we face,” and provide a universal “blueprint for a sustainable future for all”. Operating to positively influence SDGs relevant to the DOF Group's activities helps us direct our actions for Responsible Operations and report our progress over time, which is in line with our vision.

Read more here: <https://www.un.org/sustainable-development/sustainable-development-goals/>

#### **The GRI framework**

Provides the DOF Group with an internationally recognised and structured approach to ensure vital drivers of sustainable operations are factored into decision making. Ultimately, reporting to the GRI standard provides stakeholders with a view of organisational performance in more than financial terms alone.

Read more here <https://www.globalreporting.org/information/about-gri/Pages/default.aspx>

#### **Continuous improvement: Plan, Do, Check, Act**

The Plan, Do, Check, Act model is a widely applied, interactive four-step management method used to structure control and continuous improvement processes. The DOF Group applies these universal principles in our management system and improvement programs.

The continuous improvement model is also employed in our Sustainable Improvement program as a step-by-step approach to achieve current standards and targets and re-evaluate for further progress towards our goals.

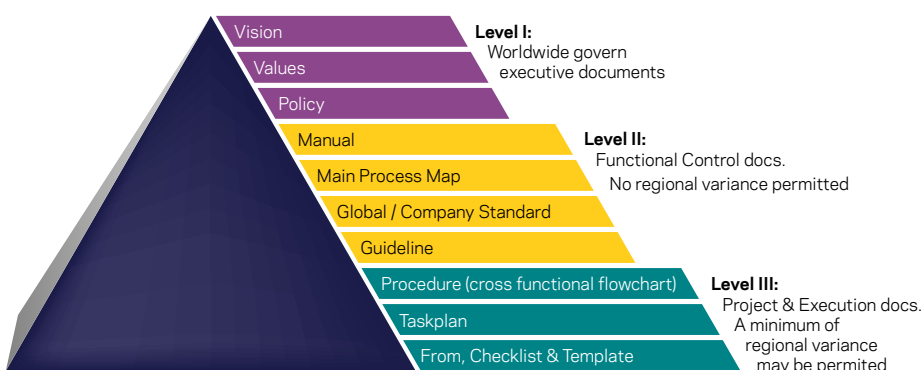


## Our BMS and how it works

The DOF Group is a global organisation, operating in a complex environment, in multiple jurisdictions, so we have formal structures, procedures, systems and other tools in a single location. The Business Management System (BMS) makes it simple for everyone to work to professional standards, understand obligations and to ensure we achieve our goals.

Having a fully integrated BMS means we are safe, reliable, efficient, mitigate risk, and work to the highest principles globally, thus we meet the goals and objectives of a profit organisation and satisfy customer needs and expectations. The BMS helps us to meet the DOF Group goals because it:

1. Captures all governing documents, best practice, knowledge and expertise, in a central location.
2. Provides the framework for uniform business decisions, processes, procedures and tasks,
3. Explains how to undertake our work and activities to ensure safe and professional standards.
4. Ensures we manage processes and continuously improve the group's operations.



DOF Document Hierarchy

Business Unit and Project documents definition: all documents developed and produced to provide guidance, strategy and instructions for performing activities specifically relating to the business unit (region) and projects or operations.



### System integrity through external audit & certification

The DOF Group's BMS is central to the organisation's success. In applying the continuous management model our BMS is independently audited and certified to international standards: ISO (Quality Management systems); ISO (Environmental Management Systems); OHSAS (Occupational Health & Safety Management Systems).

#### Level I

Applied to everything we do.  
Universal to all.

#### Level II

How we work.  
Applicable to all.

#### Level III

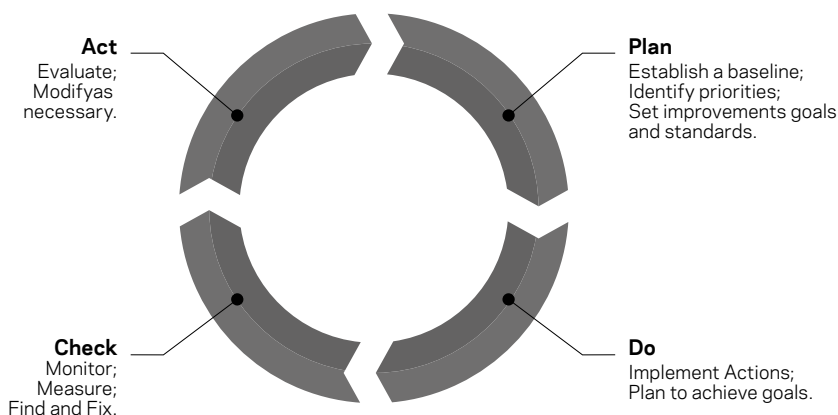
Tools for professional operations.  
Applicable to functions and regions.

### The BMS elements

**Plan, Do, Check, Act** is an interactive four-step management method used in business for the control and continuous improvement of processes and products.

DOF has utilised the Plan, Do, Check, Act model in our management system, with seven elements making up the model. The DOF Group's Management Systems are based upon a continuous improvement model. This comprises seven elements which underpin all DOF Group activities and reflects the commitments outlined in the HSE policies. Each element is supported by a set of objectives that form the basis for the development of plans, procedures, processes, standards and guidelines.

All functions of the company operate within the framework of the Company Vision, Values and Policies which are underpinned by the principle business management system guiding principles as listed in the diagram above.



Plan, Do, Check, Act model



## Legal and regulatory compliance embedded in the BMS

The DOF Group operates under multiple jurisdictions with different regional and international legislation and what legislation applies depends on a vessel's flag state, the country of operation, and the type of operation.

The BMS serves a vital role for each of us as it makes the tools available to ensure legal and regulatory.

This is done simply as DOF Group manuals, standards and guidelines are based on International

Legislation and International Standards provided by organisations such as API, NORSOK, ISO, IMCA, OGP. In this way applicable laws, regulatory requirements, industry best practice, standards and guidelines are embedded in the BMS.

### **Legislation and International Standards**

Applicable laws, regulatory requirements, industry best practice, standards and guidelines are the basis of the DOF Group's business practices and operations and that is reflected in the BMS.

DOF operates under different regional and international legislation, depending upon each vessel's flag state, country of operation, and type of operation. All DOF Group regions must maintain a live and up to date legal and other requirements register.

The standards and guidelines provided in the DOF Group are based upon International Legislation mainly from Norway, Brazil, UK and Australia. As well as international standards taken from API, NORSOK, ISO, IMCA, OGP.

DOF Business Management System is certified to ISO 9001:2008 / ISO 9001:2015 (Quality Management Systems) and ISO 14001:2004 / ISO 14001:2015 (Global External Environmental Management Systems).

Additionally the DOF Group also operate and are certified to (among others): International Management Code for the Safe Operation of Ships and Pollution Prevention; International Port and Ship Facility Security Code and operate in accordance to the E&P (Exploration and Production) forum guidelines for the Development and application of Health, Safety and Environmental Management Systems.



Artificial figure of HSE Legislation

END OF SECTION ●

END OF MODULE. CONGRATULATIONS! ●

" In business, leadership is about getting employees to working to a common goal through motivation, commitment and their well-being."

Value moment icebreaker:

**Integrity**

In order to fully understand the principles of leadership, it is important to know the different roles of a leader and DOF expectations for our leaders.

DISCUSS: how does the above relate to "Integrity"?



# MODULE 3

## Leadership

INTRODUCTION	22
THEORIES ABOUT LEADERSHIP STYLES	26
DOF'S LEADERSHIP PRINCIPLES	29

# Introduction

Leadership has many different definitions based on individual perception and expectations of what a leader is and how a leader should behave.

One general definition often used is: **"leadership is a special behaviour / conduct that people show with the intent to affect the thinking, execution and conduct of other people"** (Jacobsen and Thorsvik, 2013).

In the space of business and organisations, leadership is about getting the employees to work towards a common goal through motivation, commitment and their well-being.

It is common to divide leadership into two categories; direct and indirect leadership (Jacobsen and Thorsvik, 2013);

- **Direct leadership** involves all direct contact between the manager and the employees through for example meetings and e-mails;
- **Indirect leadership** relates to the affect a manager has on the employees without direct contact.

## Key definitions

The area of leadership uses some key words universally, however DOF also has their own terms as well. A few of both universal and DOF terms have been defined below:

- **Leadership** - is a special behaviour/conduct that people show with the intent to affect the thinking, execution and conduct of other people (Jacobsen and Thorsvik, 2013)
- **Situational leadership** - is based on the leader's ability to adapt his or her leadership style to meet the demands of their environment.
- **Leadership style** - is the behavioural patterns that a leader adopts to influence the behaviour of his followers, meaning the way he or she gives direction to his or her subordinates and motivates them to accomplish the given objective (Business Jargons, nd).
- **Readiness** - The readiness of the employee or group of employees means to which degree the person(s) is ready to perform a specific task (Hersey and Blanchard, 1988).

## Aim of the Course

- Get a clear understanding of the different roles of a leader;
- Understand different types of approaches for leadership styles and when to use them;
- Get a clear understanding of DOF's leadership principles.

## The different roles of a leader

In order to fully understand the principles of leadership, it is important to know the different roles a leader can have in an organisation and why they can be in conflict with each other. Conflicts between roles may arise when there is a significant divergence between two important aspects of leadership;

- 1) The conduct a leader does to fulfil his or her leadership commitments, and;
- 2) The expectation others have to the leader's conduct.

To get a better understanding of leadership, it is therefore important to clarify which roles a leader needs to fill. Based on a leader's formal position and authority, Henry Mintzberg (1971) identified ten leadership roles divided into three categories;

- A) Interpersonal roles;
- B) Informational roles, and;
- C) Decisional roles.



Figure 1 Henry Mintzberg's ten leadership roles (1971)

## The different roles of a leader (continued)

### **A) Interpersonal roles**

Three key interpersonal roles associated with a manager's post; figurehead, leader and liaison.

Interpersonal roles involve the leader's contact with other people and his or her behaviour on an interpersonal level. Directly derived from a leader's formal position and authority, Mintzberg (1971) has defined three key interpersonal roles associated with a manager's post; figurehead, leader and liaison.

The Figurehead role involves each manager as a symbol representing the authority inherently held by the position and this implies a certain amount of responsibility in the form of social, inspirational, legal and ceremonial obligations.

The role as leader is associated with building relationships with his or her subordinates with the goal to inspire, motivate and coach them, as well as create a favourable working environment. In other words, the manager must make the conditions favourable for the employees to work toward the goals and vision of the company. In addition, the manager has responsibilities towards the subordinate relationships on a more personal level, through overseeing their progress and promote and encourage their development.

The role as liaison involves building relations with people and groups, creating a network of contacts outside the company. The manager's external network is essential in order to bring information and favours to the company.

### **B) Informational roles**

The informational roles can be split into three categories; the role as nerve centre, the role as disseminator and the role as spokesperson.

In most cases, the manager has access to more information than the people in the organisation. Receiving, collecting and disseminating information is therefore an important task of the manager. The informational roles can be split into three categories; the role as nerve centre, the role as disseminator and the role as spokesperson.

The role as nerve centre involves receiving information about matters that affect the operations in the company. The term nerve centre is used as Mintzberg to capture the many activities in which the manager receives information and that the manager, and only the manager, has legal authority that connects him to every employee. One aspect of the role as nerve centre is to identify problems and opportunities that the company either has to improve or try to take advantage of, based on the information that he receives. As a result of the role as liaison, the manager also functions as the nerve centre for receiving information from external sources.

As the company's nerve centre, the leader sits on most information. An important task is to distribute the relevant information to the relevant stakeholders both internally and externally. The role as disseminator involves transmitting information internally in the company in order to keep the employees up to speed and give them the information they need to complete/solve their tasks. The role as spokesperson involves transmitting information about the company to external stakeholders about the state of the company and its operations (e.g. through financial reports and market announcements).



## The different roles of a leader (continued)

### **C) Decisional roles**

Four main types/categories of decisional roles that a leader holds; entrepreneur, disturbance handler, resource allocator and negotiator.

The manager's legal authority gives the leader the responsibility for all important actions the company carries out. In addition, the leader's interpersonal and informational roles, suggests that "only" he or she can fully understand complex decisions and its consequences, especially those involving difficult value trade-offs (Mintzberg 1971). Thus, the leader emerges as the key figure in important decision making regarding his or her area of responsibility. Mintzberg (1971) presents four main types/categories of decisional roles that a leader holds; entrepreneur, disturbance handler, resource allocator and negotiator.

The role as an entrepreneur involves new thinking where the leader has to act as an initiator, designer and motivator towards controlled change and innovation. A part of this is to search for opportunities, potential problems and improvement projects which may trigger the manager to take action.

The role as disturbance handler relates to forced changes due to unexpected events or events that go outside the core scope of the company. The manager needs to make corrections to the original plan due to circumstances outside the company's control. Mintzberg (1971) divide crisis into three different types of conflicts; conflict between employees, conflict with other organisations or loss/threat of company resources.

One important aspect of being a leader is to allocate the company's resources, including human resources, assets, time and funding. This task can be tricky, as a company's resources are limited and there often is many people/groups/departments within the company "fighting" over the same resources. The leader has to decide how to utilise the resources in a way that maximize the benefits for the company.

In relation to the leader's interpersonal and informational roles, and especially the legal authority of the position, the manager must represent the company in negotiations affecting the leader's areas of responsibility. Essentially, negotiating is resource trading in real time (Mintzberg, 1971) and when the commitment of company resources is high, the manager must step in as legal authority.

## Theories about leadership styles

“Leadership style is the behavioural patterns that a leader adopts to influence the behaviour of his followers, meaning the way he or she gives direction to his or her subordinates and motivates them to accomplish the given objective” (Business Jargons, nd).

Seen from the perspective of the employees, leadership style includes the total pattern of explicit and implicit actions performed by their leader (Newstrom and Davis, 1993).

It is common to classify leadership styles based on two different approaches; behavioural approach or situational approach. In this chapter we will go through two of the most fundamental theories about leadership style, each representing on the above approaches; democratic versus autocratic leadership and situation-based leadership.

### Democratic versus Autocratic

One of the most fundamental theories about leadership is to divide leadership style into two categories; democratic and autocratic (Jacobsen and Thorsvik, 2013). This theory relates to the behaviour approach mentioned above and is based on the amount of “freedom” the

leader gives his or her subordinates and the decision making authority that they are given.

It is important to remember that the two categories presented above and below are the extreme points of the theory.

#### ***Autocratic leadership***

In the other end of the scale, we have dictatorial leadership. Autocratic leadership is characterized by a strict and task-oriented philosophy, with focus on production, efficiency and realisation of the company's targets (i.e. production targets, turnover targets etc.). The decision-making process is more centralised to one or a few individuals, with low or no participation from the employees.

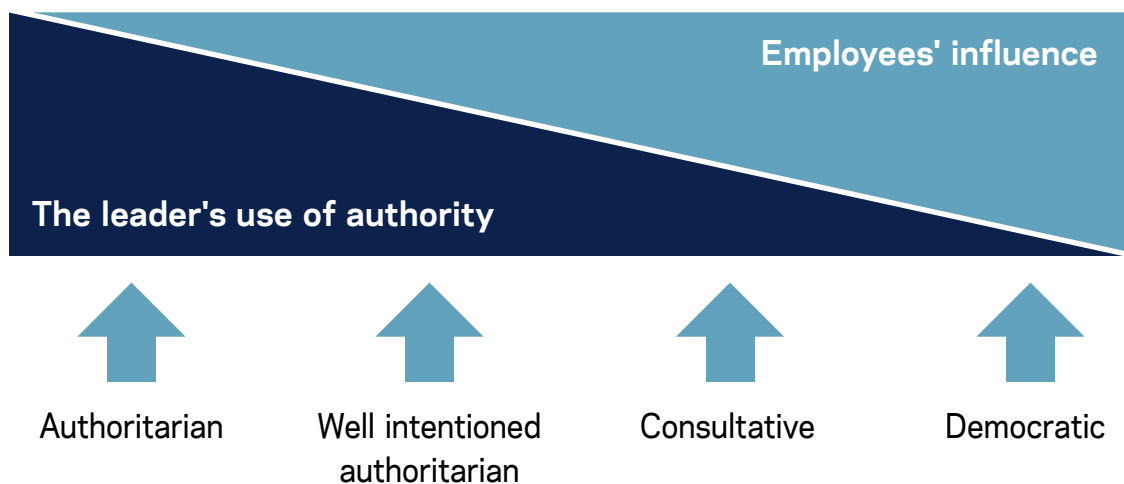
#### ***Democratic leadership***

Democratic leadership is often referred to as relation-based leadership, because it focuses on building good relationships with the employees (Jacobsen and Thorsvik, 2013). Democratic leadership lets the employees be a part of the decision-making process. Through a considerate and supporting approach, the leader listens to his or her subordinates and reflects over their suggestions when making the decision. By delegating more decision-making authority, the employees are encouraged to take part in the shaping of their own workplace.

### Task

Based upon figure 2, "Democratic versus Autocratic leadership", please discuss in small groups when the different approaches to leadership can be utilised.

Balance your discussions on both offshore and onshore situations. The group leader will present the results in plenum discussion.



### *A math-lovers perspective*

The relationship may be expressed as follows;

$$L=f(l,m,s)$$

***l***; leader properties and qualities

***m***; employees

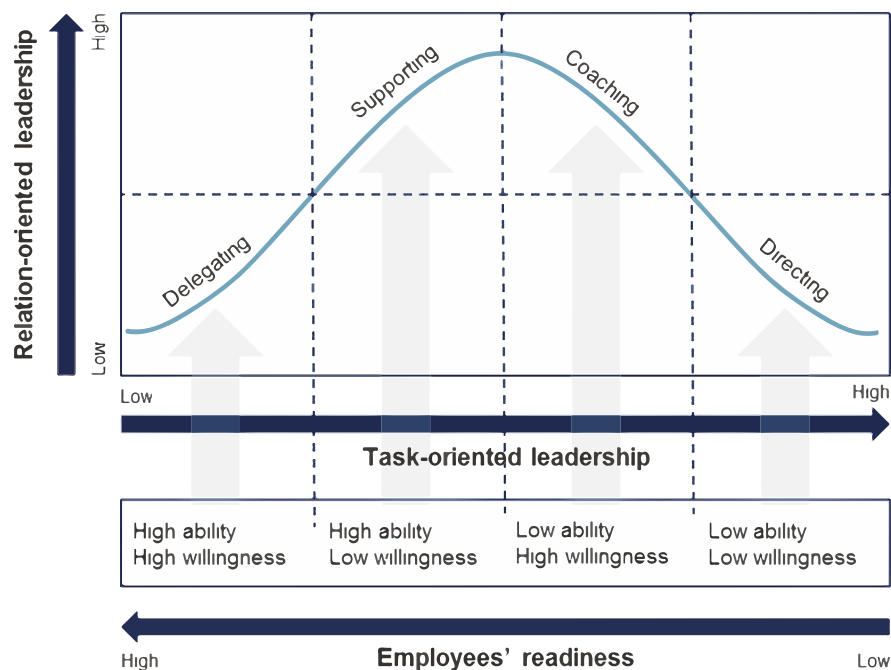
***s***; the situational variables

## Situational leadership

In order to get the best performance from employees, different situations may require different types of leadership. With this situational approach, Hersey and Blanchard (1988) created a model for situational leadership, where they define management as a function of the manager, the staff and a number of situational variables. They state that “effective leadership depends on the leader’s ability to adapt their leadership style to meet the demands of their environment”. The more a leader can adopt their behaviour to the situation, the more effective will there attempt to influence become.

According to Hersey and Blanchard (1988), a good leader is “a person that is able to judge situations that arise and adapt their leadership style to the employees’ readiness”. The readiness of the employee or group of employees means to which degree the person(s) is ready to perform a specific task. Readiness consist of two main components, ability and willingness, where ability can be defined as “knowledge, experience and skill that an individual or group brings to a particular task or activity”, and willingness is “to which extent an individual or group has the confidence, commitment and motivation to accomplish a specific task”. The very essence of the model is that people are different and work differently in different situations, and the leader must adapt the leadership style to the situation.

Based on the readiness of the employee, the manager should adjust to which degree he or she is relation-oriented or task-oriented in his or her leadership approach. If the employee has high willingness



with high ability, he or she doesn't need coaching or directing. The manager should therefore take a more delegating approach, as the employee, when given a task/project, will use their skills to find feasible solution(s). In addition, it is likely that employees with high skills level will find it demotivating being coached or directed throughout the project, as they often feel they can solve on their own.

If the employee has the ability to solve the task but lack the willingness, the manager should focus on

motivation through a more supporting approach. For an employee with low ability and high willingness, the manager should enter a more coaching role in order to guide and teach the employee. In the case of low ability and low commitment, the manager should take a more directing role. In order to solve the task, the employee needs clear instructions, as he or she has not yet developed the necessary capabilities.

## DOF's leadership principles based on established knowledge

Effectively managing and leading a team can be challenging but understanding the most important leadership skills will help you focus your attention on what matters most.

It's a common to believe that leaders at different levels should have a different set of skills. Writing in the Harvard Business Review, Jack Zenger and Joseph Folkman demonstrate that leaders should practice universal core from their first day in the workforce, no matter how high they rank.

DOF's leadership principles include critical leadership practices because they are proven to allow a leader to make the biggest impact over time and are well established. They're about;

Inspire and motivate



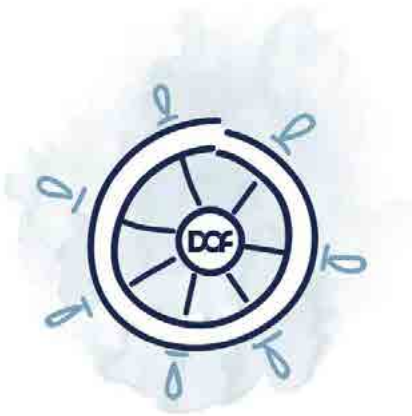
Show integrity



Solve problems



Drive for results



Communicate



END OF SECTION •

END OF MODULE. CONGRATULATIONS! •

" A call to companies to align strategies and operations with universal principles on human rights, labour, environment and anti-corruption, and take actions that advance societal goals. "

Value moment icebreaker:

**Teamwork**

A culture of operational excellence, corporate compliance, ethical behaviour and good corporate governance.

DISCUSS: how does the above relate to "Teamwork"?





## MODULE 4

# Business Integrity & Ethics

INTRODUCTION	32
HUMAN RIGHTS & LABOUR CONDITIONS	34
ANTI-BRIBERY & CORRUPTION	36

# Introduction

The DOF Group conducts business ethically and with integrity, safeguarding people and maintaining the highest principles, wherever we do business.

On a practical level this means we always comply with applicable laws, regulatory requirements and policies; we always apply industry best practice standards and guidelines as the basis for DOF Group's business practices and operations (which can be found on the BMS).

In turn, the DOF Group's business practices and operations are guided by ten universal principles laid down in the UN Global Compact.

Again, on a practical level this means "operating in ways that, at a minimum, meet fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption". We deal with environmental sustainability in other chapters, here the principles that underpin business integrity and ethics and are particularly significant are Human Rights, and Labour conditions and Anti-corruption.

## Aim of the Course

- Give you the tools to navigate legal and commercial ethical issues you may encounter, by understanding roles and responsibilities in complying with laws, regulations and policies, everywhere we do business.
- Understand the concept of promoting and maintaining the highest level of integrity, ethical behaviour and accountability.
- Understand and apply the DOF Group's code-of-business-conduct in commercial dealings and international activities.
- Know where business practices differ in countries in which we operate, DOF will favour consistent procedures among our companies and business partners aimed at achieving a high common standard,
- Understand how to recognise bribery issues and manage any facilitation payment requests
- Be informed of the legal ramifications for DOF and the employee for non-compliance

SECTION CONTINUES ON NEXT PAGE ►

## Key definitions

The area of Business Integrity and Ethics uses some key words universally, however DOF also has their own terms as well. A few of both universal and DOF terms have been defined below:

- **Competition and Free Enterprise** - antitrust and Competition Laws support free enterprise by prohibiting the practices that unreasonably restrain trade.
- **Universal Principles** - refers to the Ten universal principles laid down in the UN Global Compact.
- **Compliance** - conforming with stated requirements.
- **Anti-bribery and corruption** - are designed to prevent Corruption - which is 'the illegal use of entrusted power for private gain' and Bribery which involves promising, offering or giving something of value to someone with the intent that a person who is trusted or expected to act in good faith or with impartiality, performs that function improperly or in order to obtain a business advantage (for private or commercial advantage or to influence decision making in an illegal way).

## A complex world, a modern business challenge.

There are many aspects to maintaining legal, regulatory and ethical compliance. The DOF Group operates under different regional and international legislation, depending on each vessel's flag state, country of operation, and type of operation. In addition, subsea and marine operations are governed by regulators depending on location and by industry associations, such as Association of Oil & Gas Producers (OGP), International Maritime Organisation (IMO) and the American Petroleum Institute (API). The last variable is behavioural: we rely on individual's personal conduct and decision making to uphold a culture of legal and regulatory compliance as the very foundation of honest, ethical business. In a complex world, safeguarding people and maintaining the highest principles, wherever we do business, is a modern business challenge.

In this module we will learn about the complexity: the principles, policies, legislation, regulation and challenges faced day-to-day, some obvious and some much less so. We will learn how to recognise potential issues and understand the associated risks: what's okay and what is not, for example, situations that constitute bribes and improper payments – and the ways in which you can protect yourself and colleagues. Ultimately, we see how important it is that we are all compliance officers.

Also for this module you'll need access to the DOF Group Code of Business Conduct.



### UN Global Compact

You can read more about the UN Global Compact here:

<https://www.unglobalcompact.org/what-is-gc>.



## Act with integrity – know the Water-tight-Integrity test.

As an employee it is your responsibility to adhere to the local laws and regulations in the countries in which you work and/or travel to for the DOF Group. The DOF Group's business, values and policies respect local laws and customs in the countries in which we operate.

An easy way to protect yourself and colleagues, is to know and apply the Watertight Integrity Test.

The DOF Group has a number of no-nonsense tools to help support good decision making, the most

accessible is the “DOF Watertight Integrity Test”. It's easy to remember, can be applied to support decision making in any situation and cuts through complexity.

If you are ever in doubt ask yourself these five simple questions – if you answer NO to any of them – STOP (so long as it is safe to do so), ask for guidance.

If you're in doubt always ask for advice from the Legal Department.

## Human rights and labour conditions

The DOF Group supports and promotes fundamental human rights. In line with the United Nations guidelines we ensure our operations do not breach international standards and conventions. We avoid causing or contributing to adverse human rights impacts through our activities and seek to prevent adverse human rights that are directly linked to activities through our business relationships.

The universal principles, listed below, are also covered by legislation in many jurisdictions and the DOF Group has ten Policies that determine the overall company standard and approach to business practices and operations which uphold these principles. Where business practices differ in countries in which we operate, we will favour consistent procedures among our companies and business partners aimed at achieving a high common standard.

### Task

Find and match the DOF Group Policies that relate to and support Global Compact Principles 1-6.

Discussion: what are possible circumstances that relate to your role that could violate these principles.



### Human rights Principles 1-2

PRINCIPLE 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

PRINCIPLE 2: make sure that they are not complicit in human rights abuses.



### Labour Principles 3-6

PRINCIPLE 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

PRINCIPLE 4: the elimination of all forms of forced and compulsory labour;

PRINCIPLE 5: the effective abolition of child labour; and

PRINCIPLE 6: the elimination of discrimination in respect of employment and occupation.

## Anti-Bribery and Corruption

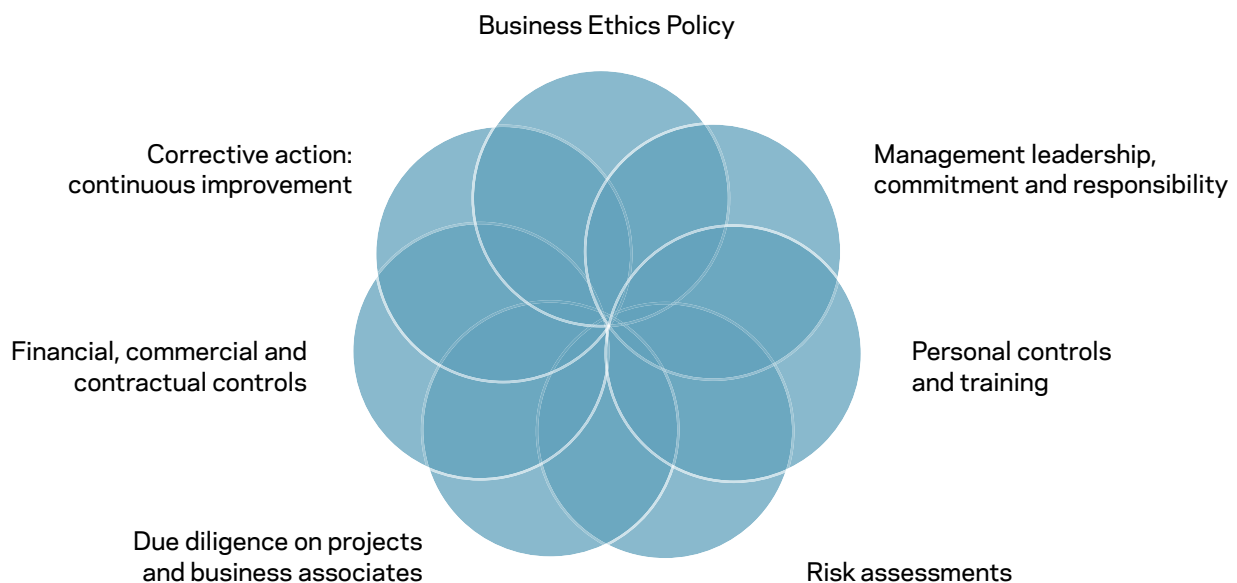
"Working globally is complex. We are always guided by our values and the highest principles of integrity and responsibility"

One of the reasons working globally is complex is there is no one standard of law or regulation that applies worldwide. Globally, each country varies in their anti-corruption legislation and their enforcement practices. For example, countries define bribery differently and vary in how they view facilitation payments. Some countries provide exemptions for local customs and social or religious practices, whilst others implement a minimal threshold for liability.

The laws, definitions and penalties are subject to change, so what may once have been the case may no-longer applicable – it's easy to be caught out. To ensure the DOF Group complies with local laws and regulations and upholds the UN Global Compact principles no matter where it operates, Level I and Level II BMS documents are based on International Legislation and International Standards provided by

organisations such as API, NORSOK, ISO, IMCA, OGP. In this way applicable laws, regulatory requirements, industry best practice, standards and guidelines are embedded in the Group's global standards.

Practically, this means the DOF Group fosters a culture of corporate compliance, ethical behaviour and good corporate governance and manages Anti-Corruption by having these distinct measures in place, some are familiar: **Policies , Code of Business Conduct, Business Ethics eLearn, Compliance Program**. Other mechanisms for compliance are less familiar to many of us and focus on the Group's contractual obligations with clients, vendors and potential suppliers: **Global Contracting Terms and Conditions and Supplier Evaluation/ and Risk Assessment**.



## Risks Assessment Situations

In addition to the measures and controls in place, the DOF Group performs risks assessments when working in areas that may expose the Group, its employees and business partners to a higher risk of corrupt practices such as instances of bribery, corruption, grease payments, improper payments and/or facilitation payments.

**At an operational level: when DOF enters into a new business or partnership, due diligence shall be undertaken on the country, target and business partner;**

**At project or charter level when DOF projects in countries that are considered to be at risk;**



**On all suppliers and/or subcontractors to DOF.**

## Compliance

Compliance normally means conforming with stated requirements. The organisation conducts internal departmental audits, and is audited by professional third party organisations, such as PWC, EY and DNVGL to ensure our procedures and practices are followed and enable us to take corrective action if they are not.

The first and last line of compliance lies with each of us. Our individual decisions and actions are the strongest link in integrity and ethical behaviour.

## Bribery

The DOF Group takes action to prevent bribery. It is worth reflecting that bribery is a two way process.

The ISO defines bribery as;

<p><b>ALTERNATIVE 1</b></p> <p>Bribery <b>BY</b> the organisation, or by its personnel or business associates acting on the organisation's behalf or for its benefit.</p>	<p><b>ALTERNATIVE 2</b></p> <p>Bribery <b>OF</b> the organisation, or of its personnel or business associates in relation to the organisation's activities.</p>
---	---

Being involved in bribery is not always as clear-cut as it might seem – bribes, facilitation payments, kickbacks even gifts given at an inappropriate time (and you may not know when, or if, a contract is under negotiation) can put you and the Company at risk.

It is important for us all to understand what constitutes a bribe or improper payment and associated risks, as well as the risks that arise from tolerating or turning a blind eye to the act of bribery or corruption (see "3 big risks" below).

**Over the course of time corrupt behaviour is reinforced.** A company and/ or employee is seen as a bigger target, they attract attention and repeatedly receive request for money.

*3 big risks associated with Bribes:*



## Identify & prevent corrupt behaviour

- Do not make payments to political parties, organisations or their representatives;
- Never accept or give a bribe, kickback or other improper payment for any reason;
- Gifts or hospitality that the DOF Group provides will never be offered to influence imminent business decision making process or cause others to perceive an influence.

Read through the following cards to understand the different types of bribery and corruption.

DEFINITION	HOW WE PREVENT IT
<p><b>Money-laundering</b></p> <p>Money laundering is generally defined as the process of taking funds obtained by illegal activities and making those funds appear legal.</p> <p>Money laundering is a global problem and many countries have enacted laws to combat the practice. It is serious as it can be traced back to terrorist organisations, tax evaders, drug smugglers, parties engaged with bribery or other illegal activities. Money laundering and Anti terrorism laws apply here.</p>	<ul style="list-style-type: none"> <li>✓ Know your business partners (vendor evaluation)</li> <li>✓ Monitor financial activity</li> <li>✓ Keep complete business transaction records</li> <li>✓ Report suspicious activity</li> </ul>
DEFINITION	HOW WE PREVENT IT
<p><b>Gifts and hospitality</b></p> <p>When is a gift a bribe? The exchange of gifts, general entertainment and hospitality is often common practice in business. However, this simple practice can easily create a conflict of interest or, in some instances, be considered a bribe.</p> <p>A conflict of interest creates an ethical dilemma and a bribe is unlawful and can lead to criminal prosecution for the individual and/or the Company.</p>	<ul style="list-style-type: none"> <li>✓ As a rule, never give, offer, or accept a gift or entertainment—either directly or indirectly—that may appear to influence a business decision, compromise independent judgment, or violate the law.</li> </ul>



DEFINITION	HOW WE PREVENT IT
<p><b>Conflict of interest</b></p> <p>Conflict of interests arise when your professional obligations to the DOF Group are influenced by a secondary and competing interest. As employees, we are obligated to act in the best interests of the Company and conflicts cast doubt on our ability to be objective. Always disclose any actual or potential conflicts of interest when they arise or if circumstances change.</p>	<p>✓ It is easy to be unaware when a situation constitutes a potential conflict. If you suspect your judgment is no-longer impartial or neutral, ask for advice and remove yourself from the situation.</p>
DEFINITION	HOW WE PREVENT IT
<p><b>Fair business</b></p> <p>Conducting business fairly is a core principle for the DOF Group.</p> <p>The DOF Group is committed to paying its fair share of taxes in the countries in which it operates; complying with international export, import and trade laws and regulations. This involves some complex areas of law and regulation which can have implications for each of us as well as the Company. Seek advice from the legal department if you are in doubt.</p>	<p>DOF Group ensures it complies with:</p> <p>✓ Tax legislation, law and transfer pricing guidelines;</p> <p>✓ All export, import and trade laws and regulations; and</p> <p>✓ Ensure our inter-company transactions are based on arms length terms, in accordance with guiding principles such as the OECD Transfer Pricing Guidelines.</p>
DEFINITION	HOW WE PREVENT IT
<p><b>Anti-trust and competition</b></p> <p>Antitrust and Competition Laws support free enterprise by prohibiting the practices that unreasonably restrain trade. Activities generally found to violate antitrust or competition laws are agreements and understandings among competitors to fix or control pricing or to allocate markets or customers; structure or orchestrate bids to direct a contract to a certain competitor or reseller or limit the sale or production of products for anti-competitive purposes.</p> <p>The DOF Group promotes competition and free enterprise and will not act in any way that will breach antitrust and competition laws or the principles of fair dealing.</p> <p>Most of us will not encounter these areas of business. Seek advice from the legal department if you are in doubt.</p>	<p>✓ Don't make false or misleading representations about products or services.</p> <p>✓ Don't make false, disparaging representations about a competitor or its products.</p> <p>✓ Don't make product claims without facts to substantiate them.</p>

## Identify & prevent corrupt behaviour (continued)

DEFINITION	HOW WE PREVENT IT
<p><b><i>Integrity and ethics assurance in our value chain</i></b></p> <p>The DOF Group has invested in an efficient, digital platform to conduct vendor evaluation which is also designed to ensure universal principles are upheld along our supply chain.</p> <p>The online forms allow for degrees of scrutiny and corresponding requirements, depending on proof of pre-existing controls such as, third-party certification or what measures the vendor has taken to protect against child labour. The less comprehensive the vendor's business management systems are, the greater requirement for evidence, so the Group can ensure it has all checks and balances in place.</p> <p>The new vendor evaluation is mandatory for all suppliers and will produce a master supplier database in Unit 4. The evaluation process supports quality control of approved vendors.</p>	<p>✓ A digital platform for vendor evaluation designed to ensure universal principles of the UN Global Compact upheld along our supply chain.</p>
DEFINITION	HOW WE PREVENT IT
<p><b><i>Non-public information</i></b></p> <p>As a public company, the DOF Group must ensure is material information is factual, accurate, is always communicated consistently and is not disclosed selectively or inappropriately.</p> <p>We must all comply with the legal and regulatory obligations for confidential non-public information about the Group, the Group's activities and related Companies.</p> <p>This means all communication with the press and financial community must be authorized by the CFO and disclosed by the appropriate spokespersons.</p>	<p>✓ Protect yourself from being the cause of unauthorized leaks or disclosures of corporate information to the press or financial community by directing any inquiries from the press or financial community immediately to Investor Relations or office of the CFO.</p>

END OF SECTION ●

END OF MODULE. CONGRATULATIONS! ●





" The DOF Group addresses risks at all levels and stages within the business cycle. This ranges from business acquisitions to procurement through to project execution and marine operations. "

Value moment icebreaker:

**Excellence**

Balancing risk and opportunity in a sustainable way: learn how value is created and protected by managing risk, supporting decision making to improve performance.

DISCUSS: how does the above relate to "Excellence"?



# MODULE 5

## Enterprise Risk Management

INTRODUCTION	46
CHANGING RISK CONTEXT FOR ORGANISATIONS	48
RISK MANAGEMENT (RM) PRINCIPLES & FRAMEWORK	52
RISK MANAGEMENT PROCESS	53
RISK MANAGEMENT IN THE DOF BUSINESS CYCLE	55
RISK & OPPORTUNITIES TOOLS & TECHNIQUES	58



# Introduction

"It is often said that no company can make a profit without taking a risk. This is true for all organisations: no organisation can achieve its objectives without taking risk. The only question is how much risk do they need to take? And yet taking risks without consciously managing those risks can lead to the downfall of organisations. This is the challenge"

The Institute of Risk Management quote illustrates how Risk Management is integral to the long-term survival of all organisations. It is the challenging activity of identifying risks, deciding how much risk to take and conscious management of risk that underpins value creation and protection in all organisations. We will see risk management systems must be structured but also dynamic and alive to change. This is because organisations function in dynamic, ever-changing environments, where circumstances change, what we know or think we know changes and because risks can be related.

In the modern business context, the effectiveness of risk management depends on its integration into all aspects of the organisation including decision-making. Which brings us to the contemporary model of Enterprise Risk Management (ERM).

In ISO 31000:2018, Risk is defined as the "effect of uncertainty on objectives". A major focus in the updated guideline is "the effect of incomplete knowledge of events or circumstances on an organisation's decision making" and the objective of the contemporary ERM model is to provide a robust mechanism to identify and manage risk and opportunity in a complex system.

The traditional understanding of Risk and Risk Management has been updated to recognise the dependence

between risks and the need to take a comprehensive view of risk. So, risk is no longer evaluated in isolation or with in separate existing operational subsystems, nor is its primary objective a means to avoid repeating past errors.

In this chapter we will review the principles, framework and process outlined for enterprise risk management. We will review the tools and techniques used to manage risk in the different stages of our value chain. The principles in this chapter are universally applied across organisation and are based in the ISO 31000:2018 standard.

The DOF Group addresses risks at all levels and stages within the business cycle. This ranges from



### *Just Being Human.*

*Risk management is part of the human condition. Individuals make risk judgments about complex situations every day – personally and professionally. In some cases, good-decision making needs a structured approach – which is provided by an integrated ERM system.*

business acquisitions to procurement through to project execution and marine operations. So, as you may expect you will find these principles applied in more detail in various chapters in this book, such as Safety and Occupational Health, External Environment, Security and Business Ethics.

Most importantly in this module we will see Risk is not a single, fixed concept and we will explore how each of us can apply a set of principles to assist with risk identification and management of risk.

## Aim of the Course

- Focus on the latest developments and understand the concept and principles of Enterprise Risk Management, ERM;
- Understand how to apply the concepts of ERM and the contemporary ERM model across the DOF value chain;
- Ensure personnel are clear on the limitations and pitfalls of relying too heavily on a risk management matrix alone in the process of risk management;
- To ensure personnel are aware of and understand the wide range of risk management techniques and their appropriate application;
- Provide an opportunity to attend a risk assessment;
- To train personnel in the use of appropriate risk assessment and risk management techniques as a practical means of improving safety within all work activities.

## Further Readings

- BS ISO: 31000:2018 Risk Management Guidelines
- Institute of Risk Management: A Risk Practitioners Guide to ISO 31000 – 2018
- Institute of Risk Management: Risk Appetite and Tolerance Guidance paper -2011
- Norsk olje&gass: Black Swans an enhanced perspective on understanding, assessing and managing risk – 2017
- Petroleum Safety Authority Norway: Integrated and unified risk management in the petroleum industry – 2018

## Changing Risk Context for Organisations

“Stakeholders increasingly hold executive management accountable for managing the impact of risk, while also critically evaluating leadership ability to embrace opportunities”.

Enterprise Risk Management aims to assist organisations manage uncertainty across a huge range and number of risks which can have potential consequences in many business areas. For example, non-compliance with regulatory/ legal obligations; disruption and inefficiency in operations; late delivery of projects; safety failures or failure to deliver the promised strategy.

The consequences for ignoring, failing to act on or evaluating risk can be severe but even success can have a downside risk, such as inability to meet demand or maintain business momentum. The ISO 13000:2018 is clear that managing risk assists organisations in setting strategy, achieving objectives and making informed decisions.

The multiple and varied risks faced by organisations are roughly categorized as 1) Strategic, which includes risk relating to rapid and/or unexpected changes in the marketplace. 2) Operational 3) Finance and Reporting 4) Hazard and Compliance.

## ERM Leadership and Commitment

Risk is Opportunity. At Board and executive management level risk is identified and managed to capitalise on opportunities as well as to control potential consequences/impacts. Traditionally, Boards consider strategic and high-level organisational risk, set risk appetite and evaluate creation of value and expect to see evidence operational level risks similarly evaluated and controlled.

Against the ever-changing circumstances of managing organisations and volatility in the marketplace, Enterprise Risk Management helps to create a true picture of Risk. To do this, the ERM process ensures risk information is part of the management information used by executives and Board members in decision making, setting and achieving objectives and improving performance.



## Understanding the organisation and its context

Organisations create and protect value by managing risk and opportunity. For ERM to be effective it is vital to understand the organisation itself (for example, the activities it undertakes, the range of skills and capabilities available, its structure) as well as the

external risk context.

In our organisational context (and generally within the Energy sector) ERM's purpose is financial value creation, the protection of people, the environment and material assets and to support good decision-making.

## Uncertainty & an Enhanced Risk Perspective

It has been generally accepted 'Risk' has two components;

- (i) the event and its associated consequences, and
- (ii) uncertainty about these,

However, when it comes to understanding, assessing and managing risk the new, Enhanced Risk Perspective offers us two additional components;

- (iii) the knowledge dimension and
- (iv) the unforeseen (i.e. surprises).

Enhanced Risk Perception recognises Risk as highly dynamic: risks emerge and change, situations change, our knowledge, or lack of it, shifts and there is always an element of the unforeseen – (all of which are aspects of uncertainty) (Norsk olje&gass 2017). Here, greater emphasis is placed on knowledge building, experience transfer and learning as we can never have a complete grasp of all the possibilities and we should always have this in mind.

The Black Swan concept is used in the Oil and Gas industry to heighten awareness and caution of

the uncertainty and risk inherent in our activities. A Black Swan event is “an event or combination of events which are unforeseen, and/ or represents a surprise in relation to our knowledge and beliefs and it carries a massive impact.” There are Three Black Swan events (see below):



The Unthinkable event;



The Unforeseen event;



The foreseen event assessed as negligible probability.

Enhanced Risk Perception and principle of The Black Swan help us to understand it is flawed to think Risk is managed because a matrix is completed.

## People and Culture

Yesterday's risk management practices are no longer adequate to deal with today's threats. Risk management has been seen as a separate from day-to-day management of organisations and concerned with compiling and managing a list of risks.

We have seen it is dangerous to think Risk is managed because a matrix is completed as this gives us a false sense of security. Nor can we rely on systems where risk is assessed on the basis of a greatly simplified risk descriptions (such as a risk matrix alone) or without consideration of dynamic, interdependent, changing circumstances.

Risk management is part of the human condition. Individuals make risk judgements about complex situations every day – personally and professionally. In some cases, good-decision making needs a structured approach – which is provided by an integrated ERM system.

**However, in an ERM, the success factor is the human factor.**

The Petroleum Safety Authority Norway published “Integrated and unified risk management in the petroleum industry (2018)” where they found universal questions are usually asked in the wake of an incident;

- Whether those responsible had the information they needed when decisions which contributed to the incident were taken?
- Did they understand the circumstances as well as the consequences of their operations and the decisions they took?
- Did the circumstances change?
- Were they able to see and handle these changes?
- Did they make assumptions which turned out later to be wrong?

When we read these questions the connection between Enhanced Risk Perception and improved risk analysis, which is “the ability to perceive the overall picture and to reflect on knowledge and the lack of it. To be alert and pick up on the nuances and signals when something happens. To take account of the unforeseen” are all human ingredients in a structured system – and where we can all make a difference.

“Norsk olje&gass: Black Swans an enhanced perspective on understanding, assessing and managing risk” (2017) tells us there are five mindset principles which keep us attuned to uncertainty and our role in perceiving risk accurately. We need to cultivate a;

1. Preoccupation with failure.
2. Reluctance to simplify.
3. Sensitivity to operations.
4. Commitment to resilience.
5. Deference to expertise.

It's so important it worth saying again:

**The success factor in ERM is The Human Factor. By having a risk aware mindset each of us can have a profound difference.**

# Risk Management (RM)

## Principles & Framework

ERM delivers value creation and protection, improved performance, encourages innovation, and supports the achievement of objectives.

To do all this the ISO 31000:2018 guidelines provide eight principles to apply to RM described as:

1. Framework and processes should be customised and proportionate.
2. Appropriate and timely involvement of stakeholders is necessary.
3. Structured and comprehensive approach is required.
4. Risk management is an integral part of all organisational activities.
5. Risk management anticipates, detects, acknowledges and responds to changes.
6. Risk management explicitly considers any limitations of available information.
7. Human and cultural factors influence all aspects of risk management.
8. Risk management is continually improved through learning and experience.

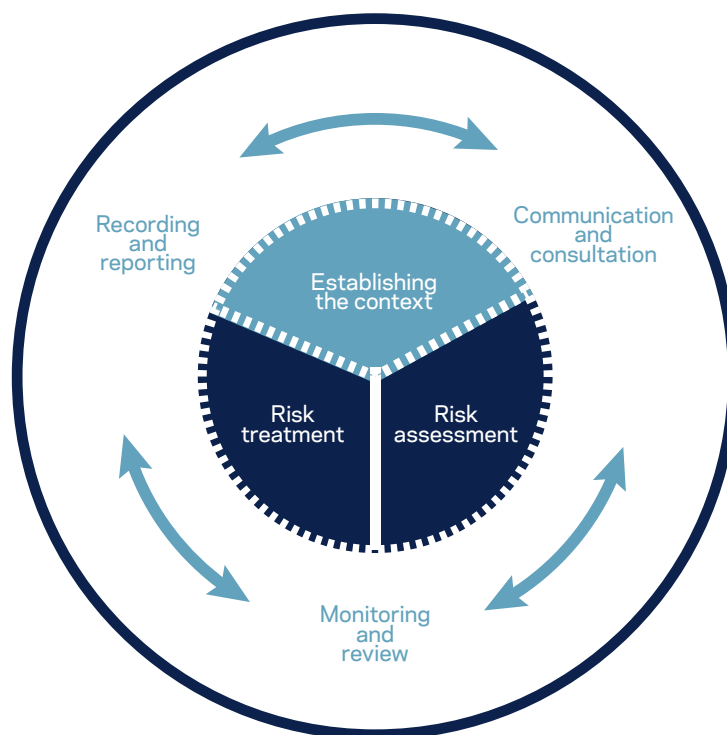
To achieve (1) integration of risk management into all organisational activities and functions ISO 31000:2018 guideline uses the plan-do-check-act principles of (2) design, (3) implementation, (4) evaluation and (5) improvement.

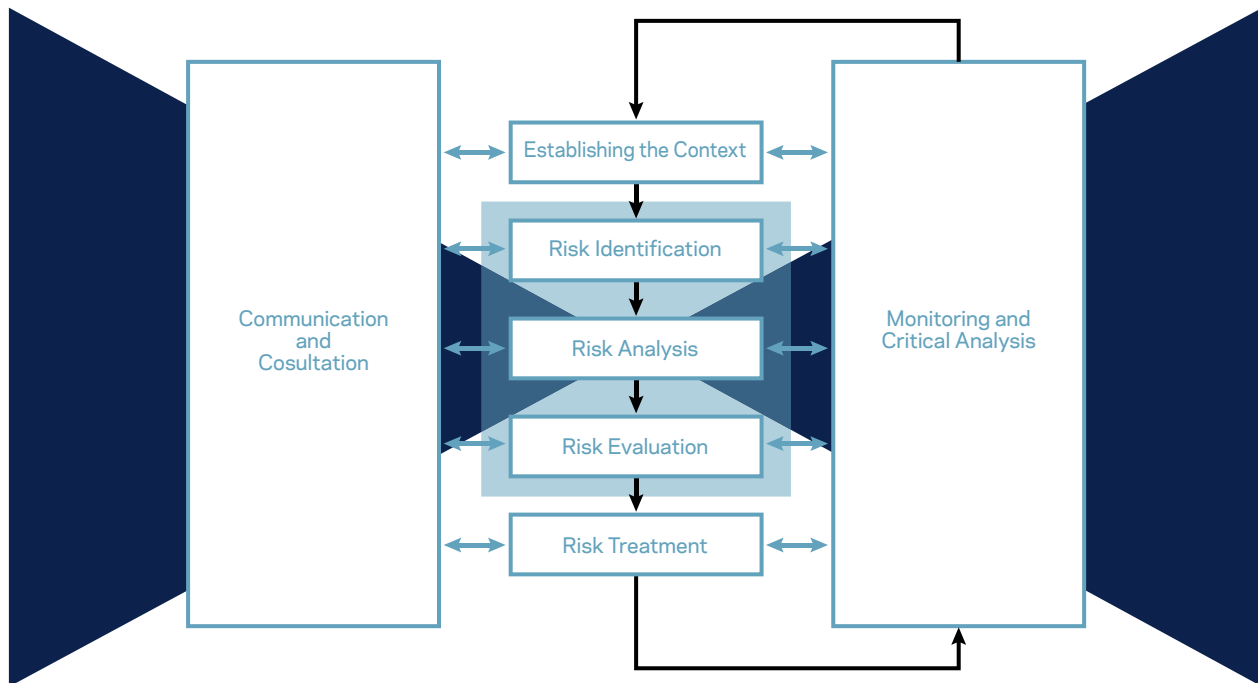
# Risk Management Process

The ultimate objective of the risk management process is to identify, assess magnitude and likelihood, control and mitigate the consequences of any hazard and treats in the business activities of the DOF Group and live the vision of the company.

The risk management process involves the systematic application of policies, procedures and practices to the following key activities:

1. Communication and consultation;
2. Scope, context and criteria;
3. Risk assessment;
4. Risk treatment;
5. Monitoring and review; and
6. Recording and reporting.





**1. Communication and consultation:** bring different areas of expertise together for each step of the RM process; ensure different views are considered when defining risk criteria and evaluating risks; providing sufficient information to facilitate risk oversight and decision-making; and build a sense of inclusiveness and ownership among those affected by risk.

**2. Scope, context and criteria:** defining the purpose and scope of risk management activities; identifying the external and internal context for the organisation; defining risk criteria by specifying the acceptable amount and type of risk; and defining criteria to evaluate the significance of risk/ opportunity and to support decision-making;

**3. Risk assessment:** risk identification to find, recognise and describe risks that might help or prevent achievement

of objectives and the variety of tangible or intangible consequences; risk analysis of the nature and characteristics of risk, including the level of risk, risk sources, consequences, likelihood, events, scenarios, controls and their effectiveness; and risk evaluation to support decisions by comparing the results of the risk analysis with the established risk criteria to determine the significance of risk.

**4. Risk treatment,** selecting the most appropriate risk treatment option(s); and designing risk treatment plans specifying how the treatment options will be implemented. Risk elimination or reduction shall be preferred prior to the adoption of protective measures. Elimination or reduction means proactive measures such as choosing another line of business, a different method of construction or equipment, or an improved operational procedure.

Mitigation of risk can be separated into the following categories: **Share risk, Transfer risk, and Reduce risk.**

**5. Monitoring and review:** improving the quality and effectiveness of process design, implementation and outcomes; monitoring the RM process and its outcomes, with responsibilities clearly defined; planning, gathering and analysing information, recording results and providing feedback; and incorporating the results in performance management, measurement and reporting activities.

**6. Recording and reporting, including:** communicating risk management activities and outcomes across the organisation; providing information for decision-making; improving risk management activities; and providing risk information and interacting with stakeholders.

## Risk acceptance criteria (DOF Group Risk Matrix)

The risk acceptance criteria are defined in the DOF Risk matrix in terms of Safety (harm to people), Environmental, Contractual, Legal, Reputational and Financial Impact.

The highest consequence figure for any of these three criteria should be used to determine the Risk Rating.

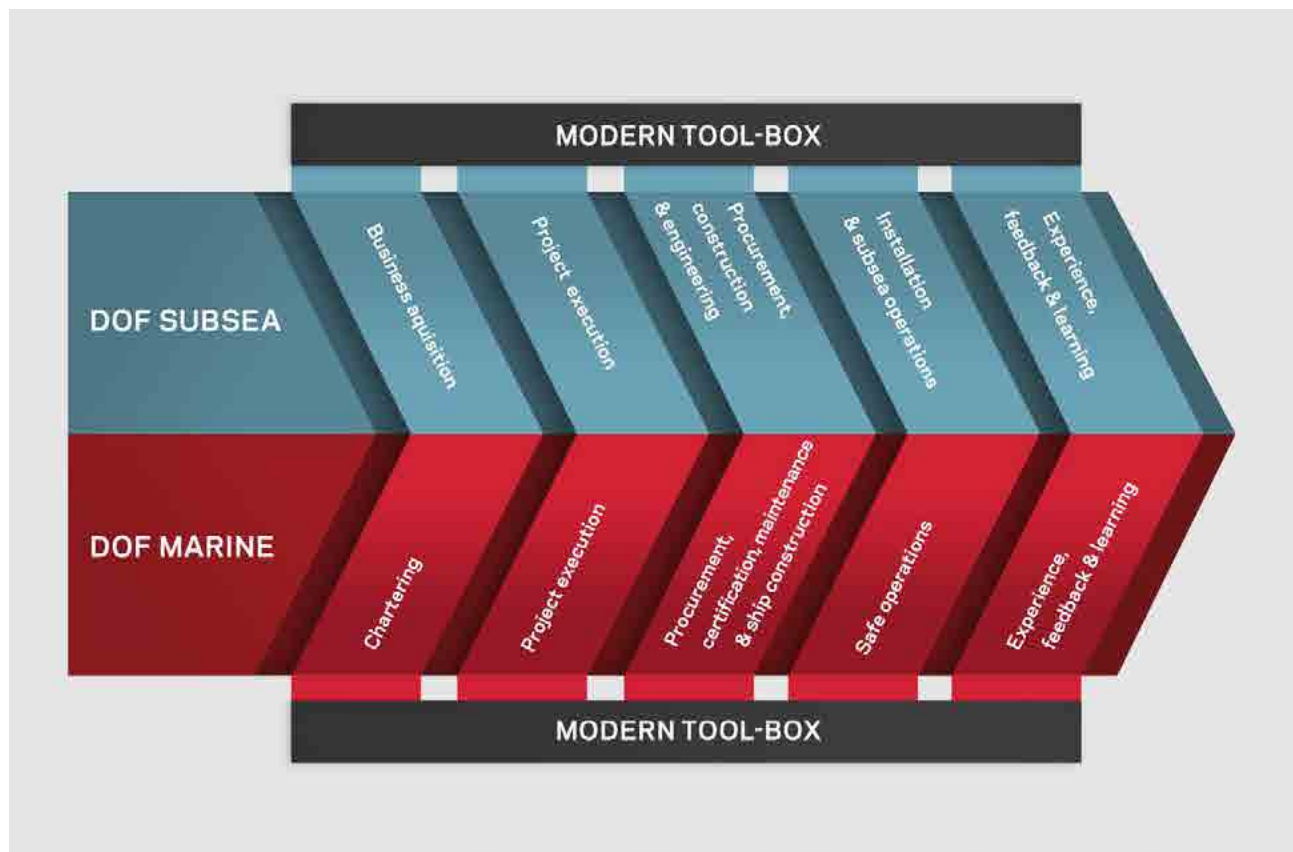
The Probability Criteria are expressed in terms of the risk assessment team's knowledge, lessons learned and experience.

The outcome of the assessment is presented in Green, Yellow and Red:

DOF Group Risk Matrix	
LOW	May be acceptable, however, review task to see if risk can be reduced further.
MEDIUM	Task should only proceed with appropriate management authorisation after consultation with specialist personnel and assessment team. Where possible, the task should be redefined to take account of the hazards involved or the risk should be reduced further prior to task commencement.
HIGH	The task must not proceed. It should be redefined, or further control measures put in place to reduce risk. The controls should be re-assessed for adequacy prior to task commencement.

## Risk Management in the DOF Business Cycle

Moving through the DOF Group's value chain, Risk Management is critical from the early phases of Business Acquisition and Chartering to the evaluation and experience feedback once work is finalized.

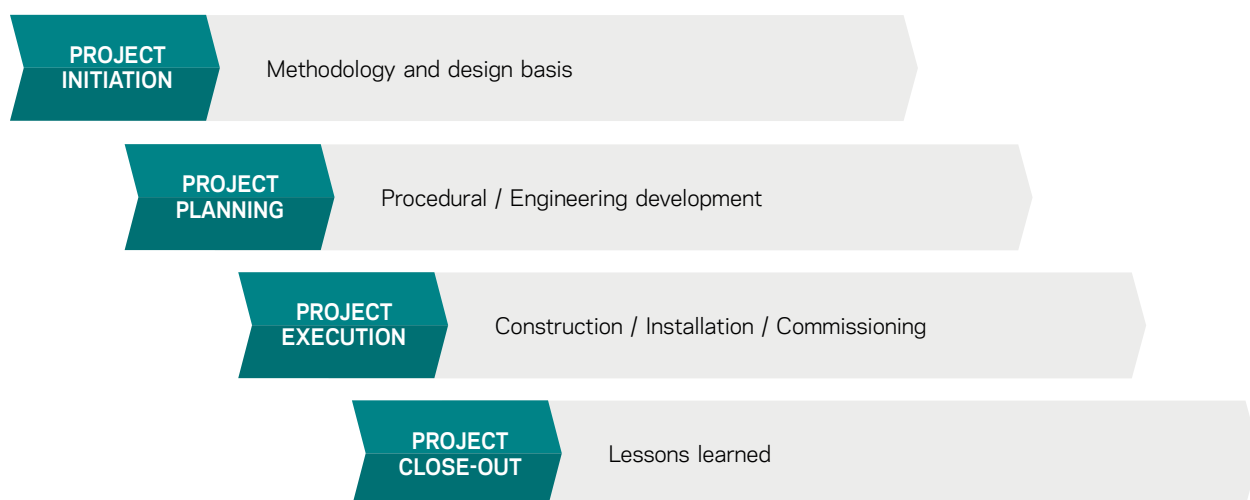


### Risk management in Business Acquisition/chartering

The Business Acquisition risk assessment process evaluates a wide range of commercial risk.

Risk assessments are conducted as part of the Tender Preparation process and involve qualitative and quantitative risk assessments, typically evaluating;

- Legal and contractual risk;
- Financial and commercial risk;
- Technical and HSE risk.



## Risk management in Project Execution

Risk Management is used at various stages of project execution:

For all DOF Group's operations and projects, there are legislative, internal and client requirements for execution of hazard and risk assessments for onshore and offshore operational activities.

The environment in which project operations take place is governed by a number of legislative, internal and client stipulations for risk assessment and risk reduction measures. These vary depending on the location and the scope of work. Environmental aspect

assessment and subsequent management is a proactive approach to fulfilling these legislative requirements.

A Project Risk Register is a commonly used tool within the DOF Group for managing projects and organisational risk assessments. It acts as a central repository for all risks identified by either Projects or Marine operations. Each risk identified includes information such as risk probability, impact, risk reduction measures, risk owner and so on.



## IDENTIFYING: **RISK MANAGEMENT WITHIN ENGINEERING**

DOF Group's methods for risk management within engineering may include the following:

- Conceptual Hazard Analysis - Design Review
- Constructability Review
- Hazard Identification & Risk Assessment
- Qualitative Risk Analysis (QRA)

## IDENTIFYING: **RISK MANAGEMENT WITH PROJECT OPERATIONS**

Throughout all operational activities, DOF Group utilises one risk assessment template which can be used both prior to and during operational activities.

By using this tool for operational activities, the hazard and risk management process by which hazards are identified shall be implemented, their significance assessed, and the necessary means of elimination/control/mitigation determined.

DOF Group's methods for risk management within operations include the following:

- Project risk assessment (based upon the procedure)
- Risk assessment on site
- Observation (Observation Cards)
- Toolbox / Pre-start Meetings
- Management of change process
- Operational HAZID reviews and assessments

## IDENTIFYING: **RISK MANAGEMENT ONBOARD**

DOF Group is required by legislative, internal, field and client requirements to carry out risk assessment for its activities and operations onboard. Risk Management is used at various stages of offshore operations.

Good operational risk management is a key component to successful HSE management. All parties involved in an operation have a duty to ensure it is carried out properly.

The key levels are:

RA - Risk Assessment  
 PTW - Permit To Work  
 TBT - Tool Box Talk  
 MOC - Management of Change

The vessel master has overall responsible for safety onboard and plays a key role in managing risk on the vessel.

## Risk & Opportunities Tools & Techniques

There are several different risk assessment tools and techniques available. Understanding the risks and opportunities in the initial phase of an offshore project requires one approach. A specific risk in an offshore work operation may require a different approach.

In the following some tools and techniques are briefly described with the aim to give an overview in the approach and uses.

### SWOT

SWOT analysis (or SWOT matrix) is a strategic planning technique used to help a person or organisation identify strengths, weaknesses, opportunities, and threats related to business competition or project planning.

It is intended to specify the objectives of the business venture or project and identify the internal and external factors that are favourable and unfavourable

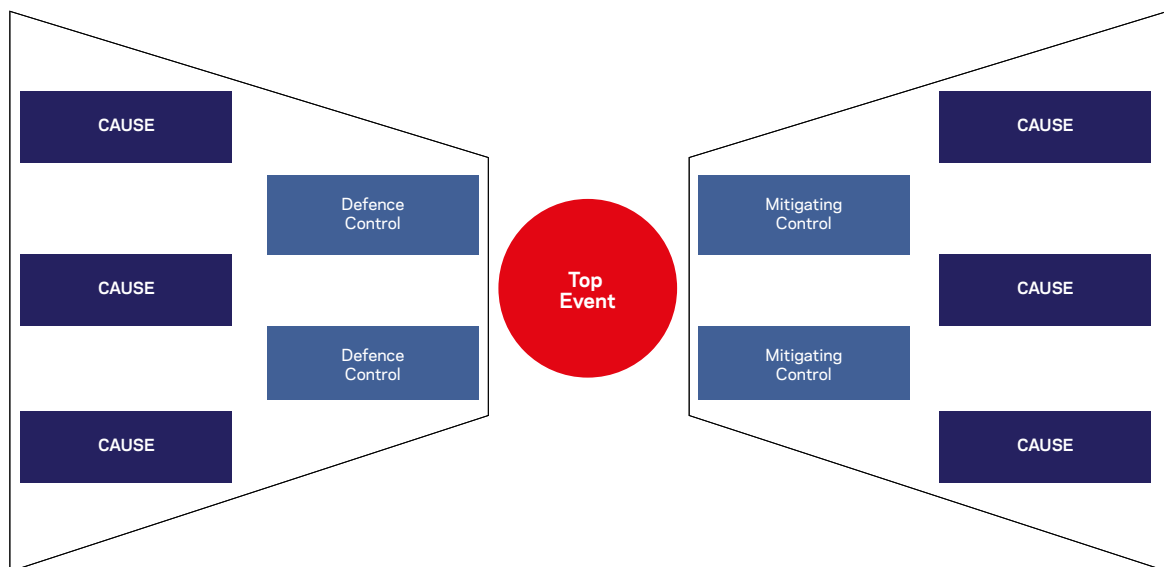
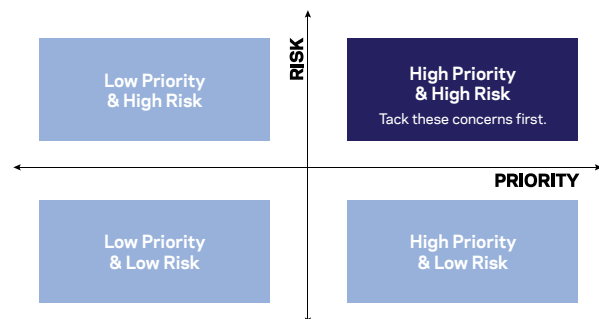
to achieving those objectives. Users of a SWOT analysis often ask and answer questions to generate meaningful information for each category to make the tool useful and identify their competitive advantage.

Strengths and weaknesses are frequently internally-related, while opportunities and threats commonly focus on the external environment. The name is an acronym for the four parameters the technique examines:



## Risk and opportunity register

A Risk and Opportunity Register is part of the overall strategy of building a visual workspace to control, communicate and monitor results of risk and opportunities assessments. Through the different phases from identification, assessment response and control till communication and monitoring, the risk and opportunity register will give the necessary overview for managing the risks timely and with the right priority.



## Risk Communication tools

A BowTie is a diagram (above) that visualizes the risk you are dealing with in just one, easy to understand picture. The diagram has the shape of a bow tie, creating a clear differentiation between proactive and reactive risk management. The power of the BowTie diagram is that it gives you an overview of multiple plausible scenarios. In short, it provides a simple, visual explanation of a risk that would be much more difficult to explain otherwise.

Power BI provides cloud-based BI services, known as "Power BI Services", along with a desktop based interface, called "Power BI Desktop". It offers data warehouse capabilities including data preparation, data discovery and interactive dashboards. The tool can be used to visualize a risk register in a customized visualization for different management levels and focus areas.

## Conceptual & Design Review

Conceptual and Design Reviews identify potential engineering and design safety issues. These may relate to hazards/risks and safety scope definitions and specifications.

A design safety review is conducted by expert project and client representatives, on or before completion of principle design engineering documents, general arrangement plans and process identification diagrams etc. The Project Manager is responsible for reviews and ensures the appropriate personnel attend and the review is recorded in the risk register.

## Constructability Review

Constructability Reviews are held to address all elements of a work scope (e.g., installation engineering, fabrication, mobilisation, and offshore installation and pre-commissioning) once engineering construction / installation procedures revision 'A' is issued.

Issues are highlighted, solutions and control measures developed (such as design, installation engineering, HSE, install-ability, quality, schedule, equipment, assets and resource provision). Review findings and actions are captured in a project specific risk register and responsibilities and deadlines are assigned by the PM. The supervisory engineer documents the way actions are closed-out and includes them the relevant construction / installation procedure(s).

### Task

Discuss in plenum:  
Who is on an FMEA TEAM?

## Failure Mode Effect Analysis (FMEA)

FMEA is a systematic analysis of the systems to whatever level of detail is required to demonstrate that no single failure will cause an undesired event.

An FMEA should be conducted as early as possible to ensure the greatest benefit. FMEAs use a number of standards to ensure acceptance by all interested parties and are based on experience to help teams identify potential failure modes, to design failures out of the system, thereby reducing development time and cost.

FMEA outcomes are actions to prevent or reduce the severity or likelihood of failures, starting with the highest priority. These may be used to evaluate risk management priorities for mitigating known threat vulnerabilities. FMEA helps select remedial actions that reduce cumulative impacts of life-cycle consequences (risks) from a systems failure (fault).

## Hazard Identification (HAZID) & Risk Assessment Studies (HIRA)

A HAZID is a formal in-depth study to identify the hazards, the risks, the controls, and evaluate if risks are acceptable using quantitative methods. DOF Group projects and major operations are subject to HAZID and Risk Assessment (HIRA) prior to commencing project operations. The aim is to identify all foreseeable hazards arising from the work scope, ensuring adequate controls and risks are quantified using the DOF Group Risk Matrix.

A HAZID team which, depending upon the exact work scope, may include Operations /Projects, Engineering, HSEQ Departments. Client Representatives, Subcontractor and Supplier representatives may also attend. Timing is critical to maximising the benefit – early in the project cycle gives the greater the benefit.

A HIRA register is compiled; where all resulting actions and individual responsibility is assigned. Once closed out, the HIRA is issued to project personnel and appended to work procedures to ensure effective communication of the risk assessment throughout the project work team.

## Offshore Risk assessment tools

On DOF sites and vessels the assessment tools and techniques to control risk become quite square and is mandatory to use in accordance with the occupational health and safety management system. Module 6 gives a more complementary overview and the listing below is just a brief overview:

### Task

Put some arguments for why you think proper risk management is key for our company and discuss in plenum.



#### ***On-Site Risk Assessments - RA***

On-site risk assessments are conducted to evaluate any risk, assumptions and uncertainty so as to ensure clarity. They will be utilised regularly throughout the DOF Group to assess specific worksite risks and specific tasks. They are conducted using the DOF Group Risk Matrix and Risk.



#### ***Permit to Work - PTW***

The Permit to Work system is required to maintain a high level of safety in the operation and maintenance of the worksites. The need for Work Permits is found primarily in non-routine work, likely to involve risk or create hazards which can adversely affect the worksite and its personnel.



#### ***Toolbox Talk - TBT***

The Toolbox Talk (TBT) objective is to communicate all relevant Risk Assessments and capture any specific controls not already identified to the work party. All Personnel involved in the work activity must participate in the TBT and sign as being present.



#### ***Management of Change - MOC***

DOF Group strives to always work safely and efficiently. Part of this process is managing change. All employees and contractors working for DOF Group are responsible for monitoring the need for changes within their field of expertise.

END OF SECTION ●

END OF MODULE. CONGRATULATIONS! ●





" Planning and implementing safety measures to manage and control the combination of hazards in the working environment. "

Value moment icebreaker:  
**Above all we are SAFE**

---

Occupational health and safety (OHS) is a multidisciplinary field concerned with the safety, health, and welfare of people at work. Learn how we work to safeguard people and their welfare.

DISCUSS: how does the above relate to "Above all we are SAFE"?





## MODULE 6

# Occupational Health & Safety Management

OCCUPATIONAL HEALTH & SAFETY MANAGEMENT	66
RISK AT WORK	72
WHY INCIDENTS OCCUR	75
SAFETY CULTURE	76
OUR CONTROLS	82

# Occupational Health & Safety Management

The cause of any accident is a combination of human, technical, and/or organisational failures. This chapter aims to give you a basic understanding of occupational health and safety measures in the group.

Occupational health deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards. The health of the workers have several determinants, including risk factors in the workplace leading to cancers, accidents, musculo-skeletal diseases, respiratory diseases, hearing loss, circulatory diseases, stress related disorders and communicable diseases and others.

The purpose of Safety Management is to manage and control a combination of hazards in the working environment by planning a variety of safety measures.

DOF aims to provide good and uniform working-environment conditions and occupational-health services. This is achieved by given standards, which are intended to set the standard for all aspects of working environment and occupational health.

## Key words

- Be safe
- Reactive versus proactive
- How do accidents occur
- Occupational health and safety

SECTION CONTINUES ON NEXT PAGE ►

## Key definitions

The area of Occupational Health and Safety uses some universal key words, however DOF also has their own terms. A few of both universal and DOF terms have been defined below:

- **Health** - is the general condition of a person's mind, body and spirit, usually meaning to be free from illness, injury or pain. The maintenance and promotion of health is achieved through combinations of physical, mental and social measures and activities. Occupational health deals with all aspects of health at the workplace.
- **Safety** - can be defined as being in control of recognised hazards to achieve an acceptable level of risk. To identify hazards and establish acceptance criteria for risks are important tasks throughout the business.
- **Environment** - Our Environment is our surrounding, locally and globally. This includes living and non-living things around us. The non-living components of environment are land, water and air. The living components are germs, plants, animals and people. We also include the production and utilization of energy as part of the environment.
- **Occupational Health** - deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards.
- **Safety Management** - is a way to identify hazards and control risks while maintaining assurance that these risk controls are effective.

## Aim of the Course

By the end of this module, you will have a broad understanding of:

- Why accidents occur
- Reactive versus proactive safety
- Occupational health
- Psychosocial working environment



WELL THE AIR CONDITIONING'S ALREADY ON ITS LOWEST SETTING.  
YOU COULD TRY JOGGING IN YOUR LUNCHBREAK TO WARM UP..

## Physical Working Environment

The main physical working-environment factors to be considered are indoor climate, ventilation, illumination, ergonomics, radiation, noise, vibration, biological factors (hygiene and housekeeping), chemical factors, and outdoor conditions. These factors are addressed through company standards, guidelines, and procedures, and are summarised in the table on the next page.

### Noise



Each employee's exposure to noise shall be as low as reasonably practicable (ALARP). All employees shall use hearing protection in high-noise areas. Ear protection is mandatory in areas where noise levels exceed 83 dB(A).

### Vibration



Exposure to hand-arm vibration and whole-body vibration shall be minimised. This requirement shall be considered when designing work stations and when buying equipment and tools.

### Biological factors, hygiene, and house-keeping



Exposure to micro-organisms that can harm people shall be avoided. Micro-organisms include bacteria, virus, fungi, and microscopic parasites (e.g., malaria parasites, amoeba, and trypanosomes).

### Indoor climate & ventilation



To ensure an efficient working climate, temperature, humidity, and ventilation shall be regulated and suitable for the work being performed.

### Chemical factors



Harmful exposure to chemicals shall be avoided during storage, handling, and disposal. For all chemicals used by DOF, the ECOonline software program provides material safety data sheets (MSDS), information about hazards, first-aid measures and PPE requirements. Additionally, regional variations will be required as per local legislation.

## Outdoor conditions



DOF operates around the world, and outdoor conditions vary considerably between regions. Local conditions shall be considered for personnel working outdoors.

## Ergonomics



Attention shall be paid to the layout of the work area and equipment. To the extent possible, these shall be designed in accordance with healthful ergonomic principles.

## Radiation



All radioactive sources shall be treated as potentially harmful to personnel. Appropriate steps for protection shall be taken, in cooperation with competent personnel, using the principles of minimum exposure time, maximum distance, and maximum shielding.

## Illumination



All work stations and visual display units shall be provided with lighting that allows safe operation and provides appropriate illumination for the work being performed. Lighting shall be provided at the surface where equipment is to be operated and used.

## Psychosocial working environment

Mental health problems are among the most common, costly and disabling health challenges facing the working age population. The International Labour Organisation considers that psychosocial problems are one of the main causes of work-related accidents, diseases, absences and mortality worldwide (International Labour Organisation, 2002).

Stress in the workplace is a serious occupational health and safety issue and can be linked to serious health problems amongst workers such as heart disease, back pain, insomnia, headaches and more.

Identifying the source is the first step to managing stress. For those who are experiencing it, stress can cause noticeable changes. For instance, when you are disappointed at work, you might lose confidence and may become irritable or withdrawn. This can lead you to become less productive in your job. Thus, if the signs of stress can be identified early on, you can then take action before they lead to more severe problems. By doing so, it is easier to reduce and eliminate the causes of stress.

DOF strives to promote a workplace where all are treated fairly, accepted equally, without exclusion – in

a harassment free workplace. The guiding principle is that everyone should be treated with dignity and respect at work. The best way to create a sound and health psychosocial working environment is that we follow the guiding principles of our code of business conduct:

- Never accept any form of harassment. If you see something that is inappropriate, raise your voice.
- Never remain silent – bring the behaviour to someone's attention;
- Become familiar with and follow the applicable company policies, procedures laws and regulations;
- Be guided by principles of fairness and respect: treat employees equally regardless of age, sex, race, disability, political, religious or sexual orientation/preference, or national origin;
- Recruit, reward or promote employees, based on merit, using transparent, fair and equitable processes;
- Actively promote a safe, healthy and fair environment in which people can work to their full potential and meet business objectives;
- Be aware and recognise behaviours that are considered unacceptable.

## Work operations

In our daily operations we are involved in activities that have inherent hazard levels all of which must identified and controlled through our Risk Management processes

The list below gives a brief overview of some of the operations we undertake that require controls to manage ‘inherent’ hazards. Also, bear in mind that all generic risk assessments are based on normal operational conditions and have not built-in additional risks created by changes in the working environment, either physical or psychosocial.

A routine operation in darkness and poor weather is different compared to daylight and good weather. The risk in the same operation can change due to language barriers or just the fact that the area is surrounded by heavy noise. These additional risks should be considered when undertaking the risk assessment or if something changes a Management of Change process should be undertaken. If something’s not right always speak-up, use your stop work authority.

Some examples of the operations we undertake that require controls to manage ‘inherent’ hazards and

where you should always be aware of and manage the actual environmental risks are;

- Lifting operations;
- Working at Heights;
- Confined Space;
- Offshore Diving;
- Electrical Safety;
- Compressed Gasses;
- Welding and Cutting;
- Blasting and Painting.

## Risk at work

The physical and psychosocial factors of the working environment for each different work operation gives the true picture of the risk at work.

A well functioning offshore team with good communication and respect towards each other will operate with lower risk compared to a team with less respect. This is a good starting point as the physical environment can change and may change quickly, which raises the level of risk in the operation.









## Risk perception

Everyone sees and judges risk differently. This is called risk perception and is based upon peoples' experience, background and appetite for risk.

Enhanced Risk Perception and improved risk analysis is “the ability to perceive the overall picture and to reflect knowledge and the lack of it. To be alert and pick up on the nuances and signals when something happens. To take account of the unforeseen” are all human ingredients in a structured system – and where we can all make a difference. The success factor is The Human Factor. By having a risk aware mindset each of us can have a profound difference.

“Norsk olje&gass: Black Swans an enhanced perspective on understanding, assessing and managing risk” (2017) tells us there are five mindset principles which keep us attuned to uncertainty and our role in perceiving risk accurately.

We need to cultivate a;

1. Preoccupation with failure.
2. Reluctance to simplify.
3. Sensitivity to operations.
4. Commitment to resilience.
5. Deference to expertise.

## Why Incidents occur

The cause of any accident is a combination of human, technical, and/or organisational failures.

The model below illustrates how analyses of major accidents and catastrophic system failures tend to reveal multiple, smaller failures leading up to the actual hazard.

Each slice in the model represents a safety barrier or precaution relevant to a particular hazard. The system as a whole produces failures when all of the holes in each of the slices momentarily align, permitting (in Reason's words) "a trajectory of accident opportunity", so that a hazard passes through all of the holes in all of the defences, leading to a failure.

### Task

How can you use the 5 elements of perceiving risk to help deal with the Swiss Cheese effect illustrated below?



*Based upon James Reason model – The Swiss Cheese*

### Barriers

Reason claimed that most accidents can be traced to one or more of four levels of failure: Organisational influences, unsafe supervision, preconditions for unsafe acts, and the unsafe acts themselves.

## Safety culture

Safety culture can be defined as norms, ideas and attitudes which characterize a group of people. We can gain an insight into this culture by listening to what people say and by looking at the way they behave.

The relationship between words and deeds is precisely the point at which we can gain an understanding of the HSE culture in an organisation. Words and deeds must correspond.

Culture is not only a matter of knowledge, values and attitudes. It is also about technology, economics, law and regulations, and other conditions which influence daily life.

We can regard culture as a glass through which we see the world, and which helps us to interpret what we see. We may find it difficult to view our own culture without glasses, because our vision will be blurred. It is often the case that we regard our own culture as “right” and defend what we think of as its good and fundamental values. The technical term for this is “ethnocentricity”, or the tendency to assess, judge or analyse ways of behaviour in other cultures in relation to norms or concepts from the observer’s own culture. It is only through our meeting with people from other cultures that we can detect what is distinctive about us and them.

Understanding how people’s knowledge, values, norms, ideas, attitudes and framework conditions interact is important in building an HSE culture. All these aspects will influence the way we think and collaborate in relation to HSE.

(The text is based upon the brochure HSE and Culture developed by The Petroleum Safety Authority Norway)

## Clarifying the Cultural Concept

1. Culture is not something we own or have constructed once and for all. It finds expression through the things we do together, and is in constant development.
2. Culture is seldom a unified and collective quantity. It is usually fragmented, diversified and split into different sub-cultures.
3. Culture is not an individual quality. It develops through the interaction between people and specified frame conditions.

Key issues in efforts to enhance an HSE culture will be whether our HSE activities are appropriate, and whether they bring us closer to our objectives. (From Gherardi & Nicolini 2000)

### Characteristics of a sound safety culture

In pursuing a safety culture, many people draw on the work of organisational psychologist James Reason (2001). He has developed a set of concepts which can be helpful in building a Safety Culture.

Reason argues that a significant feature of a sound safety culture is that it is informed. An informed organisational culture is characterised by several factors - it has good reporting systems, is perceived to promote fairness and is flexible and adaptable. In addition, both the organisation and its members learn from their experience.

Organisations with a sound safety culture are characterised by the ability to learn, and constantly question their own practice and patterns of interaction. Informed organisations accommodate dialogue and critical reflection on their own practices. People respect each other's expertise and are willing to share and further develop their HSE knowledge. If organisations become self-satisfied, they are on the wrong track. This kind of attitude undermines their ability to spot danger signals.

A safety culture is one in which safety has a special place in the concerns of those who work for the organisation.

Safety cultures can be distinguished along a continuum from pathological, caring less about safety than about not being caught, through calculative, blindly following all the logically necessary steps, to generative, in which safe behaviour is fully integrated into everything the organisation does.

#### Generative

Actively seek information  
Messengers are trained  
Responsibility is shared  
Bridging rewarded  
Inquiry and redirection  
New ideas are welcome

#### Bureaucratic

May not find out  
Listened to if they arrive  
Responsibility is compartmentalized  
Bridging is allowed but neglected  
Organisation is just and merciful  
New ideas present problems

#### Pathological

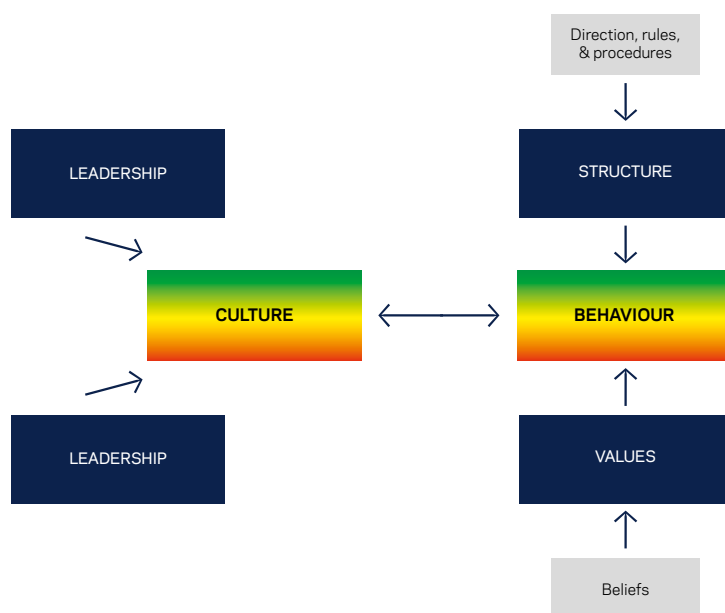
Don't want to know  
Messengers are shot  
Responsibility is shirked  
Bridging is discouraged  
Failure is punished or covered up  
New ideas are actively crushed

*"Westrum's original model"*

## Culture and behaviour, structure, and values

There is a simple model describing the interaction on behaviour with regards to structure and values. We know for a fact that behaviour can be changed immediately by implementing a rule supported by a

hard consequence breaching it. It is also well known that behaviours can be changed by a company values. This take time, years since values is deep connected to what we believe in.



### IOGP's Life-Saving Rules

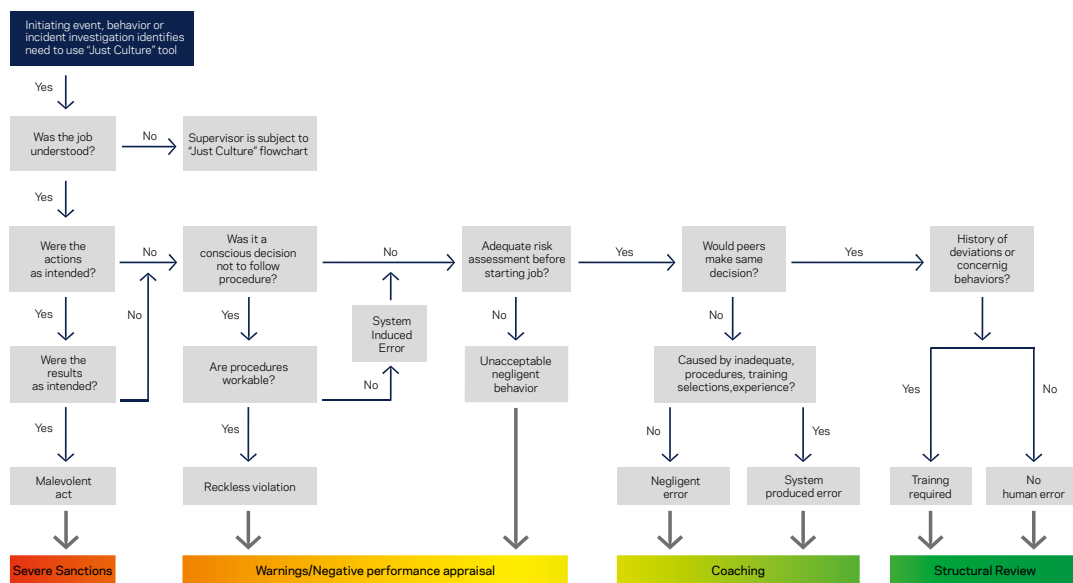
DOF has fully adopted the IOGP's 9 Life-Saving Rules and they are here to help you recognise when you might be in a situation where you need to stop and think and to help you identify risks before, during and after an operation.

The rules are a daily tool available for everybody working for DOF. They can be found displayed on walls and are available as handouts wherever we operate.

### Values

Our values – Safe the RITE way, RESPECT, INTEGRITY, TEAMWORK and EXCELLENCE – above ALL we are safe, has been in the company since the very foundation of DOF.

Working systematically over many years we have made our values 'operational' in a way where we can form short and long term actions and activities and measure our results. This has been a success story for DOF.



*Available in larger format on following page.*

## Just Culture

Making mistakes is a natural part of human life. Our efforts to avoid injuries, accidents or negative consequences for HSE depend on awareness of uncertainty, recognising risks emerge and change, situations change, our knowledge, or lack of it, shifts and there is always an element of the unforeseen.

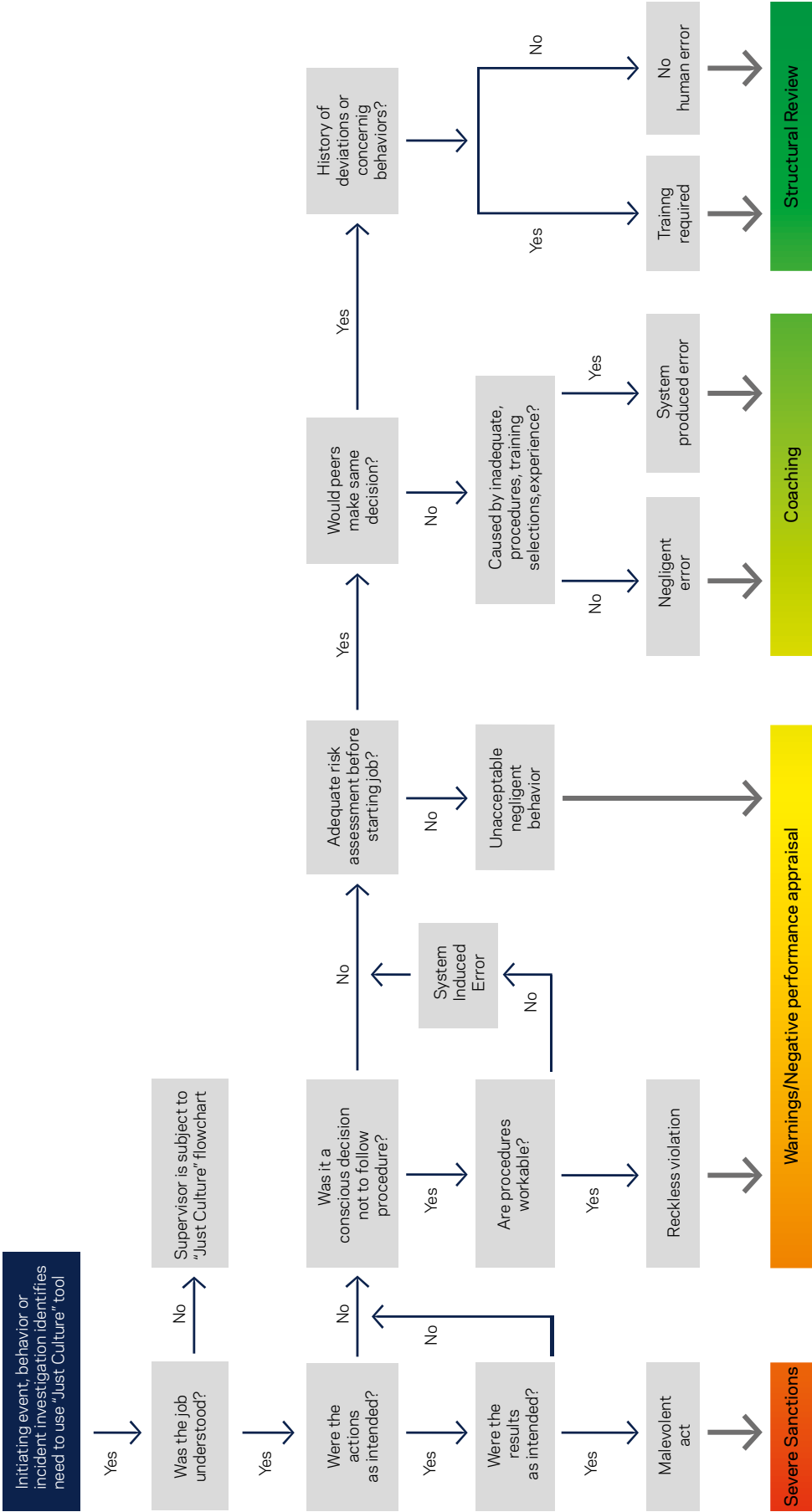
We also rely on failures being corrected, sometimes through the intervention of another person. The ability and willingness to intervene is an important aspect of an HSE culture, where our actions have consequences for ourselves and others.

We are all responsible for our actions but, under certain circumstances, we can be far removed from the consequences and we find it hard to imagine what they might be. This makes it important to think about HSE in every phase from planning to execution and completion, and to try to prevent undesirable consequences.

Just Culture is a tool used for dealing with non-compliance with DOF Group's safety standards and is used to ensure that such breaches are handled in an objective, proper and robust manner: distinguishing between intentional and unintentional behaviour and ensuring proportionate reactions.

The Just Culture Process tool can be used by a Line Manager to engage individuals or groups to understand their involvement in decisions or actions that may have contributed to hazardous occurrences or deviations. The Line Manager will then determine if an event, non compliance or behaviour requires the implementation of Just Culture or if it could be identified as an action item from an incident investigation. Typical triggers, not related to incident investigations, may be negative behaviours from monitoring of activities to identifying non compliance with procedures or policies.

“Just Culture” Decision Tree



Just Culture Decision Tree, Typical Process of the Just Culture Methodology (Guideline- Just Culture).



## Guideline on the Application of the Tool

The following provides clarification around the different decision and outcome boxes below.

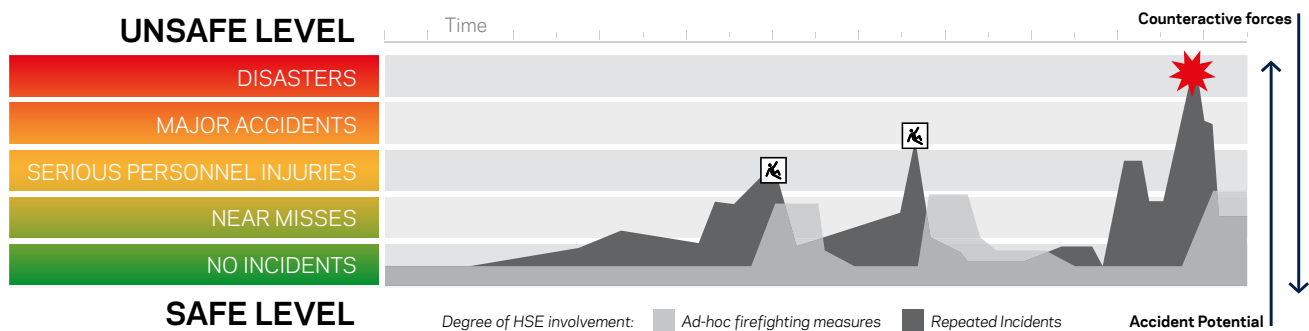
Was the job understood?	This is not always the starting point and depends on the circumstances. The information gathered during the safety investigation will help understand if this question should be considered.
Were the actions as intended?	If the question is asked and the answer is 'no', the supervisor is subject to the decision tree.
Were the results as intended?	Were you able to do what you were trying to do?
Was it a conscious decision not to follow procedure or policy?	Did your actions have the results you intended / expected?
Are procedures workable?	The difference between believing you were following procedures and knowing you weren't.
Reckless violation?	Workable = Practicable. Were the procedures in any way inaccurate or not able to be followed?
System Induced Error?	Knowingly broke workable procedures, but didn't intend results.
Performed Adequate Risk Assessment before starting?	When procedures aren't workable or practicable or the system rewards the wrong behaviour. The system needs to be reviewed to remove the system inducement that caused the event.
Would peers make the same decision?	For higher risk procedures, performed formal JHA, hazard assessment, etc For lower risk procedures, used TIF or equivalent procedures to identify hazards. Was there an appropriate level of rigour/ detail in the risk assessment or was it ticking boxes. Given the circumstances that existed, could a person from the peer group be sure they would not have done the same thing. Peers would be persons performing the same or similar job having similar training. In applying the question to more general work tasks such as driving, peers would be deemed those driving with similar levels of training. This question captures instances where there is no detailed procedure and performing a task requires certain training such as an electrician changing a switch.
Caused by unclear or inadequate procedures, training, selection, or experience?	Choosing a person not appropriately skilled or experienced for the job. This can be determined from the individual's records or general knowledge of the person.
Negligent error?	Not in the right state of mind.
History of deviations or worrying behaviour?	This can be determined from the individual's records or general knowledge of the person. This question responds to a series of events which points to a pattern which may indicate the need for training.
Training required?	This can be at Group (if passed peer test) and / or individual level.
No human error?	The need to learn from the event should not be lost. A wider structural review of the people, procedures, systems and culture may be necessary to prevent recurrence.

# Our Controls

## "Reactive" and "Proactive" Safety Management models

### Reactive Safety Management

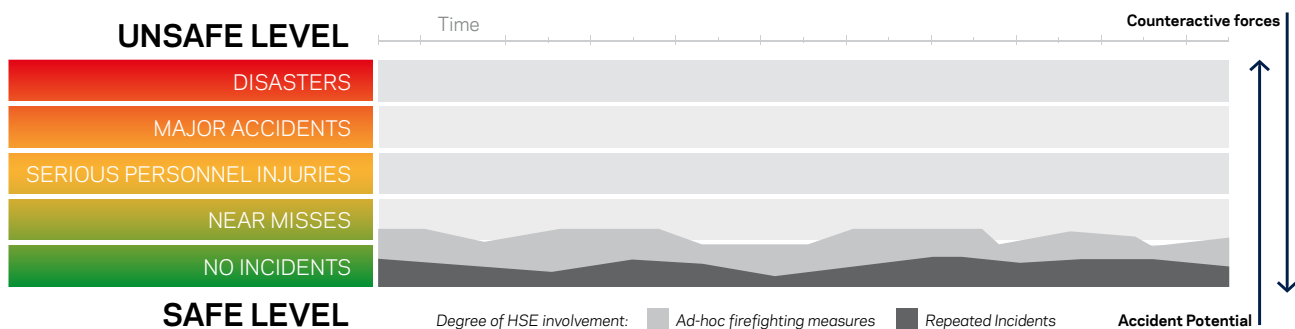
*Event-Based Safety Management*



In this model of Safety Management the accident potential is met by ad-hoc counter measures. The approach is based on a wait and see attitude and efforts are mostly made as reaction to undesirable events. People forget to fear things that rarely happen, particularly in the face of productive imperatives. Production and protection have to be balanced to avoid both catastrophe and bankruptcy.

### Proactive Safety Management

*Professional Safety Management*



In this model management at all levels is committed to the management of safety:

- A corporate HSE culture that fosters safe practices and encourages safety, communicates and actively manages HSE matters with the same attention to results as financial management.
- Systematic mapping and elimination or reduction of risk.
- Effective implementation of operating procedures, including the use of check-lists and pre-job meetings.
- A non-punitive environment (or just culture) to foster effective incident and hazard reporting.
- Systems to collect, analyse, and share HSE-related data arising from normal as well as abnormal operations.
- Competent investigation of accidents and serious incidents, identifying systematic deficiencies (rather than just targets for blame).
- Integration of HSE training for all personnel.
- Sharing lessons learned and best practices through the active exchange of HSE information.
- Systematic oversight and performance monitoring aimed at assessing performance and reducing or eliminating emerging problem areas.
- Continual improvements through a "plan-do-check-act" attitude at all levels in the organisation.



*Steering by looking astern*



*Steering by looking ahead*

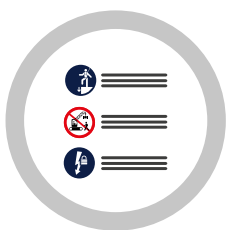
## Safety starts with you

There is a simple model describing the interaction on behaviour with regards to structure and values. We know for a fact that behaviour can be changed immediately by implementing a rule supported by a hard consequence breaching it. It is also well known that behaviours can be changed by a company values. This takes time, years, since values are deeply connected to what we believe in.



### Safe the RITE way Framework

Combining our values with recognised safe behaviours. This framework helps us make better decisions and keep everyone SAFE. Use the framework to guide your decisions and to remind you what the 'RITE' thing to do is. Use it for discussions at toolbox talks and department meetings. Use it if you are in doubt about risk assessments or to help you identify hazards and to speak up.



### IOGP's life-saving rules

DOF has fully adopted IOGP's 9 Life-Saving Rules, which are made to help us recognise when we are in a situation where we need to stop and think – what barriers can be put in place before continuing working. The rules are a daily tool available for everybody working for DOF. They can be found displayed on walls and are available as handouts. Breaching the rules put us all in life danger.



### Risk Assessments (RA)

Helping to identify and manage risks. The Risk Assessment covers the tasks and with risks clearly identified, discussed, and controls implemented. Risk Assessments should be performed prior to starting any work. Remember if something changes in a task – STOP, if it is safe to do so, and undertake another risk assessment.



### Permit to work (PTW)

The Permit to Work (PTW) system ensures that all aspects related to elements of risk in work activities are taken into consideration. A PTW is a written document that authorizes specific people to carry out specific work at a certain time. Always use PTW where it is required. A supervisor can always determine if a PTW is required for a specific work activity.



### ***Management of Change (MoC)***

Change situations can occur onshore and during offshore operations. Ensure changes are identified, understood and dealt with accordingly, use MOC structured process – to be sure you have the correct controls in place.



### ***Toolbox talks (TBT)***

Toolbox talks (TBT) identify the hazards involved with a coming task. TBTs are pre-start meetings to share information and discuss the potential risks in the planned operation. Everyone involved in the operation must participate and sign to confirm they attended and are aware of potential risks. A TBT must be called for during an operation if circumstances change or if anyone becomes uncertain of the operational steps ahead.



### ***Personal Protective Equipment (PPE)***

Personal Protective Equipment (PPE) is the last line of defence -- it is essential at all work-sites. The correct PPE must be worn fitted for the job. PPE requirements vary based on environment.



### ***Stop Work Authority***

Every DOF employee has the authority to speak up if they see something which is not safe or not quite right - this is called the STOP work authority. We identify this as a safety barrier and one of the most important one.



### ***Observation Cards (OC)***

Feedback is used to make a safer working environment, and this can be submitted via Observation Cards (OCs). Employees can report unsafe behaviour, unsafe condition, or suggestions for improvement. OC cards and postboxes are located on all work-sites, ask your supervisor where to find them.

Reading poetry as a reflection exercise

**"I chose to look the other way"** a poem by Don Merrell .....

I could have saved a life that day,  
But I chose to look the other way.  
It wasn't that I didn't care;  
I had the time, and I was there.

But I didn't want to seem a fool,  
Or argue over a safety rule.  
I knew he'd done the job before;  
If I spoke up he might get sore.

The chances didn't seem that bad;  
I'd done the same, he knew I had.  
So I shook my head and walked by;  
He knew the risks as well as I.

He took the chance, I closed an eye;  
And with that act, I let him die.  
I could have saved a life that day,  
But I chose to look the other way.

---

Now every time I see his wife,  
I know I should have saved his life.  
That guilt is something I must bear;  
But isn't' something you need to share.

If you see a risk that others take  
That puts their health or life at stake,  
The question asked or thing you say;  
Could help them live another day.

If you see a risk and walk away,  
Then hope you never have to say,  
"I could have saved a life that day,  
But I chose to look the other way."

END OF SECTION ●

END OF MODULE. CONGRATULATIONS! ●

" Think globally. Act locally. "

Value moment icebreaker:

**Respect**

Harnessing our values for sustainable development, we must acknowledge that it is fundamental we protect the environment, learn what this means to Group, and how we manage our impacts.

DISCUSS: how does the above relate to "Respect"?





## MODULE 7

# Environmental sustainability

WHAT IS ENVIRONMENTAL MANAGEMENT IN DOF?	90
ENVIRONMENTAL PRINCIPLES	93
OUR GLOBAL CHALLENGE	94
DOF GROUP'S ENVIRONMENTAL MANAGEMENT SYSTEM	98

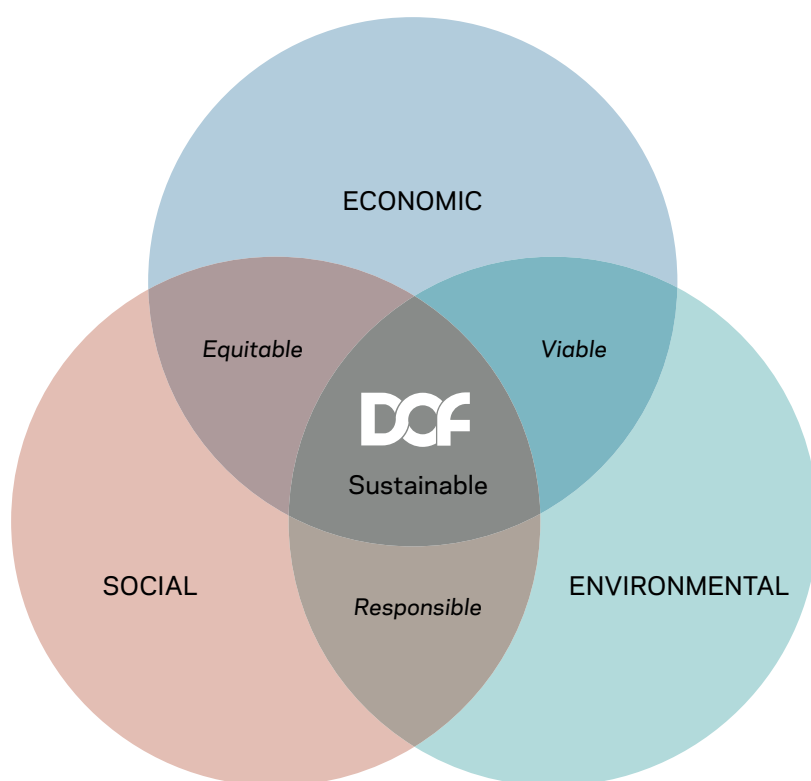
## What is environmental management in DOF?

Environmental sustainability management in DOF is the process of steering our organisation to take advantage of opportunities, avoid hazards, mitigate our interactions with the environment and prepare for the future by improving adaptability and resilience as an organisation.

DOF's environmental sustainability interactions are almost always intertwined with Social and Economic factors. The consideration of the Environment within the Physical, Economic, Social and Technological constraints of our business and industry is what makes our Environmental Management 'sustainable'. DOF recognises that Environmental Sustainability Management allows us to meet the present needs of the organisation, without compromising the ability of future generations to meet their own needs.

### Key words

- Environmental Policy
- Environmental Aspects
- Renewable / Non-renewable resources
- UN Global Compact / UN Sustainable Development Goals
- International Legislation
- SEEMP
- Carbon Disclosure
- Environmental Principles:
  - Sustainable Operations
  - 'Polluter Pays' principle
  - Duty of care



ABOVE: Sustainability diagram

### SOCIAL sustainability

Social well-being of DOF's internal and external stakeholders are consistently flourishing. However, this cannot last without consideration of financial performance and the environment we work.

### ECONOMIC sustainability

Means DOF is using its resources efficiently to create consistent operation profit. Without operation profit, DOF cannot continue its activities. Without acting responsibly, DOF cannot also sustain its self with its stakeholders and the external environment.

### ENVIRONMENTAL sustainability

Means DOF is working within the means of its external environment and resources. However, this has not been balanced with economic feasibility and social considerations.



### Sustainable

*If DOF is unable to be 'Equitable' as a business, 'Viable' economically and within the external environmental and 'responsible' socially; we cannot be a sustainable organisation. It is only when these factors are in place, that sustainable operations can occur.*

### Aim of the Course

- DOF's approach to Sustainability and the Environment;
- The principles DOF's approach to managing the environment are framed by;
- A basic overview of current global environmental issues
- Awareness of DOF's global, local and social responsibilities in managing resources;
- Some of the secondary benefits associated with environmental management
- Overview of DOF's main environmental interactions
- Understand your role in reducing DOF's environmental footprint

## Think globally, act locally – sustainable developments

Historically, humans have gathered environmental knowledge and developed strategies for exploring nature and using natural resources. As far back as history goes, there have been taboos, superstitions, common rights and laws to improve stewardship of land and resources. The idea that our ancestors were 'closer to nature' and caused little environmental damage is often a myth. With populations a fraction of today, some prehistoric people completely wiped out species and altered the vegetation of whole continents. However, these small, scattered ancient populations could move and adapt to resource constraints and changes to the physical environment.

In contrast, modern populations are vast, less adaptive and more vulnerable to changes in the environment

Tudge, C. (1995) *The Day Before Yesterday*: five million years of human history. With almost half of the planet's population directly dependant on natural resources for livelihood, sustainable development has become of the greatest importance on the global agenda. ([www.undp.org/content/undp/en/home/blog/2018/think-globally-act-locally.html](http://www.undp.org/content/undp/en/home/blog/2018/think-globally-act-locally.html)).

'Managing the Environment' is no longer just about compliance with local legislation. It is about organisations like DOF becoming guardians of their local environment, working within the constraints of social and economic factors and contributing towards the Global goals of 'Sustainable Development' as a 'Global Citizen'.



Left:  
UN Sustainable  
Development Goals (SDGs)

## The Environment and Sustainable development

Before the 1950's, the perception in the West was largely that humans could and should modify nature to our advantage, and that the environment was a renewable, resilient resource. With improved science and increased knowledge, we now know that this is not the case.

Sustainable Development is the key goal for Environmental Management. For DOF this is Economic development, social development and environmental protection all at the same time.

Adopting UN Global Compact's 10 Principles, DOF is 'dancing to the same sustainable development tune' in partnership with government, private sector, civil society and citizens to make sure we leave a better planet for future generations. This approach is supported further by the UN Sustainable Development Goals, providing a multi-year strategy to drive DOF business awareness and action in support of Sustainable Development.



*Where to find  
DOF Sustainability  
Reports?*

*You can always find the latest  
sustainability report at:  
[www.dof.com/sustainability](http://www.dof.com/sustainability)*

# Environmental Principles

Framing our approach to Sustainable Environmental Management, DOF uses several principles to ensure our operations are aligned with stakeholder expectations and we adopt 'best-in-class' practices.

## Task

For DOF Group, what do you think are some of the most 'Significant Environmental Aspects' associated with our core activities?

### *Global Citizenship*

This principle outlines that all people have equal rights and accompanying civic responsibilities that come with being a "Global Citizen" of the whole world.

As well as Civil, Political and Social Rights; being a Global Citizen also means every person is entitled to clean air, clean water and 'right to life'. With this Right, also comes a responsibility towards minimising our environmental footprint and preserving finite resources for both existing and future generations.

DOF Group wants our personnel to take responsibility for how they interact with the environment by;

- Promoting and adopting a sustainable lifestyle;
- Participating in environmental decision making – inside and outside of work; and
- Holding DOF and other organisations to account of their actions.

### *Precautionary Principle*

The precautionary principle requires DOF Group to assess and anticipate potential environmental harm caused by activities and ensure these are understood and reflected within work activities.

### *Duty of Care*

DOF Group is committed to ensuring all our business partners practice environmental management and abide by the same principles as the DOF Group. This forms part of the supply chain management and is crucial for DOF Group's ability to achieve its environmental objectives.

### *'Polluter Pays' Principle*

This principle is based in our socio-economic commitment and means that DOF Group will remedy pollution incidents directly caused by the Group's operational activities. This is fundamental to becoming a 'Global Citizen' and DOF being accountable to its environmental interactions.

# Our Global Challenge



## *Climate Action - UN SDG 13*

With current global Greenhouse gas emissions more than 50% higher than in 1990, we are starting to see the long-term effects of climatic change in local and global climate systems. According to the UN, changes in climatic systems have caused increased geophysical disasters, which have resulted in killing 1.3 million people and injuring 4.4 billion between 1998 -2017. This trend is predicted to increase as emissions increase as the planet.

As of 2017, humans are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels. A 2°C temperature change is considered the 'tipping-point' at which climatic change would become catastrophic and irreversible to humans.

IMO estimates that international shipping accounted for 796 million tonnes of CO<sub>2</sub> in 2012, contributing to approximately 2.2% of global emissions.

By 2050 emissions from the shipping industry could grow between 50-250%. Clearly, as a responsible and sustainable organisation, DOF must take proactive measures to contribute towards emission reduction.

UN Sustainable Development Goal 13; 'Climate Action' sets out ambitious steps and provides a framework for public and private groups to meet the target of limiting global warming to 1.5°C. It is still possible with increased investment, use of existing and future technologies and strong political will, to limit the increase in global temperatures. To limit warming to 1.5°C, global net emissions must drop by 45% between 2010 - 2030.



## *'Oceans as our Workplace' - UN SDG 14*

The Ocean is significant to DOF as it is our Workplace. DOF's heritage comes from the fishing industry where ocean temperature, chemistry, currents and ecosystem health are paramount to the industry and its longevity. Whether it is the fishing, marine or subsea service industry the health of the Ocean is what sustains DOF as an organisation.

The world's oceans are also a 'Global system' that make the Earth habitable. Taking up 75% of the earth's surface, the ocean represents 99% of the living space on the planet by volume. The Ocean absorbs 30% of the carbon dioxide emissions we release, buffering the impact of climatic change.

Despite its importance, marine ecosystems are being continuously polluted with;

- 13,000 pieces of plastic found every square kilometre of ocean;
- 40% of the ocean being 'heavily' affected by pollution as a result of human activities;
- 6.5 million tons of litter enter the world's Oceans each year;
- And 200 known 'dead zones', or areas deprived of oxygen and devoid of life (area between 1 and 70,000 km<sup>2</sup>) in the world ocean: this number has doubled every decade since 1960.

With 90% of world international trade transported by ship, the management of marine environments is important in supporting both environmental systems and global economic development.

For DOF and our industry to be supported by our oceans, we must treat it as a 'finite resource' ensuring we protect marine and coastal ecosystems from pollution and use the resource sustainably.



### *Managing our consumption and production - UN SDG 12*

Our planet has provided us with an abundance of natural resources. However, we are consuming natural resources far beyond what the planet can provide. Private industry must learn to produce in a sustainable way, whilst individuals need to consume more conscientiously.

For DOF, this means working with available resources 'smarter'; ensuring use of non-renewable energy is minimised, choosing products and services in our supply chain with good environmental credentials, being responsible with the management of waste and harmful substances and promoting awareness with our organisation to make better decisions. Doing this makes better business sense, as well as contributing to Global Sustainable Development Goal 12.



### *Industry, innovation and infrastructure - UN SDG 9*

There is nothing 'Sustainable' about DOF if we cannot continue to be innovative and invest in infrastructure to support our operations. All too often, growth of an organisation is associated with increased environmental footprint. By continuing to invest in technical innovations, technology and local stakeholders, we can find lasting solutions for DOF that support our economic visions whilst overcoming some of the global environmental challenges, such as resource use.

This UNSDG is about not doing the 'minimum' to comply with local environmental legislation but driving innovative technologies, optimising vessels and projects to be competitive in the industry and maintain our position in 'Sustainable Operations'.

In the world of marine and subsea services, small innovations and working with industry leaders can have a huge positive impact on our global environmental footprint.

### **Non-renewable resources**

Non-renewable resource is a resource of economic value that will run out or will not be replenished by natural means in our lifetimes or even in many, many lifetimes.

Most non-renewable energy sources are fossil fuels: coal, petroleum, and natural gas. Carbon is the main element in fossil fuels. For this reason, the time period that fossil fuels formed (about 360-300 million years ago) is called the Carboniferous Period.

Modification to ship concept, speed and capability; hull and superstructure; power and propulsion systems; use of-carbon fuels or renewable energy; voyage optimisation and energy Management can have a 25 -75% efficiency improvement over 2007 levels by 2050 (Buhaug et al. (2009)).

These improvements do not happen themselves and DOF is working with local stakeholders and industry leaders, and aiming for innovation to make these improvements a reality within our operations.

## A Global Framework of Requirements

As a global organisation, DOF must work in compliance with many statutory and non-statutory requirements across the world. These requirements stem from numerous stakeholders affected by DOF's activities, objectives and approach. Stakeholders such as local government bodies, community groups and clients have an interest in ensuring that when our vessel is on their 'doorstep' it is operated correctly, within the confines of local laws and expectations.

To comply with stakeholder requirements, DOF must first identify our duties and determine how these requirements interact with the products and services we provide.

Regardless of the vessel location, there are some important environmental requirements that always remain:

### UN Global Compact

.....

Corporate sustainability starts with a company's value system and principles. However, it does not end there. DOF must ensure that our values and principles are shared throughout the supply-chain of our business.

Having adopted the UN Global Compact principles 7,8 and 9 for Environmental Management; DOF must ensure that these commitments are shared by our partners. The criteria listed below is used to assess whether we can work with 3rd parties. This is to ensure we fulfil our Duty of Care and

minimise any indirect environmental impacts;

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

### MARPOL

.....

MARPOL 73/78 is the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. (MARPOL is short for marine pollution.)

MARPOL 73/78 is one of the most important international marine environmental conventions. As of 31 December 2005, 136 countries, representing 98% of the world's shipping tonnage, were parties to

the Convention. The Convention was designed to minimise pollution of the seas, including waste, oil and exhaust pollution. Its stated object is to preserve the marine environment through the complete elimination of pollution by oil and other harmful substances and the minimisation of accidental discharge of such substances.



## SEEMP

SEEMP (Ship Energy Efficiency Management Plan) is an IMO requirement which became mandatory as of January 2013. The fundamental aim is to reduce emissions and fuel consumption for the global shipping industry. In recognition of the UN Sustainability Goals, IMO has introduced a framework of measures which commit and support the marine and shipping industry to meeting sustainable development ambitions. SEEMP plays a large part in this. Its purpose: reduce the quantity of energy consumed on vessels by a range of different measures such as clean hulls, weather routing, new technologies, propeller polishing, engine load etc.

Another major part of SEEMP is understanding where and how efficiently energy is used.

This is achieved by recording data and analysing energy consumption onboard each vessel.

Within DOF Group, SEEMP follows the continual improvement model of: Planning, Implementation, Monitoring and Self-evaluation and improvement. This ensures DOF Group can continually set new targets and ensure that we can continue as a Group to improve the efficiency of our vessels.

DOF Group has high quality SEEMP in place onboard all vessels. Using a variety of energy reducing measures, we believe we have the potential to save 10.1% of fuel used across the DOF fleet.

## Carbon Disclosure Project and Global Reporting Initiative

The DOF Group has reported environmental performance through the Carbon Disclosure Project (CDP) since 2010 and has consistently ranked in the top 30 per cent, along with other companies judged to have more advanced environmental stewardship. With the CDP, DOF Group must identify, record, report, evaluate and reduce the amount of CO<sub>2</sub> emitted by the Group.

There are two scopes for which DOF Group has to report:

Scope 1: Direct emissions: Vessels, generators and any operation where DOF Group is directly responsible for the emissions.

Scope 2: Indirect emissions: Purchasing of electricity, business travel, logistics and any activity where DOF Group indirectly emits CO<sub>2</sub>.

The Global Reporting Initiative and Carbon Disclosure have signed a memorandum of understanding (MoU) that see the two non-profit organisations work together for alignment of reporting. Thus bringing standardisation and consistency to DOF's disclosure of climate change data.

## ISO Standards

There are various ISO standards DOF uses to provide practical tools and a framework for us to manage our environmental responsibilities.

ISO 14001:2015 sets out the criteria for an Environmental Management System and can be certified to. Being certified to ISO 14001:2015, DOF provides assurance to management teams, employees and external stakeholders that environmental impacts are being measured and improved. The need for continual improvement in ISO 14001 ensures DOF is continuously moving forward with environmental management and performance through efficient use of resources and reduction of waste.

Like other ISO standards (ISO 9001 and 45001), this gives us a competitive advantage and the trust of stakeholders.

Other ISO standards DOF is subscribed to, associated with environmental management include;

ISO 50001; specifies requirements for establishing, implementing, maintaining and improving an energy management system (EnMS);

ISO 31000; provides guidance on managing risks faced by organisation and the application in existing management systems

## DOF Group's Environmental Management System

The Environmental Management System (EMS) is integrated in DOF's Business Management System. The system considers industry bodies, guidelines, codes of practice and best practice techniques at local, regional, national and international levels.

For more information the EMS please refer to Manual - Environmental Management.

### Environmental Strategic Objectives

All strategic objectives related to environmental management are established to support DOF in being a 'Sustainable Organisation'.

As well as complying with Environmental Impact Policy commitments, Strategic Environmental Objectives seek to ensure;

- They support the management of environmental interactions;
- They support continued compliance with legal and 'other requirements';
- Consider the views and expectations of internal and external stakeholders of the organisation;
- Consider the entire life-cycle of products and services provided by DOF;
- Add value to Health, Safety and Quality elements of the (BMS/IMS);
- Are clear and transparent;
- Are aligned with the philosophies of;
  - Polluter pays;
  - Precautionary principle
  - Duty of Care.
- Support DOF in meeting UN Sustainability Goals.

### Task

What are some of the secondary benefits or outcomes of DOF becoming more responsible in managing our Environmental interactions?

## Environmental Hazards and Risk Management

The DOF Group has a series of systems to identify foreseeable hazards and risks for Group activities, including those that can interact with the external environment.

The principle of As Low as Reasonably Practicable (ALARP) is the tolerated level of environmental risk.

There are several ways in which environmental interactions can be identified and included in assessment processes.

### *Environmental Aspects*

'Environmental Aspects' are how DOF better understand and quantify environmental risks associated with our activities. These environmental risks can be as a result of either 'direct' or 'indirect' activities. Environmental Aspects always have either an Environmental Impact or Opportunity.

We assess 'Environmental Aspects', using a scoring criterion like our Risk Assessments. Like any risk, DOF must focus its resources on those Environmental interactions that are most impactful and likely. The Environmental Aspect Assessment process allows us to score and prioritise environmental risks proportionately.

Those Environmental Aspects, with the highest 'risk' towards the environment become Significant Environmental Aspects and what we seek to actively manage as an organisation.

Significant Environmental Aspects should be thought of as 'DOF's activities that have the biggest positive or negative interaction with the environment'.

## Environmental Management and Business Sense

There are very many reasons for an Organisation to manage the environment. It is no longer just about obtaining an ISO Management System Certificate, identifying environmental legislation we must comply with or simply giving the image of 'Green Credentials'.

There is a social expectation that a Company like DOF becomes a steward of the external environment we are supported by. Similarly, employees within DOF are expected to act as Global Citizens inside and outside of work.

We should also consider effective management of the Environment not a 'month long initiative' or support function; but simply a principle of 'how we conduct business'.

There are numerous benefits associated with this, apart from the obvious.

**Process efficiency** - There is a correlation between an inefficient process, and higher consumption of resources or generation of waste.

Natural resources can be thought of as 'inputs' to business. If we are producing excess waste and consuming increased amounts of resources, it indicates that these inputs are not being used in the most efficient manner. As well as having larger environmental impact, these inefficiencies drive up cost of operation in an organisation.

By making process improvements, we can quite often save on resource costs and minimise waste outputs;

PROCESS IMPROVEMENT	COST SAVING
Example; Reduced fuel vessel consumption, through increasing fuel efficiency	Reduced OPEX in day-to-day fuel use
	Increased vessel uptime, due to decreased requirement for bunkering
	Reduction in NOx emission tax
	Increase vessel utilisation through vessel becoming commercially more attractive to clients
	Research and development grants for new innovative technologies around increasing vessel fuel efficiency
	IMCA Report: All incidents related to lost objects, falling objects, crane failure or other lifting equipment failure or incidents.
	Decrease component costs; such as filters, carbon scrubbers etc.

**Employee Productivity** - Research also shows that a functioning Environmental Management System is correlated with higher productivity within existing employees.

A company that has a structured means of managing its environmental affairs, often has training and employee engagement as core functions of the Management System. These Management System elements, in turn increase collaboration, engagement and commitment in the workforce. In a French Study, researchers found that companies who voluntarily adopted sustainable practices had a 16% boost in employee productivity.

Furthermore, an environmental conscious employer will attract talented new employees. After all, if a company can't treat their environmental resources diligently; can we expect them to treat employees any differently?!

**CSR Reputation** - It is widely understood in many industry sectors, including the Energy sector, a reputation for Sustainable and CSR (Corporate Social Responsibility) performance is correlated to increased financial performance. This in return makes DOF more competitive in the marketplace.

Because the DOF Group meets stakeholder expectations as a company that operates vessels in an environmentally considerate manner, we also fulfil our client's Sustainability goals and are able to meet the requirements of bid lists and tenders, in order to win work. In addition, communities are open to us working in their locality.

History tells us, public and industry perception can change very quickly where there is gross negligence in managing the environment.

" As we increasingly rely on computer systems, and connectivity between them, our exposure to cyber-attacks also increases."

Value moment icebreaker:

**Integrity**

We operate in developing areas, adopt new technologies and are increasingly connected the Internet. Focus on Security, learn how to safeguard yourself and colleagues from threats.

DISCUSS: how does the above relate to "Integrity"?



# MODULE 8

## Security

INTRODUCTION	104
RISK MANAGEMENT	106
PHYSICAL SAFETY	110
CYBER SECURITY	112
THE FUTURE	116

## Introduction

Safety and security are widely recognised as one of the most basic human needs.

In DOF, and our industry, Safety has been a prioritised area for many years, and will continue to be so. Security is now also becoming an increasingly important topic. There are several reasons for this, which include changes in the geopolitical landscape, operations in new areas, and adoption of new technologies with connectivity to the Internet.

This chapter will focus on security, both in the physical domain and in the cyber domain. It is important to consider these in context of each other, as new technology is starting to bridge the divide between them. Weak physical security may grant access points to virtual safe zones, and weak cyber security may grant access to Operational Technology and allow control of systems performing physical operations.

### Key words

- Physical Security
- Cyber Security
- Hierarchy of Controls
- Threats



A threat is formed of intent, opportunity and capability.

Adversaries' intent and capability cannot be mitigated by DOF.

Therefore, mitigation against the opportunity for a successful attack is the focus of this guidance, risk assessments and any security measures.

SECTION CONTINUES ON NEXT PAGE ►

### Key definitions

The area of security uses some key words universally, however DOF also has their own terms. A few of both universal and DOF terms have been defined below:

- **Safety and Security** - is protection against random incidents. Random incidents are unwanted incidents that happen as a result of one or more coincidences.
- **Security** - is protection against intended incidents. Wanted incidents happen due to a result of deliberate and planned act.
- **Information Technology (IT)** - is the common term for the entire spectrum of technologies for information processing, including software, hardware, communications technologies and related services. In general, IT does not include embedded technologies that do not generate data for enterprise use
- **Operational Technology (OT)** - is hardware and software that detects or causes a change through the direct monitoring and/or control of physical devices, processes and events in the enterprise.





*We, like all companies, are vulnerable!*

*Each of us has an important role in preventing cyber threats becoming incidents. We are often the last security barrier.*

## Aim of the Course

- Explain physical and cyber security risk, and how they are getting closer together
- Understand the controls which have been chosen by the DOF Group to reduce our exposure
- Understand the difference between safety and security management

END OF SECTION •

## Key definitions (continued)

- **ISPS** - International Ship & Port Facility Security Code.
- **Malware** - is an abbreviated form of "malicious software." This is software that is specifically designed to gain access to or damage a computer, usually without the knowledge of the owner. There are various types of malware, including spyware, ransomware, viruses, worms, Trojan horses, adware, or any type of malicious code that infiltrates a computer
- **Multi-factor authentication (MFA)** - adds an extra layer of security. MFA with two factors is widely used and combines "something you know" (username and password) with "something you have" (single use code on SMS, security token, code card etc.).
- **Asset** - People, property, and information. An asset is what we're trying to protect.
- **Threat** - Anything that can exploit a vulnerability and obtain or damage an asset by having the intent, opportunity and capability to do so. A threat is what we're trying to protect against.
- **Vulnerability** - Weaknesses or gaps in security that can be exploited by threats to gain unauthorised access to an asset. A vulnerability is a weakness or gap in our protection efforts that creates an opportunity.
- **Risk** - The potential for loss, damage or destruction of an asset as a result of a threat exploiting a vulnerability. Risk is the intersection of assets, threats, and vulnerabilities.
- **Cyber Attack** - An unauthorised attempt to digitally gain access to, or disrupt the normal functioning of ICT or OT systems for the purpose of modifying, stealing or harming the confidentiality, integrity or availability of the system and/or its data.

# Security Risk Assessment

Security Risk Assessment (SRA) is critical to understand the risks that we are exposed to, and how to manage them.

We will never be risk free, but we can reduce risk through different methods. In this chapter, SRA will be explored by using “Risk Intelligence” methodology for conducting SRA for vessels as an example. The principles, however, can also be applied to other situations, such as Office Security or Cyber Security.

## Introduction

Before mobilising a vessel to a High Threat Area, a specific Security Risk Assessment (SRA) must be conducted. Due to the specific methodology required for and requirement for expert assessment an SRA should be performed in close cooperation with external expertise, e.g. Risk Intelligence, which are experts in the

methodology used for such assessments.

The security risk assessment is a four-step process (see below and further explain on the following 2 pages).

Security measures and impacts of such measures are to be continually evaluated.



---

## STEP 1. Threat Assessment

An integral and essential part of an SRA is Threat Assessments. In addition to the relevant flag Security Level advice and local authorities, DOF use several intelligence providers in order to have thorough knowledge of threats. Main providers are Den Norske Krigsforsikring for Skip (Warrisk) and Risk Intelligence (MarRisk & PortRisk), which assess threat levels and produce reports regularly and/or case by case.

Considering some flags only assess the threat from terrorism when setting the ISPS levels, DOF also consider other threats, such as piracy, when deciding security measures prior to entry of operational area.

The threat assessments themselves generally comment on the type of threat and the threat level is determined based on knowledge about threat actors' capabilities and intention.

In the context of piracy and armed robbery, capability means that attackers have the physical means to conduct an attack, intent is demonstrated by continued attacks, opportunity is what is mitigated by the company, vessel and crew through application of the measures described in this guidance.

---

## STEP 2. Vulnerability Assessment

Vulnerability assessment covers the vulnerability to the threats; this might be kidnap/ransom, hijacking, theft/robbery and terrorism as defined within the threat assessment.

The vulnerabilities might be different for each of the threat areas mainly due to the range of modus operandi used in each of the different threat areas.

Typically, the vulnerability assessment is conducted after a complete on-site Ship Security Survey (Hardening Assessment) where findings and observations are physically assessed; however, desktop reviews might also be carried out.

Generally, the vulnerabilities of vessels fall into two categories: operational vulnerabilities, inherent in the nature of the trade and the operational status (trade patterns / routing, operational procedures, loading, discharging, port calls, anchoring etc.), and those that are specific to the ship (freeboard, self-protection measures, technical performance, crew training / awareness etc.)

The vessels strengths and weaknesses are assessed for vulnerability before and after mitigation.

---

## STEP 3. Security Risk Analysis

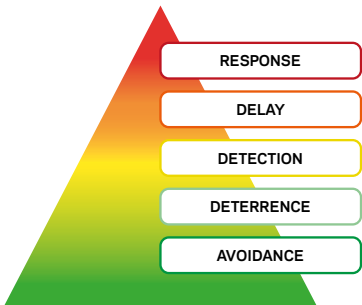
Prior to operation in a High Threat Area a Specific Security Risk Assessment shall be completed; this SRA will in addition to assessing Threats and Vulnerabilities typically address:

- Scenario descriptions; for example, a hostile boarding of the vessel

- Likelihood & consequence classification
- Attacker success likelihood estimation
- Scenario consequence estimation
- Risk matrix and acceptance criteria

STEP 4. Risk Reduction,  
Recommendations & Mitigation

There are five principles connected to risk reduction recommendation and mitigation, which can be summarized in a hierarchy of controls. These principles can be applied to any security situation.



Security Hierarchy of Change

Avoidance	Reducing as far as is practicable the exposure to risk in a known high-threat environment by avoiding certain operations, operational conditions, geographic areas or conditions that favour an attack.
Deterrence	Measures designed to deter hostile or unauthorised activities or persons from executing an attack by displaying and maintaining a credible defensive posture. Deterrence can be relative and can result in a deflection of the attack toward a weaker defended target.
Detection	Measures designed to detect the approach or presence of hostile or unauthorized activities, vessels or persons at the earliest stage.
Delay	Measures designed to delay hostile or unauthorised persons, vessels or activities to buy sufficient time for an effective response including 3rd party response.
Response	Measures specifically designed to react appropriately and robustly against hostile or unauthorised activities, vessels or persons or to mitigate disruptive effects of an attack and recover to normal operations.



# Physical Security

As we have seen, the DOF Group manages uncertainty across a huge range and number of risks which have corresponding potential consequences. Here, we explore a paramount concern of physical security and safeguarding people and assets, wherever we operate.

## Travel security

Security concerns during travel can vary from low end crime such as pick pockets and day light robbery to extreme situations such as kidnap for ransom, riots or insurgency.

Through DOF's agreement with International SOS, we have access to an information portal providing information about travel risk in different destinations. All employees are advised to review the travel risk for the country they are travelling to. Please contact your Crewing/HR or HSEQ department for information about access to the portal.

Medical and Security Alerts are accessible through the "Active Alerts" from the start page.

## *High Threat Areas*

Prior to travel to or through a High Threat Area, a Journey Management Plan shall be issued to provide task orientation, co-ordination and guidance including:

- Security Team Operational Lead & 24 Hours Operations Centre Contact Details;
- DOF Contacts;
- Crew Itinerary and time-line for each step of the operation;
- Standard operating procedures / Contingency Plan.



## Vessel security

Each DOF vessel have approved Ship Security Plans as required by the ISPS Code. These plans address the physical aspect of protecting the vessel and its crew.

The Ship Security Plans are confidential documents and details are not shared. In general, these address the Standard Operation Procedures; security measures to be implemented for the applicable security levels, access control, restricted areas onboard and training.

On DOF vessels the Master, or Chief Officer, is assigned to act as Ship Security Officer. His role is to ensure that the elements of the Ship Security Plan is implemented; in coordination with the Company Security Officer and the relevant Port Facility Security Officer.

Onboard the vessel access shall be controlled, and a watchman shall check identity and purpose of visit. A body and luggage check might also be requested on random basis or on suspicion.

Certain areas onboard are assessed to be sensitive and these are marked Restricted Area.

Accessing the vessel or a restricted area without the explicit permission to do so is considered a Breach of Security.



## Office security

The security arrangements in DOF offices will be different for each office, as some buildings are shared with other companies, and some buildings are fully controlled by DOF. There are however some general principles that should be considered at every DOF office:

- Access control to the building itself;
- Access control to DOF premises in the building (especially for shared buildings);
- ID cards for DOF personnel;
- Visitor management (sign in / out procedure, visitor badges etc.);
- Restricted areas within the office.

# Cyber Security

In DOF, we produce and process vast amounts of information. This information needs to be protected, and we all have a responsibility here.

As we increasingly rely on computer systems, and connectivity between them, our exposure to cyber attacks also increases. This is not limited to our PCs; operational technology such as control systems for machines are also at exposed.

## High profile cyber incidents

In June 2017, Maersk, the world's biggest carrier of seaborne freight, was hit by ransomware. The consequences were huge; container ships stood still at sea and port terminals around the world shut down. While the company recovered relatively fast (8 days), the financial losses were estimated up to USD 300 million, including loss of revenue and IT restoration costs.

In March 2019, Norsk Hydro, a global aluminium producer, was hit by a ransomware attack. As a consequence, computers and control systems at their factories across the world had to be disconnected, and they had to switch to manual operations. The estimated financial impact of the attack is NOK 400-450 million (USD 46-52 million).



### Viruses

A virus is malware that attaches to another program and, when executed, usually inadvertently by the user, replicates itself by modifying other computer programs and infecting them with its own bits of code.



### Spyware

Spyware is malware that secretly observes the computer user's activities without permission and reports it to the software's author.



### Worms

Worms are a type of malware similar to viruses, self-replicating in order to spread to other computers over a network, usually causing harm by destroying data and files.



## Malware

There are many different types of malicious software, commonly referred to by the umbrella term “malware”.

These are the most common types of malware and their characteristics:



### Adware

Adware is unwanted software designed to throw advertisements up on your screen, most often within a web browser. Typically, it uses an underhanded method to either disguise itself as legitimate, or piggyback on another program to trick you into installing it on your PC, tablet, or mobile device.



### Trojans

A Trojan, or Trojan horse, is one of the most dangerous malware types. It usually represents itself as something useful in order to trick you. Once it's on your system, the attackers behind the Trojan gain unauthorized access to the affected computer. From there, Trojans can be used to steal financial information or install threats like viruses and ransomware.



### Ransomware

Ransomware is a form of malware that locks you out of your device and/or encrypts your files, then forces you to pay a ransom to get them back. Ransomware has been called the cyber criminal's weapon of choice because it demands a quick, profitable payment in hard-to-trace cryptocurrency.



### Rootkit

Rootkit is a form of malware that provides the attacker with administrator privileges on the infected system. Typically, it is also designed to stay hidden from the user, other software on the system, and the operating system itself.



### Exploits

Exploits are a type of malware that takes advantage of bugs and vulnerabilities in a system in order to allow the exploit's creator to take control. Among other threats, exploits are linked to malvertising, which attacks through a legitimate site that unknowingly pulls in malicious content from a bad site. Then the bad content tries to install itself on your computer in a drive-by download. No clicking is necessary. All you have to do is visit a good site on the wrong day.



### Malicious cryptomining

Malicious cryptomining, also sometimes called drive-by mining or cryptojacking, is an increasingly prevalent malware usually installed by a Trojan. It allows someone else to use your computer to mine cryptocurrency like Bitcoin or Monero. So instead of letting you cash in on your own computer's horsepower, the cryptominers send the collected coins into their own account and not yours. Essentially, a malicious cryptominer is stealing your resources to make money.



### Keyloggers

A keylogger is malware that records all the user's keystrokes on the keyboard, typically storing the gathered information and sending it to the attacker, who is seeking sensitive information like usernames, passwords, or credit card details.

## What can you do?

Our IT service provider implements a wide range of technical security measures. As users, we also have a very important role to prevent cyber security incidents and each of us is often the last security barrier.

Even though cyber security is a very complex and large subject, there are some fundamental principles that will help you to keep your own and DOF's information secure. See the tables on the following page for tips on how to secure your:

- Accounts;
- System; and
- E-mail.

### E-mail

If an email seems suspicious, do not open any links, attachments or reply to the email. If you know the sender, try to contact them through Skype, phone or other means to verify if the email is legitimate. Do not use any contact details that are provided in the suspicious mail; they may be fake. See the "tip for identifying suspicious e-mails" below.

# Tips

for identifying  
suspicious e-mails:



*How many of the boxes can you check off as your normal operating procedure with e-mail? Test yourself and discuss with your colleagues what they do to keep safe from security threats.*

1. Do you normally receive emails from this person? ☐
2. Does the email address look correct? ☐
3. Does the email address you personally, or is it impersonal? ☐
4. Does the link point the same place if you hold the mouse cursor over it? ☐
5. Is the email creating a sense of urgency and "threatening" with closure of account or similar if action is not taken? ☐
6. Are you expecting a file from this person? ☐
7. Stay cautious if attached file formats Word, Excel or PowerPoint requests activation of Macros. ☐

### Keep your accounts safe

- Maintain strong passwords. Avoid passwords that can be easily guessed, such as pet names, your car brand etc. and use different passwords for different services.
- Enable Multi-factor authentication, if available.
- Do not share your login credentials with anyone else.
- For systems that use role-based accounts, login credentials should only be available to personnel in the role.

### Keep your system safe

- Avoid using open, public Wi-Fi networks (also on your mobile device)
- Lock the computer when leaving it unattended
- Do not connect USB devices or other external media unless you trust the source
- Do not disable or bypass security systems such as firewalls or anti-malware.
- Keep IT and OT networks segmented. Any integrations must be set up with security according to supplier's specifications and best practice.
- Access to information and systems shall be maintained. Access control can limit the consequence should a user account be compromised.

## WARNING!

If you open a suspicious link or attachment and suspect your computer or account might be compromised, disconnect the device from the network and contact IT immediately.

### Keep your email safe

Using email is a common approach used by attackers, and the purpose of a malicious email may vary, but are typically one (or a combination) of these;

- Phishing – trying to obtain credentials or other information
- Impersonation – trying to obtain information or receive financial transactions by pretending to be someone else – typical “CEO fraud” or false invoices.
- Ransomware – malicious attachment that encrypts files, and demands ransom to decrypt them
- Other malware – disrupting operations by destroying files, or installing hidden software to retrieve information
- Encrypted emails to be used as far as practically possible.

### Social media exposure

- Suspicious messages received on social media that can be connected to DOF should be reported.
- Only establish and maintain contact with people whose identity can be verified.
- Be critical to links and attachments received on social media.
- Expect that everyone can see information that is shared on social media; both regarding work and private life.
- Do not share work related information without the permission from DOF.
- Do not share information about other persons without their permission.
- Use available security features for the application.
- Do not use the same password for several applications.

## The Future

As highlighted in the introduction, changes in the geopolitical landscape, operations in new areas, and adoption of new technologies with connectivity to the Internet is an increasingly important topic that can influence future DOF Group operations.

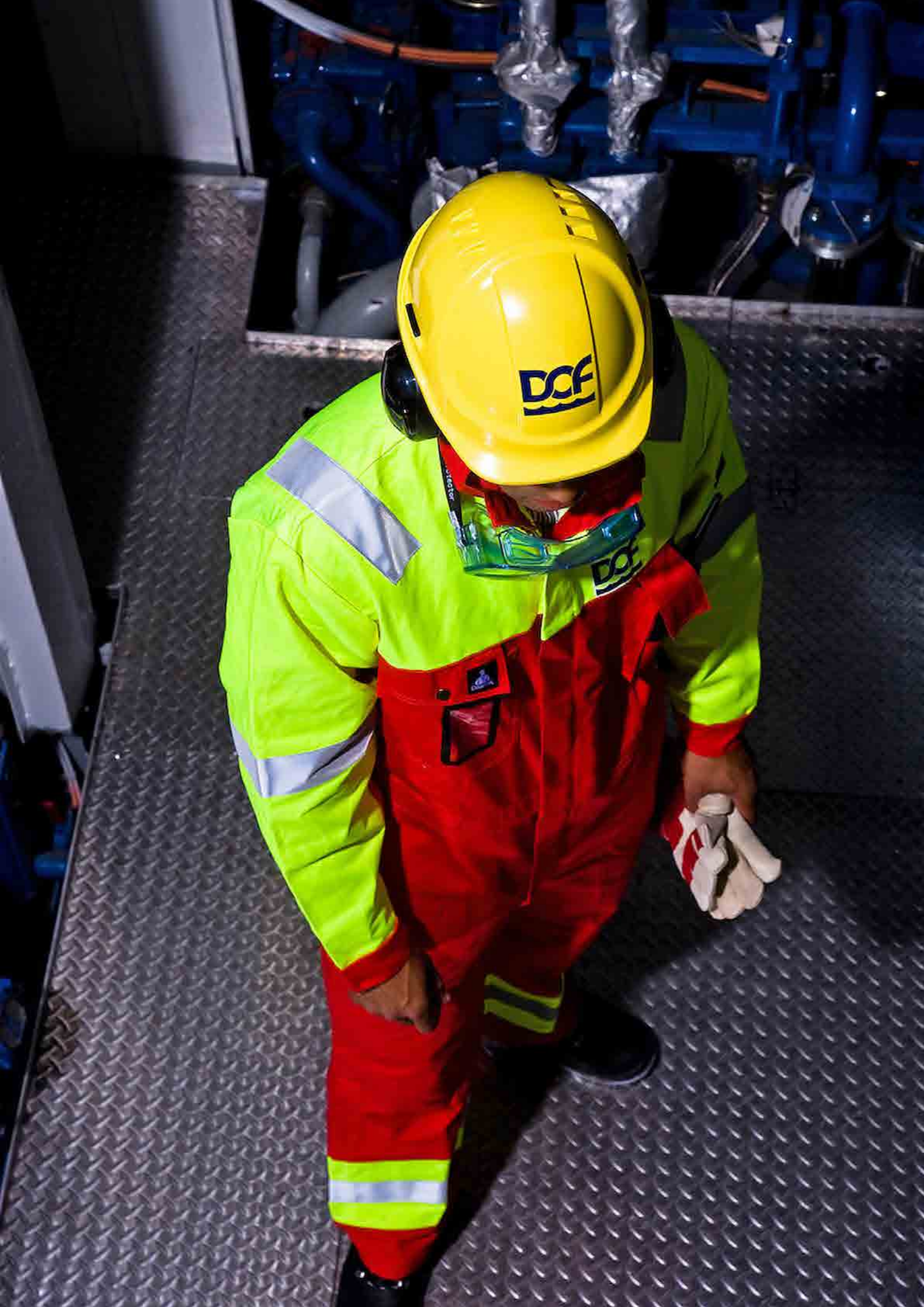
Predicting the future is never easy, however, based on future global trends <sup>(1)</sup> and recent developments globally, there are several plausible scenarios and these might affect DOF operations to a various extent. This might be as per the following:

Political .....	Political scenarios where the relations between the major powers: USA, China and Russia, Iran and Saudi Arabia can have effect on shipping. Chinas growth. Nations challenging operators in disputed waters. Sanctions towards nations. Political unrest in area of operation. Worst case is War and acts of Terrorism.
Economic .....	Economic scenarios based on the global energy situation and accessibility to resources. Transport of resources.
Environmental .....	Environmental scenarios consist of conflicts over natural resources. Activism to stop the continued development of the oil and gas industry and use of fossil fuels.
Social .....	Social scenarios consist of mass migration where people attempt to find a better life due to poverty, war, conflicts and climate change. Stowaways are a similar scenario and due to stricter national policies disembarking the stowaway can become a challenge unless it is evident where the boarding occurred.
Technological .....	Technological scenarios consist of various cyber threats as highlighted in the Cyber Security chapter. The shipping industry has also seen cyber-attacks towards vessels for extortive and disruptive reasons. In addition, the vessel operations can be disrupted by GPS spoofing or jamming. Operational Technology can be vulnerable.
Crime and Piracy .....	And the persistent Crime and Piracy scenarios where piracy in e.g. Gulf of Guinea make it extremely challenging to operate. West Africa Piracy have a huge Human Cost with approximately 100 persons taken hostage and 818.1 Million \$ in Total Economic Cost based on Oceans Beyond Piracy "The State of Maritime Piracy 2017" report.

END OF SECTION ●

END OF MODULE. CONGRATULATIONS! ●





" To be prepared is to be able to handle the unexpected, through training in the expected. "

Value moment icebreaker:

**Teamwork**

.....

The main purpose of crisis and emergency response preparedness is to prevent or limit the consequences of accidents and near accidents. In addition, efforts are made to maintain business continuity. Learn more about our ER preparedness.

DISCUSS: how does the above relate to "Teamwork"?



# MODULE 9

## Emergency Response

INTRODUCTION	120
THE INCIDENT POTENTIAL	122
EMERGENCY RESPONSE MANAGEMENT	124
HANDLING THE EMERGENCY ONSHORE	128
DOF EMERGENCY TOOL - CRISIS MANAGER	131
HUMAN REACTION TO EMERGENCY AND CRISIS	132

# Introduction

The main purpose of crisis and emergency response preparedness is to prevent or limit the consequences of accidents and near accidents. In addition, efforts are made to maintain business continuity.

Faced with an emergency, the DOF organisation must be prepared to handle a wide range of situations. Therefore, Emergency Response Management is based on a thorough analysis of possible situations, defined lines of responsibility, command, planned actions and access to adequate resources.

Key to the management of any emergency situation within the DOF Group is a prepared organisation and focus on the following;

- **People** - Ensure the safety of all personnel involved within the situation, and of those that may be affected;
- **Environment** - Minimise any impact on the environment;
- **Assets** - Minimise the impact on DOF Group's facilities and assets and restoring normal business operations as soon as possible;
- **Reputation** - Avoid or manage adverse publicity regarding the situation and defend the DOF Group, its shareholders and the industry at large;
- **Liability** - Ensure plans are established to ensure business continuity is maintained or re-established as soon as possible.

The effectiveness of the systems, plans and equipment for emergency response management is periodically reviewed and assessed, through exercises, drills or other means, to ensure lessons learned are incorporated into future plans and undertakings.

## Aim of the Course

- Understand the basic principle of DOF emergency response management
- Understand the principle of proactive method in emergency response
- Be aware of and understand how the DOF Group handles crises and emergencies
- To help persons understand the possible human reactions under stress and in crisis
- To provide knowledge on post traumatic reactions
- To provide remedial support
- To provide knowledge on handling the media
- To provide knowledge on handling Next of Kin

SECTION CONTINUES ON NEXT PAGE ►

## Key definitions

- **Crisis** - A sudden, unexpected situation, which represents a threat to the company.
- **Emergency** - A sudden state of danger.
- **Accident** - A sudden event leading to injury to personnel, or damage to the environment or to assets.



### Key words

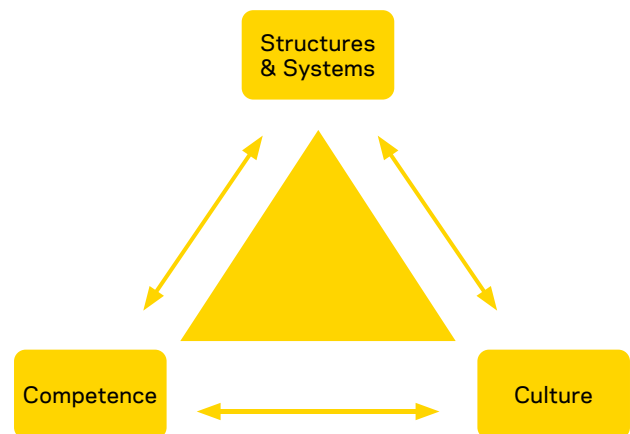
- Regional ERT
- Crisis Manager
- Notification and mobilization
- Proactive method
- People, People, People

## Expectations – performance requirements

### Four key elements:

The DOF organisation(s) shall be prepared to handle emergencies. This entails that;

1. All personnel know how emergency response is organised and practiced at company level and at their own workplace;
2. Equipment and facilities are appropriate, and personnel be trained so that emergency responses can be executed effectively;
3. Periodic exercises are to be undertaken to verify the effectiveness of the emergency response system;
4. Exercises include participation with external organisations (e.g. clients, regulators, contractors, etc) who could normally be involved during a crisis or emergency;



The effectiveness of the emergency response system shall be assessed and areas for improvement to be identified.

## The incident potential

The incident potential is a mental assessment of how a situation occurred, might evolve into a more severe situation with regards to people involved, environmental impact, loss of assets and loss of reputation and market trust. How we assess the incident potential depends not only on our heritage, but also on the urgency and stress inherent in a situation. As individuals we tend to have different levels of risk appetite, and therefore a different way of seeing threat. In addition, our native culture and the company culture defines how we assess the incident potential in a developing situation.

### Task

Discuss:

What are the major challenges in decision making in an emergency situation? Use 10 minutes for discussion and present key points to the classroom.

## Emergency Response Situations

Emergency response situations are all abnormal situations which can be managed and contained onboard our vessels using the existing resources and authorities at the site, and for which external resources are (initially) not required.

Other situations may require additional support from the regional crisis and emergency management organisation.

Severe incidents emergencies that have the potential to significantly impact company/project operations, reputation, or pose a substantial economic or legal liability, call for support from the corporate organisation and the Board of Directors.

### Problem solving

The basis for solving any problem or challenge is to accept that you have a problem.

Conditions required for effective problem solving;



We have to accept that we have a problem.

We have to define the problem.

We need to gather information.

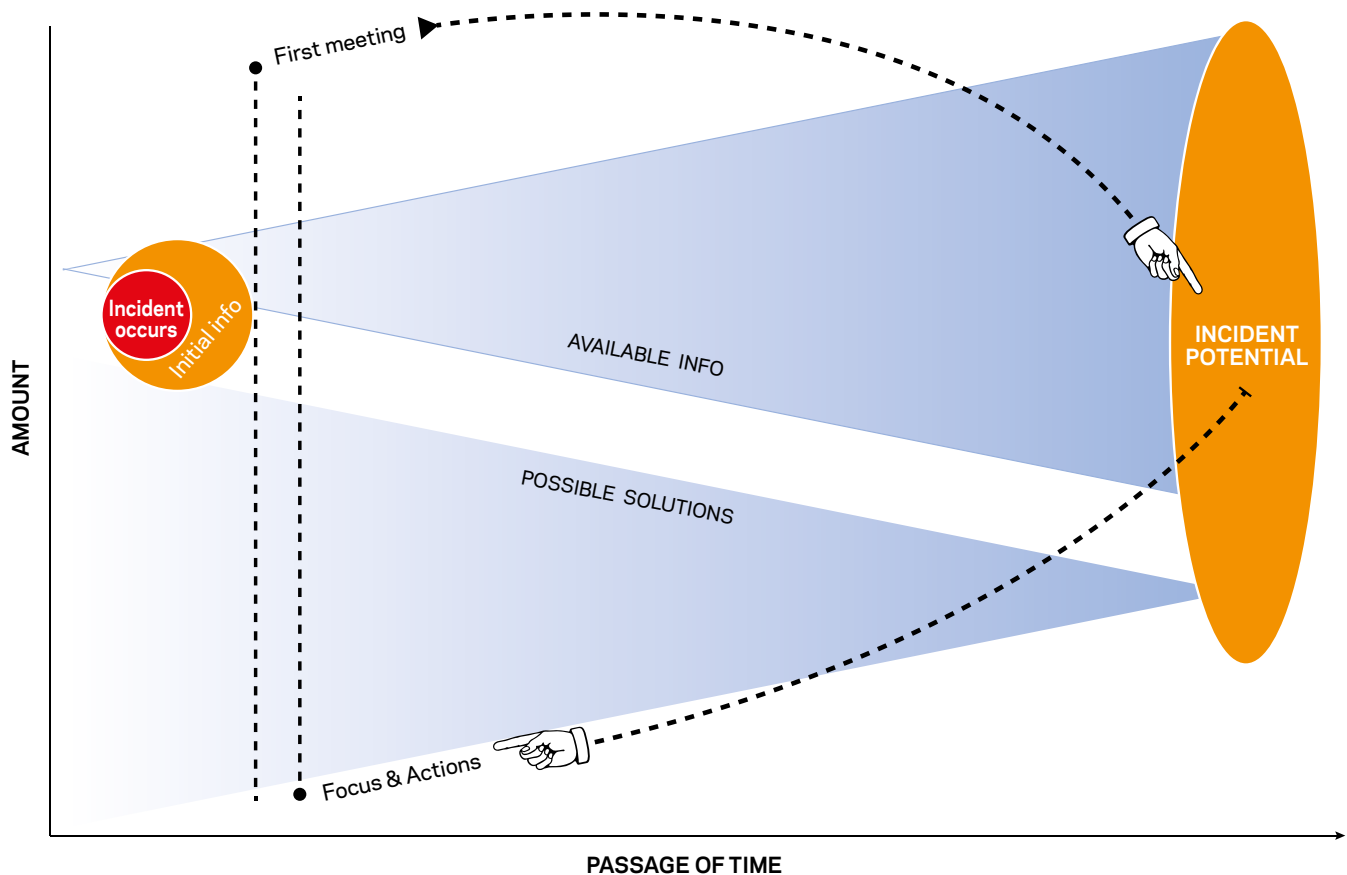
We need to find alternative solutions and their consequences.

We have to accept the chosen solution together.

### When do we mobilise?

There can be many reasons for mobilising an emergency team, both on site and through the onshore organisation up to executive management.

The various emergency response plans developed for our vessels and sites are tailor made according to required emergency preparedness.



Source: Norwegian Hull club

### ***The proactive method***

In an Emergency Situation the dilemma is that the number of possible solutions available to you decreases as time passes. Therefore, a vital part of handling emergencies is to conduct all the right actions, early on, before the possible solutions decrease. The Proactive method guides the Emergency Team to act based on the information at hand in the initial phase.

The Emergency Response Team (ERT) will use its first meeting to assess the Incident and potential impacts on People, Environment, Assets and Reputation.

After assessing the incident potential impacts, the ERT will establish a situational specific plan which is reviewed and updated at regular intervals.

In this way, the Proactive Method ensures the ERT is able to start work at the earliest stage, has access to the greatest number of possible solutions and make informed decisions based.

# Emergency Response Management

The following chapter gives an overview of how Emergency Response Management is organised in DOF.

## 1st line Tactical level

The 1st line emergency response organisation is the typical first responder teams. Offshore these teams are led by the master (Captain/OIM) and his team of officers.

.....  
See diagram on following page.

## 2nd line Operational level

The operational 2nd line – Regional Emergency Response Teams (ERT) is in DOF defined as in Level 2 in figure on the opposite page.

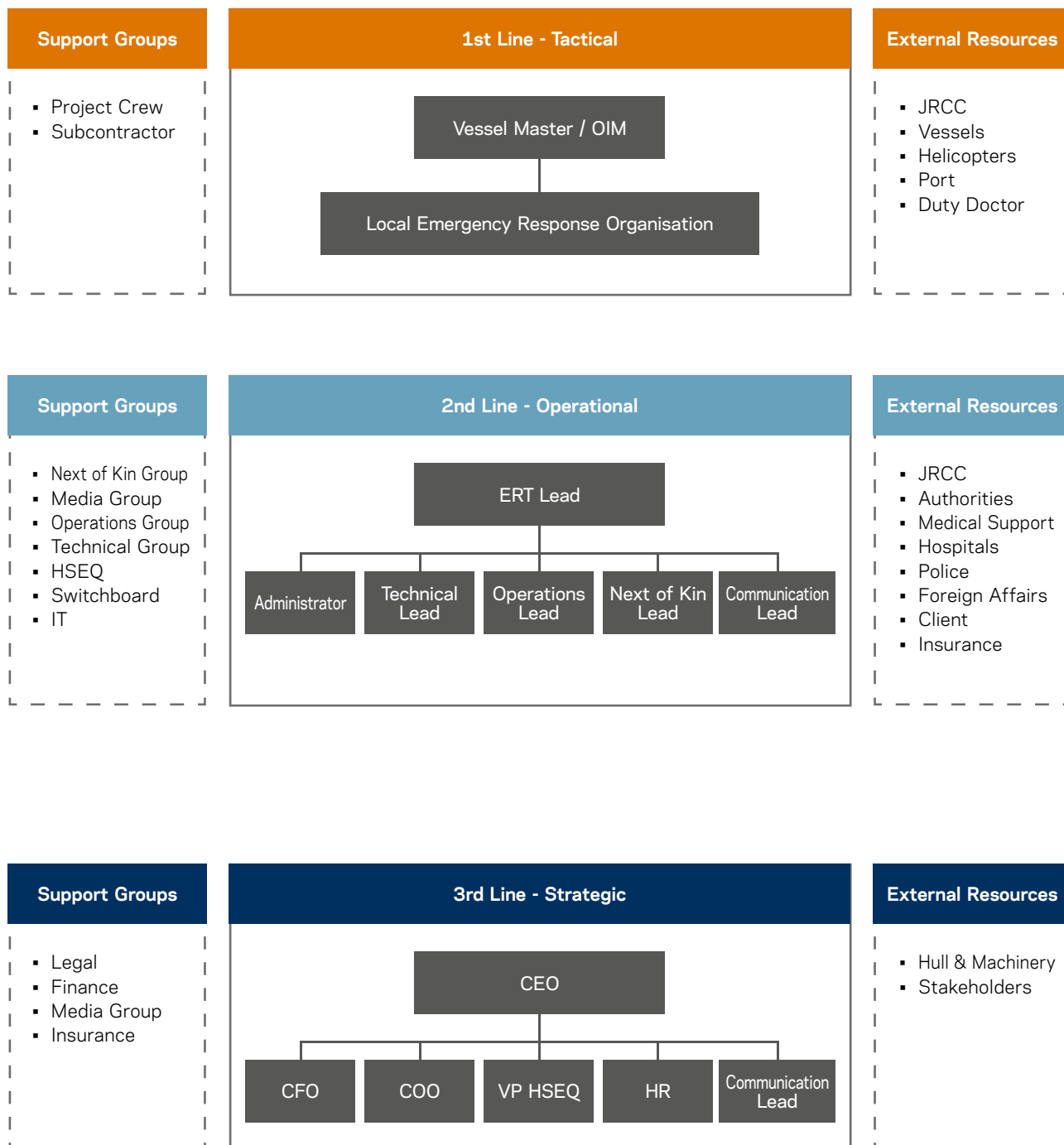
.....  
See diagram on following page.

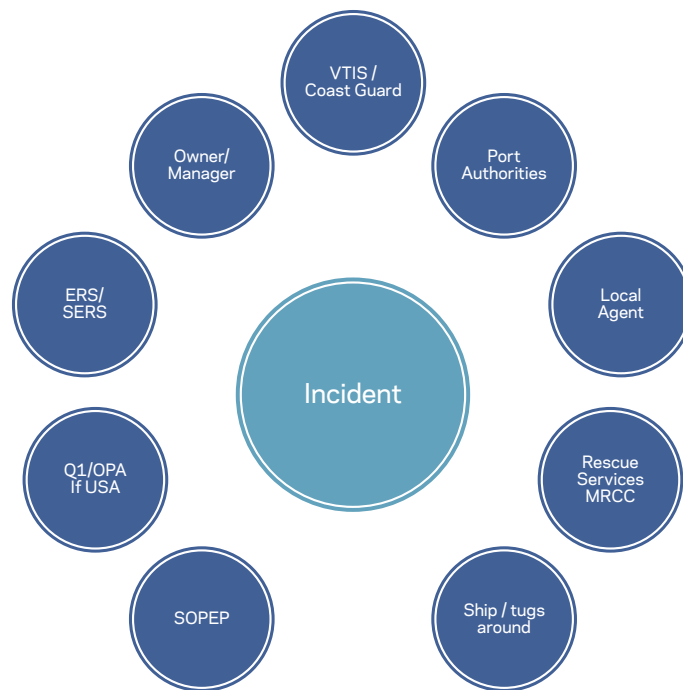
## 3rd line Strategic level

Strategic Level responsibilities:

- To monitor that the operational 2nd line is handling emergency situations in accordance with the emergency response strategy and in the best interest of the company;
- To represent the company externally and thereby protect the tactical 1st and the operational 2nd line from unnecessary external pressure during the handling of an emergency;
- To protect the overall interests and reputation of the company and industry.

.....  
See diagram on following page.





*Examples of Stakeholders relevant for Line 1.*

## Stakeholders

### *Why we identify stakeholders*

A stakeholder is any individual or organisation who has a vested interest in the activities and decision making of a business. A stakeholder is the equivalent of «Interested parties» as identified in ISO 9001:2015.

When organizations are confronted with a preventable crisis, appropriate crisis communication is crucial. Crisis communication try to affect stakeholders' emotional responses through corporate communication messages in order to prevent reputational damage and negative behavioural intentions. As most people find out about a crisis via news media, it is suggested that news framing influences emotional responses.

Trust is the foundation of relationships. When an organization faces an emergency, communications (or the lack thereof) employees, customers, and other stakeholders can support or erode that foundation.

In an event, we need to know who to communicate to and how and when to do so. This requires pre-planning. DOF's emergency response plans have a communication component so you will know how to respond to each risk your organization faces. Essential components of a crisis communication plan include:

- **Stakeholders:** Identify the individuals and public or private groups your organization interacts with. Internal stakeholders include employees, volunteers, members of the board of directors, etc. External stakeholders include customers, suppliers, service providers, vendors, public and regulatory authorities, and the media. We need to think about what information each group would need to know from us during a crisis and what you would need to know from them.
- **Spokesperson:** Identify a single individual or small team that will handle dissemination and receipt of information from stakeholders.
- **Strategy:** Transparency and timeliness of communications are critical during an incident. A plan on what and how we will communicate with internal and external stakeholders need to be made. General statements, also called holding statements, need to be released to stakeholders during an incident before detailed facts come in. More information is available on our Management system.



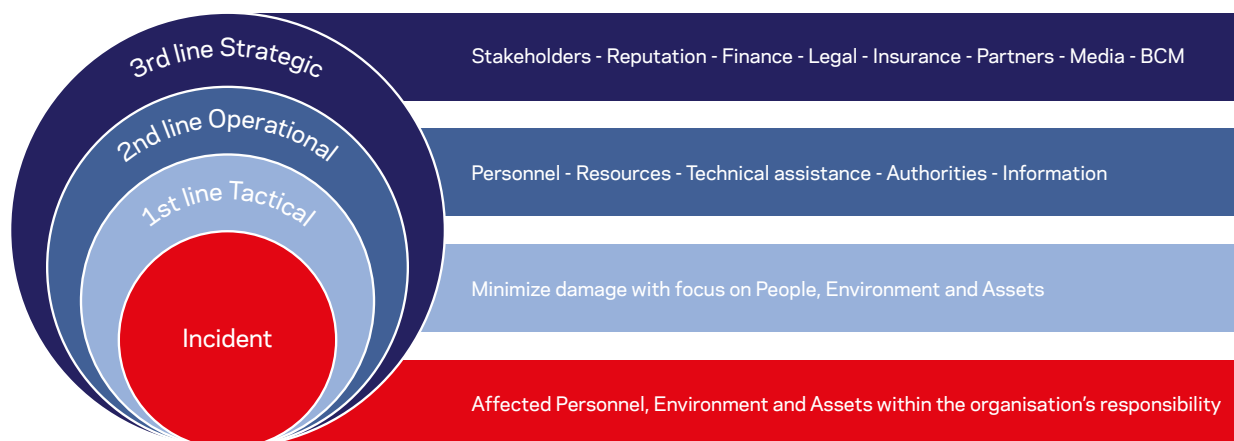
Example of NOK Stakeholders.



Example of ERT Stakeholders.

# Handling the Emergency Onshore

The 2<sup>nd</sup> and 3<sup>rd</sup> line onshore organisations are trained to handle the emergency in a proactive mode, supported by the emergency notification chart and crisis management system.



Source: Norwegian Hull club

## Notification and Mobilisation

According to Emergency Response Plans, the response team will know when, how and who to mobilise, and the stakeholders that need to be notified. The ERT is normally mobilised through the crisis management system.

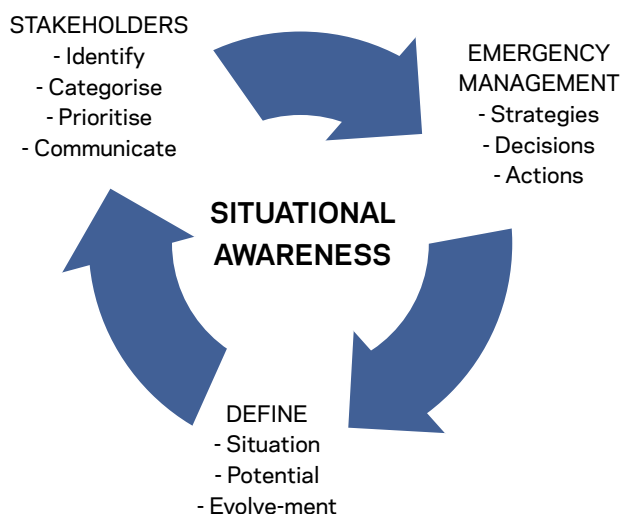
## Immediate actions

Within the crisis management system, predefined check-lists are established for the different roles in the ERT.

## Situational awareness

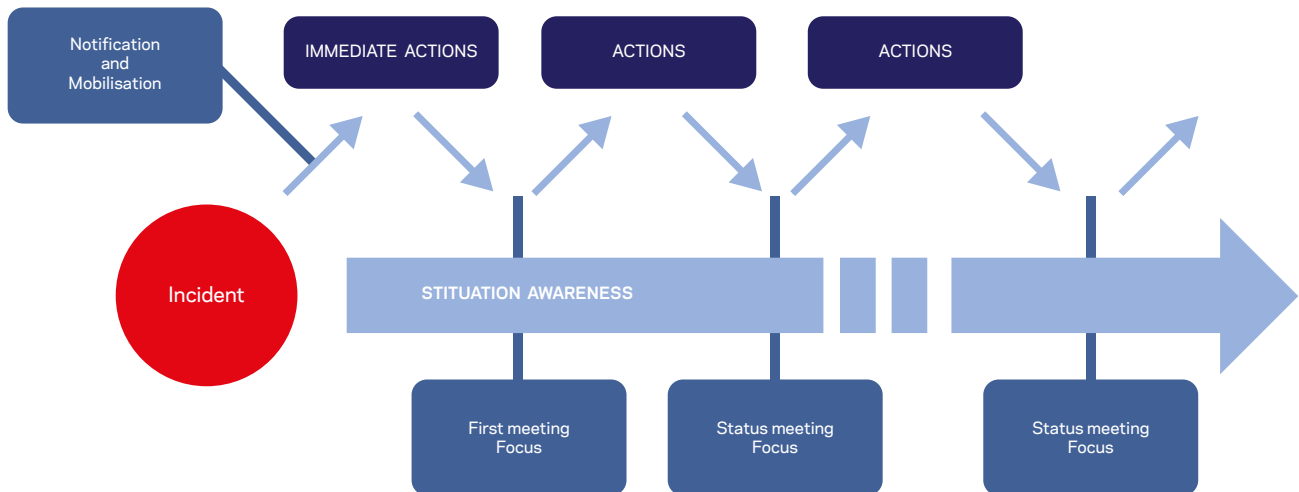
Situational awareness, as defined by Endsley, is defined through three steps:

- 1. Perception** - Acquisition/Interpretations/Selection-of-data and elements to create status image of the environment.
- 2. Understanding** - Recognise/interpret and evaluate meaning and meaning of how given information affects the environment.
- 3. Projection** - Be able to establish a forecast based on the understanding of given information, considering how given information will affect future conditions in the environment.



SECTION CONTINUES ON NEXT PAGE ►





Source: Norwegian Hull club

### Focus

- Set by the Emergency Response Team Leader after all Status Meetings
- Emergency Response Team Leader priorities in relation to the areas the Emergency Response Team should concentrate their Actions on until the next Status Meeting.
- The Focuses have no internal priority.
- Document Focus areas through lists and timestamps.

### Actions

- Are implemented by the various roles in the team.
- Are effectuated proactive measures to be associated with one of the current Focuses.
- Are to have a person responsible in the Team.
- Are to have a time stamp and an estimated time of execution (ETE).
- Are to be formulated as something that is going to happen to emphasise a proactive approach.

### Status Meetings

Held when necessary;

- Situation changes or achieved milestones reached;
- Calibration required;
- Emergency Response Team Leader would like to change focus.

Led by the Emergency Response Team Leader with the aim to;

- To establish a consensual situational awareness;
- To change or keep existing priorities - Set Focuses.

### The first meeting

The different first meeting boards belonging to the different levels of the Emergency Response Organisation are discussed later in this guide. To achieve an effective meeting the following content is common for all levels;

- 1. Establish a common picture of the situations;**
- 2. Define the incident potential you thrust;**
- 3. Create a plan to avoid the incident potential.**

## DOF Emergency tool – Crisis Manager

Crisis Manager (CM) is an electronic tool for handling crises and emergencies. All fact sheets from the entire DOF Group are incorporated into the system. CM covers necessary actions to handle all types of crises and emergencies on levels 2 and 3. All level 2 organisations can communicate with each other within the system if needed. The system can handle several situations simultaneously.

### Rules: Next of kin – priority #1

- Police are normally responsible for notifying NOK, in the event of fatalities;
- Hospitals are normally responsible for notifying NOK about things that happen to patients while they're in the hospital;
- The Local Department of Foreign Affairs has main responsibility for notifying foreign governments about injury and/ or the fatality of foreign citizens;
- DOF will establish a NoK group organised by HR / Crewing department, who will respond to any NoK callers according to a list of approved answers.

### Rules: Media Engagement – individual's privacy and company reputation

Who talks to media in crisis situations;

- The CEO and EVP are normally responsible for media engagement;
- If the CEO and EVP are unavailable, their deputy engages with the media;
- During an emergency situation, the Duty Watch engages with the media until the CEO/EVP are operational.





# Human Reaction to Emergency and Crisis

Emergency and Crisis is challenging for all of us and we react differently. Long-term effect of emergencies can lead to serious health problems. In the chapter “Physical, Mental and Social Well Being” some effects as well as precautionary actions are described.

## **Characteristics of a Critical Situation**

- Entails a threat
- Usually arises quickly, is unpredictable and new
- Happens dramatically
- Creates stress - Usual coping strategies and resources are not sufficient
- Intense interests from the outside world - media are first to know

## **The effects of stress**

Everyone who experiences a dramatic situation is touched by it, including emergency response workers and managers. Stress can be constructive in the sense that creativity may be triggered and productivity increased.

On the other hand, stress in such situations is usually combined with fear, and may lead to destructive reactions among persons involved, bodily and mentally.

## ***Advice for Emergency Response Personnel***

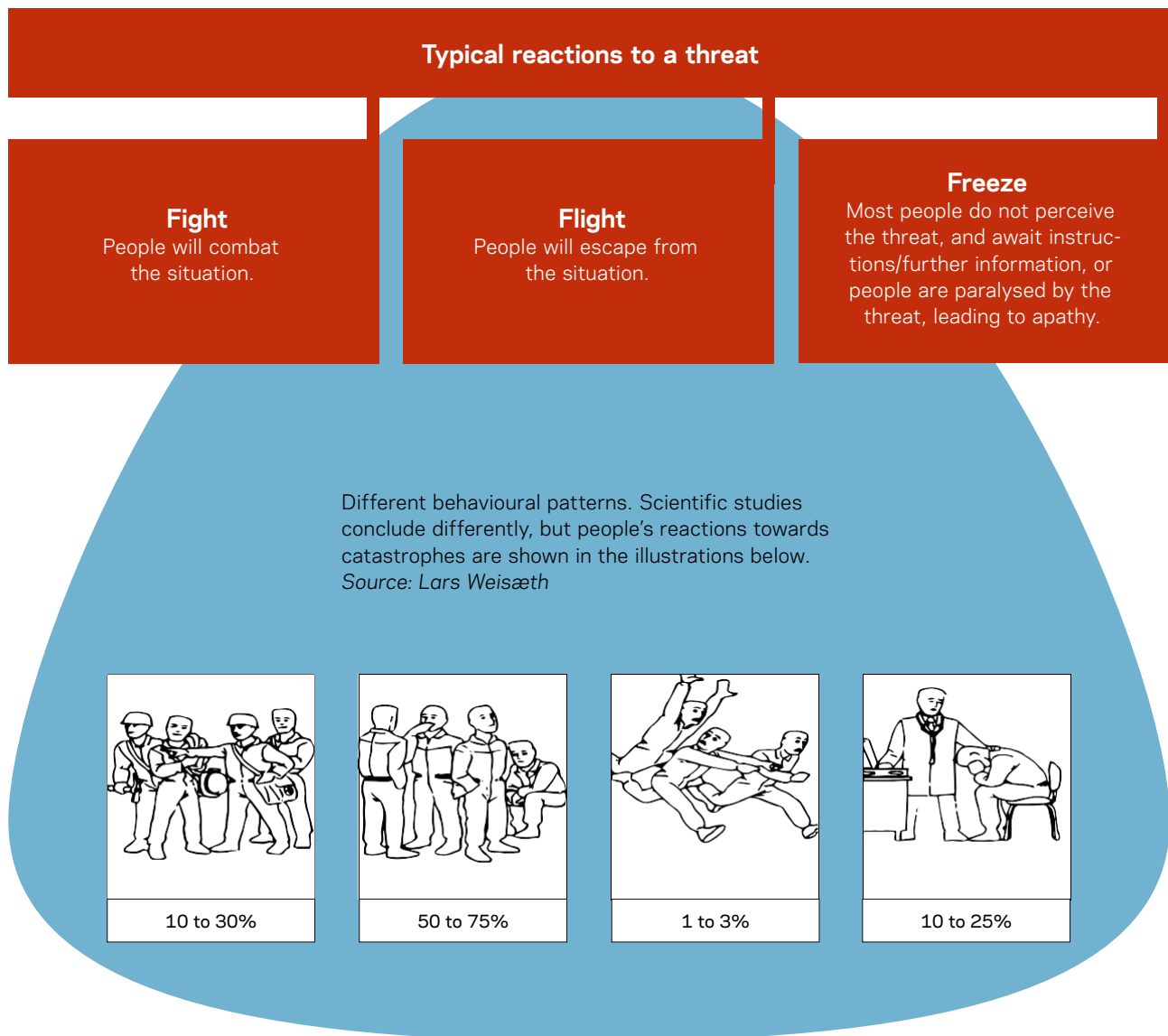
- When you're needed, you need the procedure in your head, not your head in the procedure;
- Think, keep control over yourself;
- Be compassionate;
- Ask for help if you need it;
- Know the basic routines used by police, hospitals, clients and DOF with regards to notifying next of kin;
- Media are to be treated courteously and firmly.



## Common Behavioural Patterns in a Critical Situation

People may react differently, depending on the situation, but primarily, humans react to threats in three ways: **“Fight”**, **“Flight”** or **“Freeze”**.

People’s ability to react and cope constructively is based on their experience, practice, and knowledge. Being trained may greatly influence a person’s behaviour during a critical situation:



" We can see Change is a major factor in explaining why incidents occur.  
...Change is fundamental to all incidents. "

Value moment icebreaker:

**Excellence**

We learn about our vulnerabilities and how to avoid them in the future by having comprehensive incident management and investigation processes and procedures in place.

DISCUSS: how does the above relate to "Excellence"?



# MODULE 10

## Investigation

WHAT IS AN INCIDENT?	136
INCIDENT MANAGEMENT & REPORTING	139
INVESTIGATION	142
REPORT	148

# What is an Incident?

An incident can be defined simply as:

“An event which has, or could have, caused harm or damage to: people, environment, plant, equipment, processes, or reputation”

Defining an incident should be simple and not over complicated, determining what type of incident it is can be a little more difficult. Always keep in mind that when an incident has occurred, it is not how we define it that is the priority, rather it is how we can prevent it from occurring again. This prevention should be the focus and therefore that is why we investigate to understand and learn from the incident.

## Aim of the Course

- Defining an incident
- Knowing how to report an incident
- Understanding how to manage incidents in accordance to company expectations
- Understand how to investigate incidents
- Demonstrate how we can learn from incidents
- Develop actions that are SMART
- Provide a clear account of the DOF Group's objectives and commitment within the field of the module
- Understand the measures which have been chosen by the DOF Group to achieve these objectives and commitment.
- See the area of the module as an integrated part of the business.
- Recognise that awareness and continual improvement must be part of the daily work tasks in order to maintain the required DOF Group standards

## Key words

- Incident
- Investigation
- Sequence of events
- Causal Factors (Immediate, Underlying and Root)
- SMART Actions
- Consequence



## Identifying an Incident

An incident is an event which has, or could have, caused harm or damage.

An Incident can be an Observation (normally referred to as a Safety Observation) where it can be analysed and defined as an unsafe condition or behaviour with the potential to cause an event that results in injury or harm to someone, cause property damage or cause harm to the environment.

An incident can also be where an event occurs, but does not cause injury or harm to people, damage to property or the environment, however, if the circumstances were a little different, the results could have been more severe.

See the example below:

### **INCIDENT EXAMPLE**

**Observation** – A person inspects and identifies that a wire sling which is planned to be used to lift a load by a crane, is found to be damaged and could fail if used.

**Incident (Near Miss)** – The same wire sling is not inspected and subsequently used to lift a load by the crane. After completion of the lift, it is identified that the wire sling is damaged and that the load could have failed resulting in potential injury to personnel near the fallen load, or the load itself being damaged by the fall

**Incident (Injury / Property Damage)** – The same wire sling is not inspected and used to lift the load by the crane. The wire sling subsequently fails and the load falls to deck resulting in any or both of the following:

- Load falls to deck and the load is damaged - Property Damage
- The load falls to deck and results in a person(s) being struck by the fallen load without damage to the load (Injury)

In the example above, some individuals may classify the incident as Equipment Failure. However, where the failure – in this case the damaged wire sling - has actual or potential consequences beyond the equipment itself, then the resulting consequence determines the classification (personal injury, property damage, near miss etc).

## How do incidents occur?

During our day-to-day operations, generally incidents occur infrequently. So why do incidents occur at all?

The Petroleum Safety Authority Norway published “Integrated and unified risk management in the petroleum industry (2018)” where they found universal questions are usually asked in the wake of an incident;

- Whether those responsible had the information they needed when decisions which contributed to the incident were taken?
- Did they understand the circumstances as well as the consequences of their operations and the decisions they took?
- Did the circumstances change?
- Were they able to see and handle these changes?
- Did they make assumptions which turned out later to be wrong?

We can see Change is a major factor in explaining why incidents occur. Something within the normal process, operation or behaviour changes, and this acts as a catalyst for the failure and therefore an event (incident) occurs. Change is fundamental to all incidents.

Which is why it is so important for us all to be attuned to uncertainty and changes in circumstances. Enhanced Risk Perception and improved risk analysis is “the ability to perceive the overall picture and to reflect knowledge and the lack of it. To be alert and pick up on the nuances and signals when something happens. To take account of the unforeseen” are all human ingredients in a structured system – and where we can all make a difference.

### Task

INDIVIDUAL THINKING / GROUP SHARE- Think back to an incident you are familiar with. Now think about what may have caused the incident. Think about the questions outlined, and that even a minor change can have a domino effect in an incident.



"The Swiss Cheese" based upon James Reason model

# Incident Management and Reporting

## Management of an Incident

After an incident has occurred, there are a number of actions to be taken. These are:

- 1. Preserve Life** (medical care and the health, safety and well-being of personnel is the first priority) – if personnel are injured then provide medical care and treatment. Secure the scene so personnel are not impacted or further property damage occurs (see Emergency Response Chapter).
- 2. Inform / alert** – make sure those in charge of the area where the incident has occurred, have been made aware of the event and current status.
- 3. Preserve Evidence** – Once the scene is secure, take steps to preserve any evidence that may be vital to an investigation. If in doubt, preserve it.
- 4. Witness information** – information can be diluted over time, so allow witnesses to record vital information as soon as possible as this will help them to recall key facts at a later date.

### Task

In small groups refer to the DOF Group HSEQ Reporting Workbook and discuss incidents you have Experienced. Identify the appropriate report type and key information that is required. Did you get it right last time?

Incident/Injury Notification Form	
Site/location	
Date/time of incident	
Incident type/classification	
Incident description (brief description of incident)	

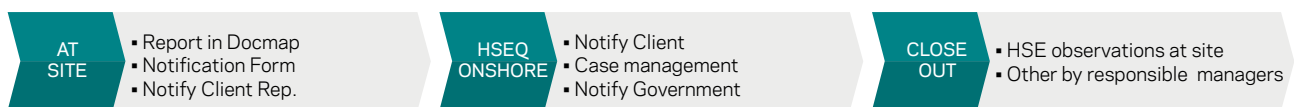
*Incident / Injury Notification Form*

## Reporting Incidents

The DOF Group understand that reporting is crucial for learning and allows proper close-out of incidents and non-conformities.

The DOF Group has developed a HSEQ Reporting Handbook which provides an overview and guidance on incident reporting and how to accurately classify events.

All report types have some core information in common, such as description and basic information (time / date, vessel / worksite etc).



### ***Notification requirements***

Verbal or written requirements exists in regards to notification requirements

Should an incident occur, the worksite supervisor should follow the following process and commence raising the appropriate incident report. All incidents are to be reported on the approved DOF reporting system / form, be it an injury / illness, environmental or property damage.

All incidents are to be reported in accordance with the requirements provided within the DOF Group Non-Conformity and Incident Management standard.

### ***Principles to reporting of an incident***

The main objectives for reporting are:

- To prevent further similar occurrences (locally and globally within DOF);
- To ensure legal requirements are met (may differ regionally therefore contact HSEQ for guidance);
- To ensure Client requirements are met (these may differ therefore contact HSEQ Department for guidance);
- To highlight areas of operations where occurrences are a concern and seek to implement improvements to effectively manage and reduce / eliminate trends;
- To measure DOF's performance and assist in targeting improvement areas;
- To provide Senior Management in setting objectives and targets within prevention programs.

## Investigation

Incidents occur due to a combination of human, technical, and/or organisational failures.

Understanding what the root cause of an incident was, can only be achieved through investigation and the 'degree' of investigation is determined by the severity / potential severity of the incident.

The main objectives of investigations are:

- Identifying the immediate, underlying and root causes of the incident; and
- Identifying the sequence of events leading up to and those which contributed to the incident; and
- To determine and implement effective control measures to prevent future occurrences through SMART Actions
- To demonstrate management commitment to the workforce with respect to their actions and determination to prevent further incidents and occurrences
- To identify if critical safe behaviours have contributed to the incident and what actions may be taken if so.

**ALL** incidents are to be investigated to determine the causes and make recommendations to prevent recurrence.

### Levels of investigation

The actual and potential consequence of each incident varies, therefore the required level of investigation needs to be proportionate. DOF has implemented a matrix for the classification, investigation and reporting levels to provide a standardised qualitative risk rating of an incident.

The matrix provides for both the potential consequence (severity) and the likelihood of these consequences to be determined. When assessing the incident this should be done in sequence; first the potential consequence and severity – then the likelihood.

*Reference is given to the DOF Group Non-Conformity and Incident Management*

#### Task

Task – As a group, discuss and identify the Level of Investigation / Investigation Set-up required on the following:

1. During routine daily Engine room maintenance activities, an engineer catches hand on sharp edge which cuts through glove and causes minor scratch to hand.
2. During lift operation of stores from wharf to vessel, lift team member identifies that the rigging being utilised has incurred damage previously and has the potential to fail.

Note that it is the potential consequence of the incident being assessed for investigation purposes and not the actual consequence. The “actual” has occurred however it is the “potential” that shall provide greater insight and effort required to prevent future recurrence. The “Potential” is where had the conditions been less favourable, the severity of the consequences could have been increased.

## Investigation set up

1

Investigation will be handled onsite/vessel. Investigation team will be appointed by line manager/vessel master/offshore manager/worksites supervisor. Investigation method will be determined as per DOF Group requirements.

*Finalise investigation report within:*  
**7 days**

2

Investigation will be handled onsite/vessel. Investigation team will be appointed by Department manager / Project Manager. Investigation method will be determined as per DOF Group requirements and entered via Docmap. Dependent on level of re-occurrence, TOPSET investigation method - or other investigation technique, may be utilised.

*Finalise investigation report within*  
**14 days**

3

Senior regional management will appoint investigation team. TOPSET investigation method - or other investigation technique, will be used.

*Finalise investigation report within*  
**28 days**

4

The Business Unit Lead in conjunction with the CEO will appoint investigation team; TOPSET investigation method- or other investigation technique, will be used.

*Finalise investigation report within*  
**28+ days**

There are 4 basic types of information which will need to be gathered:

1. Interviews with victims, witnesses and other relevant personnel;
2. Positional Evidence;
3. Involvement of or damage to plant, equipment and facilities;
4. Documentation.

### 1. Interviews

- Conduct the investigation on the same day of the occurrence, if possible
- Put each person at ease in an appropriate location at the site; ask for information, don't threaten or demand
- Interview witnesses / victims individually and record the person's own version, avoid using "leading" questions
- Provide feedback to colleagues

### 2. Positional Information

Record the circumstances, which led up to the occurrence, what happened at the time of impact and what happened afterwards. This should enable the investigation team to picture the scenario.

### 3. Signs of Damage

- Check if the correct tools for the job were used
- Check the extent of the damage
- Check if any previous damage was evident
- What safeguards were in place – e.g., PPE, guards, barriers, warning signs etc.
- Take photographs (when permitted) of the scene

### 4. Documentation

- Photographic evidence
- Technical evidence
- Additional written statements
- Certification details
- Records of inspection
- Maintenance records
- Extracts from medical log
- Work instructions/Procedures
- Permits to work
- Training records
- Risk assessments

## Investigation method & techniques

It is important an investigation commences as soon as possible and a process should be followed, no matter how simple or complex the investigation may be. This process is:

1. PLAN
2. INVESTIGATE
3. ANALYSIS
4. Report & Recommendations / Actions

### Investigate

The DOF Group has adopted the The Kelvin TOPSET system as the standardised methodology for investigations, as it provides guidance to ensure all the potential areas which may contribute to an incident are investigated. These are:

1. Technology (Equipment / Maintenance / Design etc);
2. Organisation (Management /Supervision / Culture / resources etc);
3. People (attitudes / Behaviours / Training / Decisions etc);
4. Similar Events (Reports / Flashes / Experiences etc);
5. Environment (Natural / Housekeeping / weather etc);
6. Time-line (sequence of events leading up to the incident).

People are often the primary source of information so interviews are the core of any investigation. The purpose of the interview is problem-solving and information gathering, however some interviewees may wish to share feelings and the interviewer should be prepared to listen as well as ask questions.

Without interviews it will be almost impossible to find out the circumstances of the incident. To encourage interviewees to be 'open and frank', the interviewer's manner, style of questioning and interview structure should facilitate and explore all possibilities with an open mind and without judgment. All interviewees have a unique personality, so no two interviews will ever be the same.

*Reference Communication Module for tips in conducting interviews*

SECTION CONTINUES ON NEXT PAGE ►





## Task

In teams, discuss what other possible underlying and root causes there may be in the above example.

## Analysis

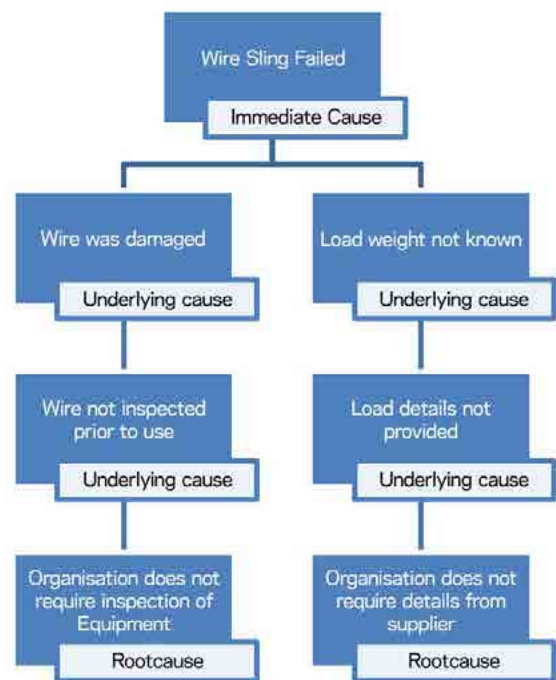
You have your plan and have undertaken the investigation, now analysis of data gathered in by the investigation team starts. If all the data and information has not been gathered, the quality of the final analysis will suffer as the chance of fundamental causal factors going unrecognised or omitted is increased.

DON'T start analysis until you have investigated fully.

There are three types of causes to any incident – "Immediate", "Underlying" and "Root Cause":

1. **Immediate Cause** – is defined as what occurred immediately before or at the time the incident occurred.
2. **Underlying Cause** – are causal factors of the immediate cause. By simply asking "Why did the 'Immediate Cause' occur?", you can identify an underlying cause. Additionally, by asking "Why did an 'Underlying Cause' occur?" a further underlying cause may be identified.
3. **Root Cause** – the objective of any investigation is to not only identify the Immediate and Underlying Causes but to clearly identify the Root Cause(s). Root causes of incidents are identified by asking "Why?" of the Underlying Cause until the analysis can go no further. Normally, Root Causes are classified within an Organisation or People category.

Incident - Wire Sling failed and load dropped to deck



Whilst the above example is simplistic, it clearly defines the immediate, Underlying and Root Causes. In more complex analysis of incidents, there can be more than one Underlying cause to the case above, however as the analysis progresses towards identifying Root Causes, the Underlying Causes start to point to only a few Root Causes. In the above example it can be seen that whilst there are four Underlying Causes, there is primarily only one Root Cause which is the Organisation does not have adequate systems and procedures in place to prevent incidents.

## Incident investigation tools



*The Kelvin TOP-SET process - More than just Root Cause Analysis - it is a complete incident investigation system*

### **Kelvin Top-set**

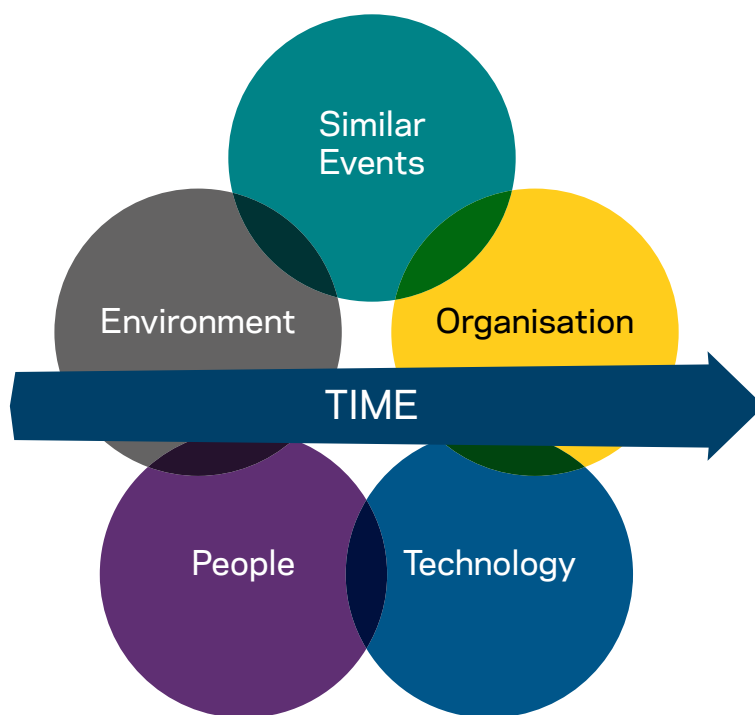
DOF Group has standardised the incident investigation process by using TOP-SET courses, software and investigation services which are designed to provide us with the skills and tools to:

- Ensure reliable, consistent results from incident investigations, every time;
- Uncover the genuine Root Causes of incidents through efficient Root Cause Analysis;
- Solve complex problems using a simple step-by-step process;
- Produce logical, accurate incident reports;
- Increase safety performance and improve safety culture.

*Source: All text in this section is taken from Kelvin TOP-SET web-pages*

*Note: Kelvin TOP-SET provides DOF Group with investigation courses as well as electronic investigation tools.*

**T** Technology  
**O** Organisation  
**P** People  
**S** Similar Events  
**E** Environment  
**T** Time



The Kelvin TOP-SET system uses a set of indicators, which are commonly found in incidents, as a thinking framework which can be used during the investigation process.

A detailed planning chart containing around 400 indicators, which fall under the TOP-SET headers, is used to guide investigators through the planning stage in a simple and effective manner. It is this focus on a standardised approach to planning and structuring investigations that gives TOP-SET investigations their accuracy and consistency.

## Incident Reports

The incident investigation report, recommendations and actions are recorded in DOCMAP.

The DOCMAP reporting system provides for input of key criteria of incident information along with supplementary information gathered by the investigation team.

In the case of more serious incidents, a separate report is required and is provided as an attachment within DOCMAP. It is also important that key data gathered during the investigation is attached to the DOCMAP report. The DOF Group has developed a template for the investigation team to use when a separate report is required.

The Key Criteria found within this template is:

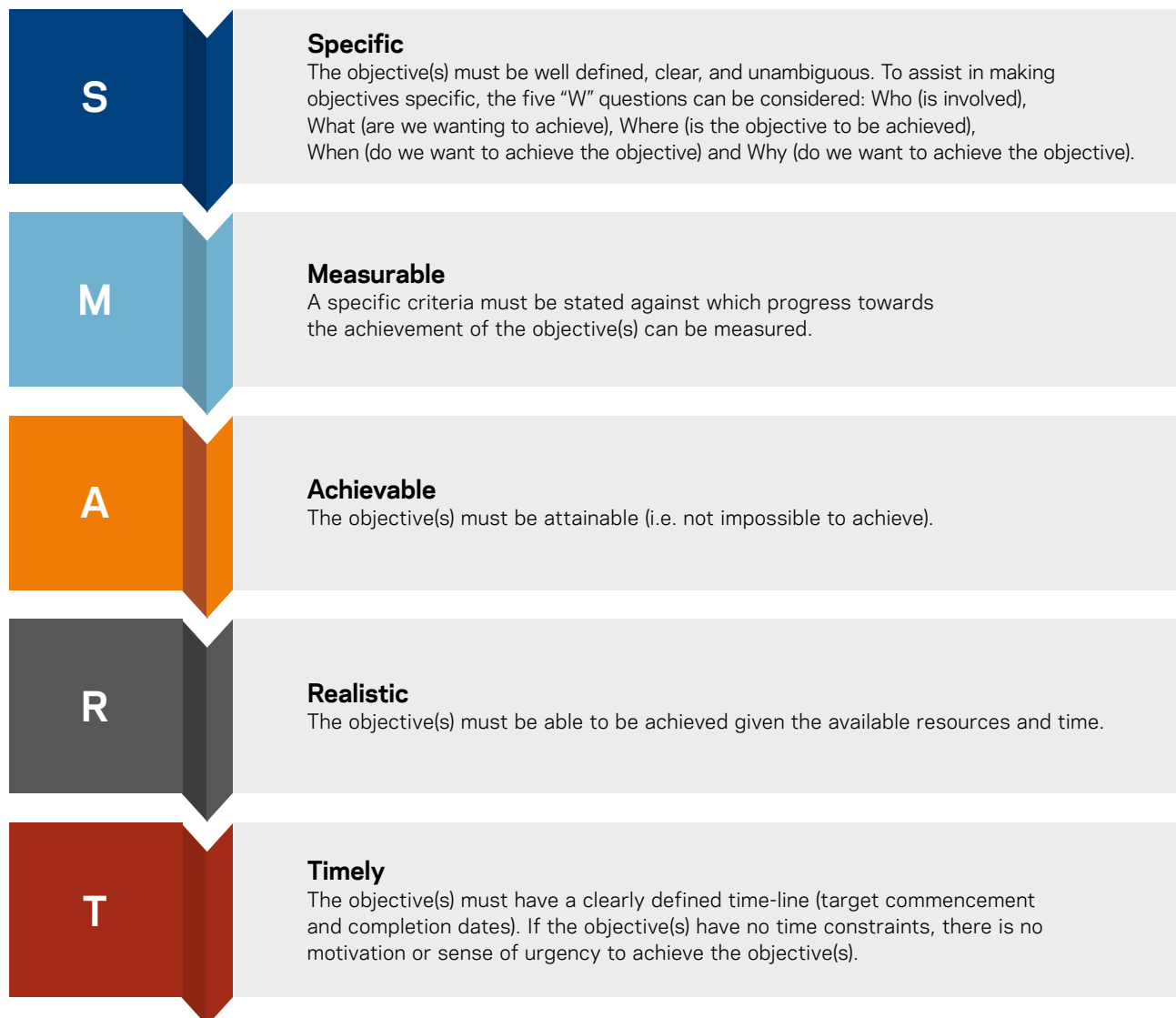
- Executive Summary
- Terms of Reference
  - Mandate
  - Investigation Team members
  - Methodology
- The Incident
  - What has happened
  - Consequences / Potential Consequences
  - Detail description of the Incident
  - Time-line of events
  - Notification to Management
- Findings
  - Immediate Causes
  - Underlying Causes
  - Root Causes
- Lessons Learned
  - Recommendations / Actions



Causes	Timescale	Difficulty	Impact (for improvement)
Immediate	Very quick to action	Easy	Minor
Underlying	Moderate Effort required	Moderate	Moderate
Root	Large effort and time	Difficult	Major

## Recommendations / Actions

A key objective of any investigation is to ensure there is no recurrence of a similar incidents within the DOF Group or our industry: “It is the duty of the investigation team and management to review all causes and make recommendations / actions which go towards this assurance.”



" Where mental and physical health is concerned, there can be no distinction made between 'mind' and 'body'. "

Value moment icebreaker:  
**Above all we are SAFE**

---

The WHO's definition of health as contained in its constitution: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Learn more about the aspects of well-being.



DISCUSS: how does the above relate to "Above all we are SAFE"?

## **MODULE 11**

### Physical, Mental, & Social Well-Being

INTRODUCTION	152
PHYSICAL HEALTH	154
SOCIAL INTERACTION & MENTAL HEALTH	160
SELF-MEDICATION: SUBSTANCE USE DISORDER	163
COMPANY SUPPORT PROGRAM	166

# Introduction

Mental health is defined by the World Health Organisation (WHO) as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.

The WHO's definition of general health captures the part mental health plays in overall well-being: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".

This module gives an overview of some important aspects of physical, mental and social well-being and includes a brief guide to some of the DOF Group's various Employee Support Programs.

## Aim of the Course

This module aims to give an overview of physical and mental aspects that can influence social well-being in our lives at work and at home with;

- Holistic overview of physical and mental health issues
- Explore how social interaction influences us at work
- List preventive measures to keep healthy and active
- Familiarity with symptoms of mental health diseases
- A brief overview of Support Programs available in our regions

SECTION CONTINUES ON NEXT PAGE ►

## Key definitions

All definitions given below come from the World Health Organisation (WHO) home page, as of September 2019:

- **Health** - a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.
- **Mental health** - a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.
- **Vaccination** - a biological preparation that improves immunity to a particular disease. A vaccine typically contains an agent that resembles a disease-causing micro-organism, and is often made from weakened or killed forms of the microbe, its toxins or one of its surface proteins. The agent stimulates the

body's immune system to recognise the agent as foreign, destroy it, and "remember" it, so that the immune system can more easily recognise and destroy any of these micro-organisms that it later encounters.

- **Nutrition** - the intake of food, considered in relation to the body's dietary needs. Good nutrition – an adequate, well balanced diet combined with regular physical activity – is a cornerstone of good health. Poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development, and reduced productivity.
- **Self medication** - a human behaviour in which an individual uses a substance or any exogenous influence to self-administer treatment for physical or psychological ailments.





## Statement from the CEO

### DOF and COVID-19 vaccination

A values moment approach can easily be used to understand the benefits of the COVID-19 vaccination. Take any one of our values and place it with what benefits come with a completed COVID-19 vaccinated status. I will choose "Teamwork", but it works with every one of our values.

There is no greater example of being on the team and contributing to the team than being one of tens-of-millions who are fully vaccinated, supporting a global population's efforts to wipe out COVID-19 and helping to ensure that both my community, and more broadly humanity, is able to thrive.

Living "Safe the RITE way" often means that we go above and beyond what is expected of us, both as colleagues and as individuals in our local communities.

As it states in the DOF Workbook "As a global company we support vaccination programmes and are concerned by the resistance of some to follow health authorities' recommendations for vaccinations in general".

We can expect that COVID-19 vaccinations will be mandatory for all seafarers, similar to other basic vaccinations like Yellow Fever, Tetanus, and others. Even if this is not formalised or communicated by IMO to date, this is the most probable outcome expected and when this change occurs it will be clearly communicated.

For onshore employees, I take it for granted that all will operating in line with our values and therefore supporting the regional recommendations by health authorities. Refusing to follow these recommendations may require special measures and restrictions in office working, travel, social events, and physical interaction with vaccinated colleagues and in longer term be in a conflict with employment.

Thank you for taking the COVID-19 vaccination.



Mons S. Aase  
CEO



*Read more  
about vaccines,  
including the  
COVID-19 vaccine,  
later in this module.*

## Physical Health

A clear distinction is often made between 'mind' and 'body'. But when considering mental health and physical health, the two should not be thought of as separate.



### Global recommendations on physical activity for health

Physical and mental health are equally important when dealing with the challenges of working on and offshore.

With the average level of daily physical activity that individuals engage in decreasing each year, physical inactivity is now the fourth leading risk factor for mortality worldwide (WHO).

It is known that high levels of inactivity have been associated with increased risks of several chronic health conditions and mortality. These chronic health conditions such as heart disease and heart attacks, cancers and respiratory diseases are becoming more prominent in younger adults contributing to 71% of deaths worldwide (WHO). Physical inactivity is estimated to be the principal cause for approximately 21–25% of breast and colon cancer, 27% of diabetes and approximately 30% of ischemic heart disease.

Recent studies have also found that high levels of physical activity seem to eliminate the increased risk of mortality associated with higher sitting time (Ekelund et al 2016).

#### WHO physical activity recommendations:

WHO has issued recommendations aimed to prevent the development and progression of chronic health conditions through physical activity.

#### WHO RECOMMENDS:

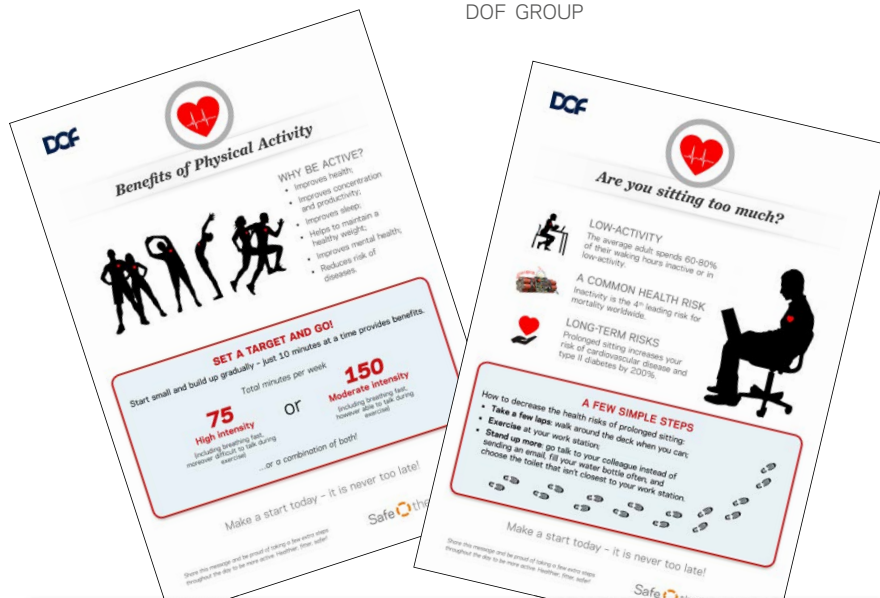
The WHO recommended requirement for physical activity per week is:

- **150 minutes of moderate intensity** aerobic physical activity;
- or, **75 minutes of high intensity** aerobic physical activity;
- and **2 x resistance training**.



For additional health benefits the recommended requirement for physical activity per week is:

- **300 minutes of moderate intensity** aerobic physical activity;
- or, **150 minutes of high intensity** aerobic physical activity.



## BENEFITS OF PHYSICAL ACTIVITY

**Improves overall health**

**Improves concentration  
& productivity**

**Improves sleep & mood**

**Helps to maintain  
a healthy weight**

**Improves  
muscular strength**

**Reduces  
blood pressure &  
inflammatory markers**

**Improves  
cholesterol levels (LDL)**

**Improves  
insulin sensitivity**

**Helps to prevent against  
certain cancers**

## Nutrition: Global Diet Guidelines for health

Maintaining a healthy diet throughout life helps to promote well-being and prevent the development and progression of chronic health conditions. Increased production of processed foods, changing lifestyles and urbanisation have led to a shift in dietary pattern (WHO). Many people are now consuming diets that are highly processed and are high fats, sugars and sodium.

The guidelines surrounding a healthy, balanced diet are dependent on individual factors, cultural context and locally available foods (WHO).

### Tasks

Using the physical activity recommendations from WHO on previous page:

**TASK A** - Build a weekly exercise plan that covers the minimum recommended duration- and types of exercise.

**TASK B** - Build a similar plan using the "additional health benefits" recommendations.

Discuss with group afterwards.

## Tips

for a healthy diet  
**WHO RECOMMENDS:**



*How many of the boxes can you check off? Test yourself and discuss with your colleagues what they do to maintain a healthy diet.*

1. Include at least 5 servings of vegetables and 2 servings of fruit each day. ☐
2. Reduce the amount of meat, saturated and trans-fat, sugar and salt consumed. ☐
3. Try and choose wholegrain options where possible. ☐
4. Include some milk and dairy products. ☐
5. Include some 'healthy' fats each day- such as olive oil, unsalted nuts, avocado or oily fish. ☐
6. Drink plenty of water (at least 1.5L per day). ☐
7. Minimize consumption of sugary drinks. ☐
8. Try and replace snacks with healthy options. ☐
9. Try to limit caffeine consumption to 400mg (maximum 3 cups of coffee or tea per day). ☐
10. Minimize alcohol consumption and try and have several alcohol-free days per week. ☐

## Malaria

Malaria is a mosquito-borne infectious disease that affects humans and other animals. Malaria causes symptoms that typically include fever, tiredness, vomiting, and headaches. In severe cases it can cause yellow skin, seizures, coma, or death. Symptoms usually begin ten to fifteen days after being bitten by an infected mosquito. If not properly treated, people may have recurrences of the disease months later. In those who have recently survived an infection, reinfection usually causes milder symptoms. This partial resistance disappears over months to years if the person has no continuing exposure to malaria.

### *Preventive measure towards malaria*

There is currently no vaccination to prevent malaria. All people in malaria prone areas should take precautions to prevent mosquito bites. Some people in higher risk situations are also advised to take anti-malarial drugs to prevent infection (chemoprophylaxis). Your travel health professional will advise you individually, based on your risk profile.

Chemoprophylaxis is not 100% effective, and people who take anti-malarial medicine should still be alert for symptoms of the disease.

DOF Group shall provide a Malaria Tool Kit to all employees traveling to and working in areas where the potential to contract malaria is present (please see your local HSEQ Department). The DOF Group Malaria Tool Kit will consist of:

- Anti-Malaria Medication (refer to guidelines on our BMS system);
- Insect Spray containing repellent;
- Insecticide-treated bed net.

Understanding your environment can help you predict what insects might be present. Mosquitoes breed in stagnant water, such as swamps and open water containers in residential areas. Different types of mosquito's bite at different times of the day. For example, those that spread malaria bite at night (from "dusk until dawn"), while mosquitoes that spread dengue fever bite during the day (primarily at dusk and dawn). Note that one area may house several types of mosquitoes. You need to take bite prevention steps at all times.



## Vaccination

Many diseases that once caused widespread illness, disability, and death can now be prevented through the use of vaccines. Vaccines are medicines that contain weakened or dead bacteria or viruses. When a person takes a vaccine, his or her immune system responds by producing antibodies—substances that weaken or destroy disease-causing organisms. When the person is later exposed to live bacteria or viruses of the same kind that were in the vaccine, the antibodies prevent those organisms from making the person sick. Vaccines usually also stimulate the so-called cellular immune system as well. In other words, the person becomes immune to the disease the organisms normally cause. The process of building up immunity by taking a vaccine is called immunisation.

As a global company we support vaccination programs and are concerned by the resistance of some to follow regional health authorities recommendations for vaccinations. Outbreak of measles is an example where the population immunity, built up over generations of a global vaccination program, is at risk.

DOF operates in various areas of the world where there are mandatory requirements for certain vaccinations. Below we have listed some key vaccinations. More information is to be found on the DOF page within International SOS.

SECTION CONTINUES ON NEXT PAGE ►

### Factbox: How does COVID-19 vaccine work?

To understand how COVID-19 vaccines work, it helps to first look at how our bodies fight illness. When germs, such as the virus that causes COVID-19, invade our bodies, they attack and multiply. This invasion, called an infection, is what causes illness. Our immune system uses several tools to fight infection. Blood contains red cells, which carry oxygen to tissues and organs, and white or immune cells, which fight infection. Different types of white blood cells fight infection in different ways:

- Macrophages are white blood cells that swallow up and digest germs and dead or dying cells. The macrophages leave behind parts of the invading germs, called “antigens”. The body identifies antigens as dangerous and stimulates antibodies to attack them.
- B-lymphocytes are defensive white blood cells. They produce antibodies that attack the pieces of the virus left behind by the macrophages.
- T-lymphocytes are another type of defensive white blood cell. They attack cells in the body that have already been infected.

The first time a person is infected with the virus that causes COVID-19, it can take several days or weeks for their body to make and use all the germ-fighting tools needed to get over the infection. After the infection, the person’s immune system remembers what it learned about how to protect the body against that disease.

The body keeps a few T-lymphocytes, called “memory cells,” that go into action quickly if the body encounters the same virus again. When the familiar antigens are detected, B-lymphocytes produce antibodies to attack them. Experts are still learning how long these memory cells protect a person against the virus that causes COVID-19.

### Basic Vaccination

Basic vaccination programs normally consist of Diphtheria, Tetanus, Polio and Pertussis (whooping cough) and a booster dose is recommended every 10th year.

### Yellow fever

Yellow fever, which is also known as sylvatic fever and viral hemorrhagic fever or VHF, is a severe infectious disease caused by a type of virus called a flavivirus. This flavivirus can cause outbreaks of epidemic proportions throughout Africa and tropical America. Be aware that some countries might request a booster vaccination after 10 years even if this is in contradiction to WHO's recommendations.

### Tetanus

Tetanus vaccine, also known as tetanus toxoid, is an inactive vaccine used to prevent tetanus. During childhood five doses are recommended, with a sixth given during adolescence. Additional doses every 10 years are recommended. After three doses almost everyone is initially immune. In those who are not up to date on their tetanus immunisation a booster should be given within 48 hours of an injury. In those with high risk injuries who are not fully immunised tetanus antitoxin may also be recommended. Making sure women who are pregnant are up to date on their tetanus immunisation and, if not, immunising them can prevent neonatal tetanus.

### Hepatitis A

Hepatitis A vaccine is used to prevent Hepatitis A, a type of liver disease that is caused by the Hepatitis A virus (HAV). It is effective in around 95% of cases if given with an initial dose and a second booster dose after 12 months, and lasts for at least fifteen years and possibly a person's entire life.

### Tuberculosis

Bacille Calmette-Guérin (BCG) is a vaccine for tuberculosis (TB) disease. This vaccine is no longer widely used in western countries, but it is often given to infants and small children in other countries where TB is common. BCG does not always protect people from getting TB.

People who were previously vaccinated with BCG may receive a TB skin test to test for TB infection. Vaccination with BCG may cause a positive reaction to a TB skin test. A positive reaction to a TB skin test may be due to the BCG vaccine itself or due to infection with TB bacteria.

TB blood tests (IGRAs), unlike the TB skin test, are not affected by prior BCG vaccination and are not expected to give a false-positive result in people who have received BCG.

A positive TB skin test or TB blood test only tells that a person has been infected with TB bacteria. It does not tell whether the person has latent TB infection or has progressed to TB disease. Other tests, such as a chest x-ray and a sample of sputum, are needed to see whether the person has TB disease.

## COVID-19 Vaccination

COVID-19 vaccines help our bodies develop immunity to the virus that causes COVID-19 without us having to get the illness.

There is multiple different sorts of COVID-19 vaccinations available and the different types of vaccines work in different ways to offer protection. But with all types of vaccines, the body is left with a supply of "memory" T-lymphocytes as well as B-lymphocytes that will remember how to fight that virus in the future.

It typically takes a few weeks after vaccination for the body to produce T-lymphocytes and B-lymphocytes. Therefore, it is possible that a person could be infected with the virus that causes COVID-19 just before or just after vaccination and then get sick because the vaccine did not have enough time to provide protection.

Sometimes after vaccination, the process of building immunity can cause symptoms, such as fever. These symptoms are normal and are signs that the body is building immunity.

# Social Interaction & Mental Health

Humans are born into social groups and live their entire lives as a part of society, so the social element can't easily be removed from the evolution of an individual.

The following text gives some tips on how social interaction affects our health and the importance of a sound and health working environment on our vessels and workplaces.

## Social Interaction

What is Social Interaction?

A dictionary defines sociology as the systematic study of society and social interaction. The word “sociology” is derived from the Latin word *socius* (companion) and the Greek word *logos* (speech or reason), which together mean “reasoned speech or discourse about companionship”.

Sociologists break the study of society down into four separate levels of analysis: micro, meso, macro, and global. The basic distinctions, however, are between micro-level sociology, macro-level sociology and global-level sociology.

At the micro-level of analysis, the focus is on the social dynamics of intimate, face-to-face interactions. Research is conducted with a specific set of individuals such as conversational partners, family members, work associates, or friendship groups.

Macro-level sociology focuses on the properties of large-scale, society-wide social interactions that extend beyond the immediate milieu of individual interactions: the dynamics of institutions, class structures, gender relations, or whole populations.

In global-level sociology, the focus is on structures and processes that extend beyond the boundaries of states or specific societies.

Social contact is the first place of interaction. It rather initiates interaction. Social contact refers to the connection between persons and groups. For social contact, social proximity (mental contact) and not the physical proximity (bodily contact) is essential.

Social contact differs from physical or bodily contact. Mere physical contact (proximity) of individuals does not constitute a group. This is why, it is said, ‘where there

is contact of human minds, there association exists; where there is no contact, there is a state of isolation’.

Social contacts may be direct or indirect and positive or negative. Direct contacts involve immediate presence of persons (face-to-face) in the exchange of ideas or things. Other contacts are indirect as we find in the case of the writer and the recipient of a personal letter. Such contacts may be established through any means of communication (telephone, TV, Internet).

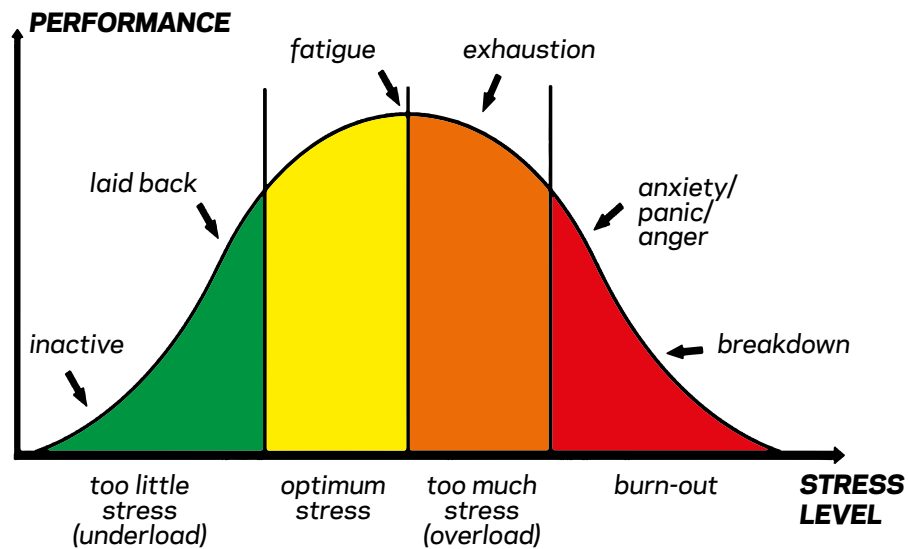
Positive contact means associative interaction which leads towards assimilation through tolerance, compromise or cooperation. Negative contact means dissociative interaction, which gives rise to the feeling of hatred, rivalry, jealousy, indifference or lack of response.

The other condition for social interaction is communication. Society can only be conceived of through communication. It has a central place in society. It may vary from writing a letter to a friend, to all the modern methods of communication.

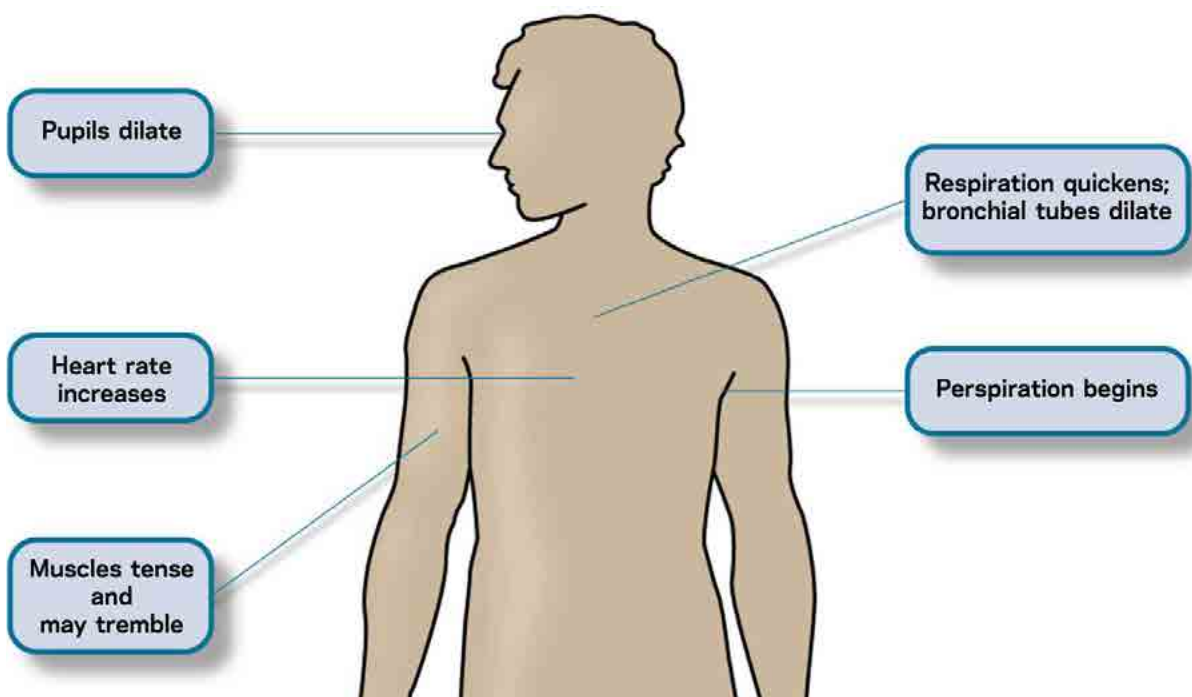
Means of communication may be language, script, gestures, words or symbols, etc. Language is a symbolic communication because it consists of conventional cues or signs. Gestures and facial expressions like speech and language play a significant part in communication at human level. Handshake, head-nodding, waving the hand are good examples of gestures.

Communication in either form of material or sensory medium is a necessity for social contacts. Communication plays an important role in personality formation, transfer of social heritage and social experience from generation to generation.





As the stress level increases from low to moderate, so does performance (eustress). At the optimal level (the peak of the curve), performance has reached its peak. If stress exceeds the optimal level, it will reach the distress region, where it will become excessive and debilitating, and performance will decline (v).



Fight or flight is a physiological response to a stressor.

SECTION CONTINUES ON NEXT PAGE ►

## Stress

In psychology, stress is a feeling of strain and pressure. Stress is a type of psychological pain. Small amounts of stress may be desired, beneficial, and even healthy. Positive stress helps improve athletic performance. It also plays a factor in motivation, adaptation, and reaction to the environment. Excessive amounts of stress, however, may lead to bodily harm. Stress can increase the risk of strokes, heart attacks, ulcers, and mental illnesses such as depression.

Stress can be external and related to the environment, but may also be caused by internal perceptions that cause an individual to experience anxiety or

other negative emotions surrounding a situation, such as pressure, discomfort, etc., which they then deem stressful.

Humans experience stress, or perceive things as threatening, when they do not believe that their resources for coping with obstacles (stimuli, people, situations, etc.) are enough for what the circumstances demand. When people think the demands being placed on them exceed their ability to cope, they then perceive stress.

You will find more information about stress by taking the stress awareness e-learn training available on our DOF portal.

## Fatigue

Fatigue is a term used to describe an overall feeling of tiredness or lack of energy. It isn't the same as simply feeling drowsy or sleepy. When you're fatigued, you have no motivation and no energy. Being sleepy may be a symptom of fatigue, but it's not the same thing.

There are many potential causes of fatigue. They can be divided into three general categories:

- **Lifestyle factors** - This can be from physical exertion, lack of physical activities, lack of sleep, drug and alcohol use and other reasons like simple boredom.
- **Physical health conditions** - Many medical conditions can also cause fatigue. This can be a wide range of medical diagnoses from anaemia to cancer.
- **Mental health issues** - Mental health conditions can also lead to fatigue. For example, fatigue is a common symptom of anxiety, depression, and seasonal affective disorder.

In DOF, worker's fatigue can be a factor in incidents or a risk to working personnel. When personnel feel fatigued, attention and motor skills may be affected, as well as mental acuity. Workers should notify their supervisor of their fatigue and handle the fatigue appropriately. Worksite Supervisors should constantly monitor employee's activities and behaviour to determine if an employee should be removed from the work site to obtain rest or perhaps be given a rest period. Traveling to the work site may also cause fatigue. Workers may need a rest period upon arriving at the work site prior to work commencing.

## Mental Health Illness

This section on Mental Health is built upon the internationally recognised [mentalhealth.org](https://www.mentalhealth.org), which is maintained by the U.S. government.

Mental health includes our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make choices. Mental health is important at every stage of life, from childhood and adolescence throughout adulthood.

Over the course of your life, if you experience mental health problems, your thinking, mood, and behaviour could be affected. Many factors contribute to mental health problems, including: Biological factors, such as genes or brain chemistry; Life experiences, such as trauma or abuse; Family history of mental health problems.



### Myths and Facts

*According to government statistics in the western world, mental health problems occur among one fourth of us during a lifetime (problems that need professional treatment and follow up by specialists).*

*According to WHO, suicide leads to death in close to one billion people: more than the number of lives lost in war.*

*In DOF we have experienced dramatic situations where employees have taken their own lives, or we have been close to employees and employee's family members with severe mental health challenges.*

*We need to overcome the myth that we, as individuals, cannot help a colleague with a mental health problem. Friends, loved ones and workmates can make a big difference.*

*Less than 50% of adults with diagnosable mental health problems and less than 20% of children and adolescents receive necessary treatment.*

*We can all be an important influencer to help someone get the treatment and services they need by:*

- *Reaching out and letting them know you are available to help;*
- *Helping them access mental health services;*
- *Learning and sharing the facts about mental health, especially if you hear something that isn't true;*
- *Treating them with respect, just as you would anyone else;*
- *Refusing to define them by their diagnosis or using labels such as "crazy".*

## Mood disorders

Read through the following Mood disorder "IDENTIFYING" flash cards to gain more understanding about different types of mental health factors and disorders.

### IDENTIFYING: **SAD**

Seasonal Affective Disorder (SAD) is when some people experience a serious mood change during the winter months, when there is less natural sunlight. This condition is called seasonal affective disorder, or SAD. SAD is a type of depression. It usually lifts during spring and summer.

SAD may be effectively treated with light therapy. But nearly half of people with SAD do not respond to light therapy alone. Anti-depressant medicines and talk therapy can reduce SAD symptoms, either alone or combined with light therapy.

### IDENTIFYING: **DEPRESSION**

Depression is a serious medical illness that involves the brain. It's more than a feeling of being "down in the dumps" or "blue" for a few days. They persist and interfere with your everyday life.

**Symptoms can include:** Sadness; Loss of interest or pleasure in activities you used to enjoy; Change in weight; Difficulty sleeping or oversleeping; Energy loss; Feelings of worthlessness; Thoughts of death or suicide; Depression is a disorder of the brain. There are a variety of causes, including genetic, environmental, psychological, and biochemical factors.

There are effective treatments for depression, including antidepressants and talk therapy. Most people do best by using both.

## IDENTIFYING: **BIPOLAR DISORDER**

Bipolar disorder is a serious mental illness. People who have it go through unusual mood changes. They go from very happy, "up," and active to very sad and hopeless, "down," and inactive, and then back again. They often have normal moods in between. The up feeling is called mania. The down feeling is depression.

The causes of bipolar disorder aren't always clear. It runs in families. Abnormal brain structure and function may also play a role.

Bipolar disorder often starts in a person's late teen or early adult years. But children and adults can have bipolar disorder too. The illness usually lasts a lifetime.

If not treated, bipolar disorder can lead to damaged relationships, poor job or school performance, and even suicide. However, there are effective treatments to control symptoms: medicine and talk therapy. A combination usually works best.

## IDENTIFYING: **PTSD**

Post-traumatic stress disorder (PTSD) is a severe anxiety disorder that may develop after exposure to a stressful incident experienced as traumatic. A situation may be experienced as traumatic when the individual feels overwhelmed, has no control over the situation or feels that his/her life is threatened.

The main symptoms of PTSD are re-experiencing the dramatic incident through flashbacks or nightmares, avoidance of stimuli associated with the trauma, and increased arousal - such as difficulty falling or staying asleep, anger, and extreme heightened alertness. This diagnosis is severe and results in a dramatic reduction in everyday functioning.

The disorder requires professional follow-up and therapeutic interventions.

## IDENTIFYING: **SUICIDE**

Suicide causes immeasurable pain, suffering, and loss to individuals, families, and communities nationwide. Suicide is one of the leading causes of death among 15-24-year olds in the western world and significant numbers of adults in all ages.

**Suicide is preventable, so it's important to know what to do.**

**Warning Signs of Suicide** - If someone you know is showing one or more of the following behaviours, he or she may be thinking about suicide: Talking about wanting to die or to kill oneself; Looking for a way to kill oneself; Talking about feeling hopeless or having no reason to live; Talking about feeling trapped or in unbearable pain; Talking about being a burden to others; Increasing the use of alcohol or drugs; Acting anxious or agitated; behaving recklessly; Sleeping too little or too much; Withdrawing or feeling isolated; Showing rage or talking about seeking revenge; Displaying extreme mood swings.

**Don't ignore these warning signs. Get help immediately.**

## Self-medication: Substance use disorder

Mental health problems and substance use disorders sometimes occur together.

We can use a different perspective to see how substance abuse can be related to a mental factor or condition.

- Certain illegal drugs can cause people with an addiction to experience one or more symptoms of a mental health problem;
- Mental health problems can sometimes lead to alcohol or drug use, as some people with a mental health problem may misuse these substances as a form of self-medication;
- Mental and substance use disorders share some underlying causes, including changes in brain composition, genetic vulnerabilities, and early exposure to stress or trauma.

Below is the DOF Group Drug and Alcohol use policy.

### Drug & Alcohol Policy

The DOF Group has a duty of care to ensure that all individuals are “fit for work” whilst undertaking activities on the Group’s behalf. Factors such as substance and alcohol abuse, fatigue, stress and illness impair personal performance and pose a risk to a safe working environment.

The DOF Group has zero tolerance towards employees or third parties who do not adhere to the Drugs and Alcohol Policy in the workplace or at work, meaning that DOF Group will not accept any content of alcohol or drugs in breath, urine or blood:

- Never show up for work under influence or affected by drugs or alcohol and remain unaffected while at work;
- When on board our vessels always disclose any prescription drugs you are taking that can impair work performance to the Medic or Captain;
- Always remember you are still the company representative when you are travelling home from work. You should not be intoxicated or impaired by alcohol or drugs as you travel home;
- Never use, store, distribute, purchase or sell alcohol or drugs in the workplace or at work.

## Company Support Program

There are various support and counselling programs available in the DOF Group. The different programs are tailored for the different regions and more information can be accessed via your HR/Crewing departments.

Nevertheless, at work we prevent mental challenges by supporting each other; by building strong relationship and by conducting ourselves with respect and openness in the working environment.

### Task

Choose one of the "IDENTIFYING" flash cards from the previous page and discuss, without using names, if you have any life experience with what is identified on the card.

Discuss: How should we act towards a colleague that shows symptoms of depression?

END OF SECTION ●

END OF MODULE. CONGRATULATIONS! ●

" If you are 99% aligned with our values when and how you communicate, then you will achieve 99% of what this module has to teach you. "

Value moment icebreaker:

**Respect**

Every form of communication produced by the company, whether formal or informal, impacts the Group's reputation and relationships with stakeholders. We are all "reputation managers" for the group, whether we work on-board or on-shore.

DISCUSS: how does the above relate to "Respect"?





# **MODULE 12**

## Communication

INTRODUCTION	170
COMMUNICATION AS A SUCCESS FACTOR	171
THE SOFTER SIDE OF COMMUNICATION	176

## Introduction

Welcome, welkommen, bem vinda, and bienvenida. In this module we will take a close look at the risks and opportunities that come with Communication and specifically how Communication is a major success factor for the DOF Group and our stakeholders.

We will learn how the Company organises communication activities to manage Company reputation and brand, across numerous communication channels. We will take an overview look at the legal roles and responsibilities linked to handling sensitive information. We will look at both the governing structures the DOF Group has in place to manage Communication and then we will look at the soft power of Communication and how we can use that tool in our daily work-life.

Finally, you will understand how “Living Safe the RITE way” can be your reliable guide, ensuring compliance and consistency with almost any communication activity in DOF.

### Aim of the Course

A listing of what you should have learned during the module, for example:

- Understand how and why DOF considers all employees as ambassadors and how that impacts what and how we should communicate.
- Know where to find the DOF Group's guiding documents (standards), which identify types of communication, roles and responsibilities, and legal responsibilities.
- Understand what the three T's are and how they apply to everyday communication.
- Be introduced to the many types of communication that the organisation produces and understand that your own work is highly impacted by communication.
- Understand the rules, regulations, and often legal obligations surrounding sensitive information.
- Recognise how good communication means we are safer, more reliable, more efficient, will mitigate risk, and supports “living Safe the RITE way”.

### Key definitions

The area of communication uses some key words universally, however DOF also has their own terms as well. A few of both universal and DOF terms have been defined below:

- **Communication** - The imparting or exchanging of information by speaking, writing, or using some other medium.
- **Organisational Communication** - A DOF term use to describe the communication activities in the group have been broken down into Categories and Subcategories.
- **Stakeholder** - Any group or individual who can be affected by the achievement of the organisation's purpose and objectives.
- **Compliance** - means conforming with stated requirements.
- **Social media** - Dialogue between people, business to business, government, business to stakeholders, employees to employees and so on.
- **Authorised Spokespersons** - Persons authorized to discuss Company matters with the news media, investment community or industry analysts.

## Communication as a success factor

Each work-day, thousands of DOF employees answer and make phone calls, read and write emails, collaborate over inter-office chat tools, sit in video conferences, and even during coffee- and lunch-breaks discuss both daily news and the latest hot topic in the office – every one of these activities is important to the success of DOF.

Every form of communication produced by the company, whether formal or informal, impacts the Group's reputation and relationships with stakeholders. Therefore, all employees are "reputation managers" for the DOF Group and have a key role in ensuring the DOF Group communicates consistently, effectively and in line with our vision and values. Communication plays an essential role in the conduct of our business.

In order for the DOF Group 'identity' to be communicated consistently, effectively, and in line with our vision and values, the Group's communication activities have been broken down into Categories and Subcategories in the Global Standard – Communication Management. To support all employees, five categories have been defined, identifying stakeholder groups, official spokespersons, and their authorities. The five categories are: Investor Communications, Issue Management, Executive Communications, Workforce Communications, and Marketing Communications. However, the core of this global standard is compliance: clearly identifying who can and cannot be a spokesperson for the Company pertaining to a specific activity. See the following section for more information about compliance.

## Communicate with confidence

With multiple languages and diverse cultures, it can be challenging to provide clear direction about the Group's expectations regarding any theme. It is especially challenging regarding professional standards for communication due to the seemingly casual nature of communication – after all, we all do it a thousand times a day! However, this theme is complicated by technology and the ability for one employee to have a massive impact on the reputation of the Company. To facilitate this task, DOF has identified stakeholders, communication categories, channels, including digital and social media platforms, and together with our Values has built a strong support system.

Within the Global Standard – Communication Management, DOF has formalised actors and activities to give clear guidance regarding roles and responsibilities. Ultimately, you can use the “Watertight Integrity Test” to give you guidance on your communication activities, however in areas relating to sensitive information it is important to fully understand the legal rules and obligations to protect both yourself and the Company.

Compliance regarding Communication is best expressed with the “3 Rs”: Role, Responsibility, and

Respect. By clearly establishing roles and connected procedures, and cultivating respect, we can ensure that our reputation is protected by producing consistent communications, and that along the way responsibility is never in doubt. Additionally, by fostering and maintaining an open working environment, which embraces good communication and meets the DOF Group's legal and regulatory obligations, we ensure that company disclosures of financially sensitive matters such as earnings, outlooks, senior management movements, business performance and other information is disclosed in a timely, consistent, and appropriate manner. Ultimately the goal is to prevent the improper use or premature disclosure of financially sensitive, confidential or contractually privileged information.

At DOF our actions and decisions are always guided by and grounded in our core values – respect, integrity, teamwork, excellence – and above all we are safe. Our core values are embedded in our policies, our Code of Business Conduct and they guide a strong safe and ethical culture. We all play a part in fostering a culture of operational excellence, corporate compliance, ethical behaviour and good corporate governance.

## Channels are opportunities, but with risks

On a weekly basis, how many of the following groups do you interact with? Suppliers, clients, customers, investors, banks, local communities, industry regulators, government officials, trade associations, and colleagues? Each of these groups is an example of a stakeholder and the medium that you use to have dialogue with them is an official company communication channel.

On an annual basis, the DOF Group produces a multitude of press releases, corporate publications, investor and client presentations, internal newsletters, and interacts with publications and media outlets. These are “corporate” channels and they, like

your interactions, all present both opportunities and risks to DOF's reputation and brand. All activities undertaken within the Company's various communication channels must meet DOF's core values, whilst protecting the Company from unwanted breaches in employee privacy, insider information, contractual obligations, and all applicable regulations regarding the handling of sensitive financial information. You can look to DOF's corporate channels, materials like the DOF Sustainability Report, for examples of what you should strive for in your daily communication with stakeholders.

DOF values employees' ability to communicate with colleagues, customers and business contacts and views all employees as reputation managers not only for themselves, but for their employer and clients as well. Therefore, all forms of employee communication have a clear responsibility to follow and adhere to the

Company's core values. It is important to remember that DOF has the same expectations of all potential vendors and holds partner and client employees to a similar standard.

## Tools to facilitate communication

We are all familiar with the many tools used in communication today, both corporate tools and operational tools, as well as daily tools that we take for granted. For example, every day we use email, but do you think of it as a communication tool? Do you apply our company values to what you write in an email – or when you talk on the phone – or start a chat on Skype with a colleague? Each one of these tools, or channels, have been chosen to facilitate your effectiveness in the workplace and each one is an opportunity to help, or harm,

both DOF's reputation and your own.

DOF has made great efforts to provide good, reliable, and consistent tools to carry out work tasks and DOF will continue to invest substantially in information technology and communications systems. It is your responsibility to use these tools in the best way possible by communicating in-line with our values.

Let us now focus on a few specific areas with an emphasis on communication:

### *It's all "sensitive information", right?*

All work-related information, including physical-, digital-, and intellectual-property, among others, can be viewed as privileged, or "for DOF eyes only", except when explicitly clarified. However, this does not mean that the information is "sensitive".

Sensitive information is a type of privileged information that, if improperly handled, can cause serious damage to the Company, including but not limited to financial and reputational damage. Examples can include financial information of any kind, information contained within contracts, work-scope awards of a significant value, and changes in executive leadership. This type of information cannot be shared freely within the company, rather it must stay within agreed stakeholder groups until the authorised spokesperson releases it from "sensitive information" status. If you find yourself holding this type of information, you must ensure that you handle it properly and with great care.

DOF, as a publicly traded company on the Oslo Stock Exchange, is held by legal obligations to prevent damage, to the Company or shareholders, by releasing sensitive information outside of formal channels.

Protocols like "financial reporting", "insider lists", and "press release distribution procedures" are a few examples of these obligations.

DOF has formalised the communication activities surrounding sensitive information in the category "Investor Communications" within the Global Standard – Communication Management. When considering the activities in this category, combined with looking at the authority matrix, it is clear that only the highest-level officers and executives in the company have the authority to distribute sensitive information.

Text from the Global Standard: "The DOF Group CEO and CFO are the authorised spokespersons for all Investor Relation communications. For all Public Relations (media and public speaking) communication, the DOF Group CEO is the only authorised spokesperson".

This topic is especially relevant today when an employee, who for example receives good news about a contract award, excitedly goes to share it on a social media platform. In minutes this information could reach

### *It's all "sensitive information", right? (continued)*

thousands of people and this could result in DOF breaching a protocol with the stock exchange resulting in hefty fines. It is important in this example to acknowledge that all news published on the MyPortal or in newsletters should be considered privileged and should not be distributed through other channels without permission.

### *A (very) brief look at crisis response*

The DOF organisation must be able to handle the situation in case of crises or emergencies. Crisis and emergency response and management are based on a thorough analysis of possible situations, defined lines of responsibility and command, pre-planned actions, and ready access to adequate resources.

From a communication perspective, key activities around Crisis Management include several channels to inform specific stakeholders about the status of the emergency. This includes informing next-of-kin,

colleagues and partners, the media, and others. Communication infrastructure is also included in this procedure, including easily established call centres, easily activated and manageable websites, and the creation of a case in the Crisis Manager tool. Of course, there are other aspects to crisis management, but from a communication perspective it is already very challenging. See the Global Standard – Communication Management for a detailed list of activities, like Crisis Management, under the "Issue Management" category.

### *Significant changes require significant communication*

When something changes in the organisation it can affect other's daily work tasks. It is important to use the tools that DOF has to communicate these changes, both when they are happening and to anticipate how it will affect the workforce. We call this Change Management and it is identified as a sub-category

under Issue Management. Significant changes may require Press releases, while most changes require a collection of memos, distributed via email, intranet, and especially word-of-mouth. It is important to keep in mind both our values and the 3Rs when distributing change management information: Roles, Respect, and Responsibility.

### *Do you have a plan man?*

Each year the improvement plan sets ambitions and targets for the organisation, which is aligned with the multi-year strategy document. How will you execute your responsibilities towards the improvement plan? How often, where, and to which stakeholder will you inform the organisation about your progress? DOF has a simple to use communication plan to support your

long-term activities. It is recommended that every project have a communication plan as the exercise identifies key stakeholders, aligns with milestones to inform the organisation, and most of all helps to break a culture of casual communication. What you do is important, and people want to know about it, so tell them and have a plan about who, what, when, and where you will tell them.

## Consistency is key, both in actions and appearance

Whether you are getting dressed for work, or selling a global product like a mobile phone, consistency a key factor for protecting your reputation and protecting your brand. Many of the tools discussed in the previous section are there to help you consistently, and reliably, communicate. DOF has additional sets of guidelines for language style, key words, writing nomenclature, and even how we use colour in templates and tool interfaces. These guidelines are to provide consistent, familiar experience whenever a stakeholder interacts with the DOF brand.

The DOF Identity Portal, accessible from the MyPortal or on the BMS as a standalone PDF titled DOF Identity Guideline, provides specific rules and

guidance on templates, fonts, presentation templates, language, and even image usage. For example, did you know that DOF uses “British English” as its corporate standard for writing English? In the “Corporate Standard” of the Identity Guidelines there is even rules on: how and when to capitalise “Group”; how to write out figures, time, and date; and even provides basic rules for sentence length and the use of contractions. Also included in this material is image use and access to an image library. Become familiar with this content to contribute to the DOF brand and reputation.

By being consistent we strengthen the global DOF brand, protecting our reputation, and enabling DOF to stand out from the competition.

## The softer side of Communication

Last but not least, communication can be viewed of more as "art" than "science", and it can be as invaluable as the Leonardo da Vinci's "Mona Lisa" or Edvard Munch's "The Scream".

Perhaps "The Scream" (pictured below) is the better example: if communication is not a priority and not well managed, your entire team could be screaming on the



inside for guidance, support, or simply acknowledgement. This is where "Living Safe the RITE way" becomes an especially powerful tool: when you place our company values (Respect, Integrity, Teamwork, Excellence, and Above all we are Safe) at the core of how you communicate then you will be able to approach any colleague, no matter the feelings in the room, and find solutions and ultimately successful partnerships. Of

course, "respect" is key here, moreover all of our values, as when respect is deployed it helps to build meaningful and productive relationships.

### Key words

- Hierarchy
- Dialogue
- Active listening



## A Norwegian approach: “flatness”

Different cultures have different attitudes towards hierarchy in the workplace and these attitudes can be communication barriers. For example, do you feel a need to stay in the office until your boss leaves? Or do you feel comfortable sitting at the lunch table with your boss's boss? In Norway, these ideas are foreign.

Norwegian work-culture is known for their flat hierarchy, where even CEO's have unwritten, open-door policies. However, this is not the case everywhere in the world where DOF operates. Communication plays a large role in this multi-cultural landscape, however if you deploy our company values you will never go wrong.

### *Get more out of your conversations.*

No matter where the person you are talking to 'sits' in the organisation's structure, the goal of the conversation should always be to cultivate a culture of openness. Empowering people to speak will make us all safer, better informed, and ultimately more successful.

Situations where hierarchy is well established and can be a communication barrier include Performance Reviews, Management Visits, Disciplinary Conversations, and even Risk Assessments. By deploying our values, or even further by utilising our Prioritised Critical Behaviours, you can cultivate honesty, openness, trust, and mutual respect.

With those elements, all of the activities above will increase in value several times over. Formalised examples of this approach can be seen in the “Just Culture” tool, the “Open Safety Dialogue” tool, and our “Behavioural Based Safety Programme”.

When these tools are used naturally and expansively in the organisation, the attitude will lift all feedback mechanisms that the Company uses, like Observation Cards, Surveys, and feedback during Performance Reviews.

## Active listening = active values

There are many of us who ask questions only so that we can give our own answer. For example, you may not pay attention to what the other person is saying until you agree with something that they say. We are all human after all. However, there are several simple techniques we can deploy to improve our communication culture in the workplace. A simple example is when coordinating a meeting, make sure that a

prepared agenda is distributed with the invite as this will establish a mental meeting room in which stakeholders can prepare for dialogue.

Specific techniques, often deployed during auditing activities, include Active Listening, using DOF's Questioning Techniques or Interviewing Techniques, and last but not least, let the Prioritised Critical Behaviours guide your dialogue.

Summarize	
Purpose	Pull important ideas, facts etc. Establish a basic for further discussions.
Action	Restate, reflect and summarize major ideas and feelings.
Example	These seem to be the key ideas you have expressed.

### Task

A – Practice an interview around a self chosen theme with your friend/colleague.

B – Exercise on using the four active listening techniques demonstrated in class;

- Encourage
- Restate
- Reflect
- Summarize

C – Present your experience in plenum.

Time: 10 minutes x 2 = 20 minutes

## Active listening techniques

Encourage	
Purpose	Convey interest. Keep person talking.
Action	Do not agree or disagree. Non committal with a positive tone of voice.
Example	I see. Uh-huh...That is interesting.

Restate	
Purpose	Shows that you are listening and that you grasp the fact.
Action	Restate person's basic ideas, emphasize facts.
Example	If I understand, your idea is to....? In other words, this is your decision.

Reflect	
Purpose	Shows that you are listening and understand how they feel.
Action	Reflect the person's basic feelings.
Example	I got the impression that You feel that .... Is not functioning as intended?

END OF SECTION ●

END OF MODULE. CONGRATULATIONS! ●

" Our ultimate objective is 100% operational time. "

Value moment icebreaker:

**Integrity**

Gain an insight into our core activities: learn about marine and subsea operations and understand the importance of technical reliability.

DISCUSS: how does the above relate to "Integrity"?



## **MODULE 13**

### Operational Performance & Technical Reliability

OPERATIONAL PERFORMANCE & SAFE OPERATIONS	182
MARINE OPERATIONS	188
SUBSEA OPERATIONS	194
RELIABILITY IN OPERATIONS	199

# Operational Performance & Safe Operations

This chapter gives an overview of the DOF Group's operational performance requirements for safe operations.

The DOF Group's global expertise within marine and subsea operations and services extends from simple cargo operations to major construction and subsea installation projects.

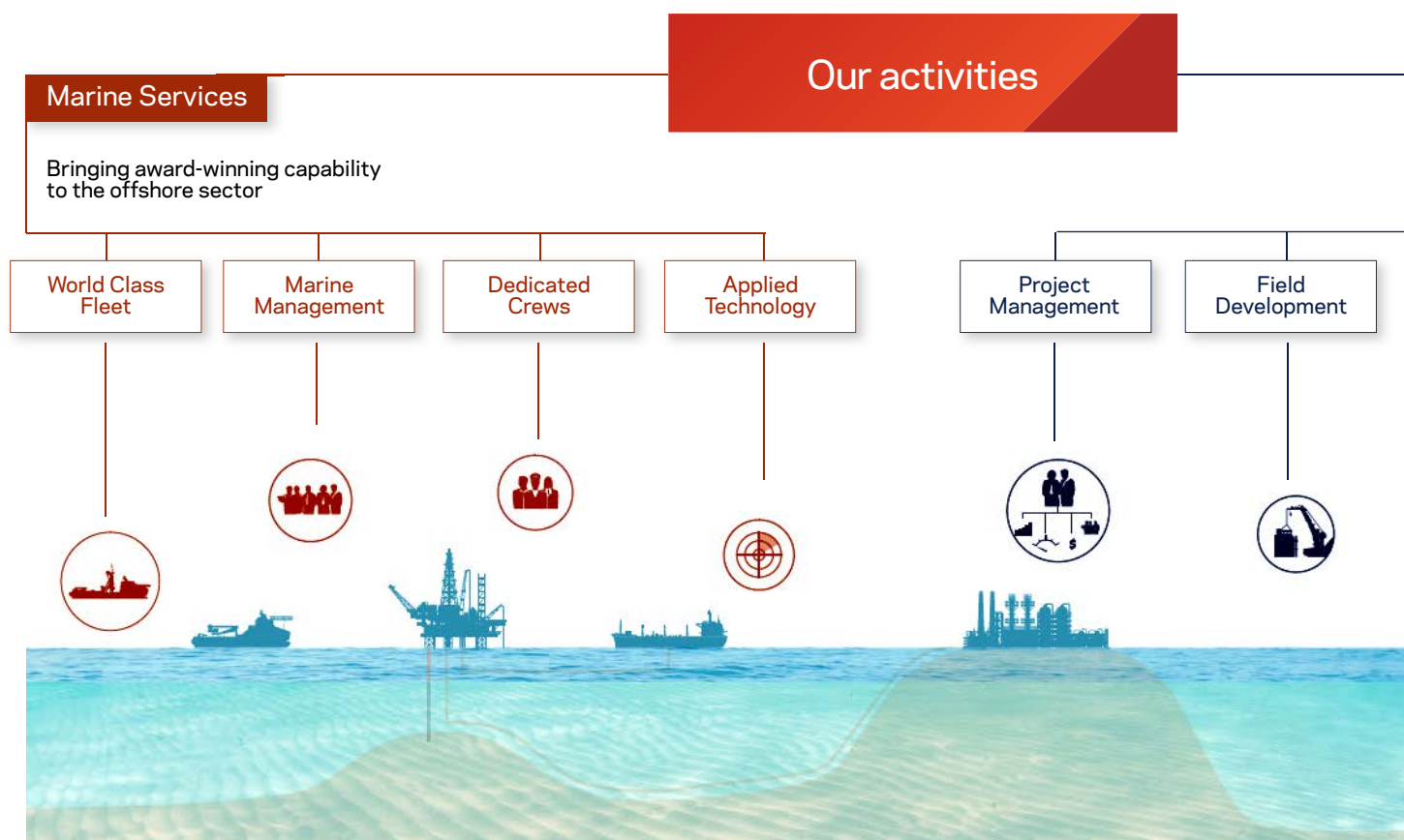
The model below gives an overview of our capabilities and the key features of our products and services are outlined in more details later in the module.

## Aim of the Course

The aim of this module is to give an overview and some insight into marine and subsea operations and promotion of technical reliability.

The module also gives a brief explanation of the Group's capabilities, technical expertise of people and our assets.

We demonstrate the importance of planning and the execution of operations with no compromises in safety standards and where Safe the RITE way is paramount to our success.

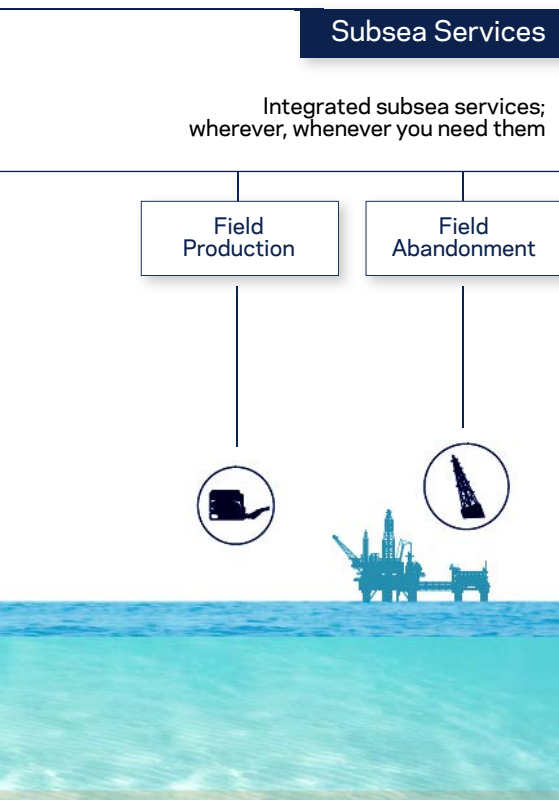


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## Key definitions

The area of Operational Performance and Technical Reliability uses some key words universally, however DOF also has their own terms as well. A few of both universal and DOF terms have been defined below:

- **Charter** - a contract by which the owner of a ship lets it to others (i.e. a charterer) for use in transporting people, equipment, and cargo. The shipowner continues to control the navigation and management of the vessel, but its carrying capacity is engaged by the charterer.
- **BIMCO** - Baltic and International Maritime Council. BIMCO's maritime clauses and contracts cover the full life-cycle of ship-related operation and activity.
- **Skipper** - Means the person in command or charge of a small craft like a workboat or daughter craft or the FRC.
- **Master Mariner** - "master" of a vessel means the person in command or charge of the vessel.
- **SURF** - Subsea Umbilicals, Risers and Flowlines.
- **EPIC** - Engineering, Procurement, Installation and Construction.



SECTION CONTINUES ON NEXT PAGE ►

## The context of Safe the RITE way

Our values Respect, Integrity, Teamwork, Excellence and above all we are Safe, underline that nothing is more important for us than to be safe. This essence of Safe

the RITE way is that our values interact and guide our actions to safeguard people, the environment and our assets.



### Respect

We need to be able to capture the environmental dimension of operations as well as energy efficiency. The respect we have for people and the society we operate in is fundamental to our behaviour.

### Integrity

At DOF we strive to do the right thing not because someone is checking, or looking, but purely because it is the right thing to do.

### Teamwork

We do not blame, we find and share solutions and we learn from mistakes. From this platform we build diverse and global teams and strive for free exchange of ideas, experience and knowledge, worldwide. We are one team.

### Excellence

We safeguard our individuality and the qualities that set us apart from our competitors, protecting our reputation and the professional trust we have built, we do not walk away from our commitments.

### Above all we are Safe

Nothing in DOF is more important than to be Safe.



## Mobilisation, Offshore Operations, and Demobilisation

The key to success in offshore operations is proper planning and good communication between all interested parties.

Our scope of work is distributed in execution plans

and procedures that are risk assessed for the offshore crews to safely execute. Our masters make voyage plans and field layout plans.

### **It is all about:**

Planning, Planning, & Planning.

Communication, Communication,  
& Communication.

Check, Check, & Check.

## Management of Change (MoC)

MoC is a best practice used to ensure that safety, health and environmental risks are controlled when a company makes changes in their facilities, documentation, personnel, processes, or operations.

When decisions and changes are made rapidly, safety and health risks can increase which may result in incidents from near miss to 'in worst case' disaster. One obvious benefit Management of Change gives is avoiding the consequences of unforeseen safety and health hazards through planning and

coordinating the implementation of change at your work site.

Operational Planning that deviates from the Company's Management systems conformance with the Rules, Standards, Guidelines, and Safe Working Practices; for the Planning and Execution of Marine and Subsea Operations - shall be subject of Management of Change approval process.

Reference is given to the Occupational, health and safety module 6.

## Simultaneous Operations (SIMOPS)

SIMOPS is any situation where two different activities are to occur close enough to each other that there is a risk of interference, clashing, or risk transfer. Crane lifts near work areas (but unrelated to that work) and multiple vessels operating in the same area, but on different missions or serving different roles, are good examples of SIMOPS potential conflicts.

In SIMOPS, independent and potentially conflicting operations, may impact the safety of personnel, equipment, or environment. SIMOPS requirements include hazard identification and risk mitigation and/or safety impact when planning multiple work activities to be taking place simultaneously in the same location.

It takes a lot of coordination to make sure multiple (potentially conflicting) tasks don't try to occupy the same time slot or spot.

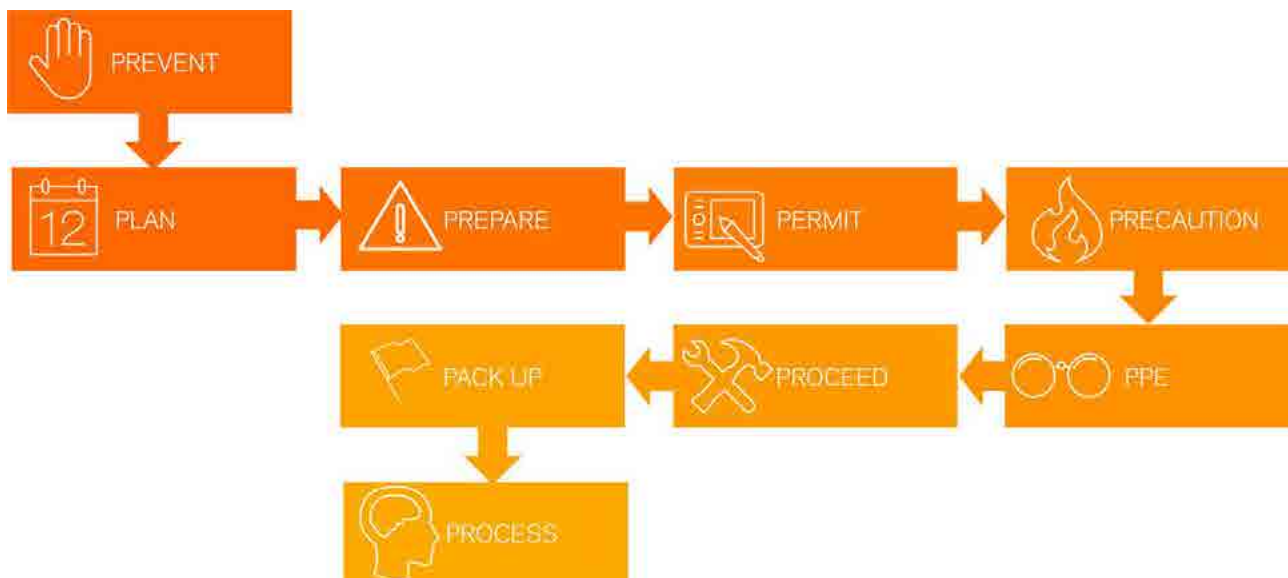
In DOF we use detailed SIMOPS Plans to coordinate who has right-of-way and who does what in various contingency situations, these requirements include hazard identification and risk mitigation and/or safety impact when planning multiple work activities to be taking place simultaneously in the same location.

## Permit to Work (PTW)

The DOF PTW system is a formal documented system used to control certain types of work, or work in areas that are identified as high-risk activities (potentially hazardous).

The system is developed based on roles for routine work, its strength is incorporated in independent double-check and review process.

The 'Permit' specifies the work to be done, time-frame, and the precautions to be taken and forms an essential part of safe systems of work for many operational & maintenance activities.



*Nine Steps to Safe Work using a Permit – Reference is given to the Occupational, Health and Safety module 12*

# Marine Operations

In this chapter we present an overview of Marine Operations taken directly from the company marine operations manual.

The material is not intended for specialists, but more to give the wider company the opportunity to gain an insight into how one of our core functions - marine operations - are managed.

**OVM Periodic Table**

**Quick Guide OVM Periodic Table**

The OVM Periodic Table has been made with inspiration from the periodic table of elements that we all learned in school. The aim is to give a systematic overview of the various elements in the Offshore Vessel Management structure, which is the foundation for the new Integrated Management System.

The OVM Periodic Table is meant to stimulate our interest to help us understand how different elements function in complete management system.

DOF marine operation manual  
is build upon the key elements of the OVM periodic table.

In this chapter we present an overview of Marine Operations taken directly from the company marine operations manual. Our overall objective is to ensure all operations conducted from our vessels are conducted safely: protecting our people, environment, vessels and assets.

Routine Marine Operations are activities which are conducted on a regular basis and in a standardised manner, in accordance with procedures, or merely in accordance with sound, professional and seaman-like practice.

Management and Operation of Offshore Support Vessel's over the past few decades, has been focusing on operations related to supporting the exploration and exploitation of natural resources at water depths of 15m to 1500 metres. Moving activities successfully into ultra-deep water (approaching 3000m in depth) requires mariners and contractors' ability to perform safe and efficient installations, inspections and interventions on the subsea installations in an ever challenging and technologically advancing environment.

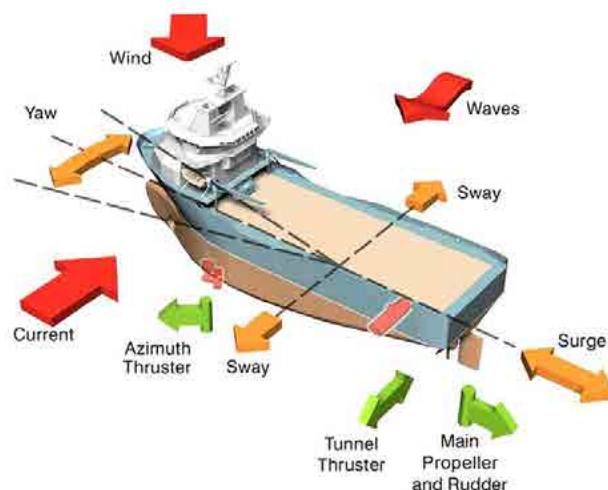
## Dynamic Positioning (DP)

An Offshore Support Vessel is subjected to forces from wind, waves and current as well as from forces generated by the propulsion system. The Dynamic Positioning, DP, automatically maintain the vessel's position and heading using its propellers and thrusters.

The vessel's response to these forces, i.e. its changes in position, heading and speed, is measured by the position-reference systems, the gyrocompass and the vertical reference sensors. Reference systems readings are corrected for roll and pitch using readings from the vertical reference sensors. Wind speed and direction are measured by the wind sensors.

The Dynamic Positioning control system calculates the forces that the thrusters must produce in order to control the vessel's motion in three degrees of freedom - surge, sway and yaw - in the horizontal plane.

The following table gives an overview of the IMO dynamic positioning system classification system and the roughly corresponding dynamic positioning system class notations, individual variations exists.



DNV CLASS	Description	IMO DP Class	ABS DP Class	LRS DP Class	DP
DYNPOS-AUTS	Manual position control and automatic heading control under specified maximum environmental conditions.	-	DPS-0	DP (CM)	DPS 0
DYNPOS-AUT	Automatic and manual position and heading control under specified maximum environmental conditions.	Class 1	DPS-1	DP (AM)	DPS 1
DYNPOS-AUTR	Automatic and manual position and heading control under specified maximum environmental conditions, during and following any single fault excluding loss of a compartment. (Two independent computer systems).	Class 2	DPS-2	DP (AA)	DPS 2
DYNPOS-AUTRO	Automatic and manual position and heading control under specified maximum environmental conditions, during and following any single fault including loss of a compartment due to fire or flood. (At least two independent computer systems with a separate back-up system separated by A60 class division).	Class 3	DPS-3	DP (AAA)	DPS 3

NOTE: Activity Specific Operating Guidelines (ASOG) - ASOG are generally presented in tabulated format and set out the operational, environmental and equipment performance limits considered necessary for safe DP operations while carrying out a specific activity. The table also sets out various levels of operator action as these limits are approached or exceeded. The ASOG will vary depending on the activity and are unique to that activity.



## Anchor Handling and Towing, Supply (AHTS)

The AHTS vessels are prepared for operations in deep as well as shallow waters. Large capacities, good manoeuvrability and Multi Deck Handling Equipment & Winch Systems will ensure a safe working environment for our crew.

They are uniquely designed for a variety of work roles including deep water anchor handling and mooring operations, towing of rigs, subsea and ROV support work, as well as general supply and cargo support operations.

Anchor handling involves a number of special marine operations. The high tensions experienced in chains and wires may cause high heeling moments and may cause high transverse and/or astern movements of the anchor handling vessel.

Operations on deck involve other hazards of which all personnel should be aware. Familiarity with the contents of Company Guidelines & Charters Scope of Work is essential to all personnel involved in the anchor handling operations - Teamwork is crucial.

Critical to safe anchor handling / towing operations is strict observance of DOF's 'Clear Deck' policy.

## Walk to Work (W2W)

Walk to Work, W2W, is the provision of services to assist offshore facility operators in achieving safe and efficient personnel transfers to/from their facilities via an Active Motion Compensated Gangway system installed onboard an Offshore Support Vessel.

## Daughter Craft (DC)

Daughter Craft, DC, (which may include LARS) may be required to be periodically carried onboard an Offshore Support Vessel to cover the Scope of the Project, which after risk assessment cannot be conducted by the vessel's designated Fast Rescue Craft (FRC).

These types of operational support include, but are not limited to:

- Shore line – beach approach surveys
- Splash zone – air diving support
- Tanker mooring operations – SBM / SPM
- Offshore Mooring
- Spider deck fabrication for Topside Heavy Lift
- Industrial Personnel Transfer to Installations, Wind farms etc.

DC operating under the “Small Commercial Vessel Code” must comply with the constraints of the area category they are certified to operate in, and within the launch and recovery limitations imposed.

The Skipper of the DC is Responsible for the safety of crew and craft in all circumstances when water-borne.





## Ship to Ship (STS) Operations

Although Ship-to-Ship, STS, is an increasingly common method of bunker, stores, cargo, or equipment transfer and the vast majority of operations are concluded without problem; it must always be borne in mind that there are inherent risks that must be assessed and controlled before the operation commences. The safely bringing together of two ships (or barge), keeping them in close proximity (DP), or together (moored) for a significant period and then safely separating them are tasks which most seafarers do not encounter on a regular basis. The potential for things going wrong is significant.

Any (STS) operation shall be approved by Operations Manager, Master and Charterer. Comprehensive discussions and risk assessments need to be carried out and agreed by all stakeholders well in advance of STS operations taking place. Suitable clauses, such as BIMCO STS clauses, should be inserted into relevant charter party's agreement which cover the scope of work in STS operations.





## Offshore Lifting

The technical and environmental challenges associated with offshore lifting operations require the involvement of independent parties (from design to planning and execution); to verify the compliance with international & national requirements and to ensure the safety of crew and assets within tolerable level of risk.

All DOF Group employees, contractors, sub-contractors, marine and project crew need to recognise the hazards and reduce the associated risks involved in the lifting of cargo or project assets, systems or equipment onboard vessels which are in constant motion.

Contributing to operational safety at worksite is the main focus of the DOF Group 'lifting standard' is to identify the measures to be taken to ensure that all lifting operations, including the certification, inspections, safe use of lifting equipment and lifting operations are performed in accordance with relevant legislation, Class requirements and safe working practices.

Any alternative practices or deviations from this standard must be risk assessed and shall only be adopted where they ensure an equivalent or higher level of safety at the site which must be approved according to the MOC process.

## Subsea operations

In this chapter we present an overview of Subsea operations. The material is not intended for specialists, but more to give the wider company the opportunity to gain insight into another of our core functions – subsea operations – are managed.

### A variety of subsea capabilities

DOF Subsea has a highly capable Project Management and Engineering Service Teams to support diverse subsea project execution across the three main phases of the offshore Oil and Gas ‘field life-cycle’: Development, Production and Abandonment.

Our global experience in offshore operations combined with our proven track-record and advanced technology equates to reduced project risk, increased productivity and improved safety performance.

The list below is an example of DOF Subsea capability:

#### ***Inspection Repair and Maintenance - IRM***

A genuine integrated service provider. We supply state-of-the-art WROV, Diving, AUV and ROTV based inspection, maintenance and repair services; for pipelines, risers, hulls and structures.

#### ***SURF***

A flexible fleet with an extensive track record delivering SURF services to clients and ensuring the success of subsea projects.

#### ***Subsea Intervention***

Subsea intervention services that can include bespoke remote intervention tooling solutions, choke change-out, SCM change-outs, flying lead change out, fault-finding, leak detection, freespan rectification, capping stack operations, BOP intervention, anode replacement and ROV valve operations.

#### ***Light Well Intervention***

We offer a cost-effective vessel-based solution over the traditional drilling ‘rig and riser’ model. The region have a proven track record performing LWI activities.

#### ***Construction and Installation***

Our track record in construction and installation activities provides clients with reduced project risk, productivity gains and significant enhancements in safety performance.

#### ***Geomatics Services***

Our in-house Geomatics department provides the full range of survey services including geophysical, geo-technical, data processing, 3D visualisation software and metrology services.

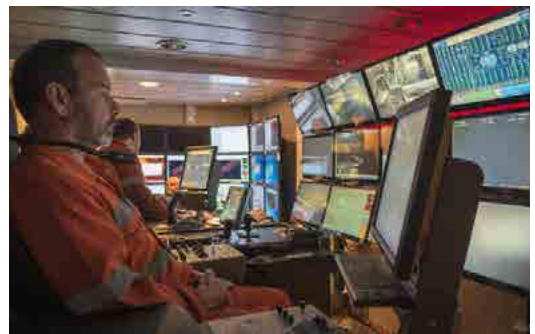
#### ***Decommissioning***

When subsea infrastructure has reached the end of its useful life, or when preparing a field for a Non-Production-Phase in readiness for further development, our teams plan and deliver regulatory and environmentally compliant decommissioning projects.

## Remotely Operated Vehicles (ROVs)

Remote-controlled submarine (often abbreviated ROV, from English Remotely operated vehicle) is a robot that is remotely manoeuvred from a control room on a ship or platform or recently (2018) from a control room onshore. The vessels are used for numerous tasks at sea depth, such as detailed mapping of the seabed, inspection, maintenance and repair of seabed installations, search and salvage operations, etc. The

usual operating depth is from zero to 3000 meters and in very special cases down to 7000-8000 meters. Remote-controlled underwater vehicles today carry out many tasks that previously required divers. The vessels with its operating system are very technically advanced and high expertise is required in several fields of operation and maintenance of the systems.



## Autonomous Underwater Vehicles (AUVs)

An autonomous underwater vehicle (AUV) is a robot that travels underwater, typically from 0-3000m without requiring input from an operator and are powered by rechargeable batteries. AUVs constitute part of a larger group of undersea systems known as unmanned underwater vehicles. AUVs carry sensors to navigate autonomously and map features of the ocean. Typical sensors include compasses, depth sensors, sidescan and other sonars, magnetometers, thermistors and conductivity probes. Some AUVs are fitted with biological sensors including fluorometers (also known as chlorophyll sensors), turbidity sensors, and sensors to

measure pH, and amounts of dissolved oxygen.

The oil and gas industry use AUVs to make detailed maps of the seafloor before they start building subsea infrastructure; pipelines and subsea completions can be installed in the most cost-effective manner with minimum disruption to the environment. The AUV allows us to conduct precise surveys of areas where traditional bathymetric surveys would be less effective or too costly. Also, post-lay pipe surveys are now possible, which includes pipeline inspection. The use of AUVs for pipeline inspection and inspection of underwater man-made structures is becoming more common.

## Diving

While ROVs are now able to perform many of the tasks that previously required divers, there are still operations that require complex intervention that only people are able to do. DOF is involved in diving operations in several regions, where we sometimes deliver both vessel and diving services, and sometimes we provide the vessel while a subcontractor provides the diving services.

There are two main types of diving that DOF is involved with:



### Air Diving

Air diving is typically carried out by surface divers up to a depth of 50 meters, the divers are deployed from the diving site (vessel, barge, wharf) to the water and breath air supplied from the surface via an air compressor or high-pressure gas storage systems. Depending on the duration of the dive the divers complete their decompression in the water at staged stops. Surface decompression using a surface air chamber may be used in place of in water decompression when conditions require the diver to exit the water.

The type of project will determine the size of an air diving team although the minimum manning for a dive team is:

- 1 x Diving Supervisor
- 2 x divers with diver medic qualifications
- 2 x Divers

Additional personnel will be allocated depending on the diving scope this may include a diving superintendent, dive technicians, or diving inspection personnel.

### Saturation Diving

Saturation diving occurs when a team of divers (typically 3 x teams of 3 divers) are pressurised in a saturation surface chamber. Saturation water depth can range between 30 and 300 meters of water. The breathing gases used in saturation diving are a mixture of helium and oxygen. The specific gas mix is dependent on the depth of the dive and is mixed by the diving life support technicians on board the vessel.

Saturation dive teams are arranged in 12-hour overlapping shifts, each team will spend a maximum of 6 hours in the water with a minimum of 12-hour break between shifts.

The dive teams are deployed to the work site in an SDC (Submersible Diving Chamber) where once on site they can equalise the SDC pressure with the water depth allowing them to open the bottom door of the SDC and enter the water.

The divers in saturation can spend up to twenty-eight days under pressure living in the saturation complex, decompression of the divers is completed at the end of the divers saturation and is included in the twenty eight day cycle. The duration of decompression is dependent on the saturation depth and can be up to 9 days for the deepest depths, but typically 3 to 4 days for water depths around 100 meters.

All DOF Subsea saturation diving operations are supported by emergency response procedures, that cover the transfer and evacuation of divers under pressure via the Self Propelled Hyperbaric Life Boat (SPHLB) to a designated Hyperbaric Reception Facility (HRF). Divers are transferred from the SPHLB to the HRF where they are then stabilised prior to final decompression.

All diving operations by DOF Subsea shall comply with IMCA and IOGP diving guidelines and recommendations as a minimum.

## Subsea lifting

Subsea lifting operations covers all phases of a lift between a vessel deck and the seabed as well as transfer/relocation of structures subsea. These operations are performed daily across the DOF fleet in various forms and complexity; from recovery of transponders to installation of large subsea templates.

Lifting of heavy and/or large structures from a vessel over sea requires detailed planning and procedures, risk assessments and competent personnel both

on deck, operating the crane piloting the ROVs and manoeuvring the vessel from bridge. Crane operations can be complex, often involving active heave compensation and/or constant tension, and their limitations are defined by the crane's depth, load and speed capacities, environmental loads and sea states, control of swinging loads on deck, vessel response and its capabilities. Most of all, all lifts need to be planned with focus on the safety of the personnel involved in the operation.





## Survey

Hydrographic survey is the science of measurement and description of features which affect maritime navigation, marine construction, dredging, offshore oil exploration/offshore oil drilling and related activities. Strong emphasis is placed on soundings, shorelines, tides, currents, seabed and submerged obstructions that relate to the previously mentioned activities.

In DOF Subsea the term 'Survey' covers a combination of various disciplines like Hydrographic Survey, Geology/Geophysics, Engineering, Cartography and Mapping.

The Survey department plans and executes

missions to be able to deliver data/reporting for a variety of offshore activities.

To perform the surveys, we use our vessels as platforms, from where we launch ROVs, AUVs and other subsea applications carrying acoustic sensors like multi-beam echo-sounders, sidescan sonars, shallow seismic sonars and video/photogrammetry cameras.

The main focus for the survey department during these processes is to accurately position and acquire high resolution data for later co-interpretation, mapping and reporting to our clients.

### *Route & Site Survey*

Mapping the seabed conditions for general planning of future constructions.

### *Construction & Installation*

Collect more detailed information about seabed and sub-seabed conditions immediately before placing structures on, over and in the seabed.

Assist during construction and lay down of cables, pipelines, drilling rigs etc.

### *Inspection, Maintenance & Repair*

Conduct yearly or at least regular inspections to ensure the healthiness of subsea systems.

Maintaining and intervene with existing structures to ensure safe and continued operation.

Repair of severe malfunctions of sub-sea systems.



# Reliability in Operations

Reliability is key for our offshore operations.

The word reliability can be defined as: the probability that a product, system, or service will perform its intended function adequately for a specified period of time or will operate in a defined environment without failure.

Sometimes reliability and quality are mixed. Reliability has sometimes been classified as "how quality changes over time." The difference between quality and reliability is that quality shows how well an object performs its proper function, while reliability shows how well this object maintains its original level of quality over time, through various conditions.

For example, a vessel that is safe, fuel-efficient, and easy to operate may be considered high quality. If this vessel continues to meet this criterion for several years and performs well and remains safe even when driven in a harsh environment, it may be considered reliable.

Asking a few key questions can help one determine the difference between both quality and reliability:

- **Quality** – Does the object perform its intended function? If so, how well does it perform its intended function?
- **Reliability** – To what level has said object maintained this level of quality over time?

## DOF reliability objectives

DOF's reliability objectives are set yearly by the company executive team in close conjunction with the workforce and are closely connected to our vessels and operational uptime of our tools end equipment. In all practical terms it means that reliability is the uptime in % of operational time. Our ultimate objective is 100%.



## Maintenance as key for reliability

The DOF group is committed to ensure that all vessels, assets and tools are always kept well maintained, always clean and tidy, following our values and according to expectation by the Owners. This is “Maintenance the RITE way”.

By planning, executing, analysing and assessing our maintenance activities, the DOF Group shall ensure health and safety for all personnel and minimise environmental impact, furthermore to maintain high technical standard of vessels, assets and tools throughout their lifetime, with the aim to optimise vessel performance and operational uptime in a cost effective manner.



### Key responsibilities for all DOF employees:

- Make sure you follow closely the maintenance routines and the preventive maintenance measures as defined by the company standards and our Maintenance System;
- Carry out proper planning of the maintenance activities to ensure availability of spares and personnel, and to conduct that the tasks in safe and cost-effective manner, with the right quality;
- Make sure equipment defined as “Critical to safety” is maintained timely and always with due focus on quality, with no tolerance for delay;
- Make sure all Life Saving Appliances and equipment safety barriers are working according to required function and are periodical inspected and function tested;
- Carry out repairs without unnecessary delay, and ensure immediate repair in the event of observed leakages of cooling water, fuel, lub or air pressurized systems, to reduce risk of harm to personnel and environment.

### Key take-away

From the Chairman of the Board of DOF ASA:

“Good housekeeping is essential to a safe workplace onboard a vessel and housekeeping oversights rarely go unnoticed during port state control or vetting inspections, ISM audits and condition surveys. Good Housekeeping is key to a well-maintained vessel and equipment”



**Maintenance is extremely important for DOF. Our Maintenance Objectives focus on how we are able to keep personnel safe, protect the environment, be cost efficient, and deliver reliable service.**

### **Safety**

Maintenance shall reduce the risk of personnel injury and damage on vessels and assets.

### **Environment**

Maintenance shall reduce the risk of environmental impact from incidents and spills.

### **Cost**

Maintenance shall be cost efficient, and ensure that the vessels and assets are protected and maintained throughout their lifetime.

### **Reliability**

Maintenance shall secure that all vessels and subsea assets are performing according to intended function, and reduce the risk of equipment failures to achieve the overall objective of 'zero off-hire'.

END OF SECTION ●

END OF MODULE. CONGRATULATIONS! ●

" Project Management:  
a single interface for  
all project resources  
and assets required  
for end-to-end project  
delivery. "

Value moment icebreaker:

**Teamwork**

Gain an insight into our core activities:  
Project management is the practice of  
initiating, planning, executing, controlling,  
and closing the work of a team to achieve  
specific goals and meet specific success  
criteria at the specified time.

DISCUSS: how does the above relate to  
"Teamwork"?



# MODULE 14

## Project Management & Execution

WHAT IS A PROJECT	204
WHAT IS PROJECT MANAGEMENT	209

# What is a Project?

The internationally recognised definition of a project is:

An activity that has a beginning and an end, which is carried out to achieve a particular purpose, to a set quality, within given time constraints and cost limits.

Projects almost always have the following characteristics:

- A clear objective(s);
- Constraints relating to Cost (e.g. a fixed budget), Quality (i.e. fitness for purpose) and Time (e.g. a fixed time scale);
- A team of people tasked with performing the activity(ies); and
- The possibility of change.

Subsea operations depend on project management as the interface for all engineering, vessel operations, survey, inspection, remote intervention and diving activities.

## Aim of the Course

- Insights into what a project is, what the key phases of a project are and what is project management.
- Definitions of different phrases and terms used in a project as well as the important role of a project manager are also provided along with key elements of project execution and control.

SECTION CONTINUES ON NEXT PAGE ►

## Key definitions

The area of Project Management uses some key words universally, however DOF also has their own terms as well. A few of both universal and DOF terms have been defined below:

- **Project** - An activity that has a beginning and an end, which is carried out to achieve a particular purpose, to a set quality, within given time constraints and cost limits.
- **Project management** - The way a person organises and manages resources that are necessary to complete a project.
- **Work Breakdown Structure ("WBS")** - The hierarchical subdivision of a project in logical elements for management and control purposes.
- **Project life-cycle** - The sequence of phases that a project goes through from its initiation to its closure.
- **Project plan** - A document that defines a project's processes, tasks, milestones, and assignments while taking scope and deadlines into account.
- **Scope of work** - A project's scope is what needs to be achieved and the work that must be done to deliver a project.

**DEFINITION**

This is the phase where the project objectives are defined, where concepts are agreed and execution methodologies (problems and possible solutions) proposed.

**APPRAISAL**

This is the phase where project objectives are clarified and the proposed execution methodologies evaluated in terms of risk, cost and schedule.

**PLANNING**

This is the phase where the project is broken down into manageable areas of work and planned in terms of cost, time and resources. This is a continuous process throughout the execution phase of the project.

**EXECUTION**

This is the phase where the work is implemented, monitored and controlled.

**CLOSE-OUT**

This is the final phase where the project is delivered, resources are re-assigned, the outcome is evaluated against the objectives and the 'lessons learned' review conducted.

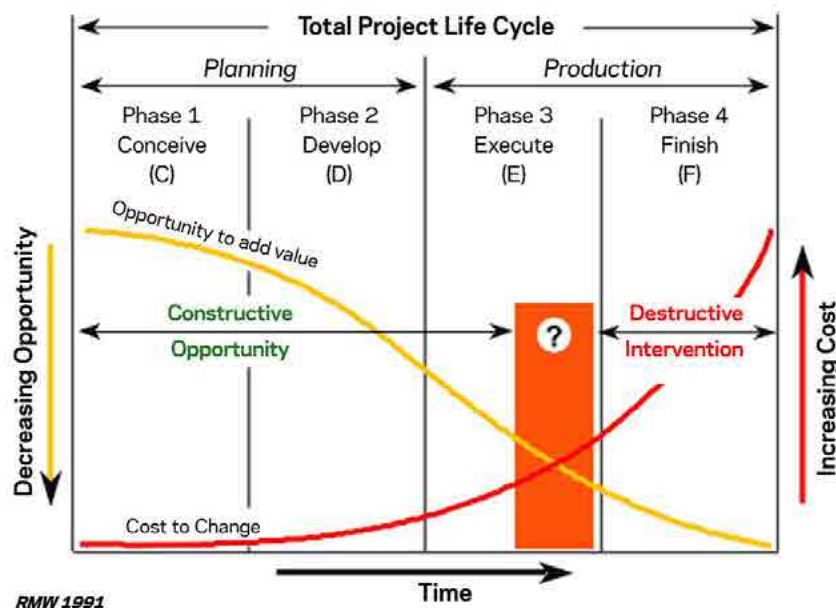
## Project life-cycle

Every project has phases of development and a clear understanding of these enables a project to be controlled efficiently. The key phases are defined above.

It is important to focus effort in the early phases of the project life cycle as it is during these phases that the opportunity exists to have the highest level of influence on project success for the lowest cost impact in that resources have not yet been fully allocated to

the project and time constraints are not as influential. Changes in the execution of a project during the latter phases usually come with a higher cost as resources have already been expended and wasted effort becomes more influential.

The figure below graphically represents the potential for adding value to a project compared to the cost of change during a project both as a function of time:



## Defining "Project Objectives" with S.M.A.R.T.

It is essential that project objectives are clearly defined and understood by all parties involved in a project before the Appraisal phase commences. Project objectives must be clear statements of what the outcomes of the project (or elements of the project) is intended to achieve. Project objectives should also be S.M.A.R.T. as defined below:



## Definition of Project Success

Simply put, a project is successful if all the defined objectives are achieved within the prescribed constraints of cost, time and quality.

It is important to acknowledge that the perception of the relative importance of project objectives may vary depending on the relevant interested party or stakeholder. For example, the Project Manager will usually want to deliver the project on time and within budget, however, the end user or Client may have a higher focus on the fitness for purpose (quality) of the project's deliverable(s).

Ensuring that the measurement of achievement for the project objectives are aligned across all interested parties is essential to ensure a uniform measure of success.

## What is Project Management?

Project management is best defined as:

The process by which a project is delivered to a successful conclusion (i.e. meets the prescribed objectives).

Project management is the practice of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria at the specified time.

The greatest challenge of project management is to achieve all of the project goals within the given constraints of time, cost and quality. Once the Client's objectives are clearly established, they should influence all decisions made by other people involved in the project. Ill-defined or too tightly prescribed project management objectives are detrimental to decision making.

## What does a Project Manager do?

Project managers are responsible for the planning, executing, monitoring, controlling and completion of a project(s). Depending on the size and scale of the project, the Project Manager may perform all tasks themselves, however, it is more common for the Project Manager to lead a team of people to deliver the project.

On the following page, you can see the typical (but not limited to) responsibilities of a project management.

The success of a project is highly dependent upon the ability of the project team (and specifically, the Project Manager) to plan, monitor and control the execution of a project. There are several tools and practices available to the project team to achieve this - see the figure opposite.



## TYPICAL PROJECT MANAGER RESPONSIBILITIES

### Develop the Project Plan

Project managers are responsible for the development of the project plan which details the project scope, time-line, and budget. Remember, if you fail to plan then you are planning to fail.

### Assemble the Team

Identifying the proper team is critical to project success. Every project team will vary depending on the scope of the project. Within DOF, the Project Manager requests resources from the relevant department/functional manager who allocate personnel based on suitability, experience and availability.

### Assign Tasks

Project managers must provide their team with a clear definition of specific tasks and time-line for every part of the project.

### Planning

In order to plan, the project must be broken down into discreet tasks following a logical sequence with dependencies identified and a critical path established. A Work Breakdown Structure (WBS) can also be used to arrange the discreet tasks into groups with a logical hierarchy and establish a basis for control. A WBS can also be the framework for tracking of cost and resources as the project is executed. There are numerous software packages available to facilitate efficient and effective establishment, monitoring and control of the project's baseline project schedule and budget (both cost and resources).

### Lead the Team

It is of vital importance to the successful outcome of a project that the Project Manager is able to lead the team. The Project Manager must be able to clearly communicate the projects goals and direction, identify issues and assist in problem solving, facilitate the integration of the team, manage conflict within the team, keep team morale high and providing mentoring to the team.

### Manage the Budget

The Project Manager must be able to understand, interrogate and control the development and monitoring of the project's cost and revenue budgets. This involves comparing actual and forecast expenditures against budget estimates and adjusting the project plan if necessary.

### Manage the Schedule

As with the cost and revenue budgets, the Project Managers must be able to understand, interrogate and control the development and monitoring of the project time-line/schedule so that the team is meeting the projected deadlines for completion. This involves comparing actual and forecast task durations against budget estimates and adjusting the project plan as required.

### Management of Change

Change during the course of a project's life cycle is almost guaranteed and whilst change can present challenges, it can also present opportunities. Management of Change is vital to ensuring project success. The Occupational Health and Safety module and operational performance module gives more details of the MOC process in DOF.

### Handover the Project

The Project Manager is responsible for ensuring that the achievement of the project's objectives is documented and delivered to the Client.

### Close-Out the Project

One of the Project Manager's final tasks is to close-out the project. This includes the identification and documentation of "lessons learned" such that mistakes encountered can be avoided in the future and that 'best practice' is highlighted within the organisation so that it can be built upon.

### Review and Reporting

Regular reviews of the status of a project is crucial to successful execution. Such reviews will enable potential issues to be identified, resolutions determined and evaluated and the project's progress and direction be maintained. Regular reporting of the projects status also ensures that all key stakeholders are informed of progress. One of the key project reports is the financial Project Manager's Report or PMR. This report, including its frequency and content, is detailed in PMR report guideline.

## TOOLS AND PRACTICES TO SUPPORT PROJECT SUCCESS

## Teams

A team is best defined as: **"a group of people working together to achieve a common goal"**. A team of people is different to a group. A team needs to be planned, built and maintained. A group of people, who happen to work together in the same place, may not operate as a team. Successful teams can:

- Coordinate individual effort to execute complex tasks
- Utilise the expertise and knowledge of everyone involved
- Improve and sustain motivation and confidence as team members feel supported and involved
- Improve communication
- Raise the level of individual and team empowerment
- Support initiatives and manage change(s)

This is best described with the acronym:

**T**ogether **E**veryone **A**chieves **M**ore

Effective teams have the following key attributes:

- **Common goals and objectives** - These need to be clearly understood by all members of the team
- **Leadership and clear roles** (within the team)
- **Expertise** - The team must consist of a mix of people with difference, yet complementary, skills
- **Full participation**
- **Supportive relationships** - The team must foster an atmosphere of trust, openness and honesty
- **Time** - The team must be provided with the time for regular progress meetings and activity coordination

# Tips

## for effective meetings

The importance of well planned and conducted meetings cannot be overstated.

Time is a key project resource and like all resources, cannot be wasted. Meeting objectives must be clearly defined and communicated to all participants, in advance. The selection of meeting participants is also of vital importance as the participants will determine the ability to achieve the meeting's objectives. Whilst many individuals may have information that is important to the attainment of the meeting's objectives, it does not necessarily follow that such individuals should attend the meeting.

See the provided checklist for the key elements of an effective meeting.



*How many of the boxes can you check off? Test yourself and discuss with your colleagues how they create successful meetings.*

1. **Clear goals/objectives and roles** ☐  
Clarify the goals/objectives of the meeting. Allocate and agree roles for the participants, preferably in advance (e.g. leader, scribe, etc)
2. **Clear agenda** ☐  
Review the agenda and monitor progress of the meeting against the agenda
3. **Involvement of all participants** ☐  
Welcome and introduce all participants. Ensure there is balance between loud and quieter participants.
4. **Recognise participation** ☐  
Thank participants for their contributions.
5. **Maintain focus** ☐  
Keep the agenda and goal/objective visible and ensure no tangential deviations.
6. **Review, summarise and agree actions** ☐  
Check the outcomes against the goals/objectives and confirm all participants understanding of the outcomes. Ensure action points are documented and assigned with realistic time-frames agreed. Also agree on the time-frame for the distributions of meeting minutes.

END OF SECTION ●

END OF MODULE. CONGRATULATIONS! ●

" Failure to establish a controlled pre-qualification process can have costly ramification to the company and its clients, and seriously damage the company's reputation."

Value moment icebreaker:

**Excellence**

DOF Group's vendor evaluation platform ensures UN global compact universal principles are upheld along our supply chain: learn how and why the benefits gained.

DISCUSS: how does the above relate to "Excellence"?



## **MODULE 15**

### Vendor & Partner Evaluation

VENDOR AND PARTNER EVALUATION	214
CORPORATE SOCIAL RESPONSIBILITY	215
PARTNER AND SUBCONTRACTOR EVALUATION	217

## Vendor & Partner Evaluation

This chapter describes how we evaluate our vendors and partners. The evaluation within our supply chain organisation is different from how we evaluate our clients, and JV partners. You will find more detailed information and instructions about the topic in our Business Management system.

### Aim of the Course

This module aims to give an overview of the processes DOF has established to evaluate our vendors, partners and clients. It is no longer sufficient to only demonstrate that our own company meets the expectations of Corporate Social Responsibility, but also that those we work with meet the same standards.

In the module, the basic requirements within human rights, labour conditions, external environment and anti-corruption are briefly described and the practical approach on how to implement this in DOF's supply chain management.

DOF's requirements for approaching Joint Venture partners and clients through due diligence processes and Know Your Client approach is also part of the module.

## Supply Chain Management

A function of supply chain management is the initial evaluation of potential vendors who may provide goods and or services to the company. By using an efficient, digital platform to conduct vendor evaluation the Company ensures consistent assessment standards are applied and the process is conducted fairly.

The structured evaluation process is also designed to ensure universal principles are upheld along our supply chain. The online forms allow for scrutiny to match the proof of a vendors pre-existing controls such as, third-party certification or, for example, the measures a vendor has taken to protect against child labour. The less comprehensive the vendor's business management systems are, the greater requirement for evidence of the vendors ability to meet DOF's standards, so the Group can ensure it has all checks and balances in place. Vendor evaluation is mandatory for all suppliers.

The primary objective of the vendor evaluation process is to:

- Ensure that only reputable, capable and reliable vendors are endorsed;
- To determine a vendor's approach to its Corporate Social Responsibility (CSR), and whether the vendor will be a responsible and responsive partner aligned with the values and vision of DOF;
- Certification status with regards to Quality, Health & Safety, Environmental international standards when applicable.

Only approved vendors are included in the DOF Group's supply chain.

# Corporate Social Responsibility (CSR)

A vendors approach to and performance within Corporate Social Responsibility is core to the evaluation process. If they cannot comply, they cannot work for DOF.

In the following chapter, our approach to vendor and partner evaluation is described briefly. You will see our evaluation is based on some familiar topics, such as UN Global Compact principles, which we discussed in Module 4 Business Integrity and Ethics. It is part of the DOF Group's commitment to ethical business to ensure universal principles within the UN Global Compact are upheld along our supply chain.

## The ten principles of the UN Global Compact

A vendor's approach to and performance in all aspects of Corporate Social Responsibility are key in us evaluation of all vendors. Our requirements have been developed by the UN and if our vendors can not comply, they simply cannot work for DOF.

The principles are derived from various declarations

from the UN, like the Universal Declaration of Human Rights, the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption.



### **Human rights** Principles 1-2

PRINCIPLE 1: Businesses should support and respect the protection of internationally proclaimed human rights;

PRINCIPLE 2: make sure that they are not complicit in human rights abuses.



### **Environment** Principles 7-9

PRINCIPLE 7: Businesses should support a precautionary approach to environmental challenges;

PRINCIPLE 8: undertake initiatives to promote greater environmental responsibility;

PRINCIPLE 9: encourage the development and diffusion of environmentally friendly technologies.



### **Labour** Principles 3-6

PRINCIPLE 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

PRINCIPLE 4: the elimination of all forms of forced and compulsory labour;

PRINCIPLE 5: the effective abolition of child labour;

PRINCIPLE 6: the elimination of discrimination in respect of employment and occupation.



### **Anti-corruption** Principle 10

PRINCIPLE 10: Businesses should work against corruption in all its forms, including extortion and bribery.

## ISO standards requirement

For many vendors DOF requires alignment with the ISO standards in addition to the UN Global Compact requirements. The requirement for this evaluation is based on risk assessments.

The International Organisation for Standardization (ISO) is an international standard-setting body composed of representatives from various national standards organisations.

Founded on 23 February 1947, the organisation promotes worldwide proprietary, industrial and commercial standards. It is head-quartered in Geneva, Switzerland, and works in 164 countries.

It was one of the first organisations granted general consultative status with the United Nations Economic and Social Council. The objectives of the ISO are to develop and provide international standards in response to market needs.

### ***ISO 14001***

ISO 14001 is the international standard that specifies requirements for an effective Environmental Management System (EMS). It provides a framework that an organisation can follow, rather than establishing environmental performance requirements.

### ***ISO 9001***

ISO 9001 is an internationally recognised certification which ensures quality of products and services of a company.

### ***ISO 45001***

The Occupational Health and Safety (OH&S) Management System, ISO 45001, is a new international standard that provides a framework for an organisation to manage risks and opportunities to help prevent work-related injury and ill health to workers.



## Partner & Subcontractor Evaluation

Before entering into partnership or signing a contract various assessments and reviews are conducted. The most common reviews are available in our Business Management System, with procedures in place to ensure no contract is entered into without proper evaluation.

### **Financial and commercial review**

This is an assessment to review the financial and commercial aspect of a contract or partnership. The finance department act as advisors for the organisation in these assessments.

### **Legal and Contractual review**

This is an assessment to review legal and contractual aspects of a contract or partnership. The legal department act as advisors for the organisation in these assessments.

### **Technical and HSEQ reviews**

This is an assessment for Engineers, Marine and HSEQ to review technical, Marine and HSEQ aspects of a contract or partnership. The relevant departments act as advisors for the organisation in these assessments.

## KYC – “Know Your Client”

Know your customer, alternatively known as know your client or simply KYC, is the process of a business verifying the identity of its clients and assessing their suitability, along with the potential risks of illegal intentions in the business relationship.

The term is also used to refer to the bank regulations and anti-money laundering regulations which govern these activities. “Know Your Customer” processes are also employed by companies of all sizes for the purpose of ensuring their proposed customers, agents, consultants, or distributors are anti-bribery compliant. Banks, insurers, export creditors and other financial institutions are increasingly demanding that customers provide detailed due diligence information.

### Task

Discuss in small groups the advantages for DOF assessing all vendors with the starting point of the UN Global Compact principles.

## Due Diligence

In case of business acquisition, joint ventures or long-term vendor relationship agreements, Due Diligence is required.

A Due Diligence process compiles different functions, thoroughly assessing various elements within financial, legal and contractual compliance as well as Anti-Bribery and Corruption.

Seek advice from the Legal Department in case of execution of a due diligence.

Integrity due diligence focuses on Anti-Bribery and Corruption assessments and financial transactions reviews. These types of assessments are available by third party companies like PWC and EY. After an assessment they can issue an integrity certificate.







" Each business unit shall as a minimum be audited every year, based on ISO 9001, ISO 14001, ISO 45001 and the BMS. "

Value moment icebreaker:  
**Above all we are SAFE**

Monitoring and reviewing our business and work processes is a key to controlling risk, capturing opportunities and driving improvement.

DISCUSS: how does the above relate to "Above all we are SAFE"?



# MODULE 16

## Audit, Improvement, & Monitoring

INTRODUCTION	222
MONITORING & KEY PERFORMANCE INDICATORS	223
AUDITS	226
INSPECTION	232
MANAGEMENT REVIEW & LEARNING	235

## Introduction

This chapter describes how we monitor and review business and work processes to control our risk, capitalize on opportunity and drive improvement.

### Aim of the Course

- This course aims to provide an overview of the monitoring and audit structure within the DOF Group and how results are reviewed.
- Having completed the module, the candidate is qualified to participate as a member of the audit team in internal audits as well as supplier audits.
- The course will also provide tips on how to perform audits and to provide an audit report. The chapter about Key Performance Indicators (KPIs) gives a basic overview and covers the differences between leading and lagging indicators.
- The section covering Inspections aims to give a broad overview of the area.
- Finally, there is a chapter about continuous improvement and the importance of the management review as part of our compliance activities towards our ISO certifications.

### Key definitions

- **Audit** - Systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.
- **Auditee** - Organisation, department or process owner being audited.
- **Auditor** - The person, group or independent body conducting the audit.
- **Audit Scope** - Extent and boundaries of an audit.
- **Corrective Action** - Action to eliminate the cause of a non-conformity or other undesirable situations.
- **Preventative Action** - Action to eliminate the cause of a potential non-conformity or other potential undesirable events.
- **Non-conformity** - Non fulfilment of a requirement.
- **Process** - Set of interrelated or interacting activities which transform inputs or outputs.
- **Procedure** - Specified way to carry out an activity or process.
- **Quality** - Degree to which a set of inherent characteristics fulfils requirements.
- **Audit Criteria** - Set of policies, procedures or requirements used as a reference against which audit evidence is compared.
- **Audit Evidence** - Records, statement of fact or other information which is relevant to the audit criteria and is verifiable.
- **Audit Findings** - Results of the evaluation of the collected audit evidence against audit criteria.
- **Observation** - An observation is an individual audit finding based on objective evidence for which there is no related requirement.
- **Quality Management System** - Management system to direct and control an organisation with regards to quality.
- **Record** - Document stating results achieved or providing evidence of activities performed.
- **Noteworthy Effort** - A noteworthy effort is a positive individual audit finding based on objective evidence for which there is no related requirement.

# Monitoring & Key Performance Indicators (KPIs)

To monitor means to systematically observe and check the progress or quality of something, over a period of time.

Monitoring is the systematic collection and analysis of information. It is aimed at improving the efficiency and effectiveness of a project or organisation. It is based on the targets set and activities planned during the planning phases of work. It helps to keep the work on track and can let management know when things are going wrong.

If done properly, it is an invaluable tool for good management, and it provides a useful base for evaluation. It enables you to determine whether the resources you have available are sufficient and are being well used, whether the capacity you have is sufficient and appropriate, and whether you are doing what you planned to do.

There are various way of monitoring processes and operations. The digital revolution has opened up new possibilities that are only just becoming clear. Online monitoring on engines and other equipment via sensors is technology that we already use in our company.

Monitoring of processes and how goals and objects are met is mostly monitored by Key Performance Indicators.

A lagging indicator is an output measurement, for example; the number of accidents on a building site is a lagging safety indicator. The difference between the two is that a leading indicator can influence change and a lagging indicator can only record what has happened.

## ***Leading indicators***

Typical leading indicators used in DOF:

- Number of audits
- Number of client meetings
- Number of inspections

## ***Lagging indicators***

Typical lagging indicators used in DOF:

- Number of injuries
- Number of spills to external environment
- Loss of tenders

**Q1** What does KPI stand for?

**ANS** KPI stands for key performance indicator.

**Q2** What is a KPI?

**ANS** A KPI is a measurable value that demonstrates how effectively a company is achieving key business objectives.

**Q3** What is a KPI used for?

**ANS** KPIs are used by individuals and organisations to evaluate their success at reaching critical targets. High-level KPIs may focus on the overall performance of the enterprise, while low-level KPIs may focus on processes within departments.

**Q4** How do I develop KPIs?

**ANS** Use the SMARTER approach. SMARTER stands for Specific, Measurable, Attainable, Relevant, Time-bound, Evaluate and Re-evaluate.

As you create an initial list of values that best demonstrate progress toward key business objectives, ask yourself and/or your team the following questions about them:

- Is your objective Specific?
- Can you Measure progress towards that goal?
- Is the goal realistically Attainable?
- How Relevant is the goal to your organisation?
- What is the Time-frame for achieving this goal?
- How and when will you Evaluate short-term progress?
- How and when will you Re-evaluate longer-term progress?

**Q5** Who determines KPIs?

**ANS** The short answer: anyone. KPIs are used by individuals, for example, to pursue health-related goals, and they are used by organisations to pursue business goals.

Within businesses, there are typically departmental KPIs (such as those for marketing, sales and customer support, to name a few). These KPIs are often established by the departmental leaders, and the departmental managers then ensure the team is aligned and working accordingly.

Then there are the overarching KPIs, typically set by the organisation's CEO and executive team. The departmental KPIs should be created in such a way that their sum result moves the needle for the overarching KPIs.

**Q6** How do I create a KPI?

**ANS** Let's say your overall objective is to increase vessel days for a particular boat for this year. You're going to call this KPI Skandi KPI. Here's how you might define the KPI:

- Why: Achieving this target will allow you to change out the crane.
- Measure: Progress will be measured as an increase in number of vessel days are sold and resulting revenue.
- How: Increase time out with clients and improve marketing material.
- Who: The Vessel Operation Manager will be responsible for this KPI.
- Outcome: Vessel days will have increased by 15% this year.
- When: KPI progress will be reviewed on a monthly basis.



**Q7** Which KPIs should I use?

**ANS** There is no such thing as a “best KPI.” There is only the best KPI for your particular goals. Determine which goals are most important to you, your team and/or your company, and run it through the SMARTER questions approach.

**Q8** When should I use a KPI?

**ANS** Use a KPI when you need to track progress toward a goal over time.

**Q9** Why should I review KPIs?

**ANS** Goals may change over time, and performance and progress toward those goals certainly will. As such, a KPI from three months ago may not be quite as relevant. This is why it’s important not to set and forget your KPIs.

**Q10** When should I review KPIs?

**ANS** KPIs should be reviewed at points relevant to the final time you’ve set for achieving the goal. Using the example in #6 above, we established that the goal should be achieved within one year’s time.

Reviews, then, could be monthly if that’s enough time to measure progress.

**Q11** How do I report on KPIs?

**ANS** A KPI report is a presentation that summarizes your current performance compared to your objectives. It can be presented in a variety of ways, from spreadsheets and slide decks to formal written reports and, as we prefer, dashboards.

Traditionally, KPI reports are developed on a quarterly basis. But, depending on how in-depth these reports are, you may want to create a KPI report each time you conduct a KPI review.

**Q12** How many KPIs should I track?

**ANS** The fewer the better. It can be easy to load up on too many KPIs, or to measure KPIs that aren’t quite right for the particular stage of your company. Research suggests that teams of 3-5 people are most efficient.

**Q13** Why are KPIs important?

**ANS** The pursuit of goals depends on the focused, consistent delivery of results. KPIs are important because they serve as the guideposts to get you where you want to be.

**Q14** Which companies use KPIs?

**ANS** All organisations, regardless of size and sector, that have a goal in mind and that believe creating a strategy to reach those goals is important.

**Q15** What is a KPI dashboard?

**ANS** A KPI dashboard creates a real-time visualization (on mobile, desktop or to a wall-mounted TV in your office) of the KPIs you’ve selected. The best KPI dashboards are customizable, allowing you to, among other things, change colors, organise your KPIs, and see your progress in a single glance.



# Audits

Periodic audits of procedures and systems of work are conducted by company-recognised auditors to ensure the objectives, targets and operational plans are being appropriately implemented and maintained. The assistance of employees may be called on as necessary.

The DOF Group ensures that activities, products or services that do not conform with the HSE-MS requirements are identified. All deficiencies and corrective actions arising from meetings, incident investigations, audits and inspections will be raised and promptly tracked to ensure close-out.

## Key take-aways

An Audit Interview is:

- A personal, controlled conversational meeting in which an auditor obtains the required information from the auditees
- An interview is a structured conversation with a clear agenda
- It is not a law enforcement interview
- It is not an interrogation
- It is not a survey

## Types of Audit

Auditing is an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

With commitment to integrity and accountability, internal auditing provides value to governing bodies and senior management as an objective source of independent advice. Professionals called internal auditors are employed by organisations to perform the internal auditing activity.

The scope of auditing within an organisation is broad and may involve topics such as the efficacy of operations, the reliability of financial reporting, deterring and investigating fraud, safeguarding assets, and a review of processes.

Process Audits are based on requirements in:

- ISO 9001, ISO 14001, ISO 45001
- IMO requirements
- DOF Business Management System
- Purchase Orders
- Framework Agreements
- Client Contracts

Each business unit shall as a minimum be audited every year, based on ISO 9001, ISO 14001, ISO 45001 and the BMS. Process audits shall be recognised as the major tool for continual improvement compliance with laws and regulations among internal processes.

Types of Audit	
Quality Audits	<p>Are performed to verify conformance to standards through review of objective evidence. A system of quality audits may verify the effectiveness of a quality management system. This is part of certifications such as ISO 9001, ISO 14001 and OHSAS 18001.</p> <p>To benefit the organisation, quality auditing should not only report non-conformance and corrective actions but also highlight areas of good practice and provide evidence of conformance. In this way, other departments may share information and amend their working practices as a result, also enhancing continual improvement.</p>
Project Audits	<p>Are an evaluation of a specific project, measured according to DOF Group and contract requirements. The HSEQ Manager shall ensure that the project audit plans are also maintained in the common regional audit schedules. This to avoid double audits by suppliers or own organisation and to secure proper planning.</p>
Supplier Audits	<p>Should be based on recognised management system standards and the DOF Group requirements for suppliers and subcontractors. Supplier audits are a tool for evaluation, approval and improvement of suppliers providing services to the DOF Group</p>
Global Audits	<p>Are an in-depth audit of a region or business unit within the DOF Group.</p> <p>The main objectives of this review are:</p> <ul style="list-style-type: none"> <li>To verify compliance with Group policies</li> <li>To assess whether the internal control framework designed by management to cover the main risk areas of the business is sufficient and working as intended</li> <li>To review the operational and reporting processes</li> </ul>
Marine Audits	<p>All ships operated by DOF Management, also including the main and branch offices, are subject to Annual Internal ISM/ISO/ISPS audits.</p> <p>The audits on board, and ashore, are to be held at intervals not exceeding twelve months. In exceptional circumstances, this interval may be exceeded by not more than three months subject to flag state approval.</p> <p>Internal ISM/ISO/ISPS audits shall be carried out in accordance with the Internal Audit Plan and Internal Audit Check list.</p> <p>The audits will be conducted by approved auditors and the criteria for the audits shall be the relevant internal requirements and regulations/standards.</p> <p>The completed check-lists shall be reviewed by the auditor and involved personnel onboard. An Internal Audit Report will be completed and documented in the incident NC reporting system.</p>
Compliance Audits	<p>Compliance audits are the process of systematic examination of a quality system carried out by an internal or external quality auditor or an audit team. DOF Group's main compliance audits come in the form of ISO certification audits.</p>

## Auditing process

Auditing systems and processes are defined in the DOF quality assurance audit standard and guidelines.

The audit process is designed to verify HSEQ management arrangements are being operated, are effective and performing within specified standards.

Audits may be undertaken by:

- Internal company auditors
- Client representatives
- Regulatory bodies

Audit results are collected and reported to the HSEQ Manager (for process compliance) and the development and implementation of corrective action plans. These include:

- Corrective actions and findings are recorded and prioritised.
- Affected employees are made aware of audit results and corrective actions.
- Corrective actions are reviewed for appropriateness prior to implementation.
- Follow-up action is monitored for timely close-out.



The review of any audit report, corrective action plan and audit close-out is undertaken by the DOF Line Management Team.

DOF's internal auditors are required to have completed auditor training on the relevant standards or similar training which is approved by the HSEQ Department. Auditors conducting supplier audits must have lead assessor training or equivalent. When required, the lead auditor can request assistance from other auditors or technical staff to cover special processes and to evaluate technical capability.

The Designated Persons Ashore (DPAs) are responsible for developing an annual internal audit plan for their relevant fleet and to ensure that the audits are executed as planned.

### Create Audit Schedule

An audit schedule for planned internal, supplier or evaluation of compliance audits be prepared at a regional level and presented to business units on an annual basis. Schedules shall have input from senior management and be subject to the approval regional EVP.

### Unscheduled Audits

The HSEQ Manager can plan and assign unscheduled audits to be conducted when:

- Problems are encountered with the operation of the BMS
- Significant changes have to be made to the BMS
- A problem requires investigation
- Deemed necessary throughout any stage of a project

The HSEQ Manager ensures unscheduled audits are carried out in the same way as scheduled audits except that the period of notice to auditee may be reduced.

### Prepare Audit – Audit Notification

Where appropriate, the audit leader shall prepare thorough check-lists, developing an Audit Checklist template to be used during the audit which covers

the general scope of the audit. The checklist and any other relevant documents include objective evidence to be verified. The auditor shall also give consideration to previous audit findings, performance and non-conformance which may require follow-up.

### **Evaluation of Compliance Audit Preparations**

No audit check-lists exist as such for an Evaluation of Compliance Audit due to the complexity and quantity of requirements DOF Group subscribes to as a group.

Compliance is audited against the criteria of listed legal and other requirements in the Legislation and Other Requirements Compliance Register. The Legislation and Other Requirements Compliance Register should be specific to the business unit undertaking the Evaluation of Compliance Audit.

It should be ensured that the evaluation of compliance process encompasses all legal and other requirements subscribed to and listed in the Business Unit Legal and Other Requirements Register on at least an annual basis.

### **Conduct Audit**

The audit leader shall conduct the audit with due professional care. The audit shall be initiated with an “opening meeting” for introduction and general information. The audit team will then continue the audit by examining work areas and interviewing personnel, using standard audit techniques.

For an Evaluation of Compliance Audit, the standard audit techniques employed may have to be extended and varied in order to provide evidence of compliance to a particular requirement.

Evidence of activities carried out shall be compared with relevant documented procedures and records. If any informal (not documented) procedures are in use, these shall be investigated to the extent necessary.

When non-conformities or non-compliances are detected, more detailed inspections shall be carried

out in cooperation with the department and/or function in question, in order to identify the cause of the non-conformity.

See the tips on the following page.

### **Write and Distribute Audit Report**

The Audit Report shall faithfully reflect both the tone and content of the audit. The Audit Report template shall be used. Once complete it shall be checked by the co-auditors and the HSEQ Manager, signed and dated by the audit leader and the HSEQ Manager and then issued to the auditee.

The report shall clearly identify:

- Audit Report Number;
- Audit Date;
- Audited Organisation & the Representative;
- Audit Team Members;
- Purpose and Scope of the Audit;
- Persons Interviewed;
- Identification of audited systems, activities, legislative or ‘other’ requirements and documents; and
- Description of findings, non-conformities, non-compliances and areas for improvement.

### **Task**

Prepare and conduct an audit according to the instruction given by the instructor and guide by our Business management system.

# Tips

for auditing:

## 1. Do your homework

You will be expected to have a basic knowledge of your subject. You wouldn't turn up for an interview with a band and ask them how many albums they have released — you should know this already. If you show your ignorance, you lose credibility and risk being ridiculed. At the very least, the interviewee is less likely to open up to you.

☐

## 2. Have a list of questions

This seems obvious, but some people don't think of it. While you should be prepared to improvise and adapt, it makes sense to have a firm list of questions which need to be asked.

☐

Of course many interviewees will ask for a list of questions beforehand, or you might decide to provide one to help them prepare. Whether or not this is a good idea depends on the situation. For example, if you will be asking technical questions which might need a researched answer, then it helps to give the subject some warning. On the other hand, if you are looking for spontaneous answers then it's best to wait until the interview.

Try to avoid being pinned down to a pre-set list of questions as this could inhibit the interview. However, if you do agree to such a list before the interview, stick to it.

Ask the subject if there are any particular questions they would like you to ask.

Back-cut questions may be shot at the end of a video interview. Make sure you ask the back-cut questions with the same wording as the interview — even varying the wording slightly can sometimes make the edit unworkable. You might want to make notes of any unscripted questions as the interview progresses, so you remember to include them in the back-cuts.



*How many of the boxes can you check off? Test yourself and discuss with your colleagues how they have performed previous audits*

3. **Listen**  
A common mistake is to be thinking about the next question while the subject is answering the previous one, to the point that the interviewer misses some important information. This can lead to all sorts of embarrassing outcomes. ☐
4. **Dialogue**  
Keep the dialogue clear, precise and professional whilst engaging the auditee and putting them at ease. ☐
5. **Body language**  
Ensure you keep a good body posture. Don't appear too relaxed or too tense. ☐
6. **Dress code**  
Dress smartly and appropriately. ☐
7. **Respect the role of the lead auditor.** ☐
8. **Clearly communicate findings**  
Document with specific accuracy were the deficiency has been found as well the specific requirement. ☐



**Communicate better, more often, & with style...**

*Together with this set of tips, before you conduct an audit, be sure to review the Communication Module to gets some great ideas and advice on how to get the most out of your audit.*

# Inspection

## Why do we need safety inspections?

Safety Inspections can raise general awareness of safety in the business. They are also a useful tool to identify dangerous working practices.

Most injuries are caused by dangerous actions; using information from the inspection reports in conversations with staff has the potential to decrease the number of injuries.

## How to carry out an inspection?

Start the inspection with a positive attitude. During the inspection, it is also important to pay attention to the correct actions you observe. Giving recognition for correct actions always inspires employees to increase their efforts related to safety and the department's daily efforts to maintain a safe and efficient working environment.

The inspection reports should always start by pointing out what is in order before you start to write down the things that require change.

If, during the inspection, you discover dangerous conditions, these must be followed up immediately, if necessary with temporary measures until the situation can be addressed more permanently. Such temporary measures may, for example, be to close down hazardous areas or put up warning signs until the area is secured.

The checklist is simply based on one main area you are going to inspect. This could for example be order and cleanliness, safety equipment or loading and lifting equipment. For each section, there is a simple checklist that can be used as a reference.

We recommend making note of key words during observations to support the standards set for the inspected area.

## Inspect frequently - Inspect using common sense

One condition for achieving safe working conditions is that you are able to identify and eliminate risk factors. As such, inspection is an important tool. Looking for potential hazards should be part of our daily work.

Safety levels always reflect what managers are willing to accept within their remit. As a conscious role model and motivator, you have the capacity to increase safety at work. You can raise the level of safety through systematic inspections and follow-up.

### Five key elements:





Inspection in itself has little or no value unless it is followed by reactions, and the way you react is essential when establishing standards for safety. The reaction - or lack of reaction, will quickly tell the organisation what's OK and what is not acceptable. Every time you carry out an inspection, you should ask yourself the following questions: Are all the conditions in this area safe and acceptable? If the answer is no, you must immediately write down comments on the deviations you have noticed.

Monitoring is essential to achieve results. If you fail to monitor, all previous work might be wasted.

The inspections may be "universal" or focus on limited areas and specific issues. Inspections can be carried out in many ways, depending on whether it is an office or a vessel you are going to inspect.



*Here is a process for performing an inspection:*

- 1 Become familiar with safety rules
- 2 Ask questions
- 3 Take notes
- 4 Communicate clearly
- 5 Draw conclusions

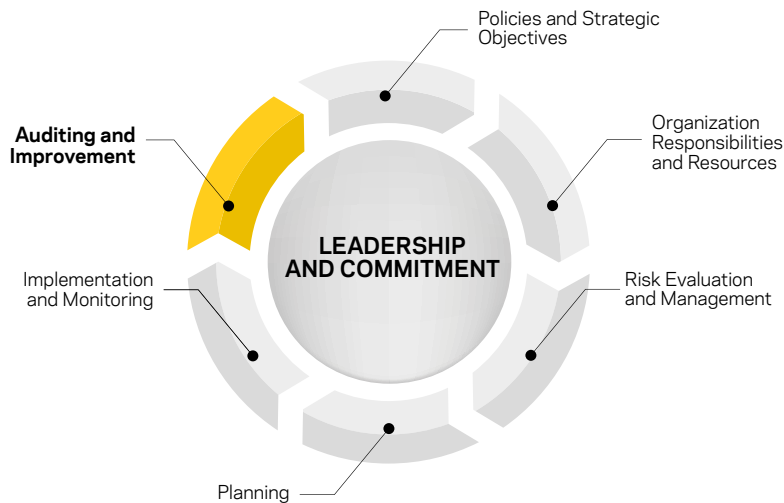
## Observation Techniques

1. Stop for 10-30 seconds when you enter a new area to see how people are working;
2. Be aware of work procedures that may have been corrected because you have entered the area;
3. Observe activities;
4. Remember: UNDER, OVER, BEHIND, INSIDE, BETWEEN;
5. Adopt a questioning attitude. Ask why?  
What would happen if ...? Have you learned ...?;
6. Use all the senses: SEE - HEAR - SMELL – FEEL;
7. Observe all phases of a job;
8. Be curious;
9. Get constructive ideas - not just problems;
10. Give praise when you find good examples of safe work performance.

# Management Review & Learning

The purpose of the Management Review is to ensure the continued suitability, adequacy, effectiveness and improvement of the BMS. This section describes how the Management Review is organised, planned, executed and how decisions are followed-up.

For further reading, please refer to Internal Quality Management System Audit Checklist (ISO 9001:2008) clause 5.6 and Audit Checklist ISO 14001:2004 clause 4.6.



## Management Review

### What should be discussed during Management Review Meetings?

Management review is an extremely important criterion for the success of our management system and the most significant source for improvement. Our attention should focus on “trends, objective evidence and data-based decisions”, not on daily operations.

We recommend the following topics be included in a management review agenda:

- Follow-up Actions: from previous management review meetings
- Quality Assurance Report: including non-conforming/hold/rework product data, and regulatory issues
- Equipment/Maintenance: may include calibration information, repair & maintenance trending data, equipment downtime
- Subcontractors: subcontractor problems and actions, subcontractor trends
- Customer Complaints: summary of complaints for trending
- of feedback, issues and resulting actions
- Corrective and Preventive Actions: type & source of issues, areas most commonly having issues, trends of root causes, reoccurring problems

## Management Review (continued)

- Internal Auditing: audit results, audit schedule, non-conformances by area and ISO clause
- Planning: upcoming projects, status of ongoing projects, significant changes including staffing
- Resources: people & training, facility, and equipment
- Improvement: review of management system policy, objectives and overall management system effectiveness and improvement of the system and your product.

Different standards do require some additional topics for management review. Please review standard requirements.

### **How often should we have Management Review Meetings?**

There is no specific requirement for the frequency of management review meetings. We recommend quarterly meetings. This allows us to stay on top of upcoming issues and collect data between meetings that is meaningful. We have found annual meetings are not adequate for all business units as the timing is not ideal for the prevention or resolution of issues.

### **What record do we need of our Management Review Meetings?**

Try to keep good, detailed records of what was discussed, what conclusions were reached and what actions are needed. If you have set up your meetings around your objectives, then for each topic at the meeting ask the following questions:

- What is your measurement?
- What is your objective?
- How are you doing?
- Are there any trends?
- Is there any action needed (e.g. people, process, materials, equipment)?
- Is there anything else we should consider?

This allows you to spend time on the items needing attention. Keep notes of your answers.

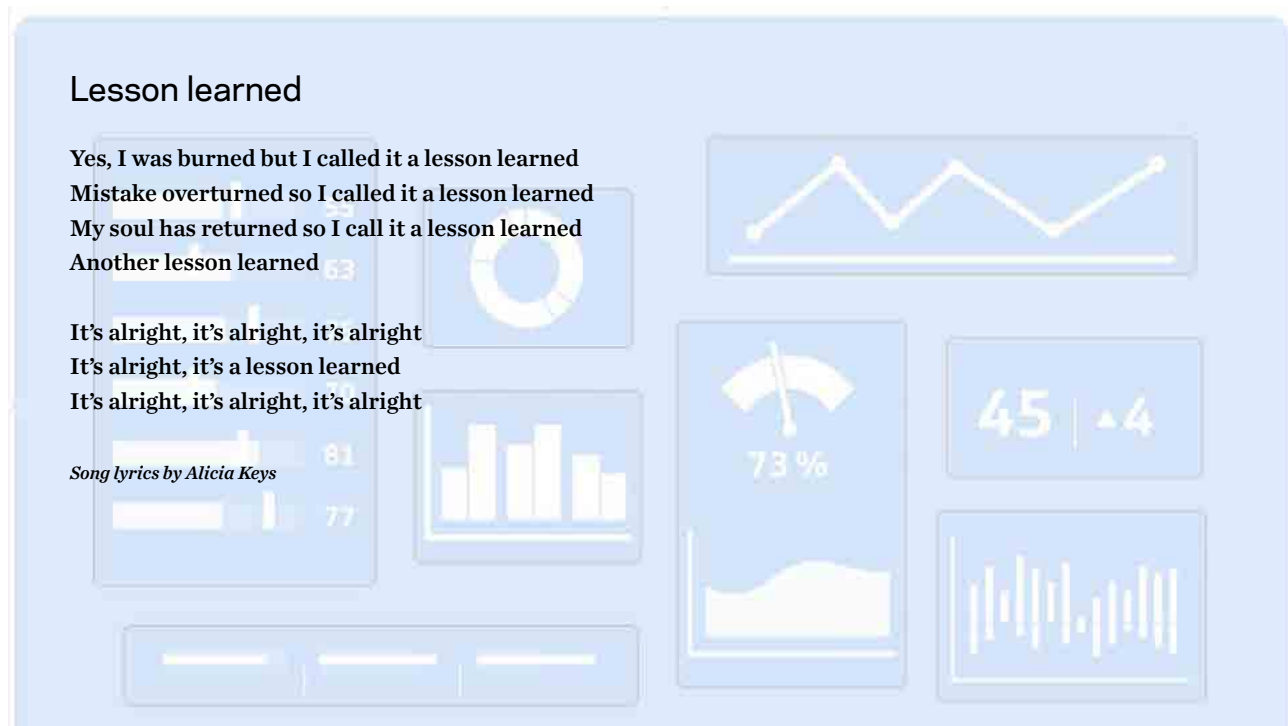
## Learning & "lessons learned"

Management within the DOF Group should continually seek to improve the effectiveness and efficiency of the processes within the organisation, rather than wait for a problem to reveal opportunities for improvement. Improvements can range from small-step ongoing continual improvement to strategic change required within an organisation or a worksite. The DOF Group manage this through Experience Transfer and this should be performed regularly during operations and always after a completed project.

The Experience Transfer allows us to identify and manage improvement activities. These improvements may result in change to the product or processes and even to the quality of documentation within the Business Management System. It is also important that the lessons learned are shared within specific areas of the group.

### **An organisation is genuinely committed to living the Lessons Learned philosophy, if:**

- An organisation is genuinely committed to living the Lessons Learned philosophy, if:
- They use the Lessons Learned process to develop and improve procedures, practices, and processes to an optimised level.
- They commit sufficient and appropriate resources and time to develop suitable solutions to eliminate problem areas and to embed best practice initiatives.
- The Lessons Learned can be properly qualified, accurately and consistently quantified in order to manage and implement the necessary changes associated with the area(s) under review.
- The outcomes / solutions to be implemented are pertinent to, and fully address, the area(s) under review.



" The finance department provides accurate, timely and relevant information to decision makers and stakeholders, on a continuous basis. "

Value moment icebreaker:

**Respect**

Gain an understanding of your role and responsibility with regard to the organisation's financial perspective, as well as understanding the finance department's role in the organisation, and the processes in which they should be involved.

DISCUSS: how does the above relate to "Respect"?



# **MODULE 17**

## Finance for Non-finance Managers

CASH IS KING	240
THE PAST	242
THE EXCITING AND UNPREDICTABLE FUTURE	249
RISK MANAGEMENT AND INTERNAL CONTROL	252

## Cash is King

Simply told, the finance department manages the organisation's cash.

Positive cash flow leads to profitability and provides the funds needed to reinvest in the future of the business. The financial situation of an organisation is impacted by every decision made and every action taken. Understanding the basic principles of finance could mean the difference between the organisation thriving or failing.

The role of the finance department, regarding the strategy and the top management decision-making, is to provide accurate, timely, and relevant information on a continuous basis. Financial reports, structures, and controls must support and operationalise strategies. The finance department incorporates all external and internal information in order to gain the overview of the past and future profitability and other business aspects of the organisation. Everyone outside the finance department that manages the daily operations of our organisation creates the fundament for the roles and responsibilities of the finance department.

Finance must establish, with respect to quality and efficiency:

- Finance Processes
- Finance Procedures and controls
- Foundation for decision making (financial statements, performance reports and other reports)
- ERP systems and subsystems

Finance will establish, execute, monitor, and develop these reports, routines, and system in close relation with operations and the executive management.

### Aim of the Course

- Achieve a clear understanding of your responsibility in regard to the financial perspective of the organisation
- Understand the finance department's role in the organisation, and in which processes they should be involved
- Recognise the tools of internal control; how they work, why they work, and how they should affect your behaviour in relatedness to your tasks.



## KEY FINANCE ROLES

### Accounting

Owner of the financial closing and reporting process, including but not limited to internal and external financial reports. Responsible for the development and implementation of routines, risk assessment and internal financial controls for the organisations financial processes. Roles related to processing of transactions (bookkeeping). Responsible for coordination and implementation of the external audit process of the company.

### Controlling

Owner of the performance management process. Responsible for establishing standards for reporting. Facilitate the budget and forecasting process. Use research, analysis and experience to develop business and financial recommendations and assist management and project managers in key financial decisions and the follow up of projects.

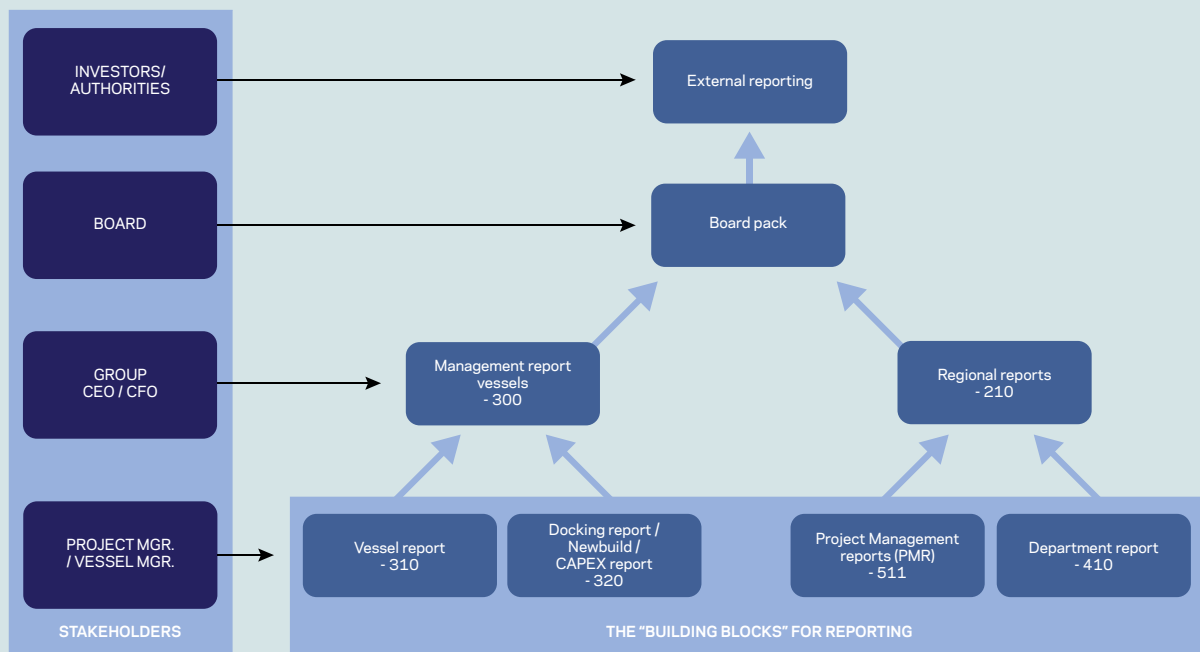
### Treasury

Owner of the cash management process and funding processes (internal and external loans, financial instruments etc.). Responsible for implementation of routines, risk assessment and internal financial controls for all financial transactions and positions.

### Tax

Owner of the tax reporting process. Ensure compliance with various laws and regulations. Implement and develop policies and internal controls related to tax reporting. Perform tax planning and support the projects and operations in legal matters. Responsible for the tax/legal risk assessment in the tender process.

## KEY FINANCE REPORTS



## The Past

In an organisation there can often be a greater focus on the future, after all, it is the future that will generate the income and we cannot change the past. However, without a certain focus on the past, the future can be difficult to predict.

In addition, there are Stakeholders, laws and regulations that require the organisation to report about the past of its business.

### **Informing the stakeholders about our business**

Important stakeholders are, among others; owners, investors, banks, government, tax authorities, employees and the organisation. The financial reports are used in different decision-making processes, and the timeliness and quality of the reporting is therefore important.

The finance department is responsible for preparing the Financial Statements without any material errors or risk. This process utilises the accounting information and combines these with analysis and judgement to complete the financial reports that the organisation is required to deliver to its external stakeholders. A material error is an error that could reasonably be expected to influence the economic decisions of the stakeholders of the financial statement or financial reports. Internally in an organisation the finance department reports the Financial Statement to the CEO and the Board of Directors of the company for approval.

Financial Statements must be audited by an external auditor, and the auditors must issue an audit opinion concluding about the quality of the financial report. As required by international law, the finance department is responsible for providing all the necessary information and full disclosure to the Auditors for analysis and as the foundation from which they draw their conclusions.

The finance department is also responsible for preparing the Company's tax papers, VAT-reports, report to the Stock Exchange and to the banks.

Internally the organisation can use parts of the Financial statement and/or other financial reports, for example to illustrate the performance of a vessel or a specific project.

## Reading the financial statement

Financial statements show you where the organisations cash came from, where it went, and where it is now.

Financial statements are a structured representation of the financial position and financial performance of an entity. The objective of financial statements is to provide information about the financial position, financial performance and cash flows of an organisation that is useful to a wide range of users in making economic decisions.

To meet this objective, financial statements provide information about the organisations:

- Revenue and cost;
- Assets;
- Liabilities;
- Equity;
- Contributions by and distributions to owners;
- Cash flows.

This information, along with other information in the notes, assists users of financial statements in predicting the organisation's future cash flows and, in particular, their timing and certainty.

The preparation of financial statements is regulated to ensure comparability both with the entity's financial statements of previous periods and with other organisations.

In this chapter we will explore the following statements that are parts of a financial statement;

- Income statement;
- Balance Sheet.

## Ratios

What does the term mean and why don't they show up on financial statements? Users of the financial statements calculate ratios from information in the financial statements and they are used to evaluate the organisation. There are a high variety of ratios, and they vary by industry.

EBITDA-margin is the operating margin expressed as a percentage. It shows the operating profit as a percentage of its revenue.

Current liabilities, such as trade payables, and current assets, such as trade receivables, are part of the working capital used in the organisations normal operating cycle. Controlling the level of working capital is important on all levels in the organisation, from operational projects, building programs, entity level, and group level. It is a measure of the organisation's liquidity and efficiency, and demonstrates the organisation's ability to pay its current liabilities.

# Tips

## Reading a report's "Income Statement"

Income statements illustrate the organisation's financial performance over a specific period.

The income statement shows the revenue the organisation has earned, and the cost associated with earning that revenue.

The bottom line in the income statement shows if the organisation has a profit or loss, total revenue less total cost.

Income statements are divided in operating- and non-operating sections.

The operating sections provides information about revenue and cost earned in the ordinary course of business.

The operating profit is called **EBITDA**.

### Sample income statement:

DOF ASA Q2 2019 "Consolidated statement of profit or loss"

(MNOK)	Note
Operating income	1
Operating expenses	
Net profit from associated and joint ventures	7
Net gain on sale of tangible assets	
<b>Operating profit before depreciation and impairment - EBITDA</b>	
Depreciation	6
Impairment	6
<b>Operating profit - EBIT</b>	
Financial income	
Financial costs	
Net realised gain/loss on currencies	
Net unrealised gain/loss on currencies	
Net changes in fair value of financial instruments	
<b>Net financial costs</b>	
<b>Profit (loss) before taxes</b>	
Taxes	12
<b>Profit (loss) for the period</b>	

	Q2 2019	Q2 2018	2018
	1 542	1 583	6 051
	-1 112	-1 199	-4 700
	74	87	277
	-	-	2
	<b>504</b>	<b>471</b>	<b>1 629</b>
	-274	-252	-1 063
	-145	-93	-691
	<b>84</b>	<b>126</b>	<b>-125</b>
	25	17	121
	-238	-225	-925
	-73	-51	-341
	105	-336	-288
	21	-81	-2
	<b>-160</b>	<b>-676</b>	<b>-1 435</b>
	-77	-550	-1 560
	-29	44	57
	<b>-106</b>	<b>-506</b>	<b>-1 502</b>

**EBITDA** represents earnings before interest, tax, depreciation, impairment and amortisation. This measure is useful in evaluating operating profitability on a more variable cost basis as it excludes costs related primarily to capital expenditures and acquisitions that occurred in the past. EBITDA shows operating profitability regardless of capital structure and tax situations with the purpose of simplifying comparison in the same industry.

**EBIT** represents earnings before interest and tax. EBIT shows operating profitability less depreciation, impairment and amortisation.

**Depreciation** is the gradual conversion of the cost of a tangible asset into an operational expense over the asset's estimated useful life, due in particular to wear and tear.

**Net financial income or loss** is deducted from EBIT and shows the organisations profit or loss before tax.

**The financial income or loss** is a function of the organisation's capital situation. It consists for example of interest income and interest expense. Interest income is generated from keeping cash in interest-bearing accounts or providing loans. Interest expense is generated from the organisations loans.

**Net profit or loss** (finally) is the result after income tax is deducted and is generally the bottom line of the statement.



#### Did you know?

Each column is read from top to bottom, and items are combined until a total, or "line item" is established. Usually the line item is bold or has a line under it to show its significance.

# Tips

## Reading a report's "Balance Sheet"

The balance sheet shows the organisation's assets and liabilities, and the owners' equity at a specific point in time.

Total assets equals liabilities and equity, and the liability and equity illustrates how the assets was financed.

The balance sheet presents what the organisation;

- Owns – its assets;
- Owes – its liabilities;
- Has of equity – shareholders capital.

### Sample income statement:

DOF ASA Q2 2019 "Consolidated statement of profit or loss"

(MNOK)

#### ASSETS

Tangible assets

Goodwill

Deferred tax assets

Investment in associates and joint ventures

Other non-current receivables

**Total non-current assets**

Trade receivables

Other receivables

**Current receivables**

Restricted deposits

Cash and cash equivalents

**Cash and cash equivalents incl. restricted deposits**

**Current assets**

**Total Assets**

#### EQUITY AND LIABILITIES

Paid in equity

Other equity

Non-controlling interests

**Total equity**

Bond loan

Debt to credit institutions

Lease debt

Other non-current liabilities

**Non-current liabilities**

Current portion of debt

Accounts payable

Other current liabilities

**Current liabilities**

**Total liabilities**

**Total equity and liabilities**

Note	30.06.2019	30.06.2018	31.12.2018
6	18 836	19 293	18 898
	292	318	295
	852	889	898
7	1 696	1 235	1 547
	1 147	1 176	1 177
	22 822	22 912	22 815
	1 290	1 452	1 312
	444	459	406
	1 733	1 911	1 718
	263	327	316
	1 234	1 496	1 616
8	1 498	1 823	1 932
	3 231	3 734	3 650
	26 053	26 646	26 465
	3 277	3 638	3 277
	83	511	232
	2 270	2 448	2 269
	5 630	6 598	5 778
9	2 087	1 928	2 480
5, 9	12 168	13 985	13 007
9	397	-	-
	60	135	90
	14 712	16 049	15 578
9	4 276	2 583	3 678
	865	930	808
	570	487	623
	5 710	4 000	5 110
	20 422	20 048	20 687
	26 053	26 646	26 465

**Assets** are items with value that the organisation own. The assets sections usually shows the organisations property, plant and equipment, receivables, cash and inventory. It illustrates the assets available to the organisation to use in its course of business, and remain profitable.

**Liability** is the organisations borrowed cash, and can be cash borrowed from the bank, rent for office and liability owned to suppliers.

**Equity** is the organisations invested- or earned cash. If all the assets in the organisation was sold, and the liability was paid, the equity would be the leftover cash that belongs to the shareholders.

Assets and liabilities are presented as **non-current and current**, illustrating when amounts are expected to be recovered or settled. In other words, how quickly they will convert into cash in-flows or outflows. Assets clearly identifiable to the organisations operating performance is often presented as current assets. Current liabilities are debt due for settlement within a short term period. Information about expected dates of realisation of assets and liabilities is useful in assessing the liquidity and solvency of an organisation.

## Processing transactions

Financial statements result from processing large numbers of transactions or other events that are aggregated into classes according to their nature or function. Laws and regulations require that the organisation document its revenue and cost, and this is called the bookkeeping of transactions. The finance department's role is to ensure that all transactions carried out by the operation have been registered in time and with quality.

Transactions include, among others; operational income and expenses, finance income and expenses, and income tax expenses (see more detail in the table below). The transactions are initiated and processed in the organisation.

### Task

How is accruals generated and what type of accruals can exist for a onhire vessel?

Types of transactions	
Operational income	Invoicing of customers is part of the Contract to cash process. The organisation creates invoices to customer for work done and in accordance with contracts. All invoices are transactions reflected as operational income. Invoices to customers are presented as trade receivables in the balance sheet until cash is received.
Operational expenses	<p>Invoices from suppliers are part of the Purchase to Pay process. Whenever we acquire goods or services from a supplier the transaction must be registered and documented. Received invoices are controlled against purchase orders created in the organisation at an earlier stage. Purchases are always approved by responsible in the organisation before payments are processed. All invoices from suppliers are presented as trade payables in the balance sheet until payment is done.</p> <p>Personnel expenses is a result of contracts with employees and hired in personnel. All payments to employees and hired in personnel are transactions that comes from the Crewing and salary process. The organisation is initiating, controlling and approving the cost.</p>
Financial income and expenses	Payment to/from banks such as interest income and expenses, guarantees and fees are transactions classified as financial income and expenses.
Income tax expenses	Income tax payments to the country where the entity is registered and payment of foreign taxes on operations abroad, are transactions that is a related to the organisations tax reporting process.



## The exciting and unpredictable future

The finance department plays a major role in making the organisation prepared for the future.

We utilise the past as a starting point for the future, while making sure to remember that the past rarely replicates itself. The focus on the future is especially important when the organisation operates in an uncertain market in constant change. The valuable insights required for this process come from the whole organisation. That is why it is important that everyone takes their part in the process and contributes to their best ability.

### Planning, budgeting and forecasting

Management is responsible for preparing goals for the organisation and planning how the organisation should work to achieve these goals. These strategic decisions serve as the basis for further planning on other levels in the organisation. Financial consequences of the planned activities are illustrated as numbers, and can be called budgets, forecast or performance indicators. As the activities are executed the financial consequences of this is documented and illustrated in the financial statement and other management reports. These reports serve as a basis for analysing and controlling that plans are followed and that goals are reached.

As both a target for the future and a measure of the past, budgeting and forecasting is one of the organisation's greatest management tools. Budget and forecasts are used to estimate the financial results and financial position of the planned activities for a future period. Estimates of future events enables resource allocation to be aligned to strategic goals and targets set across the entire organisation.

An organisation prepares multiple different estimates of future events, both on low- and high level. The creation of estimates of future events can be carried out in multiple ways, but typically it is a bottom-top process. The structure of this process begins with the managers drafting plans with assistance from the finance department, and the final approval resides with the top management. This process demands accuracy and close cooperation between all levels in order to create realistic and challenging plans that the department should aim at for the future.

#### Task

What type of budgets are used in the organisation and what are their purpose?

## Planning...(continued)

### **The estimate versus the reality**

Why is it important to draft estimates of future events?

The estimates of future events assist the organisation with;

- Turn strategy and the strategic goals to operational stages;
- Perform profit-, organisation-, and marketing analyses;
- Set tactical goals for departments;
- Create action plans which assist the organisation to reach its goals;
- Performance of control- and monitoring to ensure that the organisation is on the planned track.

Routines are established to be able to benefit from the information control and monitoring. In a variation analysis, deviations between planned and actuals are analysed. These variation analyses are performed continuously, which gives the benefit of identifying variations at an early stage and to make appropriate decisions and implement appropriate actions. An efficient variable analysis is dependent on current actuals, which means that all transactions must be documented.

## Project analyses and cash flows

Decisions related to investments and contracts are important because they often effect strategic choices for the organisation in the future. When the decision about investing is taken, it may not be reversible without causing expenses. A project analysis focuses on the future, expected future income and cost driven by the project is assessed. The cash flow of the investment consists of receipts and disbursement, and is affected by the following elements;

- Investment expense;
- Lifetime of the investment;
- Disposal value;
- Expected income and cost;
- Risk;
- Cost of capital; and
- Cash time value.

An investment is profitable for the organisation if the cash flows from the project is positive over the project lifetime. All the financial results and financial position of a project is assessed to ensure positive cash flow in the project. The information about the expected equipment needed forms the basis for the investment expense. Other cost aspects related to the possible project is considered to get an overview of total expected cost. The information can be used to compare cost to expected income in a project, or as a basis for pricing the contract.

The investment cost is often imminent and involves little uncertainty. The decision is dependent on ensuring all necessary equipment is identified, to be able to set the expected cost. All aspects related to the investment need to be identified, also payroll, freight, and assembly. The uncertainty in the cash flow can be higher further into the future, and dependent on the risk.

The investment can be financed with equity, loan, or leased. The cost of this capital needs to be considered. Further the investment ties up capital in the organisation in the project lifetime. Profitability is a function of the organisations results combined with how much capital is used in its operation.

When the cash-elements in the investment is estimated, the next step is to calculate the expected cash flow in the investment. The first year in the cash flow can have a negative cash flow due to the investment cost, but over the project lifetime the cash flow can be net positive. If an organisation has sufficient capital, it may choose to invest in all investments that bring positive cash flow. When it is only applicable to choose one investment, we need to make the best choice for the organisation. The organisations overall strategy can affect what projects that are chosen.

## Risk management and internal control

Finance must perform a risk assessment and develop and implement internal financial controls for the organisation's financial processes.

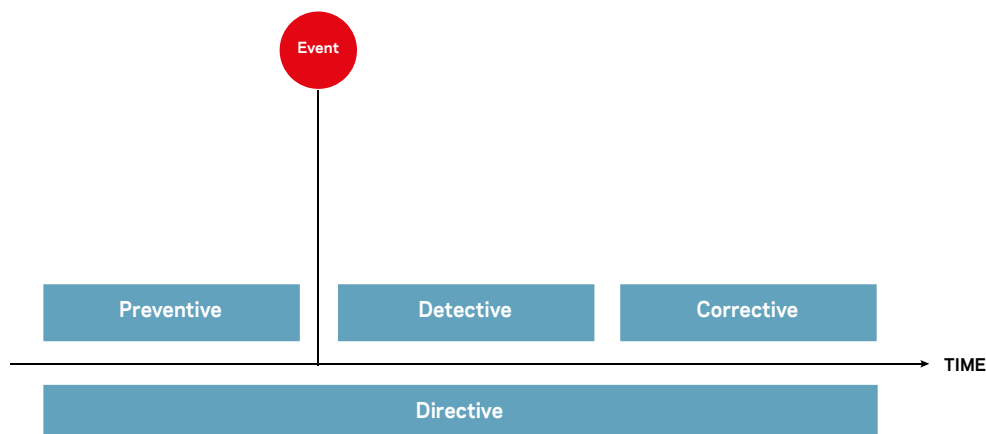
Main finance processes are the Contract to Cash process, the Purchase to Pay process. These processes are connected to the Financial reporting process.

### Risk assessment

Every entity faces a variety of risks from external and internal sources which must be assessed. A precondition to risk assessment is establishment of objectives and thus risk assessment is the identification and analysis of relevant risks to the achievement of assigned objectives. Risk assessment is a prerequisite for determining how the risks should be managed.

### Control activities

Control activities are the policies and procedures that help ensure management directives are carried out. They help ensure that necessary actions are taken to address the risks that may hinder the achievement of the entity's objectives. Control activities occur throughout the organisation, at all levels and in all functions. Control activities are often defined as either preventive controls or detective controls.



## Preventive controls

Preventive controls are designed to prevent or stop wrong, adverse, inappropriate or suspicious events from occurring. We can think of it as the first line of defense against the risks that threaten the organization. Since the organisation avoids the risk before it affects the business, the preventive internal control activities ensure efficiency and high quality and is thus the most desired method of control. Beneath follow some activities of preventive controls.

- **Approvals, authorisation and verification:** Many of the actions that can lead to errors or undesired outcomes have a chain of command in order to be carried out. Meaning it could require approval, authorization, documentation, and verification before the action can be initiated.
- **Segregation of duties:** Duties are distributed among several roles in order to prevent errors or inappropriate actions.
- **Security of assets:** Access to the assets of the company have security stages that should prevent unrestricted access to important and valuable assets. Detective controls

## Detective controls

Detective controls are designed to identify the unwanted problems after they have occurred. When the problem is identified by this control measure, the risk has already infiltrated the organisation. The primary goal of the detective control is therefore to prevent it from further evolution and to form the basis for discovering it at an earlier stage if similar events were to occur again. Beneath follows some detective control activities.

- **Reconciliation:** Comparison of data to identify and investigate differences, in order to take actions when necessary. An example is the finance departments reconciliation of the value of our bank accounts in our financial reports against the external reports from the bank.
- **Review of performance:** Comparing actual performance to the budgets, previous periods and other kind of benchmarks in order to detect deviations against targets and expectations. The organisation can investigate the cause and take appropriate actions.





DOF ASA  
Alfabygget  
5392 Storebø  
NORWAY  
[www.dof.com](http://www.dof.com)

