Report IO1

Erasmus + KA2 – Strategic Partnerships

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DEVELOPMENT OF A V.E.T. TRAINING PROGRAM TO UPGRADE THE SKILLS ON HEALTH AND SAFETY RISKS FOR OFFSHORE CONSTRUCTION WORKERS

https://shield-project.es
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Report O1- A1 - SHIPCON

Identify the main requirements related to learning needs and competences

1. Responsible public authority in Cyprus for H&S

The responsible public authority for all issues related to Health & Safety in Cyprus is the Department of Labour Inspection, which is one of the Departments of the Ministry of Labour, Welfare and Social Insurance. According to the official website of the Department of Labour Inspection ‘the basic objective of the Department is the continuous and steadfast improvement of the Occupational Health and Safety standards, to ensure a satisfactory level of air quality and of the environment in general, the safeguard of the employees the public and the environment against ionized radiation hazards & chemical substances’.

The Department’s strategy is put into force with the aid of the following working tools.

- Appropriate legislative framework.
- Appropriate market surveillance system.
- Promotion of accidents prevention through guidance, information and training.
- Incorporation of the issues the Department is dealing with in other policy areas e.g.
- Training, Employment, Agriculture, the Environment, Transport, e.t.c.

As we can see in the strategy of the Department of Labour Inspection a key tool in the overall effort to implement the strategy is ‘training’ and the basic aim of the Department of Labour Inspection is the safeguarding of adequate levels of safety and health at work. The fulfilment of the aforementioned aims is accomplished by means of a suitable legislative framework, the implementation of an effective inspection system, a
continuous awareness of the public, the training and education of the Department’s personnel and in cooperation with the social partners.

This Sector deals with the issues of the protection of safety and health and well being of the workers at the workplaces. Specifically, this Sector regulates the organisation and management of safety and health issues at work. Moreover, this Sector deals with safety and health requirements of the workplaces (buildings, premises, etc.)

This Sector regulates also the issues of safety and health requirements of work equipment (machinery, tools, appliances, pressure vessels, scaffolding, personal protective equipment, etc.), that are used at the workplaces.

Also, the Sector deals with issues related to the risks to health arising from the use of asbestos, chemical agents, biological agents, carcinogenic and mutagenic agents, from physical agents, such as noise and heat, or from ergonomic factors, such as manual lifting and handling of loads, monotonous work, pace of work, etc.

2. **Cyprus strategy on Health & Safety (H&S) at work 2013 – 2020**

According to the official website of the Department of Labour Inspection, the Strategy of Cyprus on safety and health at work 2013 -2020 is aiming at materializing the policy of the Ministry of Labour, Welfare and Social Insurance ‘for a continuous and steadfast improvement of occupational health and safety levels’.

The fundamental pillars of this Strategy are the following:

- The utilization and improvement of the Institutional Framework.

- The existence of a suitable Legislative Framework fully harmonized with the European Acquis.
• Operation of a suitable and adequate Labour Inspection System.

• Improvement of the operation of suitable Supporting Institutions.

• Operation of a suitable Health Surveillance System of the workers.

• Promotion of accidents prevention and promotion of Health and Safety culture.

• Incorporation of Safety and Health at Work issues into other Policy Areas.

• Encouragement of the scientific progress and research.

• Close cooperation with the Social Partners and other stakeholders.

• Active participation at the Bodies and activities of the European Union.

HEALTH & SAFETY STRATEGY IMPLEMENTATION

The implementation of the Strategy will be evaluated at regular intervals through an Action Plan prepared for this purpose. The pillars for the implementation of this strategy lie on the institutional framework as well as the legislative framework of Cyprus. As far as the institutional framework is concerned, it is based on the operation of the Labour Advisory Board, which provides advice to the Minister of Labour, Welfare and Social Insurance on all labour policy matters and submits recommendations and suggestions on labour legislation. Moreover, it is based on the operation of the Pancyprian Safety and Health Council which provides advice to the Minister of Labour, Welfare and Social Insurance on the measures that need to be taken to prevent
work accidents, on the improvement of occupational safety and health and on the review or introduction of new legislation.

With regards to the legislative framework, this has to be fully harmonised with the corresponding Acquis Communicataire, and it will be updated whenever and where gaps or particularities are identified with respect to the situation in Cyprus, including needs arising from searching, drilling and transportation of hydrocarbons in offshore installations.

It is also worth noting that the overall strategy on Health & Safety aims to be integrated into other policy sectors and, in particular, to the education. To this extent, the strategy on Health & Safety should be integrated in the curriculum of:

- Public and private schools at all levels of education, i.e. Pre-elementary, Elementary, Gymnasium, Lyceum and Technical Education,

- Higher education institutions of Cyprus and particularly the curricula in disciplines of engineering and other study subjects related to the construction, chemical and process industries as well as offshore hydrocarbon extraction facilities,

- Training Schools of Public Organizations, and Metalykiakon Training Institutes (Education Institutes after graduating from Lyceum) as well as other Vocational Training Schools

3. Cyprus legislation on Health & Safety (H&S) at work

The Cyprus legislation in relation to Health & Safety can be seen below:

- The Safety and Health at Work legislation
- The Petroleum legislation
- The Genetically Modified Microorganisms legislation
- The Control of Working and Resting Times of Drivers legislation
The Essential Requirements to be fulfilled by Specific Product Categories legislation

The Control of Major Accidents Hazards Related to Dangerous Substances legislation

The Safety of Offshore Oil and Gas Operations legislation

The Chemical Substances legislation

The Control of Atmospheric Pollution legislation

The Air Quality legislation

The main legislative instrument on Health & Safety in Cyprus is the Safety & Health at work legislation which is being updated regularly through amendments (Safety and Health at Work Laws of 1996 to 2011).

Safety Officer
According to the provisions of the Safety and Health at Work Laws of 1996 to 2011, each employer employing more than two hundred persons should appoint a Safety Officer who deals with the subjects of safety and health in the installations of his/her enterprise on a full time basis. The Safety Officer has to inspect the workplaces, identify and assess the hazards and risks encountered in the enterprise, organize and check the Risk and Management System, prepare risk assessment reports, participate in the meetings of the Safety Committee and train the personnel on health and safety at work issues.

Approved Persons
According to the provisions of the Management of Safety and Health at Work Regulations of 2002:

(a) every employer, who is unable to provide protection and prevention activities using his own employees, because they do not have the necessary
personal and occupational qualifications, and

(b) every employer, who employs fewer than 5 persons or every self-employed person, who is unable to provide, depending on the case, protection and prevention activities, because he does not have the necessary personal and occupational qualifications, may apply to Approved Persons to secure these services.

Also according to the above Regulations, the employer, or the self-employed person, must notify the Chief Inspector or the Inspector, when the said services are assigned to Approved Persons, the name of the Approved Person who undertakes the protection and prevention of risks activities and the particulars of the services undertaken by fill in the **Work Assignment Form**.

The persons, who afford to perform such protection and prevention of risks activities and can offer their services to other employers or other self-employed persons, according to the provisions of the above Regulations, shall be approved by the Chief Inspector, who is the Director of the Department of Labour Inspection.

In order to get approved by the Chief Inspector, the interested persons must satisfy the **Minimum Requirements on Qualifications**

Every interested person, who wishes to get approved by the Chief Inspector must submit to the Department of Labour Inspection the relevant **Application** along with all the necessary documents to substantiate his qualifications, namely:
- academic education,
- Very good knowledge of Cyprus and European legislation and policy regarding Safety and Health issues at Work.
Minimum Requirements on Qualifications for Approved Persons

With regards to the acceptable certificates on specific training on Occupational Safety and Health issues (Note 2 of the Minimum Requirements on Qualifications), there is an update in the Minimum Requirements as follows:

- Possession of certificates attesting to at least 150 training hours suitably accredited by written examination. The total training hours attained by a candidate must include balanced coverage of all the subject areas listed under Table 3. Indicative examples of such training programmes offered by Professional / Academic / Other Institutions are the following:
  - NEBOSH International General Certificate in Occupational Safety and Health, which is credited with a total 83 training hours.
  - Training Programmes for Safety Representatives offered by the Cyprus Productivity Centre, or by other approved organisations of the private sector, which include, at least the 20 prescribed subject areas of required training on Safety and Health at Work issues. Successful completion of the said Programmes, which include a relevant written exam, is credited with a total of 130 training hours.
  - Possession of attendance certificates of at least 100 training hours, not necessarily accredited by examination, by candidates who have attended suitable training programmes / seminars / presentations / workshops on Occupational Safety and Health issues.

Cyprus legislation on Health & Safety (H&S) Offshore
As we have seen in section 3 of the present report, the Cyprus legislation on Health & Safety for the offshore industry is based upon ‘The Safety and Health at Work (Safety of Offshore Oil and Gas Operations) Regulations of 2015 (P.I. 424/2015)’. There is also legislation regarding the fees for the evaluation of documents relevant to the Safety of Offshore activities, titled ‘The Safety and Health at Work (Prescribed Fees for the Evaluation of Documents Relevant to the Safety of Offshore Oil and Natural Gas Operations) Order of 2017 (P.I. 240/2017)’.

‘Safety of Offshore Oil and Gas Operations’ is a comprehensive piece of legislation which makes reference of preventing serious accidents in Offshore installations, the preparatory actions for the offshore activities, the responsibilities of the competent authority and the general 'preventive' policy in relation to accidents during offshore activities.

According to Paragraph 6(1), there is an establishment of a Technical Committee which is responsible for safety issues in relation to Offshore activities. This technical committee has an advisory role for H&S to the competent authority. Moreover, there is obligatory by the companies involved in Offshore activities to submit to the competent authority their Health & Safety policy in relation to the prevention of accidents. Furthermore, the competent authority is responsible for establishing an Advisory Committee on Offshore activities; one of the roles of this Advisory Committee is to examine and advise the competent authority for all issues related to the Health & Safety of all those working on Offshore Installations and/or involved in Offshore activities.

‘Competent authority’ is the Director of the Labour Inspection department.

It is worth mentioning that despite the fact that ‘Safety of Offshore Oil and Gas Operations’ is a comprehensive piece of legislation, with detailed reference on Health
& Safety issues for Offshore activities and the establishment of Technical & Advisory Committees, as described above, there is no explicit description on the competences required for those responsible for H&S on offshore installations as well as for minimum requirements of training for all those working on Offshore Installations.

5. Conclusions

Based on all of the above and taking into consideration the legislation on Offshore activities in Cyprus, the following conclusions in relation to Health & Safety for Offshore activities can be drawn:

a. The competent authority for all Health & Safety issues is the Department of Labour Inspection, within the Ministry of Labour & Social Insurances. Therefore, all issues related to Health & Safety for Offshore activities – at governmental level - are dealt within the Department of Labour Inspection.

b. Although there are explicit requirements for being qualified as Safety officer & and/or Approved Person, the same does not apply for individuals responsible for H&S issues at the offshore industry. In other words, there are no explicit requirements for professionals qualified to examine & assess Health & Safety measures in Offshore Industry, as in other industries (i.e. construction).

c. Republic of Cyprus legislation on Health & Safety for Offshore activities renders the companies involved in Offshore activities responsible for their own Health & Safety Standards. The competent authority (Department of Labour Inspection) examines the documents & policies related to H&S of all companies involved in Offshore activities within Cyprus Exclusive Economic Zone (EOZ).
d. Republic of Cyprus does not have specific requirements with regards to the qualifications & the competences of the Offshore personnel & professionals working in Offshore installations other than the ones that are applied internally by the Offshore companies.

e. Republic of Cyprus has not officially adopted any training standards from International Companies, such as OPITO or NEBOSH in relation to H&S offshore.

f. Republic of Cyprus has ratified in legislation an emergency & contingency plan in relation to Offshore activities, however, this plan is not accompanied with a plan on raising the Health & Safety standards in the Offshore Industry (preventive) by training & continuing professional development (CPD).

Report O1- A1 – IBOX CREATE

Identify the main requirements related to learning needs and competences
1. Responsible public authority in Spain for H&S

The responsible Public Authority related to Health and Safety in Spain is the National Institute for Safety, Health and Welfare at Work (INSSBT), belonging to the Ministry of Employment and Social Security. According to the official website, the INSSBT has the mission to promote and support the improvement of health and safety conditions at work, thus fulfilling the functions entrusted in the Law 31/1995 on Prevention of Occupational Risks (PRL) and The Spanish Strategy for Safety and Health at Work (EESST) 2015-2020.

The INSSBT has the following functions:

- Technical advice in the preparation of legal regulations and the development of standardization, both nationally and internationally.

- Promotion and, where appropriate, carrying out training, information, research, study and dissemination activities in the field of occupational risk prevention, with appropriate coordination and collaboration, where appropriate, with the technical bodies on preventive matters of the Communities Autonomous in the exercise of their functions in this matter.

- Technical support and collaboration with the Labor and Social Security Inspectorate in fulfilling its monitoring and control function, foreseen in article 9 of this Law, in the field of public administrations.

- Collaboration with international organizations and development of international cooperation programs in this field, facilitating the participation of the Autonomous Communities.

- Any others that are necessary for the fulfillment of its purposes and are entrusted to it within the scope of its competences, in agreement with the National Commission on
Safety and Health at Work regulated in article 13 of Law 31/1995 on the Prevention of Occupational Risks, with the collaboration, where appropriate, of the technical bodies of the Autonomous Communities with competence in the matter.

The Labor Inspection and Social Security Agency belongs to the Ministry of Employment and Social Security.

The main services provided by the Labor and Social Security Inspection to companies and workers are:

- Surveillance services and the requirement of compliance with the legal, regulatory and normative standards of collective agreements.
- Technical assistance services.
- Arbitration, conciliation and mediation services.
- Inspection actions derived from the services provided by the Labor and Social Security Inspection.

2. Spanish strategy on Health & Safety (H&S) at work 2015 – 2020

According to the official INSSBT website, the "Spanish Strategy for Safety and Health at Work 2015-2020" is based on two fundamental principles: prevention and collaboration.

- Objectives of the OSH Strategy 2015-2020:
• Promote a better application of the legislation on health and safety at work and its consolidation in the Autonomous Communities, especially in small and medium-sized enterprises.

• Encourage the continuous improvement of working conditions for all workers equally, with special attention to the prevention of occupational diseases and diseases related to work.

The Strategy considers "priority those occupations in which there is a high accident rate and require the implementation of appropriate actions. The activities with the greatest incidence are: forestry and forestry, fisheries and aquaculture within the Agrarian sector; the extractive industries, the manufacture of metallic products, decontamination activities and waste management in the Industry sector; civil engineering in Construction; and activities related to transportation in the Services Sector.

HEALTH & SAFETY STRATEGY IMPLEMENTATION
The Spanish Strategy for Health and Safety at Work 2015-2020 has its origin in the National Commission on Safety and Health at Work, in which the competent Public Administrations are represented in the field of occupational risk prevention and the Business and Trade Union Organizations more representative. Within the National Commission, and led by the Ministry of Employment and Social Security, a working group was set up with the mandate to draft a Strategy proposal and, once approved, to continuously monitor and evaluate the measures contained in it. In this regard, the National Commission was responsible for the design of the Action Plans, as well as ensuring the development of the objectives agreed upon in this Strategy and the adaptation of the existing mandates in the current Working Groups and those of other could be constituted later. The premise that has always marked the focus of the Strategy 2015-2020 has been to create a frame of reference for preventive public policies that is dynamic, and that
allows natural adaptation to changes that occur in an environment in which permanent evolution such as the prevention of occupational risks.

The three Action Plans specify the entities responsible for the development of each measure, the execution period and performance indicators and, where appropriate, impact.

3. **Spanish legislation on Health & Safety (H&S) at work**

The Spanish legislation in relation to Health & Safety can be seen below:

A general level:


At a particular level:

- Work accidents and occupational diseases.
- Sectoral accidents.
- Biological agents.
- Apparatus, machines and facilities.
- Working conditions.
- Construction.
- Pollution, waste and discharges.
- Electricity.
- Fire and emergencies.
- Radiation.
- Noise
Substances and products.
Transportation (general and dangerous goods)

In Spain there is the **Stier Group** ([http://stier.es/en](http://stier.es/en)) that offers approved training courses and according to the OPITO standard for the offshore industry:

- Minimum Industry Safety Training (MIST).
- International Minimum Industry Safety Training (IMIST).
- Further Offshore Emergency Training (FOET).
- Basic Offshore Safety Induction Emergency Training (BOSIET).

The **Jovellanos Integral Maritime Security Center** ([http://www.centrojovellanos.com](http://www.centrojovellanos.com)), provides accredited training for OPITO (HUET / FOET / BOSIET) and GWO Certification:

- Training for the helicopter drowned submerged_HUET
- Basic training for boarding in units that operate offshore_BOSIET
- Renewal of basic training for the embarkation of units that operate offshore FOET
- Basic training in security-GWO.

### 4. Spanish legislation on Health & Safety (H&S) Offshore

In Spain there is a wide range of regulations on safety and environmental protection, of the most demanding in Europe, and it is applied in a systematic way in offshore installations. In the absence of specific regulations, operators apply the current regulations in the North Sea and the American API, which is what contractors usually use on a regular basis and insurance companies demand.

The offshore directive was approved with the aim of continuing to improve industry practices and reduce the risks associated with operations of research and exploitation of hydrocarbons in the marine environment. On the other hand, it is considered of great relevance for the security of international energy supply that has the production of hydrocarbons in the marine environment.

The royal decree-law 16/2017, of 17 November, has the purpose of transposing the essential aspects of this Directive, however, given the technical nature of it, the specific content relating to, among others, the reports on serious risks, internal and external emergency plans, corporate policy, the safety and environmental management system and communication and authorization procedures, required a subsequent regulatory development.

Through this royal decree, which carries out a series of sectoral modifications, the transposition of the Offshore Directive is completed to the internal order, and the requirements that must be met by operations related to the investigation and exploitation of hydrocarbons in the marine environment to prevent serious accidents and limit their consequences, in order to achieve a high degree of protection for people, property and the environment.

This Directive establishes four specific objectives:

- ensure the consistent application by the industry of the best practices for the control of serious accident risks arising from offshore operations in the oil and gas industry that may affect the waters and coasts of the Union;

- apply the best regulatory practices in all European jurisdictions that conduct offshore oil and gas exploitation activities;
• strengthen the Union’s preparedness and response capacity in the event of emergencies that may affect citizens, the economy or the environment;

• improve and clarify the current provisions on liability and compensation.

5. Conclusions

Based on all of the above, the following conclusions in relation to Health & Safety for Offshore activities in Spain can be drawn:

• The competent authority for all Health & Safety issues is the National Institute of Safety and Health at Work (INSSBT), belonging to the Ministry of Employment and Social Security.

• The enactment of laws and regulatory regulations is not only an advance in the offshore Spanish sector, since it will cover the regulatory gaps that enable the performance of offshore work to be developed according to the criteria of the companies, but also an instrument for action of trained professionals and to develop actions to promote and protect the health of workers.

• Spain has officially adopted any training standards from International Companies, such as OPITO in relation to H&S offshore.

Report O1- A1 – PREVIFORM
Identify the main requirements related to learning needs and competences
1. **Responsible public authority in Portugal for H&S**

The responsible public authority for all issues related to Health & Safety in Portugal is the Authority for Working Conditions (ACT) is a state service which aims to promote the improvement of working conditions throughout the continental territory through the control of compliance with labour regulations in the framework of private labour relations and the promotion of occupational safety and health in all sectors of public and private activity.

The purpose of the Authority for Working Conditions (ACT) is to promote the improvement of working conditions through:

- Supervision of compliance with labor standards;
- Promotion of policies to prevent occupational risks;
- Control of compliance with the legislation on health and safety at work.

The Authority for Working Conditions has the following duties:

- To promote, control and supervise the fulfillment of the obligations and conditions of work, namely a norm related to health and safety at work;
- Develop awareness, information and counseling activities in relation to working relationships and conditions for workers and employers and their representative associations;
- Promote training in occupational safety and health by supporting workers 'and employers' organizations in setting up their representatives;
- Participation in the mobilization of health professionals and work to prevent accidents and work;
- Coordinate the training and certification process of technicians and superior technicians of occupational health and safety;
- Collaborate with other organizations of public administration with the global organization of international organization for business services in ratifications, in ratifications by Portugal;
• Ensure the procedure for administrative offenses;
• Exercise skills in the work of foreigners;
• Prevent and combat child labor in coordination with other departments;
• Compliance with the rules on the posting of workers and cooperation with the inspection services for working conditions.

Guidance for prevention in the context of work means conducting an effort to avoid incidents, conflicts, accidents at work and occupational diseases, ensuring compliance with existing legislation. International standards provide a significant set of indications, both on the actual inspection activity - the information to be provided to the labour inspectorate, the distribution of inspection services and material and human resources in a relationship of suitability to the characteristics of the economic and social fabric inspection visits to be carried out, the evaluation of the results of the effectiveness of the intervention ... (see Recommendation N.º 20, Conventions N.º 81 and N.º 129 and their Recommendations), and (see Conventions Nos 150 and 155 and their Recommendations), which, taken together, reflect the idea of conducting the characteristically proactive action of the inspectorate, of proximity, directed by the identification of causes of the problems, related to the action of other social and retro-food actors based on the evaluation of results.

It can be said that labour inspectorates are responsible for promoting a culture of prevention insofar as their action and the way in which they are carried out result in a reading of the actual implementation of existing legislation which is socially shared by the addressees of their intervention and influences their behaviour. In this sense, labour inspection positions itself as an instrument for the modernization of the society in which it operates.

As we can see in the strategy of the Department of Labour Inspection a key tool in the overall effort to implement the strategy is ‘training’ and the basic aim of the Department of Labour Inspection is the safeguarding of adequate levels of safety and health at work. The fulfilment of the aforementioned aims is accomplished by means of a suitable
legislative framework, the implementation of an effective inspection system, a continuous awareness of the public, the training and education of the Department’s personnel and in cooperation with the social partners.

This Sector deals with the issues of the protection of safety and health and wellbeing of the workers at the workplaces. Specifically, this Sector regulates the organisation and management of safety and health issues at work. Moreover, this Sector deals with safety and health requirements of the workplaces (buildings, premises, etc.)

This Sector regulates also the issues of safety and health requirements of work equipment (machinery, tools, appliances, pressure vessels, scaffolding, personal protective equipment, etc.), that are used at the workplaces.

Also, the Sector deals with issues related to the risks to health arising from the use of asbestos, chemical agents, biological agents, carcinogenic and mutagenic agents, from physical agents, such as noise and heat, or from ergonomic factors, such as manual lifting and handling of loads, monotonous work, pace of work, etc.

2. The European Union and labour inspection

The fact that all the Member States of the European Union are simultaneously members of the ILO and therefore have labour inspection systems built according to the same structure of principles and guidelines as the whole and significant weight of the right Community health and safety at work which is a common platform for all businesses and all European workers, has given rise to the desirability of the Commission of the European Union "to encourage cooperation between Member States and to facilitate the coordination of their actions "In that field (see Articles 136, 137 and 140 of the Treaty establishing the European Union).
To this end, the Committee of Senior Labour Inspectors (CARIT), composed of national representatives from all Member States, was set up to harmonize inspection practices in the European area. It is the responsibility of the EITL to define common principles of labour inspection, exchange of experience, exchanges, information relevant to the control activity, promotion of joint intervention programs ... with a view to ensuring a consistent application of Community legislation occupational safety and health in all the countries of the European Union.

3. NATIONAL STRATEGY FOR SAFETY AND HEALTH AT WORK 2015 -2020 - "FOR A JOB SAFE, HEALTHY AND PRODUCTIVE"

General objectives

The National Strategy for Safety and Health in Work 2015 -2020 (ENSST 2015 -2020) sets up the of occupational risk prevention policy promotion of well-being at work, towards the horizon 2015-2020. Effective and effective systems of prevention of occupational risks improve the conditions of safety and health in the work of the workers and the productivity, reason why it is important to bet on:

- to prevent and reduce the number and severity of occupational accidents and diseases;
- Promote health, well-being of workers, and their ability to work;
- Foster innovation, quality and efficiency.

Strategic objectives

In this context, an ENSST 2015 -2020 have fundamentally three strategic objectives:

- Promote the quality of life without work and the competitiveness of companies;
- To reduce the number of accidents at work by 30% and the incidence rate of accidents at work by 30%;
• Decreased risk factors associated with occupational diseases.

**Specific objectives**

The ENSST 2015-2020 is developed around six specific objectives which are presented below, which identify measures to achieve, goals to be achieved, measurement indicators, entities to be involved, as well as the strategic objectives aimed at each one measures, considering the what:

• Prevention should be directed at activities with a higher risk of harm;
• Society has the capacity to influence and shape attitudes, and safety education and health at work is an essential task to promote a culture of prevention;
• Ensuring safe and healthy work involves the adaptation of work to the human being, in particular as regards the configuration of jobs, tasks and equipment;
• The continuous improvement of health and safety conditions does not require long-term work of collaboration and cooperation between all actors;
• Workers are key players in preventing occupational hazards;
• The managers of the organizations influence and are decisive to promote safe working conditions and good;
• Processes to improve working conditions are better achieved in terms of occupational safety and health when incorporated into the organization's culture and integrated into production processes;
• It is essential to provide tools for small and medium-sized enterprises to help them integrate prevention into their organizations;
• All entities performing preventive functions must have adequate training and resources;
• Prevention must be based on proven scientific knowledge and reliable statistics.

4. **HEALTH & SAFETY STRATEGY IMPLEMENTATION**
Develop and implement public health and safety at work policies

Measure 1 - Promote the inclusion of safety and health at work in learning at all levels of education, including lifelong awareness raising throughout the school year

Measure 2 - Promote the training of the educational community, including teachers, educators and non-teaching staff on occupational safety and health, ensuring, where possible, that training courses in this field are credited to the professional apprenticeship

Measure 3 - Develop preventive actions directed at specific audiences, namely -
Typology of workers: Young people; with more than 55 years; women;
Public sector; to term; temporary workers; part time; telecommuting; independent;
migrants; with disabilities; with chronic disease

Measure 4 - Complete national survey of working conditions

Measure 5 - Evaluate and streamline the occupational safety and health system in the Public Administration

Measure 6 - Invest in partnerships with media and in the communication of messages on social networks on safety and health at work

Measure 7 - Promote partnerships between public and private institutions and research entities in the field of occupational safety and health, as well as develop and disseminate research projects in areas identified as priorities in the field of occupational safety and health directed to workplaces

Measure 8 - Publication of the regulation and standards of safety at work for construction undertakings
Measure 9 - Publication of the rules defining the exercise of safety coordination in construction

Measure 10 - Institutionalize social dialogue with the creation of sectoral forums for civil construction, manufacturing, agriculture and transport, to analyse the identification of specific needs and adoption of concrete and specific measures

Measure 11 - Emergency prevention and awareness campaign on occupational accidents and health professionals, with information on support for rehabilitation and professional reintegration

Measure 12 - Promote the establishment of joint commissions at the level of reference works for civil construction and public works

Measure 13 - Develop prevention actions for specific risks, including chemical risks, psychosocial risks, nanotechnologies, biological risks and musculoskeletal disorders

Measure 14 - Establish a common and integrated computer system on occupational accidents and diseases, in order to ensure reliability and treatment information, including those involving Public Administration and private sector workers.

Measure 15 - Promote the production and statistical treatment of occupational diseases

Measure 16 - Assess the impact of the organization model of occupational safety and health services on improving safety and health conditions at work

Measure 17 - Disseminate information on the organization of occupational safety and health services most appropriate to their size / activity / risk
Measure 18 - Encourage the intervention of the Prevention Technicians of the Authority for Working Conditions in the workplace, in conjunction with the occupational health and safety services and other prevention agents

Measure 19 - Identify and streamline the sharing of information and good practices in occupational safety and health

Measure 20 - Production and dissemination of simple documents adapted to the sectoral realities, as well as instruments for the application of legislation on occupational safety and health

Measure 21 - Conduct training / awareness / information actions for employers and workers on safety and health at work

Measure 22 - Provide self-assessment tools online

Measure 23 - Promote the integration and adequacy of the training offer of safety and health in the work directed to specific sectors of activity in the Catalog Qualifications, as well as the development of training actions in occupational health and safety.

Measure 24 - Build and make available kits to support new employers on key labour and occupational safety and health obligations

Measure 25 - Monitor and monitor the activity of external services in the field of occupational safety and health in the workplace

Measure 26 - Monitor and monitor the activity of certified training entities for occupational safety and health training
Measure 27 - Evaluation of resources and activities carried out at the level of internal and common occupational safety and health services

Measure 28 - Promote compliance with occupational safety and health requirements by all actors in the hiring chain

Measure 29 - Ensure the improvement of working conditions through the continuous adaptation of the human, material and technical resources of the Authority for Working Conditions

Measure 30 - Carry out cooperation actions on safety and health at work

Measure 31 - Promote actions and exchanges between Portuguese and third country technicians

5. Portuguese legislation on Health & Safety (H&S) at work

Below you can see the Portuguese legislation on the conditions of Hygiene, Safety and Health at Work:

- Principles and Methodologies for Prevention Management
  - Legal framework for the promotion of health and safety at work
  - OSH Authorization Scheme
  - Certification Scheme for Safety and Hygiene Technicians at Work
  - Qualification Scheme for Labour Physicians
  - Mandatory documentation
  - Health surveillance (occupational medicine) by the National Health Service
  - Legal framework for the promotion of safety and health at work for public employers

- Work Organization
• Work places
• Asbestos
• Work equipment
• Display units
• Equipment’s for individual safety

➢ Safety signs
• Working time
• Specific regulations for industrial establishments
• Specific regulations for commercial, office and service establishments
• Specific regulations for public water distribution systems and wastewater drainage
• Specific regulations for establishments manufacturing explosive products

➢ Protection of Groups of Vulnerable Workers
• Child labour
• Permitted light work and work prohibited or conditioned to minors
• Work of pregnant, postnatal or lactating mothers
• Workers with reduced working capacity
• Workers with disabilities or chronic illness
• Teleworkers
• Workers at home
• Workers on an occasional assignment basis
• Temporary workers

➢ Prevention of Specific Risks - Physical Agents - Applicable Legislation
• Environmental Noise
• Noise at work
• Ionizing Radiation
• Vibrations
• Optical Radiations from Artificial Sources

➢ Specific Hazard Prevention - Chemical Agents
• Chemicals and limit values
• Asbestos
• Carcinogens
• Explosives

➢ Prevention of Specific Risks - Biological Agents
• Biological agents
• Microorganisms
• Genetically modified

➢ Prevention of Specific Risks - Agents Suspected of Involving Risks to Genetic Heritage
• Protection of genetic heritage

➢ Sectoral Prevention Provisions
• Civil construction and public works; Security Coordination
• Civil construction and public works; Safety and health of the workplace
• Extraction industries
• Workplaces in the extractive industries by drilling
• Workplaces in the extractive industries
• Fishing vessels
• Medical assistance on board ships
• Ground transportation of dangerous goods
• Hospital and health care establishments
• Legal regime for oil prospecting, research and production activities

➢ Labor Statistics
• Statistics on occupational accidents and diseases
• Accident reporting models

➢ **Prevention of Serious Industrial Accidents**
• Prevention of serious industrial accidents

➢ **Fire Protection**
• Buildings of various types and purposes

➢ **Exercise of Economic Activity**
• Exercise of industrial activity
• Licensing of commercial and service establishments
• Licensing of commercial and service establishments

➢ **Workmen’s Compensation and Occupational Disease**

• General regime
• Independent Worker’s Accident Insurance
• Public administration
• Codified index of occupational diseases
• National Table of Disability by Work Accident and Occupational Disease

➢ **Labor Sanctions (Fines)**
• Counter-orders

➢ **Placing Products on the Market**

• General product safety
• Liability for defective products
• Safety of machines
• Used machines
• Safety of personal protective equipment
• Explosives safety
• Classification, packaging and labelling of dangerous substances and mixtures
• Classification, packaging and labelling of dangerous substances
• Classification, packaging and labelling of dangerous preparations

➢ Work equipment

• Equipment’s

Although legislation has been in place for oil prospecting and research comes from 1994, the legislation on the Safety of Offshore Oil and Operations is very vague, it only defines the conditions of hygiene, safety and health at work and the Community provisions relating to protection of workers in extractive industries. Define further that the landowner must present in a timely manner the protection plan against eventual uncontrolled eruptions of hydrocarbons and gaseous emanations and the training plan of the personnel for their protection against the mentioned eruptions and emanations and also of evacuation of the neighbouring populations

6. Conclusions

We can draw the following conclusions on hygiene, safety and health in offshore activity in Portugal. Although great care is taken with the prevention of workplace risks, as well as up-to-date legislation, we have no tradition in the extraction of oil and gas. Only a few
years ago we began to prospect for oil on the Algarve coast, which has been accompanied by a major contestation of the entire resident population.

The responsible public authority for all issues related to Health & Safety in Portugal is the Authority for Working Conditions (ACT) is a state service which aims to promote the improvement of working conditions throughout the continental territory through the control of compliance with labour regulations in the framework of private labour relations and the promotion of occupational safety and health in all sectors of public and private activity.

Although there are explicit requirements for being qualified as Safety officer & and/or Approved Person, the same does not apply for individuals responsible for H&S issues at the offshore industry. In other words, there are no explicit requirements for professionals qualified to examine & assess Health & Safety measures in Offshore Industry, as in other industries (i.e. construction).

As there is no specific legislation in Portugal on Health and Safety for Offshore activities, companies involved in Offshore activities automatically become responsible for their own Health and Safety Regulations. The competent authority (Department of Labor Inspection) examines the documents and policies related to the health and safety of all companies involved in offshore activities.

Portugal has not officially adopted any training standards for international companies such as OPITO or NEBOSH in relation to H & S offshore, even though there are private companies such as SGS that carry out this training.

Report IO1- A1 – PRIME
Identify the main requirements related to learning needs and competences

Training Needs & Competences Survey Report - Offshore Health & Safety

For the company.
A contractor get more and more questions whether his company is VCA certified. Many clients set this even as a condition.

VCA-certification is intended for all (kind of) companies that work with increased risk in a risky area. Often it is those construction or maintenance work taking place on building sites, in factories and workshops and plants. VCA-certification is in demand in the following industries:

- Mechanical engineering
- Electrical engineering and process control
- Engineering
- Civil engineering
- Other technical services such as insulation, scaffolding, industrial cleaning, blasting/painting/painting, transport, inspection, etc.

https://www.vca.nl/en/products/international

VCA/SCC is almost the same as IMIST. The Dutch SCC is accepted in France, Belgium, Germany and Austria. But the IMIST standard, unlike VCA / SCC, has been recognized globally and therefore gives the participant the opportunity to work according to recognised safety standards in countries outside Europe.
VCA = in English SCC
See website: https://www.vca.nl/en

**IMIST** (International Minimum Industry Safety Training) is an **OPITO** standard which supports the global Oil and Gas Industry to meet safety initiative targets. **Offshore Petroleum Industry Training Organization**, or commonly known as OPITO, is responsible for the standards in the oil and gas industry particularly in emergency response and training. The standards set by OPITO are produced and agreed by related groups, and those that passed such standards are recognized worldwide.

The IMIST e-learning programme has been developed to provide a new global standard for Health and Safety training, which will provide a comprehensive and consistent level of training across the world and enhance workforce safety and compliance.

The IMIST standard ensures that workers have the necessary safety awareness and training to reduce risk and ultimately reduce the number of incidents.

**SCC** is the abbreviation for SHE (Safety, Health and the Environment) Checklist Contractors.

*This SCC system is a tried and tested programme in which various Dutch industrial sectors have bundled their 25 years of knowledge and experience. SCC certification lays the foundations for a safe and healthy work environment.*

*with more than 1.5 million qualified professionals and 15,000 certified companies is the standard for healthy, safe and sustainable working methods.*

SCC is *not* legislation, but also, of course, not in conflict with the law. On the contrary: VCA often offers a concrete and practical interpretation of statutory regulations or; So for example, arguably a SCC certified contractor to a number of obligations under the occupational health and Safety Ordinance.
For the employee.

SCC demands that employees have sufficient knowledge of SHE (safety, health and environment). What diploma or certificate the worker must pick up depends on its function. All diplomas are strictly personal and the original should therefore in the possession of the employee.

Basic Safety VCA (B-VCA) (BASIC SCC)

All operational employees must have B-SCC.

The B-SCC consists of knowledge about the laws and regulations, recognizing unsafe situations and actions and introducing measures to prevent accidents.

The B-SCC diploma demonstrates that the employee has a basic knowledge of safety, health and environmental issues. This basic knowledge improves his safety and the safety of the others who work with him. The employee knows about the relevant legislation and regulations, can recognize hazardous situations and unsafe actions and knows how to avoid them. In other words, when he has a B-SCC diploma he shows that he knows what is expected of him.

Note: B-SCC is a basic-level qualification. Do not think that an employee can carry out high-risk work or work in a high-risk environment without supervision. He must, and certainly at the beginning, ask an experienced colleague or a supervisor, to supervise or coach him in his work.

Dutch Legislation and Rules Working Conditions

“It is the responsibility of the Operating Company, based on their own HSE Management System and Safety Cases of the installations, to define the type and nature of the training required”.

Dutch Legislation and Rules Working Conditions

“Room for a customized approach”

Due to the innumerable (originally European) regulations and inspections the Dutch government has cut back on the detailed regulations, alleviating the administrative burden, and increasing the own responsibility of companies. On 1 January, 2007, the
Arbeidsomstandighedenwet (Working Conditions Act) was amended to allow customized agreements that are subject to fewer rules. The objective was to create a more efficient working conditions policy, greater support at the level of individual companies, less detailed rules imposed by the government, and a predictable health and safety inspection policy.

The Working Conditions Act gives employers and employees responsibilities and room to manoeuvre in organizing the working conditions policy. Only target regulations (setting minimum targets for a safe workplace) apply. Employers themselves can choose the means by which they wish to achieve those targets. That makes it possible to base the working conditions policy on the specific work situation in a sector or company. The level of protection has not changed, only the manner in which it is achieved.

Health and Safety Catalogue
The actual target regulations will be recorded in an Arbocatalogus (Health and Safety Catalogue), listing the standards that apply in the sector in question and the manner in which employers can comply with the target regulations imposed by the authorities. The catalogue has no set form: no specific rules apply to its content. Employers and their employees are jointly responsible for the entire content of the Health and Safety Catalogue. The various trade associations (or trade unions) are expected to draw up or amend the catalogues. In the case of large companies, the employers themselves do so. The Health and Safety Inspectorate then verifies how the Act has been implemented in the Health and Safety Catalogue. The catalogue will not be assessed in detail; it will merely be established whether it has been drawn up correctly and contains adequate provisions. For instance, all employers and employees must have knowledge of and access to the catalogue, and the parties who draw up the catalogue must proportionally represent the employers and employees in the sector in question.

Predictable Health and Safety Inspections
The Health and Safety Inspectorate will assess the Health and Safety Catalogue in the light of target regulations imposed by the government. In order for the Health and Safety Inspectorate's actions to be as transparent as possible, the procedure will be announced in concise sector brochures prior to the actual inspection. That will mean that inspections by the Health and Safety Inspectorate will be more predictable and that companies' support for the inspections will be increased. If the Health and Safety Inspectorate believes that the Health and Safety Catalogue is not in keeping with the objectives of the Working Conditions Act, it will take firm action. The maximum penalties that the Health and Safety Inspectorate could previously impose (before the amended Act entered into force) have been doubled in the new Act.

**Responsibilities under the Dutch Legislation and Rules**

Employer and employee together are responsible for improving working conditions. The employer is ultimately responsible, but consultation with employees is mandatory. Each has his own task:

- employers should write the risks of the work in mapping, policy proposals and evaluate improvements: the RIE-procedure (also called RI&E: risk identification & evaluation). They should give information and instructions about these risks and on the measures which have been taken. Especially young people here deserve extra attention. In addition, the employer responsibilities include the following:
  - policy against disease and run;
  - accidents investigation, recording and reporting;
  - information and instruction on safe working practices;
  - for secure tools and working methods;
  - hazards at the source;
  - personal protective equipment.

- Employees must follow the safety instructions and use protective equipment available. In addition they have the following responsibilities:
  - Knowledge on a correct use of dangerous substances;
Contribute to instruction; Inform the employer noticed hazards;
- Assist the employer in the implementation of their obligations.

The Works Council or staff representation must agree with the health and safety policy. The Works Council also has the right to adjust the choice of conformity occupational health care services (custom control or safety net scheme), the contract with the occupational health care provider and naming prevention tasks. If there is no Works Council or staff representation, the employer consults with interested employees. In a dispute about working conditions, employer and employees together to find a solution.

**EUROPEAN OFFSHORE SAFETY REGULATION**

Triggered by the Macondo disaster in the Gulf of Mexico the European Commission introduced a European offshore safety directive. The plan of the EU was to introduce a regulation, however after a strong lobby campaign of especially the oil and gas industry around the North Sea (including NOGEPA and IRO) with well-developed oil and gas safety regulations and cultures, it was decided to introduce a directive instead of a regulation. The advantage is that for countries with well-developed offshore safety regulations, existing offshore regulation can stay in place.

**DUTCH REGULARITY FRAMEWORK**

The competent offshore authority for the sea bed in the Netherlands is Rijkswaterstaat (RWS) or the Directorate-General for Public Works and Water Management. Examination, inspection and investigations related to offshore safety fall under the remit of Staatstoezicht op de Mijnen (SodM) or State Supervision of Mines (SSM).

The Netherlands Shipping Inspectorate (NSI) as a sub-department of Inspectie Leefomgeving en Transport (or Transport and Water Management Inspectorate) has responsibility for flag state and port state inspections, certification of seafarers and ship registration. The NSI has responsibility for enforcement investigation of maritime
accidents, in addition to the safety investigation responsibilities of de Onderzoeksraad or the Dutch Safety Board.

**ORGANISATIONS IN THE OFFSHORE OIL & GAS**

IRO (Dutch Association of Suppliers to the Upstream Oil & Gas and Renewable Industry) informs the members on regulations with regard to the oil and gas industry.

For this reason IRO monitors changes in oil and gas regulations, lobby’s and participates in a number of fora and external working groups.

**NOGEPA**

One of the activities of NOGEPA (Netherlands Oil and Gas Exploration and Production Association) is to regulate environmental, health, safety and training conditions in the oil and gas industry in The Netherlands. NOGEPA has produced guidelines for training employees of mining companies and their (sub) contractors. These guidelines are laid down in the NOGEPA Training Handbook revision 4. The IRO Safety and Training Group is closely involved in the regular revisions of the NOGEPA Training Handbook.

**STATE SUPERVISION OF MINES**

On the website of State Supervision of Mines (Staatstoezicht op de Mijnen), information can be found on legislation with regard to mining, labour and environment. IRO participates in the quarterly meetings of SODM with the labour Unions, NOGEPA and IADC on labour related subjects.

In July 2014 NOGEPA made an application to SODM and The Ministry of Social Affairs and Employment to change the 2 weeks on and 2 weeks off working pattern into 3 weeks on 3 weeks off working pattern. Due to the employment of more and more international workers, travel time has drastically increased. The less helicopter movements is better from a cost but also a safety viewpoint. Decided is to study the consequences for workers of prolonged working weeks first before a decision is taken.
IRO regularly meets with the Ministry of Social Affairs and Employment on issues related to labour like:

- Change social security status Netherlands Continental Shelf
- Regular and irregular working times
- Working permits for marin/offshore personnel

**NEDERLANDS NORMALISATIE INSTITUUT (NEN)**

NEN is the Dutch network of expertise in the world of standards and rules. Standards are crucial for harmonizing products and services. They determine the minimum level of quality, curtail unnecessary variety and prevent design faults. Companies can play an active role in the standardization process within their own sector by participating in the one or more of the standardization technical committees (Dutch, European, International) of their choice and help shape essential standards. For the oil and gas industry the most important are ISO/TC 67 'Materials, equipment and offshore structures for the petroleum, petrochemical and natural gas industries' and CEN/TC 12 (same title). Other liaison committees are CEN/TC 280 'Offshore containers', CEN/TC 282 'Installations and equipment for LNG', ISO/TC 28, 'Petroleum products and lubricants (includes LPG)', ISO/TC 158, 'Analysis of gases' and ISO/TC 193, 'Natural gas'. For more information on how to participate in these committees can be found at NEN.

**EU Offshore Safety Directive**


**Offshore oil and gas safety**

Accidents at offshore oil and gas installations such as the 2010 Deepwater Horizon incident in the Gulf of Mexico (The Macondo Disaster) can cause large scale environmental harm, inflict serious economic damage, and even result in the loss of life. Furthermore, an accident in one country can easily affect others, making common rules for offshore oil and gas safety necessary.
To help prevent offshore accidents from happening and to ensure the proper response if they do, the EU adopted the Safety of Offshore Oil and Gas Operations Directive in 2013. This Directive mandates that the safety of offshore installations is vigorously checked before they go into operation.

The majority of oil and gas production in Europe takes place offshore and there are currently over 1000 operations in European waters. Given the EU's growing energy demand, these operations are crucial for helping ensure a secure supply of energy.

At the same time, accidents such as the 2010 Deepwater Horizon disaster in the Gulf of Mexico illustrate the need for comprehensive safety measures. While safety is the primary responsibility of operators and individual countries, EU rules are important because an accident in one country can cause environmental and economic damage to its neighbours as well.

**EU wide safety standards**

Under the Safety of Offshore Oil and Gas Operations Directive, the EU has put in place a set of rules to help prevent accidents, as well as respond promptly and efficiently should one occur:

- before exploration or production begins, companies must prepare a Major Hazard Report for their offshore installation. This report must contain a risk assessment and an emergency response plan
- companies must keep resources at hand in order to put them into operation when necessary
- when granting licenses, EU countries must ensure that companies are well financed and have the necessary technical expertise
- technical solutions which are critical for the safety of operators' installations must be independently verified. This must be done prior to the installation going into operation national authorities must verify safety provisions, environmental protection measures, and the emergency preparedness of rigs and platforms. If companies do
not respect the minimum standards, EU countries can impose sanctions, including halting production

- information on how companies and EU countries keep installations safe must be made available for citizens

- companies will be fully liable for environmental damages caused to protected marine species and natural habitats. For damage to marine habitats, the geographical zone will cover all EU marine waters including exclusive economic zones and continental shelves.

In 2015, the European Commission also published a Report and Staff Working Document on liability and compensation in the case of offshore accidents in Europe. These documents look at how bodily injury, property damage and economic losses are handled, as well as the financial security instruments that would cover such damage. They build on the findings of a study done for the Commission that was published in 2014.

To further promote offshore safety, the European Commission works with its international partners on the implementation of the highest safety standards worldwide. The offshore inspectors of EU countries also work together through the European Union Offshore Oil and Gas Authorities Group (EUOAG) to share best practices and improve standards.

**What are the risks of oil and gas exploration?**

Like other industrial activities the O&G sector knows the process of detecting and win, quarrying and transporting oil or gas hazards. If these dangers are not well controlled, this can have a negative impact on people and the environment. Under the ' danger ' we mean the way an object or situation may cause damage. And under the ' risk ' means the likelihood that actual damage occurs.

As adequate measures failing, then the risk of unwanted events large and can escalate to major disasters with damage to people and the environment.
The risks associated with tracking down and win, quarrying and transporting gas by pipe fittings are:

- Risks for the employees concerned (internal security): apart from the 'normal' working conditions risks to individual workers is also to uncontrolled release of oil or gas from an underground oil or gas field (Blowout), explosions, collisions or crashes with helicopters with fatal consequences for individuals or groups of employees;
- Risks for the 'external security': blowouts and explosions with fatal consequences for local residents or passers-by;
- Risks to the environment: blowouts, explosions and pipe fractures can cause gas clouds or oil pollution of the marine environment or from the bottom. Also a violation of the water function belongs to the options;
- Risks for damage caused by subsidence or earthquakes, associated with the gas extraction. In addition, risks for damage caused by subsidence associated with the salt extraction and/or former coal mining;
- Risks for other mining and quarrying products and occurrences;
- Risks for natural gas supply of Netherlands.

**What is the role of SodM? (Dutch State Supervision of Mines)**

Sodm oversees the exploration, extraction, transport and storage of mineral resources such as oil and gas. In addition SodM expertise is available to the authorities competent to grant permits for mining. The monitoring focuses on safety, health, environment and efficient extraction. The tasks of SodM are laid down in the [Mining](#) (mining work) and in the [gas law](#). In addition SodM, on behalf of the Minister of Social Affairs and Employment, is responsible for the monitoring of the [working conditions act](#), the [Brzo](#) and the [Dutch working hours Act](#) on mining work. On behalf of the Minister of Infrastructure and the Environment SodM keeps supervision of environmental and building legislation on mining work.
Working Offshore in the Oil & Gas Industry.

Training Handbook.

The NOGEPA Training Handbook is edited under the responsibility of the Netherlands Oil and Gas Exploration and Production Association. The Handbook is meeting the demands on training and competence, as requested by the Dutch authorities. The purpose of the NOGEPA Training Handbook is to act as a guideline for training personnel of mining companies and their (sub) contractors, while retaining the full responsibility of the individual mining company or their (sub) contractors.

A mutual acceptance is in place between NOGEPA, Danish Operators, Norwegian Oil and Gas Association and Oil and Gas UK that recognises safety training given at an approved centre will be accepted in accordance with the attached matrix - ultimately developing a common standard to prepare the workforce to achieve a high level of competence in basic safety. See Appendix Handbook NOGEPA.

Offshore Wind

Offshore Wind is an emerging market.

GWO the Global Wind Organisation is an association of Wind Turbine owners and manufacturers with the aim of supporting an injury-free work environment in the wind industry. In response to the demand for recognizable Basic Safety Training (BST) in the industry the members of the GWO have developed a safety standard. The standard ensures that the work of any certified Training Provider is competent and proficient. To obtain GWO approval, organizations are subject to an in-depth audit process performed by an accredited Certification Body.

The objective of GWO is to enable a common, industry-wide work practice that aims to reduce any safety and health issues for personnel working on site.
Any holder of a GWO certificate is considered competent and knowledgeable within Basic Safety in the wind industry. The members of GWO accept any holder of this certificate as possessing the required knowledge to stop an unsafe work situation.

The role of SodM in Offshore Wind
What is the role of SodM i.r.t. Offshore Wind Farms. SodM keeps supervision of offshore wind farms when it comes to (‘de Warenwet’) the commodities Act, (‘de Arbo Wet’) the working conditions Act and (‘de Arbeidstijdenwet’) the working hours Act, on behalf of the Minister of Social Affairs. Further advises SodM Rijkswaterstaat in assessing contingency plans.

Sodm oversees the commodities Act, the occupational health and Safety Ordinance and the Arbeidstijdenwet. SodM checks if the by operators submitted (security) plans and procedures for any calamities comply with the law. SodM also works closely with the Department of Public Works which, on the basis of the water law, is responsible for the supervision of the offshore wind farms. Sodm advises the Department of Public Works including the construction safety of the wind farms.

Netherlands Wind Energy Association (NWEA).
NWEA is the Dutch sector association working to increase sustainable wind energy on land and at sea. NWEA unites the wind sector in the Netherlands and accelerates the transition towards a renewable energy supply by spurring businesses and governments to invest in wind energy. NWEA actively promotes the utilisation of wind power in the Netherlands, on land and offshore. The activities of NWEA are mainly aimed at the national government. NWEA is member of WindEurope, the European wind energy association, and the Dutch Association of Sustainable Energy (NVDE).

The Health and Safety Catalogue (Arbo Catalogus) of NWEA contains arrangements which the employees and employers have made in order to limit the risks when working on wind turbine onshore or offshore.
Identify the main requirements related to learning needs and competences

1. Romanian legislation related to safety and health

In Romania, the occupational safety and health (OSH) at work area is regulated through three major types of legislation: primary, secondary and tertiary legislation.

*The primary legislation* is the *Law No. 319 of 14 July 2006 on Safety and Health at Work amended on 27 September 2010*. This law establishes the general principles concerning the prevention of occupational risks, the protection of health and safety of workers, the elimination of risk and accident factors, the informing, consultation, balanced participation in accordance with the legal provisions, training of workers and their representatives, as well as general guidelines for the implementation of the said principles.

This law shall apply to all sectors of activity, both public and private, and to employers, workers and representatives of the workers.

The employers shall ensure such conditions that each worker receives sufficient and adequate safety and health training, in particular in the form of information and instructions specific to his/her workplace and job, or:

a) on recruitment;

b) in the event of a change of job or a transfer;
c) in the event of the introduction of new work equipment or a change in equipment;
d) in the event of the introduction of any new technology or working procedure;
e) in the event of the execution of a special type of work.

The training shall be adapted to take account of changed risks or the emergence of new risks and repeated periodically and whenever it is necessary.

The secondary legislation includes preventive measures, rules of application contained in:

- Methodological Norms for the enforcement of the Law No. 319 on Safety and Health at Work
- Government Decisions transposing EU Directives
- Standards (standards on safety, standard of the product)

In the tertiary legislation are detailed preventive measures in different companies’ own OSH instructions in the completion and/or implementation of the regulation in the field according to the specific conditions of their activity.

2. Relevant authorities and institutions with attributions in the field

The Ministry of Labor and Social Justice is the relevant authority in the field of safety and health at work.

Among the main attributions are the following:

- to elaborate the policy and the national strategy in the field of safety and health at work, in cooperation with the Ministry of Health and by consultations with other institutions with attributions in the field;
- to authorize legal and natural persons to perform protection and prevention services for the safety and health at work;
• to coordinate, in collaboration with the Ministry of Research and Innovation, the elaboration of the national research programs in the field of safety and health at work;
• to organize, together with the Ministry of National Education, the activity of general and/or specific training in the field of safety and health at work for educational institutions;
• to approve information and training materials, such as syllabi, brochures, leaflets, posters elaborated by legal or natural persons, in order to make sure that messages they contain are according to the legal provisions.

_The Ministry of Health_ is the responsible central public authority in the field of workers' health at the workplace.

_The Labour Inspection_ represents the relevant authority concerning the control of the application on the legislation on safety and health at work.

_The National Research and Development Institute of Occupational Safety (INCDPM) - “Alexandru Darabont”_ is a research and development institute accredited by the national authority for scientific research (ANCS) as a Romanian national legal entity of public interest, coordinated by the Ministry of National Education.

_The National Qualifications Authority (NCA)_ regulates and coordinates the framework of continuing education and training for adults. NCA national qualifications framework develops and manages the National Register of Qualifications and National Register of training providers authorized the National Register of graduates of training programs permit adults. Also, NCA coordinates and controls the licensing and authorization process for adult training providers and centers of professional competence assessment and certification of professional competence assessors.
3. Romanian Occupational Safety and Health Strategy

By now, Romania did not have a strategy on safety and health at national level, adopted by a normative act, but each of the institutions with attributions in this field pursued the achievement of the European strategic objectives in Security, Safety and Health.

During this period, it is in consultation a proposal for the National Occupational Safety and Health Strategy for the period 2017-2020. This represents an opportunity to achieve a safe and healthy work environment and a framework instrument that ensures the correlation with the strategic directions of the European Union on health and safety at work. Ensuring safe and healthy jobs, maintaining and improving the health of workers, as well as achieving and supporting the well-being of the workplace is the main medium- and long-term concern of the structures with responsibilities in the field of safety and health at work in view of the functioning and the sustainable economic and social development of Romania.

The general objectives of the National Strategy on Safety and Health at Work for the period 2017-2020, are:

A) better implementation of occupational safety and health legislation, especially in micro-enterprises and SMEs;

B) improve the safety and health protection of workers, with priority being given to those in risk-taking activities, in the priority areas of action, with a focus on the prevention of occupational diseases;

C) stimulating joint actions with social partners through awareness and involvement in managing health and safety at work and materializing an effective social dialogue;

D) proper management of the problem of older workers in the context of the general aging phenomenon of the population, respectively of the active labor force.
4. The minimum requirements for the safety and health of workers in the drilling industry

The Romanian legislative act with direct reference to the safety and health of the workers from offshore companies is Decision no. 1050/2006 on minimum requirements for the safety and health of workers in the drilling industry.

This act contain:

- common minimum requirements applicable to the ground and offshore drilling sectors
- minimum requirements applicable to the ground drilling sector
- special minimum requirements applicable to offshore drilling sector.

Under this act, workers must be provided with the necessary information, training and professional development necessary to ensure their safety and health. The employer must ensure that workers receive instructions on their own terms so that they do not endanger their own health and safety or that of other workers.

If the health and safety document so provides, a work permit system should be introduced for the execution of hazardous works and for the execution of works that are not normally dangerous but which, in interaction with other activities, may generate serious hazards. Work permits must be issued before the work begins by the person designated for that purpose and must contain the conditions to be met and the measures to be taken before, during and after work.

For each workplace, written instructions should be developed, including rules to be followed to ensure the safety and health of workers and the safe use of the machinery. These instructions must include information on the use of intervention equipment, as well as on the measures to be taken at or near the workplace in case of emergency.
The employer must ensure that the safety and health document shows that all necessary measures have been taken to protect the safety and health of workers in both normal and critical situations. In this respect, the safety and health document must:

a) identify sources of danger specific to the workplace, including any activity which can cause accidents that may have serious consequences for the safety and health of affected workers;

b) to assess the risks arising from the special sources of danger;

c) to prove that adequate measures have been taken to avoid accidents, to limit the propagation of accidents and to allow for evacuation efficient and controlled place of work in emergency situations;

d) to prove that the management system complies with the provisions of the Law on safety and health at work no. 319/2006 and the present decision in normal and critical situations.

5. The main requirements related to learning needs and competences

According to the Law on safety and health at work no. 319/2006, the employers shall designate one or more workers to carry out activities related to the protection and prevention of occupational risks for the undertaking and/or establishment, named designated workers. If the protective and preventive activities cannot be organized for lack of competent personnel, the employers shall enlist external services.

In all cases, to deal with the organization of the preventive and protective activities, taking into account the size of the undertaking and/or establishment and/or the hazards to which workers are exposed, as well as their distribution throughout the undertaking and/or establishment, it is required that:

a) designated workers have the necessary capabilities and the adequate means;
b) external services have the necessary aptitudes and adequate personnel and professional means

c) designated workers and external services are sufficient in number.

In accordance with the Romanian law in force in present (the Methodological Norms for the enforcement of the Law No. 319/2006, republished), the Occupational Safety and Health (OSH) training levels required for getting the necessary capabilities and skills to develop prevention and protection activities are as follows:

- average level OSH training, certified by the diploma of studies and the certificate of graduation of the course
- high level OSH training, certified by the diploma of studies and the certificates for graduation of the courses.

The minimum training requirements for safety and health at work corresponding to the average level are:

a) studies in lyceum education the theoretical branch in the real profile or the branch technology in technical field;
b) course in the field of occupational safety and health, with a minimum content as provided in Annex no. 6 lit. B, with a duration of at least 80 hours.

The minimum training requirements in the field of safety and health at work corresponding to the higher level, to be fulfilled cumulatively, are the following:

a) graduation in the following fields: fundamental sciences, engineering, agricultural and forestry sciences, with a Bachelor’s or equivalent degree, of the first cycle of university studies, undergraduate or university studies or a graduation diploma short-term university studies;
b) course in the field of occupational safety and health, with a minimum content as provided in Annex no. 6 lit. B, with a duration of at least 80 hours;
c) graduation with a diploma or certificate of graduation, as the case may be, of a postgraduate program in the field of safety and health at work, of at least 180 hours.
The minimum requirement is considered also fulfilled if the person has obtained a master's degree or doctorate in the field of occupational safety and health.

The representatives of workers with specific responsibilities in the field of the safety and health must follow a basic training program in the field of health and safety at work of at least 40 hours.

The training courses and programs in the field of safety and health at work are performed by authorized vocational training providers, according to the provisions of the Government Ordinance no. 129/2000 regarding the vocational training of adults, republished, with subsequent amendments and completions.

The contents of the OSH training courses corresponding to each OSH training levels is specified within Annex 6 to the Methodological Norms for the enforcement of the Law No. 319/2006 in terms of the topics approached, the volume of knowledge and information, the skills to be acquired at the end of the training stages.

The occupations specific to the field of occupational safety and health, necessary to carry out prevention and protection activities are as follows:

a) Occupational Safety and Health Technician (Inspector)
b) Occupational Safety and Health Expert.

6. Conclusion

- The Romanian Occupational Safety and Health system might be characterized by a comprehensive legislative framework that fully transposed the EU legislation in the area and an adequate institutional framework aligned to the Community requirements in the field.
• The National Occupational Safety and Health Strategy for the period 2017-2020 for Romania is in course of elaboration by the Ministry of Labor and Social Justice, with a special focus on the future EU challenges e.g. occupational diseases, new and emerging risks, demographic changes (ageing workforce, migration), SMEs legal framework, improved statistical tools.

• In Romania, there is the Decision no. 1050/2006 on minimum requirements for the safety and health of workers in the drilling industry, which contain special minimum requirements applicable to offshore drilling sector.

• In accordance with the Romanian law in force in present, there are the minimum training requirements in the field of safety and health at work corresponding to the average level and higher level OSH training.

• The training courses and programs in the field of safety and health at work are performed by authorized vocational training providers, according to the provisions of the Government Ordinance no. 129/2000 regarding the vocational training of adults, republished, with subsequent amendments and completions.

• The contents of the OSH training courses corresponding to each OSH training levels is specified within Annex 6 to the Methodological Norms for the enforcement of the Law No. 319/2006 in terms of the topics approached, the volume of knowledge and information, the skills to be acquired at the end of the training stages.

• The occupations specific to the field of occupational safety and health, necessary to carry out prevention and protection activities are as follows: Occupational Safety and health Technician (Inspector); Occupational Safety and Health Expert.

7. References

1. Law no 319 of 14 July 2006 on Safety and Health of Workers at Work
2. Government Decision No. 1425 of 11 October 2006 Methodological Norms for the enforcement of the Law No. 319 on Safety and Health at Work
3. Decision no. 1050/2006 on minimum requirements for the safety and health of workers in the drilling industry

4. Government Ordinance no. 129/2000 regarding the vocational training of adults, republished


7. www.ms.ro – Ministry of Health


IO1-A2. Identify the similar H&S Offshore regional/national training course
1. General issues related to training on H&S offshore (Cyprus)

As we have seen in O1 – A1 for Cyprus and according to the conclusions mentioned in the same report, ‘although there are explicit requirements for being qualified as Safety officer & and/or Approved Person, the same does not apply for individuals responsible for H&S issues at the offshore industry. In other words, there are no explicit requirements for professionals qualified to examine & assess Health & Safety measures in Offshore Industry, as in other industries (i.e. construction)’. Moreover, one of the conclusions of O1 – A1 for Cyprus is that the ‘Republic of Cyprus does not have specific requirements with regards to the qualifications & the competences of the Offshore personnel & professionals working in Offshore installations other than the ones that are applied internally by the Offshore companies’. However, according to the Health & Safety strategy implementation (2013 – 2020), Health & Safety needs to be integrated to education through the curriculum of Higher education institutions of Cyprus and particularly the curricula in disciplines of engineering and other study subjects related to the construction, chemical and process industries as well as offshore hydrocarbon extraction facilities, and most notably on training Schools of Public Organizations, and Metalykiakon Training Institutes (Education Institutes after graduating from Lyceum) as well as other Vocational Training Schools.

As we have seen in IO1-A1 (Cyprus), according to the provisions of the Safety and Health at Work Laws of 1996 to 2011, each employer employing more than two hundred persons should appoint a Safety Officer who deals with the subjects of safety and health in the installations of his/her enterprise on a full time basis. Moreover, every
employer, who is unable to provide protection and prevention activities using his own employees, because they do not have the necessary personal and occupational qualifications, and every employer, who employs fewer than 5 persons or every self-employed person, who is unable to provide, depending on the case, protection and prevention activities, because he does not have the necessary personal and occupational qualifications, may apply to Approved Persons to secure these services.

The persons, who afford to perform such protection and prevention of risks activities and can offer their services to other employers or other self-employed persons, according to the provisions of the above Regulations, shall be approved by the Chief Inspector, who is the Director of the Department of Labour Inspection.

In order to get approved by the Chief Inspector, the interested persons must satisfy the Minimum Requirements on Qualifications

Every interested person, who wishes to get approved by the Chief Inspector must submit to the Department of Labour Inspection the relevant Application along with all the necessary documents to substantiate his qualifications, namely:

- academic education,
- Very good knowledge of Cyprus and European legislation and policy regarding Safety and Health issues at Work.
- training on issues of safety and health at work, and
- professional experience on issues of safety and health at work.

In the subsequent sessions, this report examines the programmes and the trainings that are offered at national level (Cyprus) from HEIs as well as public & private VET centres.
2. H&S offshore in Higher Education Institutes (HEIs)

This section of the report is dedicated to the HEIs in Cyprus which offer programmes of studies relevant to Offshore industry.

**University of Cyprus (Nicosia)**

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**Petroleum Engineering (Master)**

The Master program in Petroleum Engineering of the University of Cyprus focuses on the subjects of the upstream oil and gas industry. Its objective is to prepare the workforce for the needs of the petroleum industry in the emerging fields of the deep-water of East Mediterranean. The strength of the program is in the completeness on the subjects of exploration, development and production that are taught by instructors with long experience in the Oil & Gas Industry.

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**University of Nicosia**

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**Business Administration: Energy, Oil and Gas Management (BBA)**

**Energy, Oil and Gas Management (BSc)**

**Business Administration: Oil, Gas and Energy Management (Master)**

**Oil and Gas Engineering (BS)Oil, Gas and Energy Engineering (MSc)**

**Oil, Gas and Energy Engineering (PhD)**

Educating the next generation of O&G graduates will require a new skill-set grounded in the fundamentals, such as, geophysics, geology, hydrocarbon processing, health and safety, pipeline and facilities engineering and emerging technologies including computer facilitated processes. The University of Nicosia offers accredited courses, comprising all of the above subjects, at the undergraduate, masters and doctoral level. Our four year BSc in Oil & Gas Engineering is the first of its kind to receive both state and professional (ETEK) accreditation in Cyprus. In addition, we offer the MSc in Oil, Gas and Energy Engineering. The Department housed at the new Research & Technology Building has
recently invested considerable resources in state-of-the-art laboratories and computer facilities featuring the latest technology.

**Frederick University**

**BSc in Civil Engineering, Specialization in Petroleum Geotechnics**

Cyprus has recently positioned itself on the energy map through the discovery of significant reserves of natural gas and possibly oil as well in its Exclusive Economic Zone in the Eastern Mediterranean. Geophysical investigations and extensive investigative drilling are already underway and exploration contracts have been signed by international companies. Through these offshore geological investigations for oil and gas reservoirs and the upstream production and exploitation of hydrocarbons it is estimated that about 6,000 new job vacancies will be created in this field, with the majority of these falling in the sections of engineering and technology. Currently, the Cyprus government and the Ministries of Education and Energy urge local Universities to offer knowledge and education to local engineering graduates which will strengthen their possibilities to be employed in the oil and gas industry. The proposed specialization is “Petroleum Geotechnics” addresses a number of key issues directly relevant to oil and gas exploration as follows: Oil & Gas Geology; Petroleum Geomechanics; Seismology & Geophysics; Oil & Gas Exploitations; Environmental Hazards and Management.

**BSc in Mechanical Engineering, Specialization in Oil and Gas Engineering**

The aim of the BSc in Mechanical Engineering with a specialization in Oil and Gas is to serve both the Upstream and Downstream Oil and Gas Production and therefore prepare professionals to work in hydrocarbon exploration and processing, with knowhow in drilling and reservoir characterization, analysis and design of pipeline systems, industrial process (refineries and petrochemicals) and simulations, as members of multi-disciplinary teams. The specialization is intended to provide students the following competences: Understand the geological and structural processes that control basin development. Interpret and evaluate data for reservoir characterization. Become familiar with drilling, extraction and upstream technology. Become familiar with downstream oil
and gas production, including petrochemical processing. Understand the whole processing cycle of hydrocarbons, including LNG production, GTL fuels, hydrogen, ammonia, methanol industrial production. Solve mathematical models for the simulation and control of processes. Evaluate techno-economic issues in the processing industry. Design pipeline systems Integrate and critically assess relevant information in order to make competent engineering arguments.

MSc in Oil & Gas and Offshore Engineering

Specialization in Oil & Gas Engineering
Specialization in Offshore Engineering
Specialization in Petroleum Engineering

The proposed MSc program places special emphasis on scientific research. It seeks to foster and embrace entirely new ideas and novel approaches to scientific discovery in the field of fossil fuels exploration and offshore constructions. Further, the various areas of emphasis in the program aim to guide students into fields of study that are considered to be new in the Eastern Mediterranean region and offer significant opportunities for engaging in innovative research activities and learning. Specifically, issues incorporated in courses such as “Computational Mechanics and Applications”, “System Dynamics and Control”, “Process Modeling and Simulation”, “Analysis and Design of Offshore Mooring Structures”, provide important opportunities for MSc students to be involved with the various research activities that take place in Frederick University, as well as in other institutions worldwide. Through such course-interactions, students will also acquire valuable experience by developing and implementing their own research projects. Overall, the proposed program is unique in Cyprus, addresses important needs of the society generated by the advancements in the energy sector and fossil fuel discoveries in Cyprus, provides unique and invaluable training and knowledge to young scientists in the domain of downstream, midstream and upstream oil and gas industry, and opens significant and substantial research opportunities for growth and specialisation in the specific domain. The program covers the full breadth of concentrations related to the industry and this is reflected in the three specializations it maintains. For each specialization different program structures are maintained so as to reflect the different
needs. Oil & Gas Engineering specialization, with emphasis in the downstream; OffShore Engineering specialization, with emphasis in the midstream; Petroleum Engineering specialization, with emphasis in the upstream.

**MSc in Engineering Management; Specialization in Energy and Oil & Gas Management**

Given the continually increasing importance of energy-related issues in Europe and beyond, and in particular the monumental advancements occurring with the discovery of significant reserves of natural gas, and possibly oil as well, in the Exclusive Economic Zone of Cyprus, the program of Engineering Management decided to establish a specialization stream, that of Oil & Gas Management and Energy Management. The aim of the program is to adequately prepare young engineers and young managers with the management challenges in these fields. These will include elements relating to project and supply chain management, energy demand and energy economics, as well as specialized courses relating to oil and gas engineering and process engineering. The graduates of the Program are equipped with the knowledge and skills assist technological organisations in employing appropriate techniques Graduates are expected to be employed as junior and mid-level managers in technological organisations in various departments including finance, operations and ICT, and manage large scale projects. They can also work as technological consultants in consultancy firms or start up their own technological organizations. Finally, program graduates can be employed in the public or semi-public sector in areas relating to policy making and monitoring for the broader engineering perspective.

**European University Cyprus**

**Business Studies - Energy Resources Management (Oil and Gas) - Bachelor**

Graduates of the program will be able to deal with financial and administrative matters relating to the areas of energy, oil and gas as well as the evaluation of the regulatory systems in the energy sector. Additionally, they will be able to deal with the analysis and evaluation of environmental issues and regulations, with specific reference to climate
change in the management and utilization of renewable energy sources.

3. H&S offshore in VET public centres

Below there is a list of trainings that are offered by the Cyprus Productivity Centre (KEPA), relevant to Health & Safety (H&S).

H&S training programme on Fire Safety – First Aid – Gas

H&S programme on environmental, chemical & biological aspects/risks.

H&S programme on work/handling equipment, electrical & natural agents.

H&S programme on H&S Management & Risk Assessment.

H&S programme on Fire Safety/Risk Assessment, Emergency planning, First Aid & storage & use of Gas

4. H&S offshore in VET private centres & companies

The Institute of Professional Studies at UCLan Cyprus (University of Central Lancashire, Cyprus)
The Professional Diploma in Oil & Gas (2 years)

The Institute bring the industry to you, bring you in touch with the industry, provide you with certificates with international accreditation, have a growing network with the large Oil & Gas multinationals.

Aims of the Programme: Diploma aims to assist students to acquire the necessary technical skills and produce well trained and qualified personnel able to enter technical
roles within the Oil & Gas/Petrochemical Industry in Cyprus and abroad.

Specialisation as: Drilling & Rig Technician, Welding & Pipeline Technician, Mechanical Technician, Electrical Technician.

The IPS Energy School cooperates with: the International Safety Training College (ISTC) in Malta to provide students with the International Offshore Safety Certificates of OPITO (here) and TUV Austria to provide students with Internationally recognised Welder’s Qualification Certificates (here).

SHORT COURSES (5 DAYS):

HSE Risk Management in the Oil & Gas Industry
You will learn: to describe the requirements of the OHSAS 18001:2007 & OHSAS 18002:2008 standards, to use various risk assessment tools and techniques that are applied by petroleum and gas exploration and production organisations, to deal and interpret the requirements of ISO 17776:2002 to prevent dangerous incidents as well as to control and mitigate any kind of incident that may occur, to identify risks and assess systems background in HSE-MS, to identify threats, assess and control based on OHSAS 18001:2007 & OHSAS 18002:2008 standards, to use the risk management template and approach in ISO 17776 Standard, to utilise the HAZID risk identification methodology.

Principles of Health & Safety at General Work Space and Process Industry
You will learn: about the principles of health and safety in various work spaces and conditions, to perform activities in work space in a safe manner to reduce or/and eliminate risks involved at work spaces, to identify and manage health and safety risks, monitor, prepare report and review performance at work spaces, to implement a safe system of work in various industrial working conditions covering a wide range of industries, to respond to accident and sudden illnesses, to move and handle equipment and other objects safely, to promote fire safety and electrical safety at work spaces,
about the proper and safe use of Personal Protective Equipment PPE

**MIST: Minimum Industry Safety Training Standard**

This introductory safety training programme is designed to introduce the fundamental safety elements of the offshore oil and gas industry to new starts, giving an appreciation of the potential hazards and controls that might be encountered by personnel offshore. The aim of the MIST programme is to introduce delegates to the key safety elements required by all employees working in the oil and gas industry. It also ensures the knowledge and understanding of these basic safety elements are maintained and current amongst the existing workforce.

**BSM Maritime Training Centre (Cyprus)**

Recognised Maritime Training Centre under the Department of Merchant Shipping (DMS), Cyprus for STCW courses such as Basic Safety, Advanced Fire Fighting, Certificate of Proficiency in Survival Craft & Rescue Boats, Fast Rescue Boats and many more. Shipping Training in Compliance with [STCW](#) and Cyprus Law in Limassol Cyprus - BSM Maritime Training Centre is a part of Bernhard Schulte Shipmanagement (BSM) which operates through ten wholly-owned Ship Management Centers based around the world. BSM has its own network of wholly owned, state of the art Maritime Training Centers, located in Cyprus.

Approved Courses:

- BASIC TRAINING FOR OIL & CHEMICAL
- BASIC TRAINING FOR GAS
- ADVANCED OIL TANKER
- SHIP SECURITY OFFICER
- ADVANCE FIRE FIGHTING
- MEDICAL CARE ONBOARD
- MEDICAL FIRST AID
- TRAINING FOR CERTIFICATION OF RATINGS FORMING PART OF AN ENGINEERING WATCH
TRAINING IN SECURITY AWARENESS

**Thomas Faraday Training Ltd (Cyprus) - Marine & Offshore Electrical Power Training**

Thomas-Faraday Training (Cyprus) located at Limassol specializes in the provision of Electrical Safety Training. The training programs are provided at the purpose-designed facilities, which are fully equipped with a wide range of operational high/low voltage electrical training equipment. The programs are accredited/certified by EAL, The Department of Merchant Shipping Cyprus & MCA.

- The Safe Operation of Marine/Offshore High Voltage Power Systems (Full High Voltage Authorisation)
- Principles of the Safe Operation of Marine/Offshore High Voltage Power Systems
- The Control & Management of Offshore/Marine High Voltage Systems During Power Failure & Emergency Conditions

**OPITO International (Cyprus) Ltd**

Petroleum Open Learning

OPITOs Petroleum Open Learning delivers open learning courses in Oil & Gas Well Technology, Petroleum Processing Technology and Oil and Gas Electrical Engineering Systems and Subsea Technology which are used by individuals and employers in over 45 countries. Petroleum Open Learning courses have proven to deliver a low cost, highly effective training solution for individuals and provides real value for employers as they seek to develop the capability of their workforce.

Courses accredited by City & Guilds:

- Oil and Gas Electrical Engineering Systems Series
- Petroleum Processing Technology Series
- Oil and Gas Well Technology Series
CMS Training Centre

Petroleum Course for Skilled Persons
To provide delegates with an appreciation of the basic format, content and application of the MOD Petroleum Safety Rule Book. To provide familiarisation with the MOD Safety rules JSP375 Volume 3 Chapter 4 and to provide an awareness of the hazards associated with these areas and the methods adopted to provide a safe working environment. WHO WILL BENEFIT: Technicians, Skilled Persons, Senior Engineers, Health and Safety officer and Persons in Charge who have a mandatory requirement to comply with the DEO Petroleum Safety Rule Book.

Authorized Person Petroleum
A four day course designed to meet the essential requirements for working on petroleum installations and equipment required by current legislation and the MOD Safety rules and Procedures contained in JSP 375 Volume 3 Chapter 5.
WHO WILL BENEFIT: Suitably qualified personnel who have been nominated for appointment as Authorising Engineer or Authorised Person Petroleum.

NEBOSH INTERNATIONAL TECHNICAL CERTIFICATE in association with SETA Training UK
This qualification is designed specifically for those with safety responsibilities in the OIL and GAS Industry. It is the latest addition to our portfolio of globally-recognised health, safety, environmental and risk management qualifications. The qualification focuses on International standards and management systems, enabling students to effectively discharge workplace safety responsibilities both onshore and offshore. The NEBOSH International Technical Certificate in OIL and GAS Operational Safety will benefit oil and gas companies working to international standards who are seeking to implement
effective safety and process safety management across all areas of their operation.

NEBOSH International General Certificate in Occupational Safety & Health in association with SETA Training UK
At the end of the course delegates will be able to appreciate and understand their responsibilities and that of their subordinate staff. They will be able to recognise and control common risks associated with many different work based activities which will include the manufacturing environment, the office environment construction activities and others and appreciate the standards of health and safety to be applied in key areas of these activities.

ACS LPG Gas Changeover from Domestic to Commercial installations
Following the need for general increase in gas installation and servicing work in Cyprus, there is a developing need for the training of new gas operatives. In order for these trainees to comply with European and UK legislation, they will need to achieve ACS qualifications in all elements of LPG Gas that they will be maintaining and working on so as to enable them to work safely on gas systems. It is also a company responsibility to train new-starters into the gas industry on safety, regulations, gases and combustion, domestic and commercial gas appliances. Make them more aware of unsafe situations so they can avoid accidents and ensure that if they are faced with a dangerous situation they are able to react immediately and avoid a major disaster. At the end of the course the successful delegates will receive an ACS accreditation certificate and card which will enable them to work anywhere in Europe.

ACS LPG Core Safety & Pipework Installations Course
Following the need for general increase in gas installation and servicing work in Cyprus, there is a developing need for the training of new gas operatives. In order for these trainees to comply with European and UK legislation, they will need to achieve ACS qualifications so as to enable them to work safely on gas systems. The aim of the course is to train new-starters into the gas industry on safety, regulations, gases and
combustion, domestic and commercial gas appliances.

CompEx Training and Assessments
Our associates have developed an approved Training scheme which makes use of a fully mobile Training Unit and can go anywhere in the world. The term hazardous area used covers areas within Oil and Gas upstream or processing and petrochemical facilities and other industries, which may contain hydrocarbon gasses or other types of explosive gasses or vapours. It is vitally important that electrical installations within hazardous areas are installed and maintained in accordance with the hazardous area certification of the devices so as to maintain the features that render the devices suitable for use in hazardous areas. The course covers the installation, maintenance and inspection regimes necessary to ensure electrical devices are not capable of igniting explosive atmospheres found in the Oil and Gas, Petrochemical and other industries.

SETA Training (Cyprus) Ltd

NEBOSH Oil and Gas (5 days)
The NEBOSH Technical Certificate in Oil and Gas Operational Safety covers the principles of process safety management in the oil and gas industries. The syllabus takes a risk management approach based on best practice and international industry standards. For those who have the responsibility for ensuring safety as part of their day to day duties, including: Managers; Supervisors; Employee representatives; Newly appointed Health and Safety Advisers. Course Modules: Health, safety and environmental Management in context, Hydrocarbon process safety, Fire protection and emergency response, Logistics and Transport Operations.

The Mediterranean Institute of Hydrocarbons Technology (MIHT)

The Educational Center (established by the Academy of Hydrocarbons)
The Training Center has taken over all the organization and delivery of education issues
referring to hydrocarbons, securing partnerships with Universities and Technological Institutes and general dissemination of knowledge and experience on the technology of hydrocarbons. To achieve its objectives, the Centre has established the Academy of Hydrocarbons which implements programs of the Centre. The program for the seminars and educational programs of the College, is announced periodically on the MIHT website.

**The Center for Studies and Research**
The Centre, through the recruitment and collaboration with experienced scientists in the field, provide technical support to companies and organizations engaged in oil and promotes study and research through European and other programs.

**Levantine Professional Training & Education Limited (LTC)**

**Overview of the Oil & Gas Industry in Cyprus & SE Med**
This 1 day course is designed to present an overview of the Oil & Gas Industry, the potential and recent finds in Cyprus and the Eastern Mediterranean, the current status, development options and risk factors. The basic understanding provided will allow participants to determine areas of personal or business interest for further review and to assess public announcements from a more informed knowledge base.

**Introduction to the Oil and Gas Industry**

**Legal Contracts and International Legal Practice for Oil & Gas**
The aims and objectives of this course is to equip participants with in depth understanding on important legal issues, such as ownership of mineral rights, drilling contracts, dispute resolution in international petroleum transactions among others. Furthermore, the course will provide detailed analysis on host government contracts and international practice as well as a thorough investigation on Joint Development and Operations.

**Project Management in the Oil & Gas Industry**
**Aims & Objectives:** to promote an understanding of the principles, fundamental concepts and strategies of project management, and of the benefits to organisations. To enable learners to practice and carry out essential project planning and execution processes.

**Introduction to Natural Gas**

The course will focus on the midstream and downstream aspects of natural gas, starting with an introduction of what natural gas is, how it differs from oil, the relevant legal, commercial and strategic issues relating to natural gas in general and with special focus on the Eastern Mediterranean region.

**EPC in the Oil & Gas Industry**

This three day course is specifically designed for project personnel working in the EPC projects environment involved in contract management. The course will also benefit those involved in the contracting process such as engineering, procurement, project controls, business development, and construction personnel. It is about the roles and relationships, the contracts and how they are planned, formed, administered, and managed. It offers a unique opportunity to improve your techniques and skills and help you to understand how the effective management and administration of a contract can deliver the goals it set out to achieve from the point of view of a Contractor that can be immediately applied in the workplace.

**Introduction to Petroleum Engineering**

The overall structure is intended to give those attending the full programme a thorough understanding of the upstream petroleum industry and processes, including: the hydrocarbon field life cycle phases, the fundamental concepts of exploration, drilling, field appraisal, the fundamental concepts of reservoir characterisation, well performance and completion, reservoir simulation, and field management; the links between the various types of data and available information in order to make improved reservoir management decisions.
International Technical Certificate in Oil and Gas (NEBOSH)

International Technical Certificate in Oil and Gas Operational Safety is designed for people who have the responsibility of safety in the oil and gas industry. With focus on international standards and management systems, it also highlights the importance of process safety in the oil and gas industry.

LTC Career Transition Programme for Offshore (LTC – CTPO)

LTC Career Transition Programme for Offshore consists of the 3 Courses taken in raw as follows:

1. Hydrogen Sulphide Awareness + Methanol Awareness Course + Confined Space Awareness

Hydrogen Sulphide Awareness
The course is aimed at all personnel who are involved with oil and gas operations and other industries where there may be a risk of exposure to hydrogen sulphide (H2S) contamination.

Methanol Awareness
The course is aimed at all personnel who will be involved in the transportation, storage and handling of methanol.

Confined Space Awareness
This course is aimed at the safety hazards associated with confined spaces which can cause serious injury and death if they are not dealt with properly. The Confined Space Awareness Training Course will provide individuals who work in or around confined spaces such as manholes, ditches, shafts etc. with important information about the risks and hazards associated with confined spaces. Confined Spaces Awareness Course learners will gain comprehensive knowledge of the relevant legislation, definitions and dangers of the confined space, assessing the risks, taking precautionary measures, emergency arrangements and procedures to prevent and avoid possible incidents.

2. Authorised Gas Testing Course
The course it aimed at all personnel who are required to perform testing for oxygen, flammable and toxic gases along with continuous monitoring in confined spaces, training covers all aspects of testing for oxygen, flammable and toxic gases, plus how to document the results.

3. Minimum Industry Safety Training (MIST)
The aim of the MIST programme is to introduce delegates to the key safety elements required by all employees working in the oil and gas industry. It also ensures the knowledge and understanding of these basic safety elements are maintained and current amongst the existing workforce.

5. Conclusions

Based on all the above, the following conclusions in relation to Health & Safety national training courses for Offshore activities can be drawn:

a) There are many programmes of studies, at Bachelor & Master Levels, related to the Offshore Industry in the tertiary education, with most of them being offered in the private Universities.

b) There is not any training from Cyprus Productivity Centre (KEPA), which is specifically designed for H&S in the offshore Industry. The trainings offered from KEPA are general courses on H&S at work.

c) There are many private VET providers who offer classroom-based trainings in relation to Offshore but there is no training provider in Cyprus which offers non-classroom based training courses for the Offshore Industry.

d) No public or private VET provider offers a course/programme that can meet the needs of those graduates or professionals who wish to pursue a professional career in the Offshore Industry with specialization on H&S offshore. The only exception is the career transition programme of Levantine Training Centre (LTC).

e) There are no collective efforts between the government/public and private entities for Cyprus being able to offer a wide range of non-classroom based training courses
needed by the offshore Industry, such as BOSIET, which need a considerable investment related to premises & equipment.

Report O1- A2 – IBOX CREATE

Identify the similar H&S Offshore regional/national training course

1. General issues related to training on H&S offshore (Spain)

As we have seen in O1 – A1 for Spain and according to the conclusions mentioned in the same report there are no explicit requirements for professionals qualified to examine & assess Health & Safety measures in Offshore Industry, as in other industries (i.e. construction). Moreover, one of the conclusions of O1 – A1 is that the ‘Spain does not have specific requirements with regards to the qualifications & the competences of the Offshore personnel & professionals working in Offshore installations other than the ones that are applied internally by the Offshore companies’.

According to International Standard Classification of Occupation (ISCO 08), Classification of Occupations in Spain (CNO-11) contain the occupations specific to the field of occupational safety and health, necessary to carry out prevention and protection activities, corresponding to:

33261047 Occupational Safety and Health Technicians.

Occupational Safety and Health Technicians that they have regulated their functions, in Law 31/1995, on PRL and the R.D. 39/1997, and correspond to the upper and
intermediate levels (not the basic), where the requirement to have previously university degree or training professional specifically regulated.

In the subsequent sessions, this report examines the programmes and the trainings that are offered at national level (Spain) from HEIs as well as public & private VET centres.

2. H&S offshore in Higher Education Institutes (HEIs)

This section of the report is dedicated to the HEIs in Spain which offer programmes of studies relevant to Offshore industry.

**Polytechnic University of Madrid**
Is a public higher education and research institution that offers the next postgrad, related to the offshore industry:

- Degree in Naval and Oceanic Engineering.
- Degree in Marine Engineering
- Master's Degree in Oil and Gas Engineering.
- Master's degree in naval and oceanic engineering

**Polytechnic University of Cartagena**
Is a public higher education and research institution that offers the next postgrad, related to the offshore industry:

- Degree in Naval and Oceanic Engineering
- Master's Degree in Naval and Oceanic Engineering

**Polytechnic University of Cataluña**
Is a public higher education and research institution that offers the next postgrad, related to the offshore industry:

- Degree in Naval and Oceanic Engineering.
- Degree in Marine Engineering
- Master’s degree in naval and oceanic engineering

**University of Cantabria**

Is a public higher education and research institution that offers the next postgrad, related to the offshore industry:

- Degree in Naval and Oceanic Engineering
- Degree in Marine Engineering

**University of A Coruña**

Is a public higher education and research institution that offers the next postgrad, related to the offshore industry:

- Degree in Naval and Oceanic Engineering
- Master's degree in naval and oceanic engineering
- Master's degree in marine engineering

**University Isabel I**

Is a university of online that offers official degrees and master's degrees and graduate degrees, all of them with full validity in the European Higher Education Area.

- Master's Degree in Engineering and Business of Oil & Gas.

**University Alfonso X el Sabio**
Is a private higher education and research institution that offers the next specializations, degrees or postgrads, related to the offshore industry:

➢ Master’s Degree in Advanced Management of the Promotion and Exploitation of Infrastructures in the Specialty of Oil & Gas

**University of Madrid (UDIMA)**

Is a private higher education and research institution that offers the next specializations, degrees or postgrads, related to the offshore industry:

➢ Master’s Degree in Oil and Gas: Prospecting, Transformation and Management.

### 3. H&S offshore in VET public centres

The Jovellanos Integral Maritime Safety Center ([http://www.centrojovellanos.com](http://www.centrojovellanos.com)) is a differentiated department of the Maritime Rescue and Safety Society, attached to the Ministry of Development through the General Directorate of the Merchant Navy. Designed from a comprehensive service perspective, it is equipped with modern facilities and facilities. It has a staff of highly qualified technicians and specialists who carry out their work in the thematic areas of safety, maritime environment and the environment.
El Centro Jovellanos diseñaría formación a medida de sus destinatarios.

Formación OPTO: HUEF/TOET/BOBSET.
Certificado: GHC. Rescate y salvamento en altura y espacios confinados, intervenciones subacuáticas.

Catálogo de cursos:

Cursos Contra Incendios
Emergencias en atmósfera, instalaciones industriales, ventilación por creación positiva. Emergencias S.L. Cursos de gases, incendios en buques. Reactor, Paquete, Formación marina ETOPA.

Ver el listado de cursos

Cursos Simuladores Marinos

Ver el listado de cursos

Cursos Especiales

Ver el listado de cursos
The training is accredited by the following organizations:

- OPITO (HUET/FOET/BOSIET)
- GWO Certification
- Rescue in height and confined spaces.
- Basic training for boarding in units that operate offshore_BOSIET.
- Renewal of basic training for the embarkation of units that operate offshore_FOET
- Basic security training-GWO. Survival module in the sea.

4. H&S offshore in VET private centres & companies

**GRUPO STIER** ([http://stier.es/en](http://stier.es/en))

The aim of this company was to promote safety and excellence for seafarers and shipping companies’ personnel. For over 20 years CEMA has continued to develop various programmes and activities with an emphasis on maritime studies. The company has trained more than 2,500 alumni from all over the world.
We are providing OPITO approved course for offshore industry.

Maritime & Offshore trainings
The most complete training offer and with the best warranties in the canary islands

Maritime training
Offshore training
Read more about our trainings
STIER are providing OPITO approved course for offshore industry:

- Further Offshore Emergency Training (FOET) with Compressed Air Emergency Breathing System (CA-EBS). OPITO Approved.

The aim of the FOET (with CA-EBS) is to provide the delegates with the opportunity to practise and demonstrate emergency response skills which are not possible to practise during drills, exercises and emergency training offshore.

Training durations 8 hours.

The learning outcomes are specified for the following module:

- Mod. 1 Helicopter Safety and Escape
- Mod. 2Firefighting and self-rescue
- Mod. 1 Emergency First Aid


The aim of the HUET (with CA-EBS) programme is to prepare delegates that intend to travel to and from offshore oil and gas installations and vessels by helicopter by providing specific training in pre-flight and in-flight requirements and to equip delegates with the basic emergency response knowledge and skills required in the event of a helicopter emergency – with specific focus on escaping from a helicopter following ditching.

Training durations 8 hours.
The learning outcomes are specified for the following module:

Mod 1. Helicopter Safety and Escape


The aim of the BOSIET (with CA-EBS) is to introduce delegates to the specific safety issues and regimes relevant to offshore installations, and to equip them with the basic emergency response knowledge and skills for travelling to and from offshore installations by helicopter.

Training durations 3 days.

The learning outcomes are specified for the following module:

Mod 1. Safety Induction
Mod 2. Helicopter Safety and Escape
Mod 3. Sea Survival and First Aid
Mod 4. Fire Fighting and Self Rescue


During this introductory safety training programme candidates will gain an awareness of the major accident hazards, workplace hazards and associated controls to be found on offshore installations.

Training durations 14 hours.

The learning outcomes are specified for the following module:
Mod 1. Major Accident Hazards
Mod 2. Workplace Hazards and Personal Safety
Mod 3. Risk Management
Mod 4. Control of Work
Mod 5. Helicopter Safety


The aim of the IMIST programme is to introduce delegates to the key safety elements required by all employees working in the oil and gas industry. It also ensures the knowledge and understanding of these basic safety elements are maintained and current amongst the existing workforce. The Learning Outcomes of the programme are contained in section A5.

Training durations 14 hours.

The learning outcomes are specified for the following module:

Mod 1. Introduction to the Hazardous Environment
Mod 2. Working Safely Including Safety Observation System
Mod 3. Understanding the Risk Assessment Process
Mod 4. Tasks that Require Permit to Work
Mod 5. Personal Responsibility in Maintaining Asset Integrity
Mod 6. Using Manual Handling Techniques Every Day
Mod 7. Controlling the Use of Hazardous Substances
Mod 8. Knowledge and Practices of Working at Heights
Mod 9. Being Aware of Mechanical Lifting Activities

➢ Helicopter Underwater Escape Safety Training with Emergency Breathing
The aim of the HUET programme is to prepare delegates that intend to travel to and from offshore oil and gas installations and vessels by helicopter by providing specific training in pre-flight and in-flight requirements and to equip delegates with the basic emergency response knowledge and skills required in the event of a helicopter emergency – with specific focus on escaping from a helicopter following ditching.

Training durations 8 hours.

The learning outcomes are specified for the following module:

Mod 1. Helicopter emergencies

➢ Further Offshore Emergency Training (FOET). OPITO Approved.

The aim of the FOET is to provide the delegates with the opportunity to practice and demonstrate emergency response skills which are not possible to practice during drills, exercises and emergency training offshore.

Training durations 8 hours.

The learning outcomes are specified for the following module:

Mod. 1 Helicopter Underwater Escape Training
Mod. 2 Fire fighting and Self Rescue
Mod. 3 First Aid

➢ Basic Offshore Safety Induction Emergency Training (BOSIET). OPITO
Approved.

The aim of the BOSIET is to provide delegates with a basic knowledge of safety and emergency response procedures for working in offshore environments including equip them with the skills for travelling to and from offshore installations by helicopter.

Training durations 3 days.

The learning outcomes are specified for the following module:

Mod. 1 Safety Induction
Mod. 2 Helicopter Safety and Escape
Mod. 3 Sea Survival and First Aid
Mod. 4 Firefighting and Self Rescue

**Málaga Drilling School (https://www.mdsspain.com/)**

MDS is an oil and gas drilling industry training organisation providing internationally recognised examination facilities in drilling and well control courses that include drilling equipment, drilling practices and technology, well control and other drilling industry technical training.

In addition to the regular training courses, Malaga Drilling School also provides courses customised to client’s requirements, including drilling technical courses, competence, management, leadership and HSE courses. The school is run by long standing drilling industry professionals who have spent a considerable portion of their lives on both land and offshore rigs, are highly trained and experienced in the requirements of their fellow professionals.
They are advised and assisted by a specialist in industrial teaching, education and instructional methods. Well control courses held at Malaga Drilling School are accredited by the International Well Control Forum (IWCF) and International Association of Drilling Contractors (IADC).

➢ The Well Control Level 2 (Introductory) course.

The Well Control Level 2 (Introductory) course is recommended for “all members of the Wellsite Operations Team working in roles which may directly contribute to the creation, detection or control of a well influx”.

Training durations 4 days.

Successful completion of the course and examination will result in IWCF Well Control Level 2 certification (valid for five years).

➢ The Well Control Level 3 (Driller) course.
The Well Control Level 3 (Driller) course is recommended for anyone involved in drilling and/or well control operations (from floormen to drillers) with Surface or Combined Surface and Subsea BOP stack.

Training durations 5 days.

Successful completion of the course and examination will result in IWCF Well Control Level 3 certification (valid for two years).

➢ The Well Control Level 4 (Supervisor) course.

The Well Control Level 4 (Supervisor) course is recommended for drilling supervisors, well engineers, OIM and other candidates with requirements to hold an IWCF Well Control certificate.

Training durations 5 days.

Successful completion of the course and examination will result in IWCF Well Control Level 4 certification (valid for two years).

➢ The IADC WellSharp Drilling Introductory Level course.

The WellSharp Introductory course is recommended for “all members of the Wellsite Operations Team working in roles which may directly contribute to the creation, detection or control of a well influx”.

Training durations 3 days.

Successful completion of the course and examination will result in IADC
WellSharp Introductory certification (valid for five years).

➢ The IADC WellSharp Drilling Fundamental Level course.

The IADC WellSharp Driller Course is recommended to anyone involved in drilling and/or well control operations.

Training durations 5 days.

Successful completion of the course and examination will result in IADC WellSharp Driller certification (valid for two years).

➢ The IADC WellSharp Drilling Supervisory Level course.

The IADC WellSharp Supervisory Level course is recommended to anyone involved in drilling and/or well control operations.

Training durations 5 days.

Successful completion of the course and examination will result in IADC WellSharp Supervisory certification (valid for two years).

➢ Medical OffShore OGUK (UKOOA).

Offshore workers need to pass an Offshore Medical Examination if they wish to work offshore. The current standard is quoted as OGUK (Oil & Gas UK)

The OGUK Offshore Medical is valid for a maximum of two years and allows an employee to work in the Offshore sector. The OGUK medical is required
by employers or companies before personnel can be deployed to some offshore workplaces around the world and is recognized by Norwegian (OLF) and Dutch Authorities (NOGEPA). The mutual recognition of medicals does not extend to mutual recognition of the additional medicals for those involved in Emergency Response duties.

**TRESCUARTAS Atlantic Institute of Offshore Training**
(https://www.trescuartas.com/)

Consulting and Training Institute specialized in solutions for the Offshore sector.

- Fundamentals of the petroleum industry. Without certification.
- Expert in maintenance of the offshor industry. Without certification.

### 5. Conclusions

Based on all the above, the following conclusions in relation to Health & Safety national training courses for Offshore activities can be drawn:

a) There are few programmes of studies, Master Levels, related to the Offshore Industry in the tertiary education.

b) There are few private VET providers who offer classroom-based trainings in relation to Offshore but there is no training provider in Spain which offers non-classroom based training courses for the Offshore Industry.
c) No public or private VET provider offers a course/programme that can meet the needs of those graduates or professionals who wish to pursue a professional career in the Offshore Industry with specialization on H&S offshore. The only exception is the programmes of Stier Group.

d) There are no collective efforts between the government/public and private entities for Spain being able to offer a wide range of non-classroom based training courses needed by the offshore Industry, such as BOSIET, which need a considerable investment related to premises & equipment.
Identify the similar H&S Offshore regional/national training course

1. LEGAL REQUIREMENTS OF OCCUPATIONAL HEALTH AND SAFETY IN PORTUGAL

According to the Portuguese Constitution, all workers, irrespective of age, gender, race, nationality, place of origin, religion, political or ideological convictions, are entitled to the working conditions of hygiene and safety, the right to health protection and the duty to defend and promote health and welfare of workers.

The legal regime for the promotion of safety, hygiene and health, Law nº 102/2009 of September 10th modified by Law n.º 3/2014 January 28th, it is for the employer to integrate the activities of the company to assess risks to health and safety and planning preventive measures and protection necessary so that workers can carry out their work in safety and health.

The health and safety at WORK began in Portugal after having participated in the Berlin Conference of 1890; some measures were implemented during the monarchy and later during the 1st Republic.

Once in the new State DL 31280 141 creates the figure of compensation for unfair dismissal.

In 1956 the Law 2085 requires the industrial workers and the prevention of accidents at work and occupational diseases.
In 1958 it is published by the Decree 41821 the Regulation of Safety in Construction, still in force and setting out the conditions of hygiene and safety precautions in contracts, including the use of machinery and personal protective equipment.

In 1962 the Decree 44308 requires the screening tests of silicosis.

In 1965 by Decree 46 427 E3 it was created the Provisional Regulation of Social Facilities of the shipyards still in force effect.

The Constitution of the Portuguese Republic in 1975, believes states in its Article 59 that: “All workers ... entitled to work organization in keeping with human dignity conditions ... the provision of work hygiene and safety.”

In 1991 by Decree 441/91, as amended by Decree 133/99, the Framework Law on Security Hygiene and Health at Work was created, and it defines the basic principles of prevention and the rights and obligations of employers and workers.


In 2004 by Law 35/2004 are published the respective regulations of the Labor Code.

In 2009 the Law 7/2009 February revises the Labor Code came to be the same ruled by Law 105/2009 of 14th September.

On September 10th, 2009 it is published the Law No. 102/2009 establishing the new legal regime for the Promotion of Health and Safety at Work.

2. **GENERAL PRINCIPLES AND PREVENTION SYSTEM OF OCCUPATIONAL HAZARDS.**

1 - The workers have entitlement to work in conditions that respect their safety and health activities undertaken by the employer or, in the situations identified in the bill, the person, individual or collective, which holds the management of the premises where the activity is developed.
2 - You must ensure that economic development promotes the humanization of work in conditions of safety and health.

3 - Prevention of occupational risks should be based on a proper risk assessment and permanent and second principles, policies, standards and programs aimed in particular be developed:

   a) The design and implementation of the national strategy for health and safety at work;

   b) Defining the technical conditions to be met by the design, manufacture, import, sale, transfer, installation, organization, use and processing of the material elements of work depending on the nature and extent of risks as well as obligations of the persons responsible for such;

   c) The determination of substances, agents or processes that should be prohibited, limited or subject to authorization or control of the competent authority as well as the definition of threshold values for worker exposure to chemical, physical and biological agents and technical standards for sampling, measurement and evaluation of results;

   d) The promotion and health surveillance of workers;

   e) Increased technical and applied scientific research in the field of safety and health at work, in particular with regard to the emergence of new risk factors;

   f) Education, training and information to promote improved safety and health at work;

   g) The awareness of society in order to create a genuine culture of prevention;

   h) The efficiency of the system of public inspection of compliance with legislation on safety and health at work.

In Portugal, Occupational Health and Safety in the maritime sector is included in two sub-sectors, that of shipbuilding and fishing, manufacture of boats for nautical or fishing vessels.
About offshore in Portugal there is only the Law n.º 13/2016, transposes Directive 2013/30 / EU of the European Parliament and of the Council of 12th June 2013 on the safety of offshore oil and gas. They all make reference to accomplish the Safety, Occupational Health and Risk and current environmental protection regulations, with no specification.

In Portugal, the energy sector is undergoing a profound change with the inclusion of renewable energies. Offshore energy is essential and there is an advantage in being an active player in this change. Portugal has a prominent position in offshore energy waves and wind.

3. Public Institutions involved in the implementation of the legislation about Occupational Health and Safety

The Portuguese Focal Point is administered by ACT - Authority for Working Conditions, under direct administration of the Minister of Solidarity, Employment and Social Security, but with administrative autonomy throughout the mainland. The primary mission of ACT is to promote the improvement of working conditions, promoting policies aimed at the prevention of occupational risks and controlling compliance with labor standards and legislation on safety and health (OSH) in all sectors of activities, as well as in central and local government, including public service institutes. While a tripartite body, ACT works with the social partners (present on the Advisory Board) to facilitate the sharing of best practices in OSH and promote European campaigns.

The Occupational Health Service develops its integrated into the Department of Public Health under the direct purview of the apex body of management activity. Has, according to the WHO, the main purpose, to promote working conditions that ensure the highest degree of quality of work life, thus protecting workers, promoting their physical well being, mental and social preventing accidents work and occupational diseases.
### OHS Structures in Portugal

| National Level | ACT - Autoridade para as Condições do Trabalho (Authority Working Conditions)  
|                | DGS – Direção Geral de Saúde (General Direction of Health) |
| Organizational Level | Safety Technicians  
|                     | Consultancy companies in OHS  
|                     | Representative of workers in OHS |

In Portugal all organizations are obliged to have a safety technician and occupational doctor responsible for all the OHS related issues.

### 4. EDUCATION, TRAINING AND INFORMATION FOR SAFETY AND HEALTH AT WORK IN OFFSHORE

Training is a legal obligation of the employer, who must give at least 35 hours of annual training each worker in accordance with the Labor Code, Law nº 7/2009.

The Law nº 102/2009 refers to the following mandatory training:

- Machines and equipment working with elevated risk;
- First aid;
- Fire Fighting;
- Evacuation.

This training can be conducted internally by the company through accredited trainers or externally through accredited entities.
The State shall pursue the integration of content on the safety and health at work in the curricula of various levels of education in order a culture of prevention in the general framework of the educational system and the prevention of occupational hazards is in preparation for active life.

The State promotes the integration of knowledge about the safety and health at work in the actions of education and training to enable the acquisition of knowledge and habits to prevent accidents and occupational diseases.

The State shall promote actions for training and information for employers and workers, as well as information, education and public enlightenment in matters of safety and health at work.

Portugal has an instrument, in permanent construction, of strategic management of qualifications that are part of the National Qualifications System (Decree-Law nº 396/2007, of 31st December). This is the National Catalog of Qualifications (CNQ) available at www.catalogo.anqep.gov.pt and which integrates, at this stage, 280 professional qualifications integrated in 39 areas of education and training (AEF). In Portugal there is no training in the national catalog of offshore sector.

At the level of higher education there exists in Portugal the Degree in Petroleum - Refining Branch – by the Piaget Institute and Technologies of Petroleum - Prospecting and Production Branch and Refining Branch – Instituto Politécnico de Setúbal. These degrees aim to train senior professionals for the different areas of intervention of the oil and gas industry, namely for prospecting & production and refining.

The master’s in petroleum engineering - aims to train qualified professionals, specialists in the exploration & production of Oil & Gas - ISPG – Instituto do Petróleo e do Gás (Institute of Oil and Gas).

In Portugal there is the ISPG - Instituto do Petróleo e do Gás, Association for Research and Advanced Training; it is a non-profit association, the result of a partnership between
Galp Energia and the six largest Portuguese Universities, open to other institutions in the Portuguese-speaking world. It has the following main purposes:

• To develop advanced research and training projects and differentiating competencies in the Oil and Gas sector;
• To contribute to the consolidation and development of knowledge and technology in Portuguese-speaking countries that are applicable to the Oil and Gas sector and capable of competing on a global scale.

In the research carried out at national and regional level, we only find reference to training reference - PETROLEUM ENGINEERING AND NATURAL GAS, in modality program is modular including the disciplines of Upstream, Downstream and Management of the Oil Industry. The course has a duration of 6 months, being 100% On-Line and taught in Portuguese.

5. LINKS OF COMPETENT AUTHORITIES

http://www.act.gov.pt/
http://www.dgs.pt/
http://www.gep.mtss.gov.pt/
https://dre.pt/
http://ispg.org/

6. REFERENCES

www.eurofound.europa.eu/comparative/tn1105040s/lv1105049q.htm
Marques, R. (2011). A evolução da certificação de sistemas de gestão de segurança e saúde no trabalho em empresas portuguesas: caracterização e tendências, Dissertação de Mestrado em Segurança e Higiene no Trabalho, Instituto Politécnico de Setúbal


OHSAS 18001:2007. Occupational health and safety management systems: Requirements. BSI

OHSAS 18002:2008. Occupational health and safety management systems: Guidelines for the implementation of OHSAS 18001. BSI


Education and Training in The Netherlands

In order to ensure the industry’s demands for quality and effectiveness, employees within the offshore sector need the proper form of education and training. Offshore education is divided into 3 main areas:

- Safety training
- Vocational training for skilled workers
- Master and bachelor degrees for engineers etc. (higher technical and vocational education and universities of applied science – ECVET level 5 and 6 - and universities – ECVET level 7.
- Basic courses for blue collar workers

With more than 45 years of experience from offshore projects, Dutch educational institutions and offshore companies have a long tradition for educating people working on offshore projects.

Most offshore and maritime educational institutions and training centres active in the field are found in the North and West part of the Netherlands.

A vast number of organisations provides offshore education and training.
- Several institutions offering safety training for offshore oil/gas workers, offshore wind workers as well as employees in other areas of the maritime sector.
- Universities (ECVET Level 5, 6 and 7) offering master and bachelor modules in a range of offshore relevant courses as well as carrying out research to ensure development of new knowledge.
- Major schools (VET ECVET level 2, 3 and 4) offering technical vocational training for skilled workers in offshore relevant areas.
- Private companies providing courses at many levels for their current and/or future employees.
- Private companies offering different offshore relevant education modules aimed primarily at personnel employed by other companies.
- Technical schools offering different offshore relevant courses for blue collar workers.

Offshore INDUSTRIES
- OIL AND GAS
  - GEOLOGY & EXPLORATION
  - PRODUCTION
  - DECOMMISSIONING
  - ABANDONMENT
- CONSTRUCTION OF STRUCTURES AND PLATFORMS
- OFFSHORE RENEWABLES & MARINE ENERGY
  - OFFSHORE WIND
  - TIDAL
  - WAVE
- Dredging
Inventory Report of (commercial) offshore training organizations in the Netherlands

<table>
<thead>
<tr>
<th>Name of the Offshore Training Organization</th>
<th>Remarks</th>
<th>Website</th>
</tr>
</thead>
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<tr>
<td>DELTA Safety Training Haven nr. 2320 Geyssendorfferweg 47 - 3088 GJ Rotterdam</td>
<td></td>
<td><a href="http://www.deltasafety.eu/">http://www.deltasafety.eu/</a></td>
</tr>
<tr>
<td>Falck Safety Services</td>
<td>Four (4) places: Den Oever, Rotterdam, Amsterdam, Utrecht</td>
<td><a href="http://www.falck.nl/en/safety_services/contact/falck-safety-services-global">http://www.falck.nl/en/safety_services/contact/falck-safety-services-global</a></td>
</tr>
<tr>
<td>MTC INTERNATIONAL Elisabethhof 19 - 2353 EW, Leiderdorp</td>
<td></td>
<td><a href="http://www.mtc-int.net">www.mtc-int.net</a></td>
</tr>
<tr>
<td>DE RUYTER TRAINING &amp; CONSULTANCY BV (DRTC) Oosterhavenweg 22 - 4382 NL, Vlissingen</td>
<td></td>
<td><a href="https://drtc.nl/en">https://drtc.nl/en</a></td>
</tr>
<tr>
<td>EMERGENCY CONTROL - MARITIME TRAINING BV Brielselaan 85 - 3081 AB, Rotterdam</td>
<td></td>
<td><a href="http://www.ec-mt.com">www.ec-mt.com</a></td>
</tr>
<tr>
<td>G4S TRAINING &amp; SAFETY SOLUTIONS BV Galvanistraat 89 - 6710 BB, Ede</td>
<td></td>
<td><a href="http://www.g4s.nl">www.g4s.nl</a></td>
</tr>
</tbody>
</table>
## HBO Offshore Network

HBO Offshore Network is a partnership of AVANS Hogeschool, Hogeschool Rotterdam, Noordelijke Hogeschool Leeuwarden and Maritiem Instituut Willem Barentsz and JetNet, which promotes students of secondary education to make a choice for a technical career.

### Higher Technical Education (University of Applied Science) and Universities with minors and majors in the offshore

1. **Avans Hogeschool**
2. **Hanzehogeschool Groningen**
3. **Hogeschool INHolland**
4. **Hogeschool Rotterdam**
5. **Hogeschool Van Hall Larenstein**
6. **Maritiem Instituut Willem Barentsz**
7. **Maritiem Instituut De Ruyter**
8. **Maritieme Academie Holland**
9. **NHTV Internationaal hoger onderwijs Breda**
10. **NHL Hogeschool Leeuwarden**
11. **STC-GROUP**
12. **TU Delft**
13. **NHL Minor Oil & Gas – Den Helder**
14. **Avans Hogeschool Offshore Engineering**
15. **HBO Offshore Network**
Report IO1- A2 – ACTA

Identify the similar H&S Offshore regional/national training course

1. General issues related to training on H&S offshore in Romania

As we have seen in IO1 – A1 for Romania, the Romanian Occupational Safety and Health system might be characterized by a comprehensive legislative framework that fully transposed the EU legislation in the area and an adequate institutional framework aligned to the Community requirements in the field. Referring to the offshore sector, in Romania, there is the Decision no. 1050/2006 on minimum requirements for the safety and health of workers in the drilling industry, which contain common and special minimum requirements applicable to offshore drilling sector.

According to International Standard Classification of Occupation (ISCO 08), Classification of Occupations in Romania (COR) contain the occupations specific to the field of occupational safety and health, necessary to carry out prevention and protection activities, corresponding to:

- the average level and the high level
  - 325721 - OSH Technician
  - 32573 - OSH Inspector
  - 325724 - OSH Coordinator
  - 226303 - OSH Coordinator
  - 242304 – OSH Expert

105 | SHIELD Project – Report IO1
There are no special occupations and explicit requirements for OSH specialists in offshore industry.

The training courses and programs in the field of occupational safety and health are performed by authorized vocational training providers, according to the provisions of the Government Ordinance no. 129/2000 regarding the vocational training of adults, republished, with subsequent amendments and completions.

Through the Decision no 567/2015, the Romanian Government updated the national qualifications framework with eight levels based on labor market requirements and offer training, in accordance between it and the European benchmark, thus linking national qualifications systems in Europe.

The contents of the OSH training courses corresponding to each OSH training levels is specified within Annex 6 to the Methodological Norms for the enforcement of the Law No. 319/2006 in terms of the topics approached, the volume of knowledge and information, the skills to be acquired at the end of the training stages.

2. H&S offshore in Higher Education Institutes from Romania

CONSTANTA MARITIME UNIVERSITY is a higher education and research institution that offers the next specializations, degrees or certificates, related to the offshore industry:

➢ Bachelor of Science Degree in Maritime Engineering and Navigation, Specializations: Navigation and Naval Transport; Navigation and Waterborne Transport
➢ Bachelor of Science Degree in Naval Engineering and Navigation, specialization: Naval Electromechanics
➢ Master Degree in OFFSHORE OIL AND GAS TECHNOLOGY AND MANAGEMENT
➢ Master Degree in ADVANCED ENGINEERING IN THE OFFSHORE OIL AND GAS INDUSTRY
➢ International Maritime Organization (IMO) Certificates of competency for aspiring marine officers (cadets)
➢ IMO courses:
  - Dangerous, Hazardous and Harmful Cargoes
  - Fire Prevention and Fire Fighting
  - Global Maritime Distress and Safety System – GOC
  - Maritime English
  - Medical First Aid
  - Personal Safety and Social Responsibilities
  - Pollution Prevention MARPOL 73_78
  - Proficiency in Personal Survival Techniques
  - Proficiency in Survival Craft and Rescue Boats Other Than Fast Rescue Boats
  - RADAR Navigation, RADAR Plotting and Use of ARPA.

“MIRCEA CEL BATRAN” NAVAL ACADEMY is a Polytechnic higher education establishment, which provides education and training programs both for military cadets/midshipmen/officers of the Romanian Navy / Coast Guard but also for civilian engineering specialists for the Merchant Marine sector (bachelor and master degree) in maritime transportation and naval and port logistics; research and development and innovation in the field of naval engineering, marine engineering, naval logistics and management.

The Faculty of Marine Engineering within the university provides:
➢ Bachelor Degree in Naval Electromechanics
➢ Bachelor Degree in Electrical Engineering
➢ Master Degree in Naval Electromechanical Systems.

The Faculty of Navigation and Naval Management provides:
➢ Bachelor Degree in Navigation and Maritime and River Transports
➢ Bachelor degree in Naval and Port Engineering and Management
➢ Master Degree in Nautical Sciences
➢ Master degree in Naval and Port Engineering and Management;
➢ Master Degree in Management of Logistic Systems.

The “Mircea cel Bătrân” Naval Academy has, in its structure:
➢ Damage Control Training Center (firefighting, waterflood simulation)
➢ Seamanship and Sailing Training Center
➢ Training modules (Safety, first aid, defense & security, leadership, meteorology, military training, simulating exercises).

**OVIDIUS UNIVERSITY OF CONSTANTA** is a public higher education institution, a comprehensive university; it is the largest university in South-East Romania and the largest university of the European Union at the Black Sea.

The Faculty of Mechanical, Industrial and Maritime Engineering within the university offers the next specialization related to offshore industry:
➢ Bachelor Degree in Naval equipment and installation
➢ Bachelor Degree in Port and marine installation and equipment
➢ Master degree in Engineering of advanced naval systems and equipment

**PETROLEUM - GAS UNIVERSITY OF PLOIȘTI**

The Faculty of Oil and Gas Engineering within the Petroleum - Gas University of Ploiesti is the only faculty in Romania to prepare specialists in the field of oil and gas exploration and among the few in Europe and even in the world. The students and
master students benefit from the services of an elite teaching staff, modern research and teaching laboratories, cutting-edge software, etc.

The Petroleum - Gas University of Ploiesti offers the next specializations, related to the offshore industry:

➢ Bachelor of Science Degree in Mine, oil and gas, Specialization: Oil & Gas Engineering
➢ Bachelor of Science Degree in Mine, oil and gas, Specialization: Transportation, storage and distribution of hydrocarbons
➢ Master Degree in Drilling of wells
➢ Master Degree in Oil extraction
➢ Master Degree in Deposit engineering
➢ Master Degree in Technology of transport, storage and distribution of hydrocarbons
➢ Master Degree in Management in the oil industry
➢ Master Degree in Petroleum engineering
➢ Doctoral studies in Mine, oil and gas.

3. H&S offshore training in Romania

In Romania, there are some training centers that offer courses for those graduates or professionals who wish to pursue a professional career in the Offshore Industry, with specialization on H&S offshore.

SEA SURVIVAL SCHOOL - Tuzla International Airport

The Sea Survival School, as a part of Regional Air Services is the first training provider from the Eastern Europe for emergency situations response, both in gas and oil industry and in air transportation. The training center was open for operations in 2010, and having specialized and dedicated personnel, the Sea Survival School
ensures training based on its authorized courses and envisages the elaboration of new training programs.

The OPITO approved courses held at the Sea Survival School, comply with the standards required by this non for profit industry owned organization, giving the delegates key information regarding the area of activity, health and safety at work, information regarding the systems in place designed to identify, analyze and reduce the risks associated with their activity. In the same time, participants are trained through practical and theoretical sessions regarding the use of emergency equipment and survival techniques applicable in different emergency situations.
➢ **Basic Offshore Safety Induction & Emergency Training (BOSIET) – Code 5700**

The OPITO-approved BOSIET (Basic Offshore Safety Induction and Emergency Training) course provides the delegate with a range of knowledge and skills relevant to travelling offshore by helicopter and working offshore, including safety induction, fire safety and basic fire fighting; first aid; helicopter safety and escape; and survival at sea.
Delegates successfully completing OPITO approved training and/or assessment events are registered by OPITO into the Vantage database, the validity of Certificate is 4 years.

The BOSIET course duration is 3 days.

The learning outcomes are specified for each of the following modules; they are:

- **MODULULE 1** – Safety Induction
- **MODULULE 2** – Helicopter Safety and Escape
- **MODULULE 3** – Sea Survival and First Aid
- **MODULULE 4** – Fire fighting and Self Rescue

➢ **Helicopter Underwater Escape Training (HUET) – Code 5095**

The OPITO-approved HUET (Helicopter Underwater Escape Training) course provides the delegate with a range of knowledge and skills relevant to travelling offshore by helicopter and helicopter safety and escape.

Delegates successfully completing OPITO approved training and/or assessment events are registered by OPITO into the Vantage database, the validity of Certificate is 4 years.

The HUET course duration is 1 day.

The learning outcomes are specified for the following module:

- **MODULULE 1** – Helicopter Safety and Escape

➢ **Further Offshore Emergency Training (FOET) – Code 5858**
The Further Offshore Emergency Training programme is a 1-day course which must be undertaken by individuals who have a valid BOSIET or FOET certificate. The FOET certificate re-validates a delegate's offshore emergency training for a further 4 years.

FOET Course is designed to meet the further onshore safety and emergency response training requirements for personnel working in the offshore oil and gas industry.

The learning outcomes are specified for each of the following modules; they are:
MODULULE 5 – Helicopter Safety and Escape
MODULULE 6 – Fire fighting and Self Rescue
MODULULE 7 – First Aid

➢ **CA-EBS Initial Deployment Training (CA-EBS) – Code 5902**

The OPITO-approved Compressed Air Emergency Breathing System (CA-EBS) Initial Deployment training programme is designed for personnel travelling to or from offshore installations/vessels via helicopter where a Compressed Air Emergency Breathing System will be provided for use in the case of an emergency ditching.

The CA-EBS course duration is 90 minutes.

To successfully complete this training delegates must able to explain:
1. The fundamental differences between re-breather and compressed air systems (technology and use)
2. The rationale and use of compressed air emergency breathing systems in helicopter emergency situations
3. The hazards associated with compressed air emergency breathing systems
To successfully complete this training delegates must able to demonstrate:

1. A pre-flight inspection of the life jacket and CA-EBS
2. Donning the life jacket with CA-EBS correctly, including "buddy check"
3. An emergency deployment of the CA-EBS in a dry environment

➢ Basic H2S Training – Code 9014

The OPITO Basic H2S Training standard covers the emergency response competency requirements and provides details of training required for personnel working in potential H2S environments. This training covers the characteristics of hydrogen sulphide gas and the potential physiological effects of exposure as well as the use of H2S detection equipment and escape breathing apparatus.

The H2S course duration is 4 hours.

To successfully complete this training delegates must able to explain:

1. Hydrogen sulphide – how it is formed and where it is found;
2. Other names used to describe H2S;
3. Properties and characteristics of H2S;
4. Parts per million (ppm) as a measurement parameter;
5. Occupational exposure limits to H2S;
6. Factors affecting individual susceptibility to H2S;
7. Types of detector equipment;
8. Types of respiratory equipment;
9. Pre-use checks of personal detection devices and EBA.

To successfully complete this training delegates must able to demonstrate:

10. Operating personal H2S detection equipment (including checks);
11. Responding to an alarm;
12. Donning & operating (including checks) an escape breathing apparatus (EBA) with a mask within 30 seconds;
13. Donning & operating (including checks) an EBA with a hood within 30 seconds;
14. Connecting to a pressurised cascade breathing system with an activated EBA which has been donned correctly;
15. Disconnecting from a pressurised cascade breathing system with an activated EBA which has been donned correctly.

➢ International Minimum Industry Safety Training (IMIST) – Code 5312

The OPITO International Minimum Industry Safety Training (IMIST) is highly recommended for all inexperienced employees in the Oil & Gas Industry.

The OPITO International Minimum Industry Safety Training (IMIST) is one on-line Course delivered in English by Regional Air Services on behalf of ATLAS.

Delegates successfully completing OPITO approved training and/or assessment events are registered by OPITO into the Vantage database, the validity of Certificate is 4 years.

During the Introductory Safety Training Programme candidates will gain an awareness of the variety of tasks and the safety risks to be found in the oil and gas industry.

They will be required to demonstrate a sufficient level of knowledge and understanding of the following key areas:
MODULULE 1 – Introduction to the hazardous environment
MODULULE 2 – Working safely including safety observation systems
MODULULE 3 – Understanding the risk assessment process
MODULULE 4 – Tasks that require permit to work
MODULULE 5 – Personal responsibility in maintaining asset integrity
MODULULE 6 – Using manual handling techniques every day
MODULULE 7 – Controlling the use of hazardous substances
MODULULE 8 – Knowledge and practices of working at height
MODULULE 9 – Being aware of mechanical lifting activities

CERONAV – Romanian Maritime Training Centre

With an experience of over 40 years in vocational education and training, founded in 1976 like a public institution, The Merchant Marine Training Centre (CCEMMP), CERONAV currently organizes about 2,000 training, specialization and qualification classes in 80 different specialties, for approximately 32,000 trainees per year. Trainees acquire theoretical information from highly qualified experts and practical skills in a lab located by Siutghiol Lake, where they have access to the modern facilities, like late-generation simulators for navigation, communications, naval equipment and tanker cargo handling equipment.


In April 2018, CERONAV obtained accreditation for **The Digital Course – BOSIET**, an alternative to online participation in the theoretical part of the BOSIET course by using a digital platform. The platform can be accessed from anywhere with Internet access. Once the information from this platform has been traced, the practical sessions of the course as well as the final evaluation will be held at the headquarters CERONAV.
The digital form of this course meets the requirements of the industry by shortening its time from three days to one day.

GSP Training Center

GSP Training Center aims to become the most advanced and complete training facility in the Black Sea area, offering the best services in the approached fields. This is achieved through reaching step by step the strategic objectives, thanks to the highly trained personnel, the internationally accredited trainers, and also due to the high technology simulation equipment. GSP Training Center offers well control training and certification to industry IWCF standards.

The offshore trainings offer includes, among others:

➢ Basic Offshore Survival Induction and Emergency Training (BOSIET)
- in partnership with Romanian Maritime Training Centre (CERONAV)

➢ **Helicopter Underwater Escape Training (HUET)**

- in partnership with Romanian Maritime Training Centre (CERONAV)

➢ **Start-Up Your Career in Offshore**

In 9 days the delegates will cover the following courses:

– IADC Rig Pass;
– Safe Rigging and Slinging;
– Offshore Drilling Induction;
– Drilling Simulator Induction – XCOM Cyber Chair Familiarization & Practice;
– Basic Offshore Survival & Induction Training (BOSIET).

➢ **Basic Offshore Safety Induction**

Upon completion of this 1 day course, the participants will be able to demonstrate general knowledge about the following: safety regulations in force at work, general policy on occupational safety, incident-reporting procedures and environmental protection, working relations between contractor and client, employees’ responsibilities.

➢ **IADC Rig Pass**

IADC Rig Pass is a minimum 8 hours of theoretical training program designed for all employees onboard drilling rigs, providing them with the basics of rig operations, associated risks and risk identification and prevention methods.

➢ **Advanced Safety Management Training**
Advanced Safety Management Training, a 2 days course, aims to provide supervisors and heads of departments with the latest developments in site operations and advanced safety information on specific and lifting operation methods. In addition, the training presents local, national and international regulations applicable in the industry and also special recommendations.

➢ *Basic Safety Induction*

In a 2 days course, participants will gain basic knowledge about onshore and/ or offshore drilling industry, related to specific operations and their associated risks, as well as about applicable national and international regulations. The course focuses especially on identification and assessment of job-specific risks and on preventive and corrective actions in all operations, such as drilling, rigging and slinging, lifting, emergency situations.

➢ *HSE ON-SITE*

This 1 1/2 days course aims to specifically answer our beneficiaries' training needs in terms of safety and security at the work site. Through its team of instructors with extensive operational and teaching experience, GSP Training performs a scan of the risks specific for the work site of our beneficiaries and, together with the participants in the training, identifies and evaluates specific risks and establishes preventative actions required as well as good practices in security and safety.

➢ *H2S Awareness Including Breathing Apparatus*

In 4 hours, the H2S Awareness Course provides the participant with the information required to properly recognize, assess and control hazards associated with H2S gas. Participants will be introduced to the properties of H2S gas, the health hazards associated with exposure, detection and monitoring methods, and acceptable
exposure limits. Participants will learn about personal breathing apparatus, contingency planning and rescue methods used to assist victims of overexposure. The course reviews how and when to use Personal Protective Equipment (PPE) such as Self Contained Breathing Apparatus (SCBA) and Supplied Air Breathing Apparatus (SABA).

➢ **Working at Height – Rescue and Self-Rescue Training**

The course, in 2 days, is developed to provide all personnel involved in or supervising work at height with a better theoretical and practical understanding on how to use techniques and equipment for working at height activities. In addition, the delegates will gain a better theoretical and practical understanding on techniques and equipment for descendant evacuation activities without getting rappel rescue. Delegates will undertake a theoretical and practical assessment.

➢ **Confined Space – Working and Rescue Training**

Upon completion this 2 days course, the delegates will be able to take all necessary precautions and safely conduct and/ or supervise work activities in confined spaces. Also they will be able to rescue themselves and other team members in case of an emergency involving working in confined spaces.

**4. Conclusion**

- According to International Standard Classification of Occupation (ISCO 08), Classification of Occupations in Romania (COR) contain the occupations specific to the field of occupational safety and health, necessary to carry out prevention and protection activities, corresponding to: the average level (325721 - OSH...
Technician; 325723 - OSH Inspector; 325724 - OSH Coordinator) and the high level (226303 - OSH Coordinator; 242304 – OSH Expert).

- In Romania, there are no special occupations and explicit requirements for OSH specialists in offshore industry.
- There are some Higher Education Institutions in Romania, which provide diplomas (Bachelor Degree, Master Degree, PhD Degree), courses or trainings related to offshore industry.
- In Romania, there are some training centers, which offer theoretical and practical courses for those graduates, or professionals who wish to pursue a professional career in the offshore industry, with specialization on H&S offshore, like BOSIET, HUET, FOET, H2S, ESCAPE CHUTE, IMIST and others.

5. References

11. Law no 319 of 14 July 2006 on Safety and Health of Workers at Work
12. Government Decision No. 1425 of 11 October 2006 Methodological Norms for the enforcement of the Law No. 319 on Safety and Health at Work
13. Government Decision No. 955 of 8 September 2010 for modifying and completing the Methodological Norms for the enforcement of the Law No. 319 on Safety and Health at Work
14. Decision no. 1050/2006 on minimum requirements for the safety and health of workers in the drilling industry
15. Government Ordinance no. 129/2000 regarding the vocational training of adults, republished
16. Decision no. 567/2015 on the national qualifications framework
18. https://www.anmb.ro - “Mircea cel Bătrân” Naval Academy
19. www.univ-ovidius.ro - Ovidius University of Constanta
IO1-A3. Training needs and competences questionnaires
IO1-A3 SHIELD Training needs and competences questionnaires

INSTRUCTIONS FOR THE COMPLETION OF THE QUESTIONNAIRE:

Read each question carefully. In each question indicate with a Cross the self-assessment indicator that you consider most appropriate to your answer.

1. In which sector your company is involved in?
   a. Oil&Gas
   b. Wind Energy
   c. Wave Energy
   d. Solar Energy
   e. Construction
   f. Emergency rescue

2. Does your organization have a H&S Management System?
   a. Yes
   b. No
   c. I don’t know

3. Are you aware of any requirements for specific H&S training requirements for those working in the Offshore industry?
   a. I am not aware
   b. I have heard about it
   c. I am aware but I do not know the specificity
d. My organization has implemented a specific H&S protocol to work offshore

4. Have you had **specific** training on Offshore H&S?
   a. Yes (specify)
   b. No
   c. Not yet but I am planning to attend specific training for H&S Offshore
   d. I don’t know

5. During the H&S Offshore training, you have had both theoretical and practical training?
   a. Yes, we have had both
   b. No, it was only classroom based
   c. I don’t know
   d. Other ........

6. Your training on H&S Offshore has been given by
   a. Public institution
   b. Private Institution
   c. I don’t know
   d. Other ........

7. Your training on H&S Offshore was provided
   a. Locally (please specify place/country)
   b. Abroad (please specify place/country)

8. If your training was provided outside your country of residence, please specify reason
   a. Lack of training facilities/provision of specific training at national level
   b. Lack of quality of training at national level
9. Are you aware of any training institutions in your country of residence, which provide training for Offshore personnel?
   a. Yes (specify)
   b. I don’t know

10. Are you aware of any international training standards to be followed by all those involved in Offshore activities, and if so, why ones?
    a. Yes (specify)
    b. I don’t know

11. Has any colleague of yours attended any H&S Offshore training that you are aware of?
    a. Yes (specify)
    b. No
    c. I don’t know

12. Are you interested to work abroad in a suitable position in the Offshore Industry?
    a. Yes
    b. Yes, but for a short period
    c. Not sure
    d. Not at all