Establishment of Eastern Mediterranean Regional Network: pooling, sharing, development of innovative face-to-face and digital training/mentoring tools for the maritime sector

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[1] **R**=Document, report; **DEM**=Demonstrator, pilot, prototype; **DEC**=website, patent fillings, videos, etc.; **OTHER**=other

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Modification History

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Acronyms and Abbreviations

VET	**Vocational Education and Training**
ISCED	**International Standard Classification of Education**

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Executive Summary

This report is the deliverable D2.1 “Mapping of educational activities” of the Sea of Experience project. The aim of this activity is to develop a map of the existing educational activities in the 4 (four) domains that are the focus of Sea of Experience project; maritime transport, cruise industry, port operations and shipbuilding/ship-repair/dismantling.

This document describes the methodological approach to achieve this task (Chapter 2). To develop the database, all the partners provided information on the available educational activities in their respected countries. To ensure the homogeneity of the data, as well as to facilitate this procedure, a user-friendly excel (.xlsx) file was created by the leader of this task and circulated to the rest of the partners. This excel is the common point of reference for this, and later, tasks and the records reached beyond 3000 in number.

The consortium capitalized on the existing information from the MENTOR project (“Blue career Centre for Eastern Mediterranean and the Black Sea”), by updating all the existing records and by adding a significant number of records, as part of this effort.

The mapping of educational activities includes educational activities offered by universities, colleges, different kinds of VET and seminars conducted in both Cyprus and Greece. This effort is necessary to provide a comprehensive database to be used by the Mentors and Mentees through the sharing pooling platform later in the project (Chapters 3, 4).

Additional focus was given to the educational activities that are relevant to the Sea of Experience selected professions; deck officer, engineering officer, electro/technical officer, stevedore, harbour master, cook, hotel attendant, naval architect, welder and marine surveyor; with this information being available in the database that has been developed (Chapter 5). Finally, as part of this task, the initial architecture of the filtering algorithm was developed, in order to facilitate data handling and filtering (Chapter 6).

Finally, it is important to note that due to the extended size of the tables included in this report, many records were omitted from Chapters 3-5. For these cases the reader should consult Annex 1 where the complete database is presented.

This work is part of the Sea of Experience project. This project has received funding from the European Union’s “European Maritime and Fisheries Fund (EMFF)”, one of the five European Structural and Investment (ESI) Funds under Grand Agreement No. 863551.

1. Introduction

1.1. Background

This report is drafted for the Sea of Experience project, as part of Work Package 2 "Establishment of the Eastern Mediterranean Regional Network". Sea of Experience is an EU -partially- funded project, under Grand Agreement 863551, that aims to establish a training/mentoring network; the Eastern Mediterranean Regional Network (EMReN) in order to guide professionals and youngsters through the next steps in their careers. As part of this effort, Work Package 2 creates the foundations to select and attract competent teachers/mentors/lecturers with hands-on experience in the maritime domain. The objectives of Work Package 2 are as defined in the initial proposal are:

- To develop common training/mentoring programs for Blue Economy industries (maritime transport, shipbuilding and ship repair, port operations, cruise industry)
- To attract competent teacher/mentors/lecturers with hands-on experience in the maritime domain
- To provide career guidance and enhanced employability
- To establish the necessary networks for this effort

More specifically, Deliverable D2.1 "Educational Activities Map" aims to identify and map the educational activities that correlate with the required competencies and qualifications for the selected Blue Economy domains.

At this point, it is essential to refer to D2.3 "Criteria for profiling an effective mentor/teacher", in which career paths were ultimately selected for each respected domain (i.e. cruise industry, shipbuilding, port operations and maritime transport) for a total of ten (10) blue careers. These blue careers are:

- Deck Officer
- Engineering Officer
- Electro/Technical Officer
- Cook
- Hotel Attendant
- Welder
- Naval Architect
- Marine Surveyor
- Stevedore
- Harbor Master

The hereby documents capitalizes -to the extent that this is possible- on the efforts of the MENTOR project, where a mapping of educational activities, although in different professions, was conducted.

1.2. Purpose and scope

This document provides the current situation of educational and training activities that are provided by, both in Greece and Cyprus regarding the four (4) selected Blue Economy Domains (cruise industry, shipbuilding, port operations and maritime transport). Given that the information regarding these activities is currently fragmented and not centralized, this effort is crucial to develop a central information hub, as a database, for later Work Packages and Tasks to capitalize on; and provide relevant and updated information to both mentors and mentees.

1.3. Approach

In order to address the problem of fragmented information, Task 2.1 aims to create a comprehensive record of all the training and educational activities by cataloguing these activities in a common database. This record is populated by all the participating partners of this task (NTUA, APOPSI SA, UCY, CMMI, CCCI) by providing detailed information on universities, colleges, VET and seminars offered in their respected countries. The information regarding these entities should be detailed and not limited to the information available by the training provider, but also correlate with at least one blue domain and at least one blue career described within the project (referred to D2.3).

The database includes information on the name of the organization, the type of organization, the type of education offered by the organization (higher education, vocational training, seminars, etc.), the legal status (either private or public) the country as well as the city the organization is based in, the specific department or faculty that offers this kind of training, the ISCED level that can be reached following this training programs (both the minimum and maximum available within the organization), the topics studied, the target groups, a link to the program of studies, a reference to the relevant blue domains as well as to the careers that are the focus of Sea of Experience, the available infrastructure that the entity offers and -finally- contact information to reach the organization (email, phone number, website or any other available mean). This will allow both the mentors and the mentees to have a common point of reference with all the available accredited organizations that offer relevant training in the fields of the mentee's interest.

Additionally, a sophisticated algorithm to manage the records is developed, as part of this effort. The purpose of the software solution is to facilitate navigation and searching through the extensive database by filtering the entries according to user preferences.

2. Overview of Educational and Training Activities

2.1. Definitions

At this point, it is important to define the type of information depicted in the newly formed database. While some types of information entries are self-explanatory (as are the contact information and the location of the entity) others need to be specifically defined to ensure proper communication and robustness of the entries (e.g. ISCED level and type of education). This effort is also important for the development of the software solution, which requires homogenized data to deliver the expected results.

In the context of this deliverable, the main types of training and educational institutes included are:

- **Higher Education** corresponds to all types of courses of study, or sets of courses of study, training or training for research at the post-secondary level which are recognized by the relevant national authorities of a participating country as belonging to its higher education system[3]. Since the education systems vary widely amongst countries, there is a need to use a standard classification to identify the type and levels of education provided by institutions.
- **Vocational Education and Training (VET)**[4] referring to a learning process of education and training aiming at equipping people with knowledge, know-how, skills and/or competences required occupations or more broadly on the labour market. Special attention will be paid to the accredited VET programs that are officially recognized and approved by the relevant legislative or professional authorities following assessment against predetermined standards.
- **Seminars:** A seminar is a form of academic instruction, either at an academic institution or offered by a commercial or professional organization. It has the function of bringing together small groups for recurring meetings, focusing each time on some particular subject, in which everyone present is requested to participate.

For defining the **level of education and training** provided in the identified higher education and VET institutions it was adopted the **International Standard Classification of Education** (**ISCED**), which is the reference international classification for organizing educational programs and related qualifications by levels and fields. ISCED developed by the United Nations and is the most commonly used classification system that is also used by Eurostat[5]. Compared to ISCED 1997 which had seven levels of education, ISCED 2011 has nine levels of education, from level 0 to level 8 (i.e. tertiary education is more detailed):

- ISCED 0: Early childhood education ('less than primary' for educational attainment).
- ISCED 1: Primary education.
- ISCED 2: Lower secondary education.

[3] Erasmus Mundus glossary. See: http://eacea.ec.europa.eu/erasmus_mundus/tools/glossary_en.php

[4] CEDEFOP, Terminology of European education and training policy - Second edition (2014). See: http://www.cedefop.europa.eu/en/publications-and-resources/publications/4117

[5] See: http://ec.europa.eu/eurostat/statistics-explained/index.php/International_Standard_Classification_of_Education_(ISCED)

- ISCED 3: Upper secondary education.
- ISCED 4: Post-secondary non-tertiary education.
- ISCED 5: Short-cycle tertiary education.
- ISCED 6: Bachelor or equivalent level.
- ISCED 7: Master or equivalent level.
- ISCED 8: Doctoral or equivalent level.

There are mapping tables available for most countries in the world that clearly link the national systems to international ISCED standards6. The European Tertiary Education Register (ETER) also uses the ISCED classification (5 until 8)7.

It is clear that the seminars are not incorporated in the ISCED system. For this reason, the consortium agreed to identify seminars as "ISCED 9" for the purposes of homogeneity of the records.

2.2. Methodological Approach

The carry out the mapping, the construction of a consolidated matrix that would be distributed among partners to collect information was essential. This matrix acts as the database of the collected information on educational activities.

In order to further capitalize on the mapping of educational activities, the database was structured as an Excel Sheet (.xlsx) where each record (row) represented one institution. The records contain information divided into 6 Tiers; general information, particulars, matching blue domains, matching relevant careers (as those were defined in D2.3 "Criteria for profiling an effective mentor/teacher"), contact information, and important infrastructure. Each Tier is further split into cells containing higher detail of information (Table 1, Table 2, Table 3, Table 4, Table 5, Table 6).

All participating partners were, then, asked to fill records in the database regarding institutions from their countries of origin. All partners reviewed the database for cross-checking and validation of the information. In addition, a software tool was developed to allow easy navigation between the database records. A detailed presentation of the tool is provided in Chapter 6 of this deliverable.

The database is divided in six (6) different tiers of information:

Tier 1 - **General Info**: containing the name of the organization, the type of organization, the type of education offered by the organization, its legal status, the country and the city the organization is located in.

Table 1 Tier 1 - General Info structure

General Info					
Name of organization	Type of organization	Type of education	Legal status	City	Country

[6] See: http://uis.unesco.org/en/isced-mappings

[7] See: https://www.eter-project.com/

Tier 2 - **Particulars**: containing the Department or Faculty responsible for the recorded training program, the minimum and maximum ISCED level offered by the organization, the topics of research, the specific target groups and a link to the program of studies.

Table 2 Tier 2 – Particulars structure

Particulars					
Department / Faculty	ISCED (min)	ISCED (max)	Topics	Target group	Programme of studies

Tier 3 - **Blue Domains**: Each record should correspond to at least one blue domain under the Sea of Experience project. The blue domains are: Maritime Transport, Shipbuilding and Ship Repair, Port Operations and the cruising industry.

Table 3 Tier 3 - Blue Domains structure

Blue Domains			
Maritime Transport	Shipbuilding & Ship Repair	Ports	Cruise Industry

Tier 4 - **Relevance to Careers**: Each record should correspond to at least one (1) of the ten (10) blue careers selected in D2.3 for the record to be relevant.

Table 4 Tier 4 - Relevance to careers structure

Relevance to careers									
Maritime Transport			Cruise Industry		New Shipbuilding, Ship Repair			Port Operations	
Deck Officer	Engineering Officer	Electro/ Technical Officer	Cook	Hotel attendant	Welder	Naval Architect	Marine Surveyor	Stevedore	Harbor Master

Tier 5 - **Contact Information**: containing all available contact information regarding the organization as contact person name, role within the organization, secretary email, phone number, organization website, etc.

Table 5 Tier 5 - Contact Information structure

Contact				
Contact Person		Contact Info		
Name	Position	email	phone number	website

Tier 6 - **Important Infrastructure**: containing information about the available infrastructure that is relevant to each blue domain.

Table 6 Tier 6- Important Infrastructure structure

Important Infrastructure			
Maritime Transportation	Cruise Industry	New Shipbuilding	Port Operations

3. Mapping of Blue Domain educational activities in Cyprus

The survey of the Cypriot institutions that are offering education and training in the selected Blue Domains (Maritime Transport; Cruise Industry; New Shipbuilding, ship-repair and dismantling; Port Operations) revealed the existence and operation of 30 educational activities in Cyprus. The educational activities include institutions that offer higher education, vocational training and seminars for each Blue Domain with those focus on the 10 selected careers of the Sea of Experience Project.

Of those 30 educational activities, 15 regarded the Maritime Transport Sector, 22 the Cruise Industry, 7 the New Shipbuilding and Ship repair industry, and 18 Port Operations (Figure 1). It is worth mentioning that each educational activity may be relevant to more than one of the selected Blue Domains.

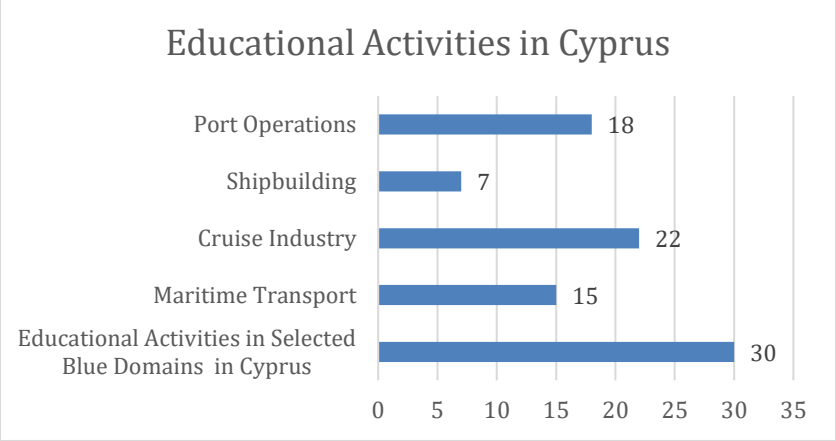


Figure 1 Mapping of Educational Activities in Cyprus

The educational activities are offered from 13 universities, 6 colleges as well as 6 VET and 0 Seminars.

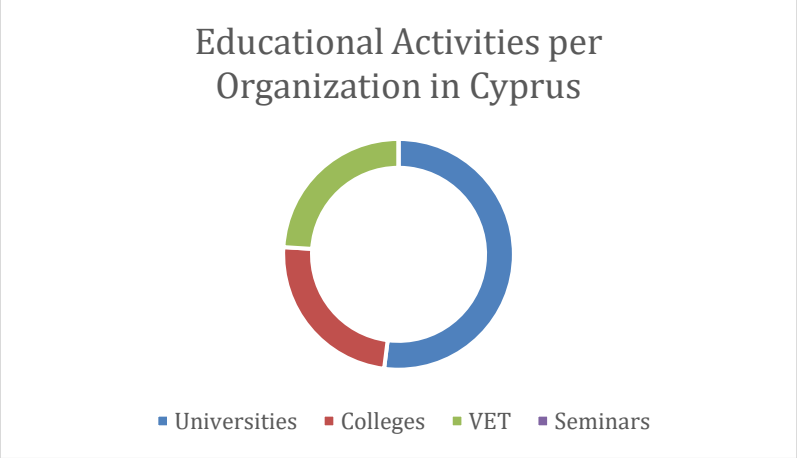


Figure 2 Educational Activities per organization type in Cyprus

3.1. Maritime Transport

In total, 15 educational activities regarding the Maritime Transport sector were identified. Of those, 9 regarded Higher Education, 3 VET and 3 Seminars.

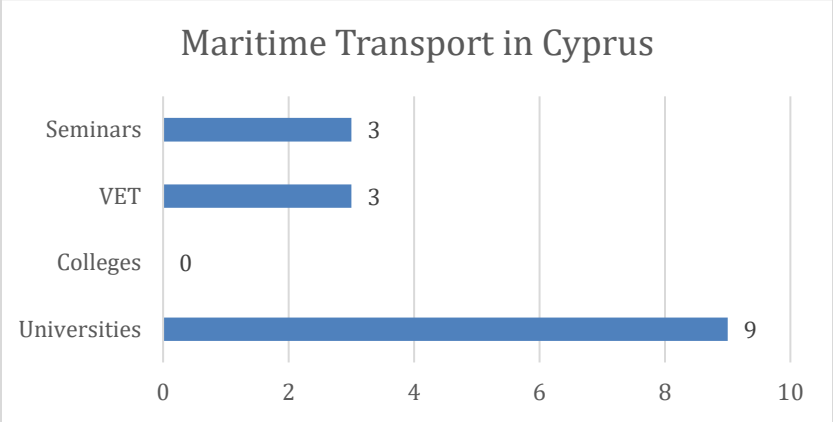


Figure 3 Maritime Transport in Cyprus

3.1.1. Universities

The list of educational activities in Maritime Transport offered by universities in Cyprus is presented in Table 7. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 7 Educational activities offered by Universities for Maritime Transport Domain in Cyprus

Cyprus University of Technology	University	Higher Education	Public	Limassol	Cyprus	Commerce, Finance & Shipping
Frederick University	University	Higher Education	Private	Nicosia	Cyprus	School of Engineering and Applied Sciences
Frederick University	University	Higher Education	Private	Limassol	Cyprus	School of Economic Sciences and Administration
Frederick University	University	Higher Education	Private	Limassol	Cyprus	Department of Maritime Transport and Commerce (Limassol) and the Department of Mechanical Engineering (Nicosia)
European University Cyprus	University	Higher Education	Private	Nicosia	Cyprus	The School of Business Administration
The Cyprus Institute of Marketing	University	Higher Education	Private	Limassol	Cyprus	n/a
European University Cyprus	University	Higher Education	Private	Nicosia	Cyprus	The School of Business Administration
University of Nicosia (UoN) - (Maritime Academy Cyrus)	University	Vocational Training	Private	Nicosia	Cyprus	Maritime Academy Cyprus

3.1.2. Vocational Training

The list of educational activities in Maritime Transport offered by VET in Cyprus is presented in Table 8. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 8 Educational activities offered by VET for Maritime Transport Domain in Cyprus

THOMAS FARADAY TRAINING LTD	VET	Vocational Training	Private	Limassol	Cyprus	Marine / Offshore High Voltage Courses
Mediterranean Maritime Training Centre (MMTC) - Mediterranean Maritime Academy (MMA	VET	Vocational Training	Private	Limassol	Cyprus	Maritime training Centre
BSM Maritime Training School (BSMMTC)	VET	Vocational Training	Private	Limassol	Cyprus	Maritime Training Centre (Cyprus)

3.1.3. Seminars

The list of educational activities in Maritime Transport offered by Seminars in Cyprus is presented in Table 9. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 9 Educational activities offered by Universities Seminars for Maritime Transport Domain in Cyprus

Institute of Chartered Shipbrokers	Seminar	Other	Private	Limassol	Cyprus	ICS Professional Qualifying Examinations
Institute of Chartered Shipbrokers	Seminar	Other	Private	Limassol	Cyprus	ICS Professional Qualifying Examinations
European Institute Management & FInance	Seminar	Seminar	Private	Nicosia	Cyprus	Maritime training (In house training)

3.2. Cruise Industry

In total, 22 educational activities regarding the Cruise Industry were identified. Of those 22, 15 regarded Higher Education, 5 VET and 2 Seminars.

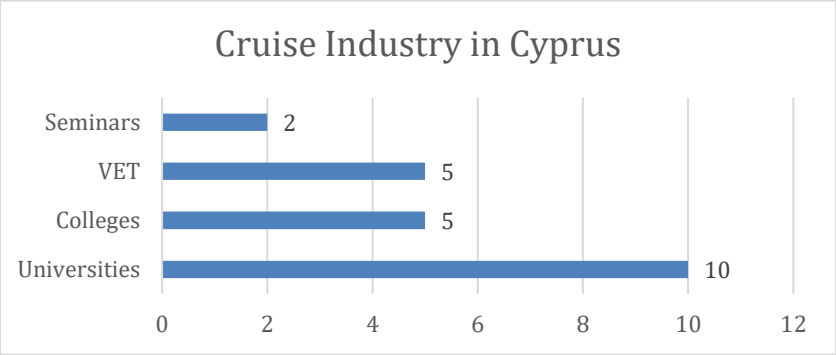


Figure 4 Cruise Industry in Cyprus

3.2.1. Universities

The list of educational activities in the Cruise Industry offered by Colleges in Cyprus is presented in Table 10. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 10 Educational activities offered by Universities for Cruise Industry in Cyprus

Cyprus University of Technology	University	Higher Education	Public	Limassol	Cyprus	Commerce, Finance & Shipping
Cyprus University of Technology	University	Higher Education	Public	Limassol	Cyprus	Department of Hotel and Tourism Management
Frederick University	University	Higher Education	Private	Nicosia	Cyprus	School of Engineering and Applied Sciences
Frederick University	University	Higher Education	Private	Limassol	Cyprus	School of Economic Sciences and Administration
Frederick University	University	Higher Education	Private	Limassol	Cyprus	Department of Maritime Transport and Commerce (Limassol) and the Department of Mechanical Engineering (Nicosia)
University of Central Lancashire - Cyprus	University	Higher Education	Private	Larnaka	Cyprus	School of Business and Management
European University Cyprus	University	Higher Education	Private	Nicosia	Cyprus	The School of Business Administration
The Cyprus Institute of Marketing	University	Higher Education	Private	Limassol	Cyprus	n/a
European University Cyprus	University	Higher Education	Private	Nicosia	Cyprus	The School of Business Administration

3.2.2. Vocational Training

The list of educational activities in the Cruise Industry offered by VET in Cyprus is presented in Table 11. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 11 Educational activities offered by VET for Cruise industry in Cyprus

Odysseus Maritime Training Centre	VET	Vocational Training	Private	Limassol	Cyprus	Maritime training
THOMAS FARADAY TRAINING LTD	VET	Vocational Training	Private	Limassol	Cyprus	Marine / Offshore High Voltage Courses
MCTC MARINE LTD	VET	Vocational Training	Private	Limassol	Cyprus	TRAINING COURSE FOR SHIP'S COOKS
Mediterranean Maritime Training Centre (MMTC) - Mediterranean Maritime Academy (MMA	VET	Vocational Training	Private	Limassol	Cyprus	Maritime training Centre
BSM Maritime Training School (BSMMTC)	VET	Vocational Training	Private	Limassol	Cyprus	Maritime Training Centre (Cyprus)

3.2.3. Seminars

The list of educational activities in the Cruise Industry offered by Seminars in Cyprus is presented in Table 12. A more detailed and comprehensive matrix can be found in Annex 1 (incl contact information).

Table 12 Educational Activities offered by Seminars for the Cruise industry in Cyprus

DNV-GL	Seminar	Seminar	Private	Limassol	Cyprus	Maritime academy
European Institute Management & FInance	Seminar	Seminar	Private	Nicosia	Cyprus	Maritime training (In house training)

3.3. New Shipbuilding, ship repair and dismantling

In total, 7 educational activities regarding the New Shipbuilding, ship-repair and dismantling sector were identified. Of those 7, 3 are offered by Higher Education, 3 by VET and 1 Seminar.

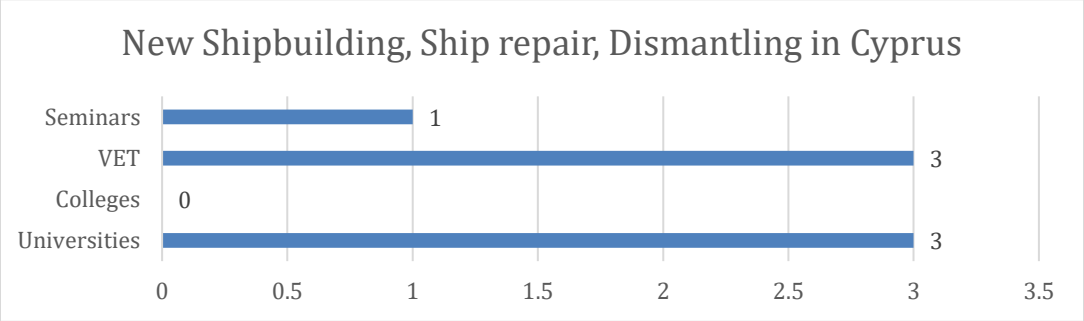


Figure 5 Newbuilding, Ship repair, Dismantling in Cyprus

3.3.1. Universities

The list of educational activities in newbuilding, ship-repair, dismantling offered by Universities in Cyprus is presented in Table 13. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 13 Educational Activities offered by Universities for Newbuilding, ship-repair and dismantling in Cyprus

Frederick University	University	Higher Education	Private	Nicosia	Cyprus	School of Engineering and Applied Sciences
University of Central Lancashire - Cyprus	University	Higher Education	Private	Larnaka	Cyprus	Institute of Professional Studies
University of Nicosia (UoN) - (Maritime Academy Cyrus)	University	Vocational Training	Private	Nicosia	Cyprus	Maritime Academy Cyprus

3.3.2. Vocational Training

The list of educational activities in newbuilding, ship-repair, dismantling offered by VET in Cyprus is presented in Table 14. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 14 Educational Activities offered by VET for Newbuilding, ship-repair and dismantling in Cyprus

THOMAS FARADAY TRAINING LTD	VET	Vocational Training	Private	Limassol	Cyprus	Marine / Offshore High Voltage Courses
Mediterranean Maritime Training Centre (MMTC) - Mediterranean Maritime Academy (MMA	VET	Vocational Training	Private	Limassol	Cyprus	Maritime training Centre
BSM Maritime Training School (BSMMTC)	VET	Vocational Training	Private	Limassol	Cyprus	Maritime Training Centre (Cyprus)

3.3.3. Seminars

The list of educational activities in newbuilding, ship-repair, dismantling offered by Seminars in Cyprus is presented in Table 15. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 15 Educational Activities offered by Seminars for Newbuilding, ship-repair and dismantling in Cyprus

DNV-GL	Seminar	Seminar	Private	Limassol	Cyprus	Maritime academy

3.4. Port Operations

In total, 18 educational activities regarding the Port Operations sector were identified. Of those 18, 9 were offered by Universities, 3 by VET and 4 Seminars.

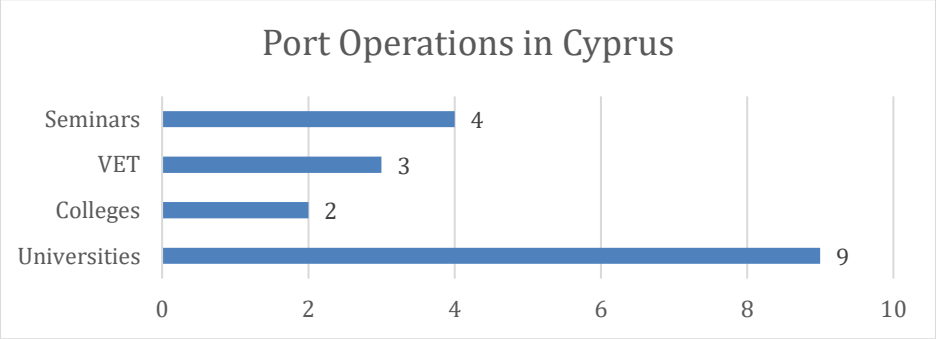


Figure 6 Port Operations in Cyprus

3.4.1. Universities

The list of educational activities in Port Operations offered by Universities in Cyprus is presented in Table 16. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 16 Educational Activities offered by Universities for Port Operations in Cyprus

Cyprus University of Technology	University	Higher Education	Public	Limassol	Cyprus	Commerce, Finance & Shipping
Cyprus University of Technology	University	Higher Education	Public	Limassol	Cyprus	Department of Hotel and Tourism Management
Frederick University	University	Higher Education	Private	Nicosia	Cyprus	School of Engineering and Applied Sciences
Frederick University	University	Higher Education	Private	Limassol	Cyprus	School of Economic Sciences and Administration
European University Cyprus	University	Higher Education	Private	Nicosia	Cyprus	The School of Business Administration
The Cyprus Institute of Marketing	University	Higher Education	Private	Limassol	Cyprus	n/a
European University Cyprus	University	Higher Education	Private	Nicosia	Cyprus	The School of Business Administration
University of Nicosia (UoN) - (Maritime Academy Cyrus)	University	Vocational Training	Private	Nicosia	Cyprus	Maritime Academy Cyprus

3.4.2. Vocational Training

The list of educational activities in Port Operations offered by VET in Cyprus is presented in Table 17. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 17 Educational Activities offered by VET for Port Operations in Cyprus

Odysseus Maritime Training Centre	VET	Vocational Training	Private	Limassol	Cyprus	Maritime training
Mediterranean Maritime Training Centre (MMTC) - Mediterranean Maritime Academy (MMA	VET	Vocational Training	Private	Limassol	Cyprus	Maritime training Centre
BSM Maritime Training School (BSMMTC)	VET	Vocational Training	Private	Limassol	Cyprus	Maritime Training Centre (Cyprus)

3.4.3. Seminars

The list of educational activities in Port Operations offered by Seminars in Cyprus is presented in Table 18. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 18 Educational Activities offered by Seminars for Port Operations in Cyprus

Institute of Chartered Shipbrokers (Cyprus Branch)	Seminar	Other	Private	Limassol	Cyprus	ICS Professional Qualifying Examinations
Institute of Chartered Shipbrokers (Cyprus Branch)	Seminar	Other	Private	Limassol	Cyprus	ICS Professional Qualifying Examinations
DNV-GL	Seminar	Seminar	Private	Limassol	Cyprus	Maritime academy
Intercollege	College	Higher Education	Private	Limassol & Larnaca	Cyprus	Travel and Tourism Management
KES College	College	Tertiary Education	Private	Nicosia	Cyprus	School of Culinary, Hospitality and Tourism
European Institute Management & FInance	Seminar	Seminar	Private	Nicosia	Cyprus	Maritime training (In house training)

4. Mapping of Blue Domain educational activities in Greece

The survey of the Greek institutions that are offering education and training in the selected Blue Domains (Maritime Transport; Cruise Industry; New Shipbuilding, ship-repair and dismantling; Port Operations) revealed the existence and operation of 3129 educational activities in Greece. The educational activities include institutions that offer higher education, vocational training and seminars for each Blue Domain with those focus on the 10 selected careers of the Sea of Experience Project.
Of those 3129 educational activities, 1871 regarded the Maritime Transport Sector, 1779 the Cruise Industry, 918 the New Shipbuilding and Ship repair industry, and 178 Port Operations (Figure 7). It is worth mentioning that each educational activity may be relevant to more than one of the selected Blue Domains.

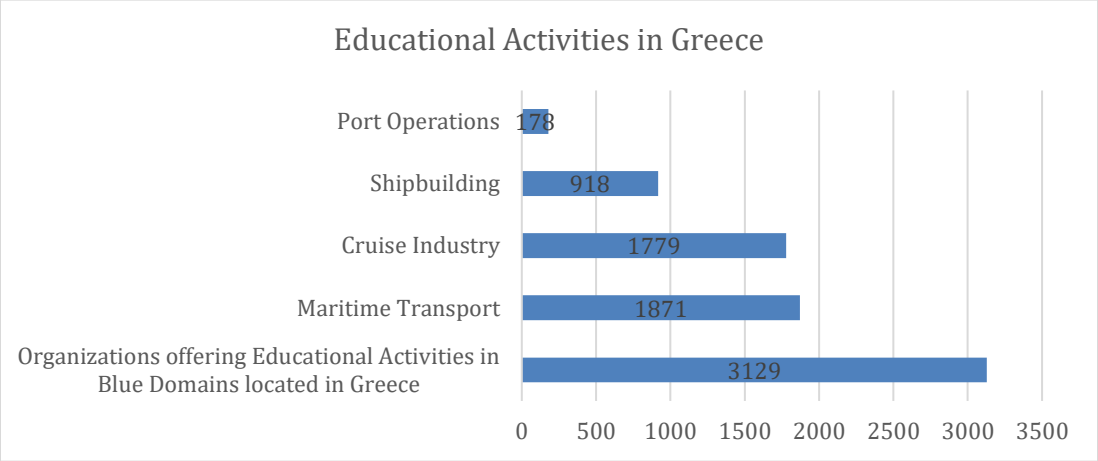


Figure 7 Educational Activities in Greece

The educational activities are offered from 176 universities, 106 colleges as well as 2647 VET and 200 Seminars.

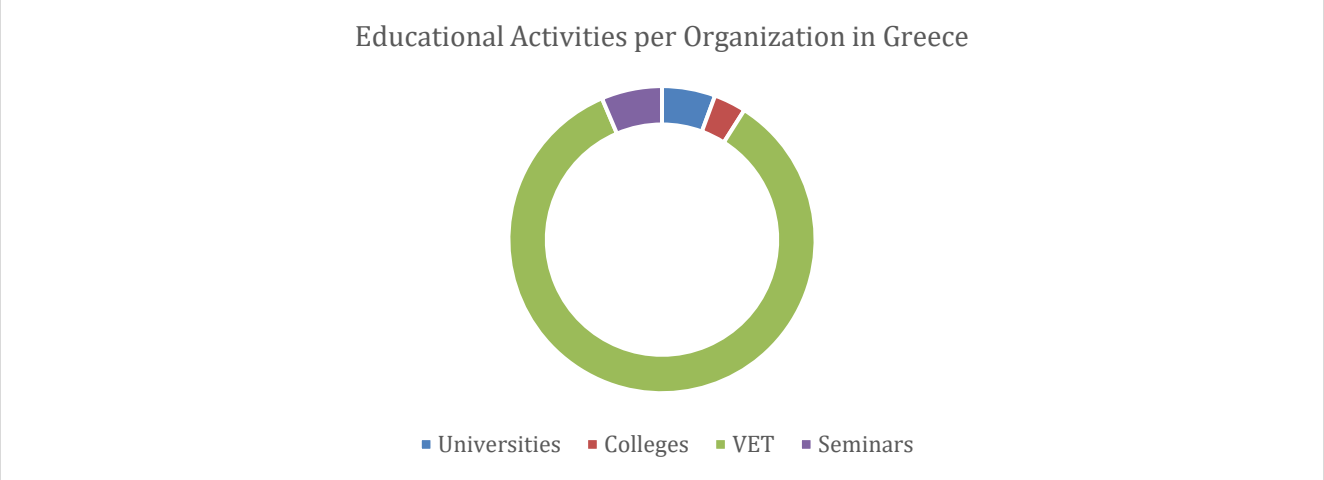


Figure 8 Educational Activities per Organization in Greece

4.1. Maritime Transport

In total, 1871 educational activities regarding the Maritime Transport sector were identified. Of those, 187 are offered by Universities, 73 by Colleges, 1548 by VET and 122 by Seminars.

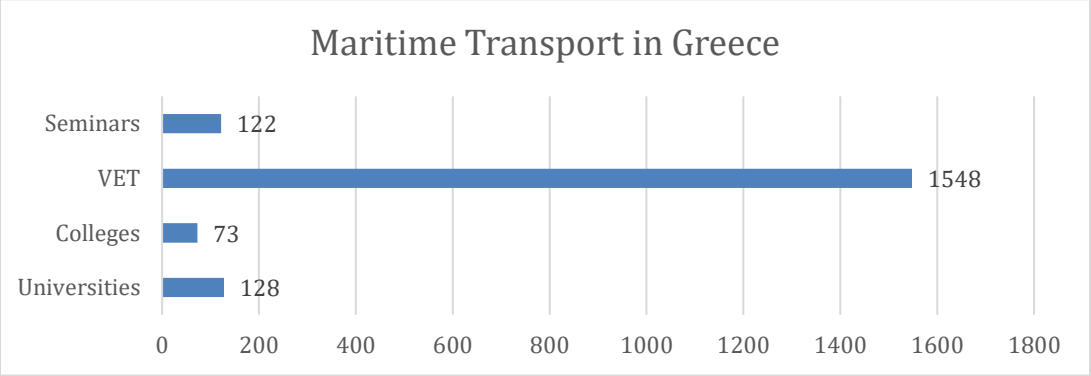


Figure 9 Maritime Transport in Greece

4.1.1. Universities

The list of educational activities in Maritime Transport offered by Universities in Greece is presented in Table 19. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 19 Educational Activities offered by Universities for Maritime Transport in Greece

National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Naval Architecture & Marine Engineering
National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Mechanical Engineering
National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Electrical & Computer Engineering
National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Civil Engineering
. . . See Annex 1 . . .						
National & Kapodistrian University of Athens (NKUA)	University	Higher Education	Public	Psachna Evias	Greece	School of Science - Dept. of Digital Industry Technologies
School of Pedagogical & Technological Education	University	Higher Education	Public	Athens	Greece	Dept. of Electrical & Electronic Engineering Educators
School of Pedagogical & Technological Education	University	Higher Education	Public	Athens	Greece	Dept. of Mechanical Engineering Educators
School of Pedagogical & Technological Education	University	Higher Education	Public	Athens	Greece	Dept. of Civil Engineering Educators

4.1.2. Colleges

The list of educational activities in Maritime Transport offered by Colleges in Greece is presented in Table 20. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 20 Educational Activities offered by Colleges for Maritime Transport in Greece

Aegean College	College	Higher	Private	Athens	Greece	School of Business
Aegean College	College	Higher	Private	Athens	Greece	School of Shipping
Aegean College	College	Higher	Private	Athens	Greece	School of
Alba	College	Higher	Private	Athens	Greece	School of
Alba	College	Higher	Private	Athens	Greece	School of Strategic
Deree	College	Higher	Private	Athens	Greece	School of Business
Deree	College	Higher	Private	Athens	Greece	School of Business
. . . See Annex 1 . . .						
BCA	College	Higher	Private	Athens	Greece	Business Dept. -
City Unity College	College	Higher	Private	Athens	Greece	School of Law
DEI College	College	Higher	Private	Thessaloniki	Greece	Dept. of Computing
Mediterranean	College	Higher	Private	Athens,	Greece	School of Business
Mediterranean	College	Higher	Private	Athens,	Greece	School of Business
American College	College	Higher	Private	Thessaloniki	Greece	Dept. of Business
New York College	College	Higher	Private	Athens,	Greece	School of Maritime
Metropolitan	College	Higher	Private	Athens,	Greece	Faculty of Business
City College	College	Higher	Private	Thessaloniki	Greece	Computer Science
IST College	College	Higher	Private	Athens	Greece	School of Business
IST College	College	Higher	Private	Athens	Greece	School of
MBS College of	College	Higher	Private	Heraklion	Greece	School of Business

4.1.3. Vocational Training

The list of educational activities in Maritime Transport offered by VET in Greece is presented in Table 21. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 21 Educational Activities offered by VET for Maritime Transport in Greece

The 6th Vocational Senior High School of Athens (EPAL)	VET	Vocational	Public	Athens	Greece	Officer of Administrative and Financial Services
The 6th Vocational Senior High School of Athens (EPAL)	VET	Vocational	Public	Athens	Greece	Technician of Electrical Installations & Networks
The 6th Vocational Senior High School of Athens (EPAL)	VET	Vocational	Public	Athens	Greece	Technician of Electronics & Computer Systems
. . . See Annex 1 . . .						
The 1st Vocational Senior High School of Ag. Dimitrios (EPAL)	VET	Vocational	Public	Athens	Greece	Technician of Electrical Installations & Networks
The 1st Vocational Senior High School of Ag. Dimitrios (EPAL)	VET	Vocational	Public	Athens	Greece	Officer of Administrative and Financial Services
Vocational Senior High School of Ag. Ioannis Rentis (EPAL)	VET	Vocational	Public	Athens	Greece	Officer of Administrative and Financial Services

4.1.4. Seminars

The list of educational activities in Maritime Transport offered by Seminars in Greece is presented in Table 22. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 22 Educational Activities offered by Seminars for Maritime Transport in Greece

DNV-GL	Seminar	Seminar	Private	Piraeus	Greece
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece
Lloyd's Register	Seminar	Seminar	Private	Piraeus, Thessaloniki	Greece
Lloyd's Register	Seminar	Seminar	Private	Piraeus, Thessaloniki	Greece
. . . See Annex 1 . . .					
Bureau veritas	Seminar	Seminar	Private	Thessaloniki, Patras	Greece
Bureau veritas	Seminar	Seminar	Private	Thessaloniki, Patras	Greece
ClassNK	Seminar	Seminar	Private	Athens	Greece
ClassNK	Seminar	Seminar	Private	Athens	Greece

4.2. Cruise Industry

In total, 1779 educational activities regarding the Cruise Industry were identified. Of those 1779, 128 are offered by Universities, 99 by Colleges, 1517 by VET and 35 Seminars.

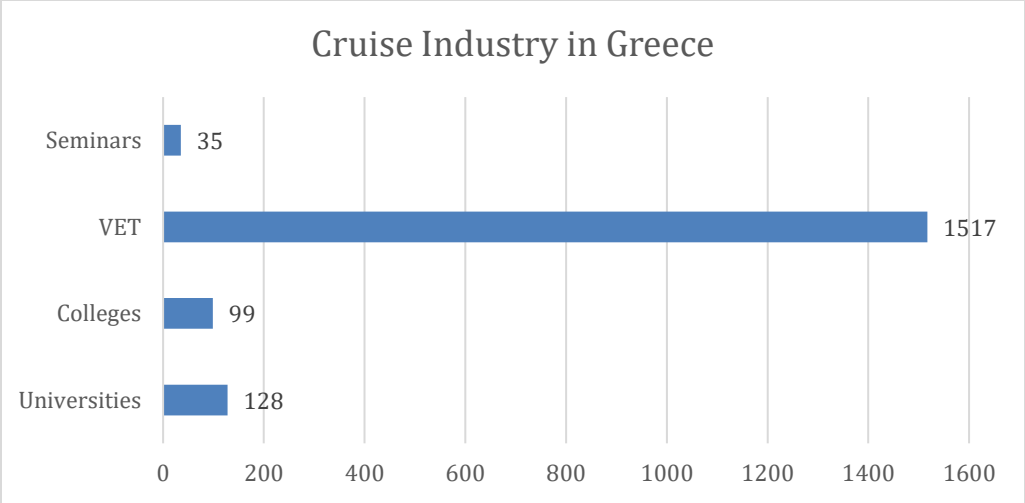


Figure 10 Cruise Industry in Greece

4.2.1. Universities

The list of educational activities in Cruise Industry offered by Universities in Greece is presented in Table 23. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 23 Educational Activities offered by Universities for the Cruise Industry in Greece

National Technical University of Athens	University	Higher Education	Public	Athens	Greece	School of Electrical & Computer Engineering
National & Kapodistrian University of Athens	University	Higher Education	Public	Athens	Greece	School of Science - Dept. of Informatics &
National & Kapodistrian University of Athens	University	Higher Education	Public	Psachna Evias	Greece	School of Science - Dept. of Digital Industry
Higher School of Tourism Education of Rodos	University	Higher Education	Public	Rodos, Rodos Island	Greece	Higher School of Tourism Education of Rodos
. . . See Annex 1 . . .						
School of Pedagogical & Technological Education	University	Higher Education	Public	Athens	Greece	Dept. of Mechanical Engineering Educators
Metropolitan College	University	Higher Education	Private	Athens, Thessaloniki,	Greece	Faculty of Hospitality & Tourism Management -

4.2.2. Colleges

The list of educational activities in Cruise Industry offered by Colleges in Greece is presented in Table 24. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 24 Educational Activities offered by Colleges for the Cruise Industry in Greece

Aegean College	College	Higher Education	Private	Athens	Greece	School of Business Administration
Aegean College	College	Higher Education	Private	Athens	Greece	School of Physiotherapy
Aegean College	College	Higher Education	Private	Athens	Greece	School of Nutrition & Dietetics
. . . See Annex 1 . . .						
IST College	College	Higher Education	Private	Athens	Greece	School of Computing
MBS College of Crete	College	Higher Education	Private	Heraklion	Greece	School of Business
MBS College of Crete	College	Higher Education	Private	Heraklion	Greece	School of Hospitality, Tourism & Event

4.2.3. Vocational Training

The list of educational activities in Cruise Industry offered by VET in Greece is presented in Table 25. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 25 Educational Activities offered by VET for the Cruise Industry in Greece

IEK Egaleo	VET	Vocational	Public	Athens	Greece	Technician of Cooking Art - Chef
The 6th Vocational Senior High School of Athens (EPAL)	VET	Vocational	Public	Athens	Greece	Officer of Administrative and Financial Services
The 6th Vocational Senior High School of Athens (EPAL)	VET	Vocational	Public	Athens	Greece	Merchant Navy Engineer
The 6th Vocational Senior High School of Athens (EPAL)	VET	Vocational	Public	Athens	Greece	Nursing Assistant
. . . See Annex 1 . . .						
EuroIdea - Institute of Vocational Training	VET	Vocational	Private	Karditsa	Greece	Art of Cooking Technician - Chef
EuroIdea - Institute of Vocational Training	VET	Vocational	Private	Karditsa	Greece	Physiotherapy Assistant
EuroIdea - Institute of Vocational Training	VET	Vocational	Private	Karditsa	Greece	Technician of Aesthetics Podology - Nail Care &

4.2.4. Seminars

The list of educational activities in Cruise Industry offered by Seminars in Greece is presented in Table 26. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 26 Educational Activities offered by Seminars for the Cruise Industry in Greece

DNV-GL	Seminar	Seminar	Private	Piraeus	Greece
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece
. . . See Annex 1 . . .					
Le Monde	Seminar	Seminar	Private	Athens	Greece
I.I.E.K. L'etoile	Seminar	Seminar	Private	Athens	Greece
Culinary Center & Cookery Club	Seminar	Seminar	Private	Athens	Greece

4.3. New Shipbuilding, ship repair and dismantling

In total, 918 educational activities regarding the New Shipbuilding, ship-repair and dismantling sector were identified. Of those 918, 62 were offered by Universities, 19 by Colleges, 715 by VET and 122 Seminars.

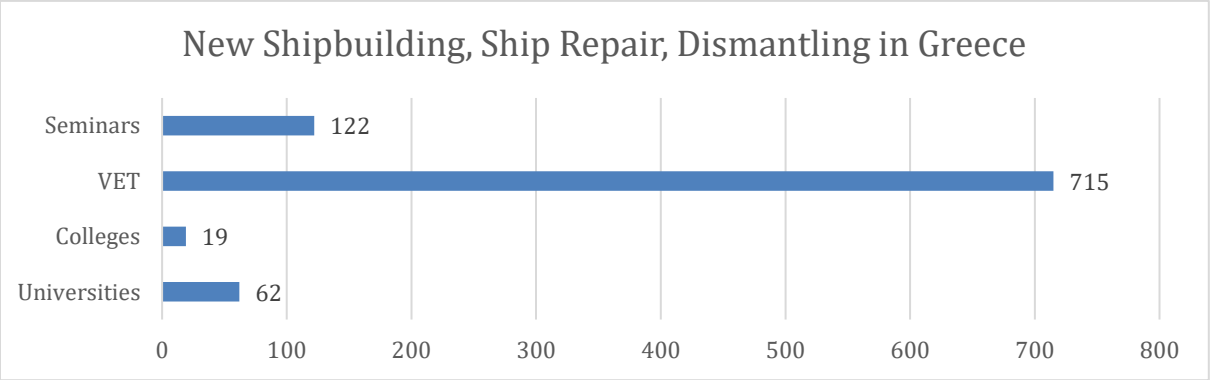


Figure 11 New Shipbuilding, Ship Repair, Dismantling in Greece

4.3.1. Universities

The list of educational activities in new shipbuilding, ship-repair and dismantling offered by Universities in Greece is presented in Table 27. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 27 Educational Activities offered by Universities for shipbuilding, ship-repair and dismantling in Greece

National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Naval Architecture & Marine Engineering
National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Mechanical Engineering
National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Electrical & Computer Engineering
University of Western Macedonia	University	Higher Education	Public	Kozani	Greece	School of Engineering - Dept. of Mechanical Engineering
University of Western Macedonia	University	Higher Education	Public	Kastoria	Greece	School of Sciences - Dept. of Informatics
Harokopio University	University	Higher Education	Public	Athens	Greece	School of Digital Technology - Dept. of Informatics & Telematics`
School of Pedagogical & Technological Education	University	Higher Education	Public	Athens	Greece	Dept. of Electrical & Electronic Engineering Educators
School of Pedagogical & Technological Education	University	Higher Education	Public	Athens	Greece	Dept. of Mechanical Engineering Educators

4.3.2. Colleges

The list of educational activities in new shipbuilding, ship-repair and dismantling offered by Colleges in Greece is presented in Table 28. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 28 Educational Activities offered by Colleges for shipbuilding, ship-repair and dismantling in Greece

Aegean College	College	Higher Education	Private	Athens	Greece	School of Business Administration
Aegean College	College	Higher Education	Private	Athens	Greece	School of Computing & Information Systems
Alba	College	Higher Education	Private	Athens	Greece	School of International Business & Management
Alba	College	Higher Education	Private	Athens	Greece	School of Strategic HRM
. . . See Annex 1 . . .						
City College	College	Higher Education	Private	Thessaloniki	Greece	Computer Science Dept. - Computer Science
City College	College	Higher Education	Private	Thessaloniki	Greece	Computer Science Dept. - Business Informatics
IST College	College	Higher Education	Private	Athens	Greece	School of Computing

4.3.3. Vocational Training

The list of educational activities in new shipbuilding, ship-repair and dismantling offered by VET in Greece is presented in Table 29. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 29 Educational Activities offered by VET for shipbuilding, ship-repair and dismantling in Greece

The 6th Vocational Senior High School of Athens (EPAL)	VET	Vocational	Public	Athens	Greece	Technician of Electrical Installations & Networks
The 6th Vocational Senior High School of Athens (EPAL)	VET	Vocational	Public	Athens	Greece	Technician of Electronics & Computer Systems
The 1st Vocational Senior High School of Mesolongi (EPAL)	VET	Vocational	Public	Mesolongi	Greece	Technician of Electrical Installations & Networks
. . . See Annex 1 . . .						
Akmi Institute of Vocational Training	VET	Vocational	Private	Athens,	Greece	Electrician
Thessaliko - Giatsos Institute of Vocational Training	VET	Vocational	Private	Volos, Larissa,	Greece	Ventilation & Air Conditioning Cooling Technician
Thessaliko - Giatsos Institute of Vocational Training	VET	Vocational	Private	Volos, Larissa,	Greece	Automation Engineer
Delta Institute of Vocational Training	VET	Vocational	Private	Athens	Greece	Automation Engineer
Delta Institute of Vocational Training	VET	Vocational	Private	Athens	Greece	Electrician

4.3.4. Seminars

The list of educational activities in new shipbuilding, ship-repair and dismantling offered by Seminars in Greece is presented in Table 30. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 30 Educational Activities offered by Seminars for shipbuilding, ship-repair and dismantling in Greece

DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
Lloyd's Register	Seminar	Seminar	Private	Piraeus, Thessaloniki	Greece	
. . . See Annex 1 . . .						
Bureau veritas	Seminar	Seminar	Private	Thessaloniki, Patras	Greece	
Bureau veritas	Seminar	Seminar	Private	Thessaloniki, Patras	Greece	
ClassNK	Seminar	Seminar	Private	Athens	Greece	
ClassNK	Seminar	Seminar	Private	Athens	Greece	

4.4. Port Operations

In total, 178 educational activities regarding the Port Operations sector were identified. Of those 178, 75 were offered by Universities, 37 by Colleges, 41 by VET and 25 Seminars.

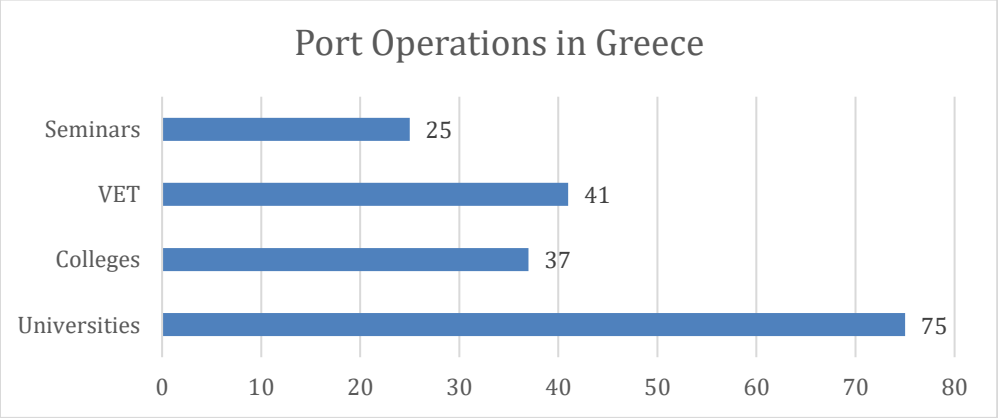


Figure 12 Port Operations in Greece

4.4.1. Universities

The list of educational activities Port Operations offered by Universities in Greece is presented in Table 31. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 31 Educational Activities offered by Universities for Port Operations in Greece

National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Mechanical Engineering
National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Electrical & Computer Engineering
. . . See Annex 1 . . .						
School of Pedagogical & Technological Education	University	Higher Education	Public	Athens	Greece	Dept. of Mechanical Engineering Educators
School of Pedagogical & Technological Education	University	Higher Education	Public	Athens	Greece	Dept. of Civil Engineering Educators
School of Port Guards	University	Higher Education	Private	Piraeus	Greece	School of Port Guards

4.4.2. Colleges

The list of educational activities Port Operations offered by Colleges in Greece is presented in Table 32. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 32 Educational Activities offered by Colleges for Port Operations in Greece

Aegean College	College	Higher Education	Private	Athens	Greece	School of Business Administration
Aegean College	College	Higher Education	Private	Athens	Greece	School of Computing & Information Systems
Alba	College	Higher Education	Private	Athens	Greece	School of International Business &
. . . See Annex 1 . . .						
City College	College	Higher Education	Private	Thessaloniki	Greece	Computer Science Dept. - Business
IST College	College	Higher Education	Private	Athens	Greece	School of Computing
MBS College of Crete	College	Higher Education	Private	Heraklion	Greece	School of Business

4.4.3. Vocational Training

The list of educational activities Port Operations offered by VET in Greece is presented in Table 33. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 33 Educational Activities offered by VET for Port Operations in Greece

The 1st Vocational Senior High School of Ag. Paraskevi (EPAL)	VET	Vocational	Public	Athens	Greece	Merchant Navy Master
The 1st Evening Vocational Senior High School of Egaleo (EPAL)	VET	Vocational	Public	Athens	Greece	Merchant Navy Master
The 2nd Vocational Senior High School of Ilion (EPAL)	VET	Vocational	Public	Athens	Greece	Merchant Navy Master
. . . See Annex 1 . . .						
EuroTraining - Institute of Vocational Training	VET	Vocational	Private	Athens, Thessaloniki, Volos	Greece	Maritime Studies
EuroTeam - Institute of Vocational Training	VET	Vocational	Private	Patras	Greece	Logistics Officer
Axia - Institute of Vocational Training	VET	Vocational	Private	Athens	Greece	Logistics Officer

4.4.4. Seminars

The list of educational activities Port Operations offered by Seminars in Greece is presented in Table 34. A more detailed and comprehensive matrix can be found in Annex 1 (including contact information).

Table 34 Educational Activities offered by Seminars for Port Operations in Greece

DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
. . . See Annex 1 . . .						
Bureau veritas	Seminar	Seminar	Private	Thessaloniki, Patras	Greece	
Bureau veritas	Seminar	Seminar	Private	Thessaloniki, Patras	Greece	

5. Sea of Experience careers

In this section, the collective data from both countries' records are presented for each selected career path. The selection of the career paths and the rationale behind it is described in deliverable D2.3 that has already been submitted. For each profession, a list of relevant educational activities is provided. It is worth noticing that some of the profession may apply in different sectors; for the purposes of the project, the mapping refers to their role in the assigned Blue Domain. For example, marine surveyors may work in the Maritime Transport sector, or engineering officers in the cruise industry. However, the records refer to the specific sector each career is categorized below. Figure 13 presents the sea of experience selected professions in the context of the Blue domains that are the focus of this project. Figure 14 visualizes the legal status of the identified organizations.

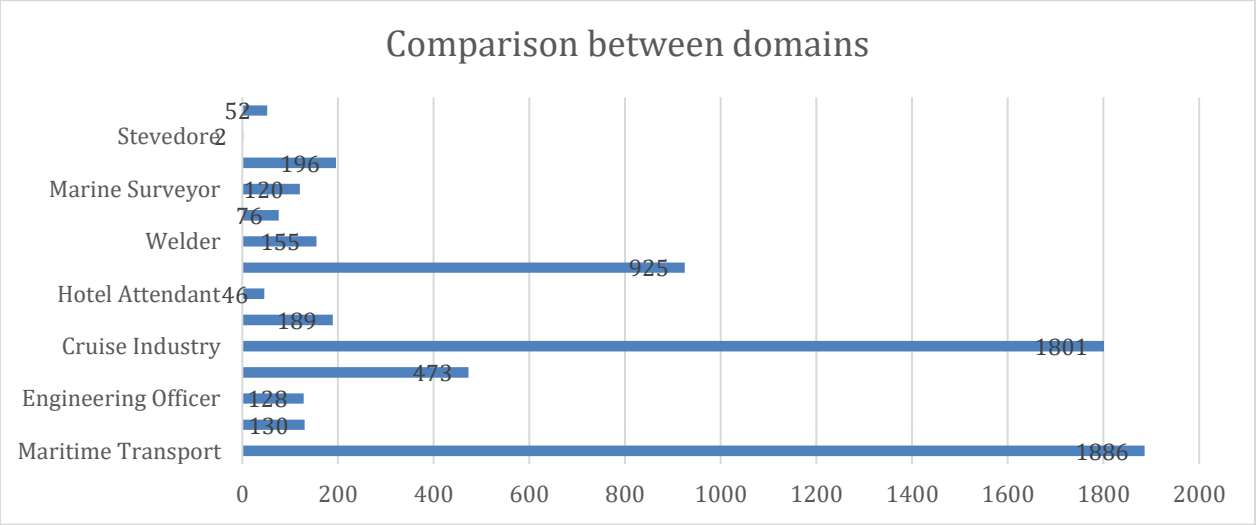


Figure 13 Sea of Experience selected professions in the context of the 4 Blue Domains

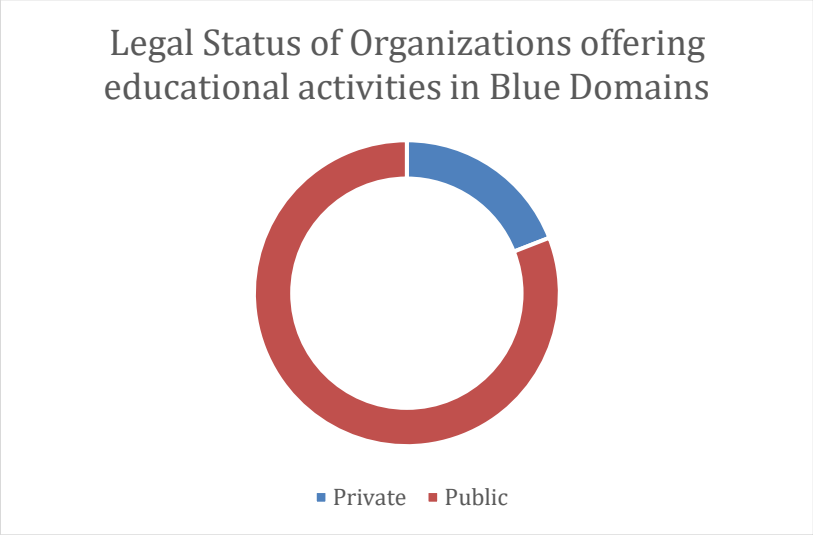


Figure 14 Legal Status of identified organizations

5.1. Maritime Transport

The professions of the Deck Officer, the Engineering Officer and the Electro/Technical Officer were selected for the domain of the maritime transport. The mapping of educational activities reveals a total of 1886 activities related to Maritime Transport in both Cyprus and Greece. The professions that were selected in the context of Sea of Experience in relation to the total educational activities regarding the Maritime Transport can be seen in Figure 15.

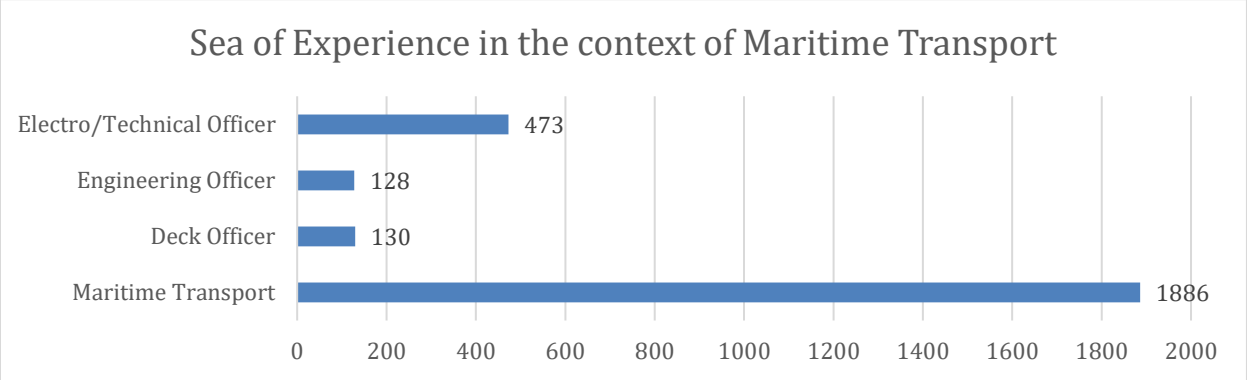


Figure 15 Educational Activities relevant to Sea of Experience selected professions in Maritime Transport

5.1.1. Deck Officer

In total, 130 educational activities relevant to the Deck officer were identified. A list containing basic information can be found in Table 35. A comprehensive list can be found in Annex 1 (including contact information).

Table 35 Educational Activities relevant to "Deck Officer"

Merchant Marine Academy	University	Higher	Public	Aspropyrgos	Greece	Engineering Academy, Master
Merchant Marine Academy of	University	Higher	Public	Nea Mihaniona	Greece	Engineering Academy, Master
Merchant Marine Academy of	University	Higher	Public	Preveza	Greece	Master Mariner Academy
Merchant Marine Academy of	University	Higher	Public	Chania	Greece	Engineering Academy, Master
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
Lloyd's Register	Seminar	Seminar	Private	Piraeus,Thessaloniki	Greece	
Lloyd's Register	Seminar	Seminar	Private	Piraeus,Thessaloniki	Greece	
Lloyd's Register	Seminar	Seminar	Private	Piraeus,Thessaloniki	Greece	
Bureau veritas	Seminar	Seminar	Private	Thessaloniki, Patras	Greece	
Bureau veritas	Seminar	Seminar	Private	Thessaloniki, Patras	Greece	
Bureau veritas	Seminar	Seminar	Private	Thessaloniki, Patras	Greece	
ClassNK	Seminar	Seminar	Private	Athens	Greece	
. . . See Annex 1 . . .						
The 1st Vocational Senior High School of Voies (EPAL)	VET	Vocational	Public	Voies	Greece	Merchant Navy Master
The 2nd Vocational Senior High School of Kalamata (EPAL)	VET	Vocational	Public	Kalamata	Greece	Merchant Navy Master
The 1st Vocational Senior High School of Konistres (EPAL)	VET	Vocational	Public	Konistres	Greece	Merchant Navy Master

5.1.2. Engineering Officer

In total, 128 educational activities relevant to the Engineering officer were identified. A list containing basic information can be found in Table 36. A comprehensive list can be found in Annex 1 (including contact information).

Table 36 Educational Activities relevant to "Engineering Officer"

National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Naval Architecture & Marine Engineering
National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Mechanical Engineering
Metropolitan College	College	Higher Education	Private	Athens, Thessaloniki, Larissa, Heraklion, Rodos	Greece	Faculty of Architecture, Engineering & the Built Environment - Mechanical Engineering & Manufacturing
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
. . . See Annex 1 . . .						
Evening Vocational Senior High School of Syros (EPAL)	VET	Vocational	Public	Syros Island	Greece	Merchant Navy Engineer
The 1st Vocational Senior High School of Voies (EPAL)	VET	Vocational	Public	Voies	Greece	Merchant Navy Engineer
The 2nd Vocational Senior High School of Kalamata (EPAL)	VET	Vocational	Public	Kalamata	Greece	Merchant Navy Engineer

5.1.3. Electro/ Technical Officer

In total, 473 educational activities relevant to the Electro/Technical Officer were identified. A list containing basic information can be found in Table 37. A comprehensive list can be found in Annex 1 (including contact information).

Table 37 Educational Activities relevant to "Electro/Technical Officer"

National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Electrical & Computer Engineering
University of West Attica	University	Higher Education	Public	Athens	Greece	School of Engineering - Dept of Electrical & Electronic Engineering
School of Pedagogical & Technological Education	University	Higher Education	Public	Athens	Greece	Dept. of Electrical & Electronic Engineering Educators
. . . See Annex 1 . . .						
Thessaliko - Giatsos Institute of Vocational Training	VET	Vocational	Private	Volos, Larissa, Ioannina, Trikala	Greece	Automation Engineer
Delta Institute of Vocational Training	VET	Vocational	Private	Athens	Greece	Automation Engineer
Delta Institute of Vocational Training	VET	Vocational	Private	Athens	Greece	Electrician

5.2. Cruise Industry

The professions of the Cook and Hotel Attendant were selected for the domain of the Cruise Industry. The mapping of educational activities reveals a total of 1801 activities related to the Cruise Industry in both Cyprus and Greece. The professions that were selected in the context of Sea of Experience in relation to the total educational activities regarding the Cruise Industry can be seen in Figure 16.

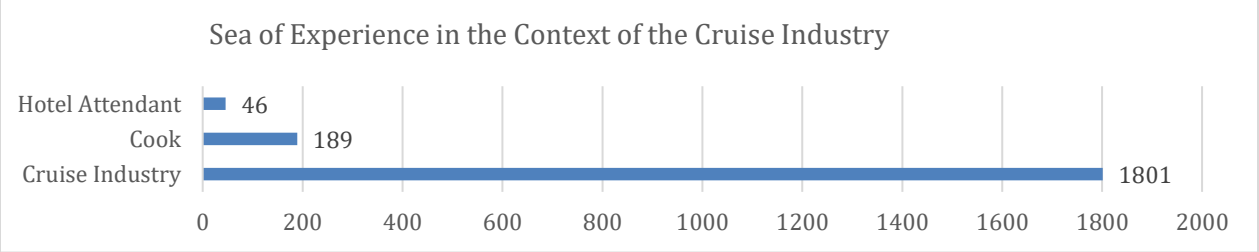


Figure 16 Educational Activities relevant to Sea of Experience selected professions in the Cruise Industry

5.2.1. Cook

In total, 198 educational activities relevant to the Cook were identified. A list containing basic information can be found in Table 38. A comprehensive list can be found in Annex 1 (including contact information).

Table 38 Educational Activities relevant to "Cook"

Higher School of Tourism Education of Crete	University	Higher Education	Public	Ag. Nikolaos	Greece	Higher School of Tourism Education of Crete
Higher School of Tourism Education of Rodos	University	Higher Education	Public	Rodos, Rodos Island	Greece	Higher School of Tourism Education of Rodos
EuroProodos - Institute of Vocational Training	VET	Vocational	Private	Athens, Larissa, Korinthos	Greece	Art of Cooking Technician - Chef
EuroIdea - Institute of Vocational Training	VET	Vocational	Private	Karditsa	Greece	Art of Cooking Technician - Chef

5.2.2. Hotel Attendant

In total, 46 educational activities relevant to the Hotel Attendant were identified. A list containing basic information can be found in Table 39. A comprehensive list can be found in Annex 1 (including contact information).

Table 39 Educational Activities relevant to "Hotel Attendant"

Higher School of Tourism Education of Crete	University	Higher Education	Public	Ag. Nikolaos	Greece	Higher School of Tourism Education of Crete
Higher School of Tourism Education of Rodos	University	Higher Education	Public	Rodos, Rodos Island	Greece	Higher School of Tourism Education of Rodos
. . See Annex 1 . .						
Le Monde Institute of Vocational Training	VET	Vocational	Private	Athens	Greece	Hotel Management

5.3. New Shipbuilding, ship repair and dismantling

The professions of the Welder, the Naval Architect and the Marine Surveyor were selected for the domain of the Newbuilding, ship repair and dismantling. The mapping of educational activities reveals a total of 925 activities related to Newbuilding, ship repair and dismantling in both Cyprus and Greece. The professions that were selected in the context of Sea of Experience in relation to the total educational activities regarding the new shipbuilding, ship-repair and dismantling can be seen in Figure 17.

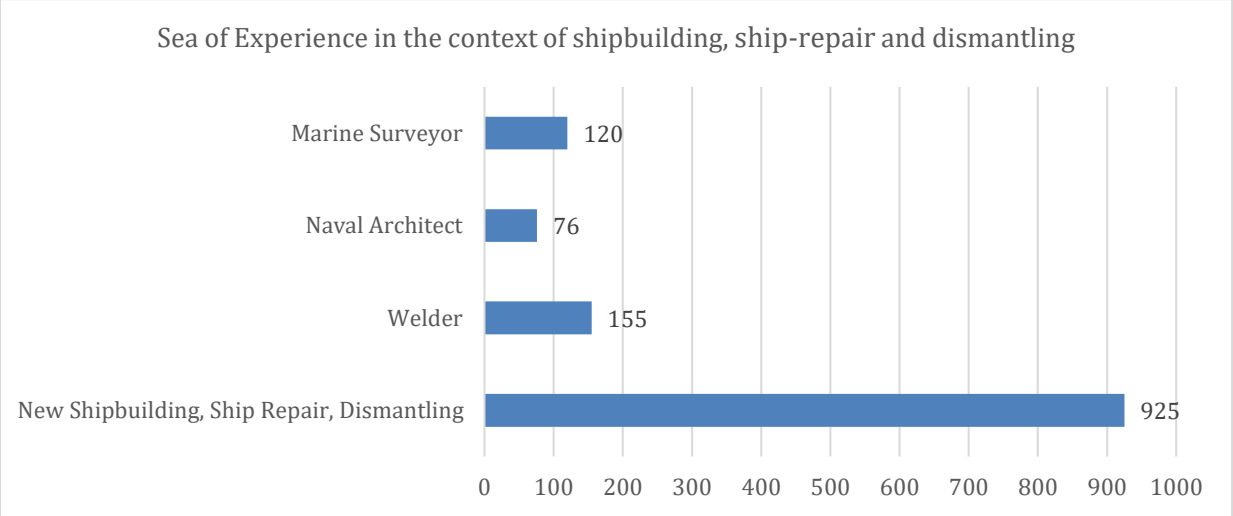


Figure 17 Educational Activities relevant to Sea of Experience selected professions in the new shipbuilding, ship-repair and dismantling domain

5.3.1. Welder

In total, 155 educational activities relevant to the Deck officer were identified. A list containing basic information can be found in Table 35. A comprehensive list can be found in Annex 1 (including contact information).

Table 40 Educational Activities relevant to "Welder"

Merchant Marine Academy Aspropyrgos	University	Higher Education	Public	Aspropyrgos	Greece	Engineering Academy, Master Mariner Academy
Merchant Marine Academy of Makedonia	University	Higher Education	Public	Nea Mihaniona	Greece	Engineering Academy, Master Mariner Academy
. . . See Annex 1 . . .						
Vocational School of Salamina (EPAS)	VET	Vocational	Public	Salamina	Greece	Manufacturer of Shipbuilding Industry
Vocational School of Chalkida (EPAS)	VET	Vocational	Public	Chalkida	Greece	Machine Tools Operator
Vocational School of Chalkida (EPAS)	VET	Vocational	Public	Chalkida	Greece	Metal Technician

5.3.2. Naval Architect

In total, 76 educational activities relevant to the Naval Architect were identified. A list containing basic information can be found in Table 41. A comprehensive list can be found in Annex 1 (including contact information).

Table 41 Educational Activities relevant to "Naval Architect"

National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Naval Architecture & Marine Engineering
University of West Attica	University	Higher Education	Public	Athens	Greece	School of Engineering - Dept of Marine Engineering
. . . See Annex 1 . . .						
DNV-GL	Seminar	Seminar	Private	Piraeus	Greece	Maritime Academy
ClassNK	Seminar	Seminar	Private	Athens	Greece	
ClassNK	Seminar	Seminar	Private	Athens	Greece	
ClassNK	Seminar	Seminar	Private	Athens	Greece	

5.3.3. Marine Surveyor

In total, 120 educational activities relevant to the Deck officer were identified. A list containing basic information can be found in Table 42. A comprehensive list can be found in Annex 1 (including contact information).

Table 42 Educational Activities relevant to "Marine Surveyor"

National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Naval Architecture & Marine Engineering
National Technical University of Athens (NTUA)	University	Higher Education	Public	Athens	Greece	School of Mechanical Engineering
. . . See Annex 1						
ClassNK	Seminar	Seminar	Private	Athens	Greece	
ClassNK	Seminar	Seminar	Private	Athens	Greece	

5.4. Port Operations

The professions of the Stevedore and the Harbor Master were selected for the domain of the port operations. The mapping of educational activities reveals a total of 196 activities related to Port Operations in both Cyprus and Greece. The professions were selected in the context of Sea of Experience in relation to the total educational activities regarding port operations can be seen in Figure 18.

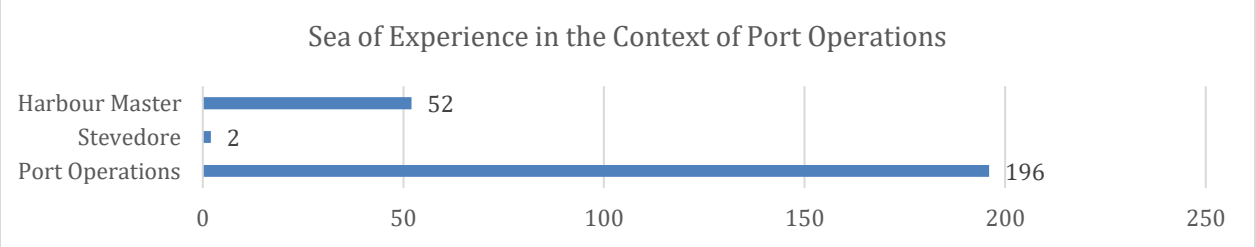


Figure 18 Educational Activities relevant to Sea of Experience selected professions in the Port Operations domain

5.4.1. Stevedore

In total, 2 educational activities relevant to the Stevedore were identified. A list containing basic information can be found in Table 43. A comprehensive list can be found in Annex 1 (including contact information).

Table 43 Educational Activities relevant to "Stevedore"

Cyprus University of Technology	University	Higher Education	Public	Limassol	Cyprus	Department of Hotel and Tourism Management
Odysseus Maritime Training Centre	VET	Vocational Training	Private	Limassol	Cyprus	Maritime training

5.4.2. Harbor Master

In total, 52 educational activities relevant to the Deck officer were identified. A list containing basic information can be found in Table 44. A comprehensive list can be found in Annex 1 (including contact information).

Table 44 Educational Activities relevant to "Harbor Master"

Merchant Marine Academy Aspropyrgos	University	Higher Education	Public	Aspropyrgos	Greece	Engineering Academy, Master Mariner Academy
Merchant Marine Academy of Makedonia	University	Higher Education	Public	Nea Mihaniona	Greece	Engineering Academy, Master Mariner Academy
The 1st Vocational Senior High School of Konistres (EPAL)	VET	Vocational	Public	Konistres	Greece	Merchant Navy Master
. . See Annex 1 . .						
Cyprus University of Technology	University	Higher Education	Public	Limassol	Cyprus	Department of Hotel and Tourism Management
European University Cyprus	University	Higher Education	Private	Nicosia	Cyprus	The School of Business Administration

6. Development of Data-Filtering/ Searching Algorithm – Development of Decision Support Tool

6.1. Purpose

The need to develop a sophisticated system to allow user-friendly access to the records arose during the information gathering, where it was noted that the list of recorded institutions was extensive. The ambition behind this activity is to deliver a simple-to-use search tool for both the mentors and the mentees, as well as to the wider public interested in the included carriers.

This functionality can later be integrated into the sharing-pooling platform that will be developed in later stages of the project.

6.2. Technical Approach

The Decision Support Tool, including all its supportive procedures and required processes will be developed using the same programming languages and tools as the sharing – pooling platform. Although it will have discreet functionalities (such as the data-filtering / searching algorithm), the architecture will be common.

The goal is to be able to fully integrate it within the sharing – pooling platform so that it can be easily associated with the necessary users and be administered and delivered via the platform. This eliminates the need for a discreet user management system, user authentication procedures, system roles and security, et al.

As mentioned in section 2.2 of this document, the main entities of the structure can be described as follows:

- **Educational Organization**
  - **Fields:** Name of organization |Type of organization |Type of education | Legal status | City | Country)
  - **Relationships with other entities:** Programme of Studies
- **Department / Faculty**
  - **Informative Fields:** Department / Faculty Title | Contact Person Name | Contact Person Position | Contact Email | Contact Phone Number | Website
  - **Relationships with other entities:** Educational Organization
- **Programme of Studies**
  - **Fields:** Programme Title | ISCED (min) | ISCED (max) | Topics | Target Group
  - **Relationships with other entities:** Department / Faculty
- **Blue Domains**
  - **Available Values:**
    - Maritime Transport
    - Shipbuilding & Ship Repair
    - Port Operations
    - Cruise Industry
  - **Relationships with other entities:** Programme of Studies

- **Important Infrastructure**
  - **Available Values:**
    - Maritime Transportation
    - Cruise Industry
    - New Shipbuilding
    - Port Operations
  - **Relationships with other entities**: Department / Faculty
- **Careers**
  - **Categories of Values (Relevance to Careers):**

Maritime Transport			Cruise Industry		Shipbuilding, Ship Repair			Port Operations	
Deck Officer	**Engineering Officer**	**Electro/Technical Officer**	**Cook**	**Hotel Attendant**	**Welder**	**Naval Architect**	**Marine Surveyor**	**Stevedore**	**Harbor Master**

  - **Relationships with other entities:** Programme of Studies, Domains

A visualization of the Tiers and their relationships is depicted in the schematic below.

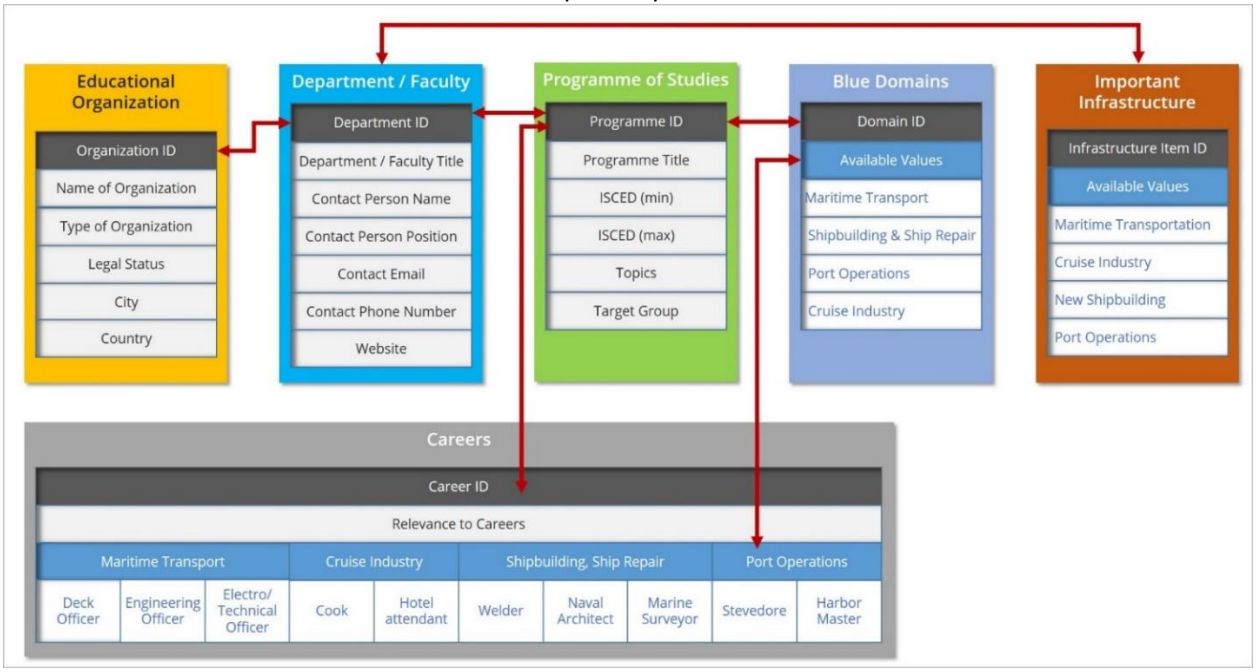


Figure 19 Technical Approach

Table 45 Available selections (software)

Domains	Careers	Availability
Maritime Transport	Deck Officer	☐
	Engineering Officer	☒
	Electro/ Technical Officer	☐
Shipbuilding & Ship Repair	Welder	☐
	Naval Architect	☒
	Marine Surveyor	☒
Ports – Port Operations	Stevedore	☐
	Harbor Master	☐
Cruise Industry	Cook	☐
	Hotel attendant	☐

It is noted that more than one values can be selected as it is displayed in the table below.

- Each user will be able to “enrich” his profile with:
  - Current ISCED level
  - Preferences for Domains and relevant careers (as per the table above)

The combination of this data will allow for the creation of the required functionality. The procedure as it will be perceived by the final user will resemble a multiple criteria / combined search function.

6.3. Brief Demonstration – Testing

The application will take as an input from the user (a) the user's achieved educational ISCED level and (b) the user's preferable blue domain and/or blue career. The output will be all the possible educational options (Programs of Studies) grouped by ISCED level. For example, a user may state that he currently possesses ISCED 5 and is interested in becoming a Naval Engineer. The software should then suggest all the ISCED 6 programs of studies (information derived from the filled out excel sheet), followed by the possible ISCED 7 -and then ISCED 8- programs which he/she can attend after obtaining ISCED 6. The programs of studies should be available regardless of the user's initial ISCED. Finally, in case a program of studies covers more than one ISCED levels, it should appear one time for each relevant ISCED level.

Wire Diagrams

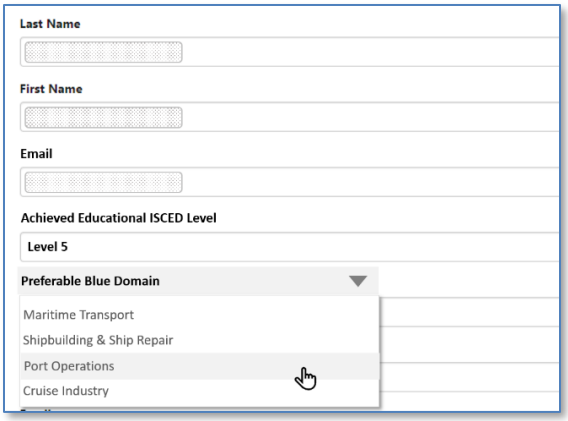


Figure 20 Step 1. Selecting a preferable Blue Domain

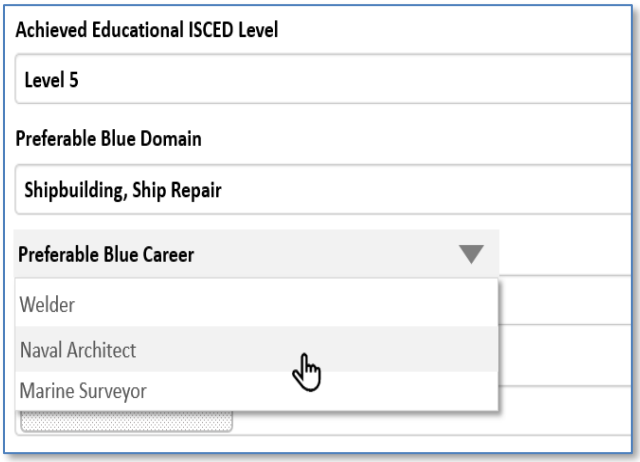


Figure 21 Step 2. Selecting a preferable Blue Career

Programmes of Studies (Available Results)

Program Title	Topic(s)	Target Group	ISCED
Title 01	Topic A	TG a	6
Title 02	Topic B	TG b	6
Title 03	Topic C	TG c	7
Title 04	Topic D	TG d	8

Figure 22 Step 3. Search Results (available programs of study)

7. Concluding Remarks

A total of 3159 Educational activities were identified in both Greece and Cyprus. Those included 30 educational activities in Cyprus and 3129 educational activities in Greece. A clear picture of both the domains and their relevant careers is shown in Figure 23.

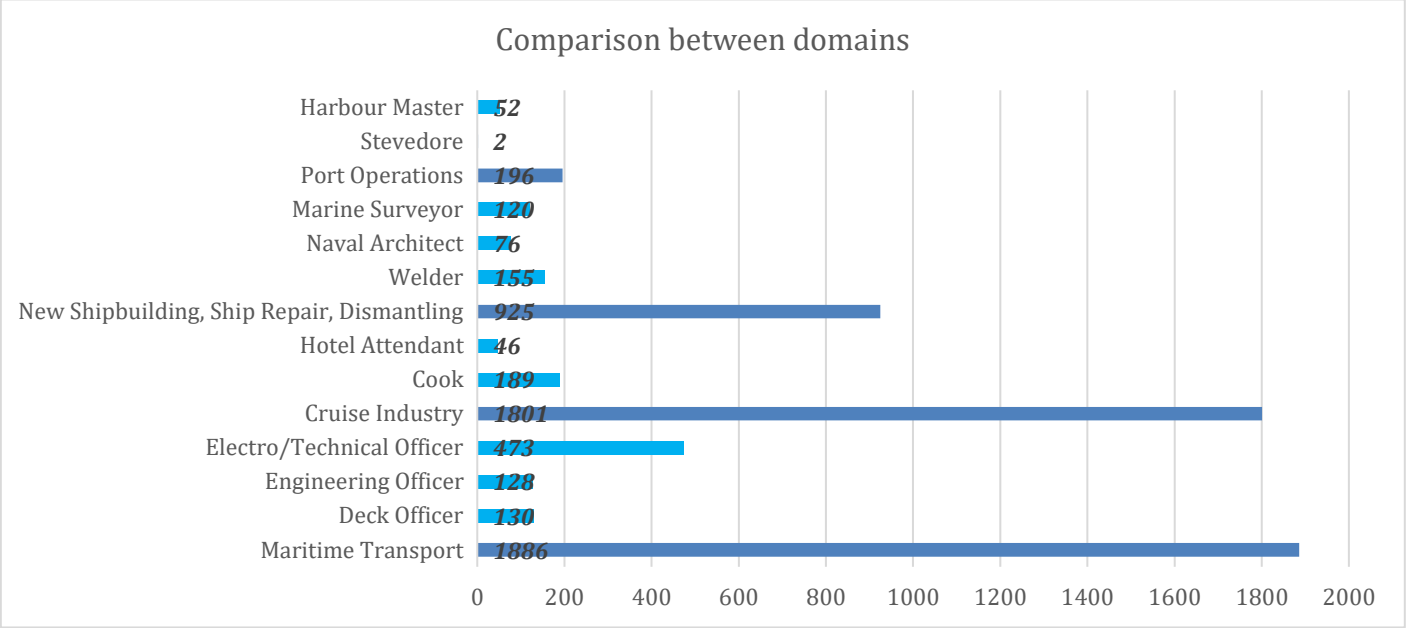


Figure 23 Educational Activities regarding the Sea of Experience Careers

From the total 3159 educational activities, 1886 are relevant to the maritime transport, 1801 to the Cruise industry, 925 to shipbuilding/ship-repair/dismantling and 196 to port operations. The mapping of these activities in the context of both Greece and Cyprus, as well as the wider picture of the accumulated results is presented in Figure 24, which focuses on the Blue Domains, and Figure 25, that focuses on the types of organizations offering these activities.

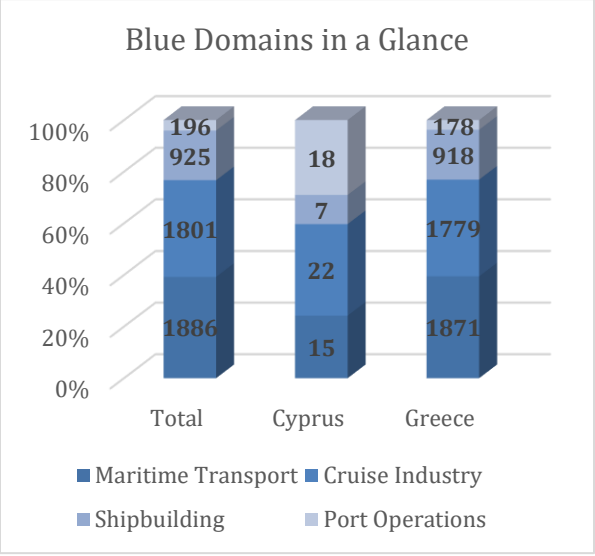


Figure 24 Mapping of educational activities /Blue Domain

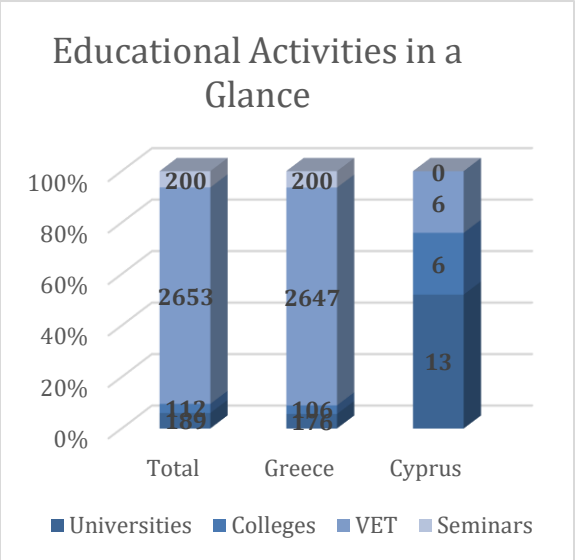
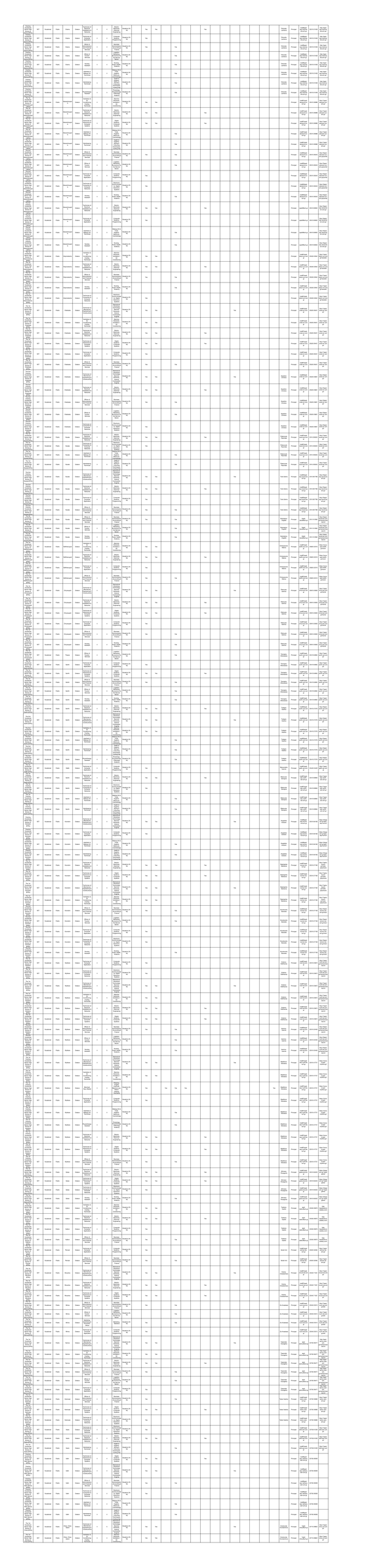
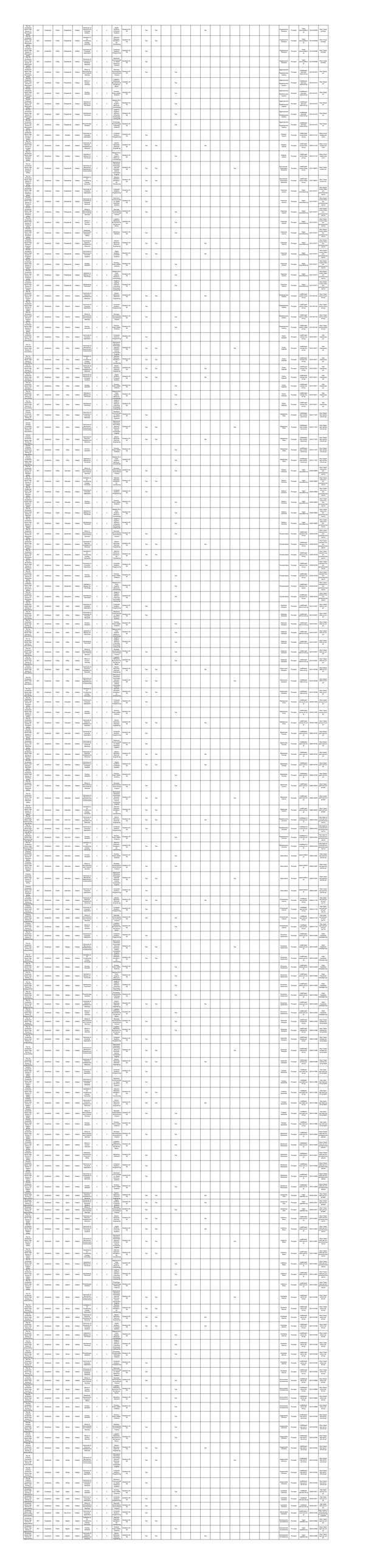
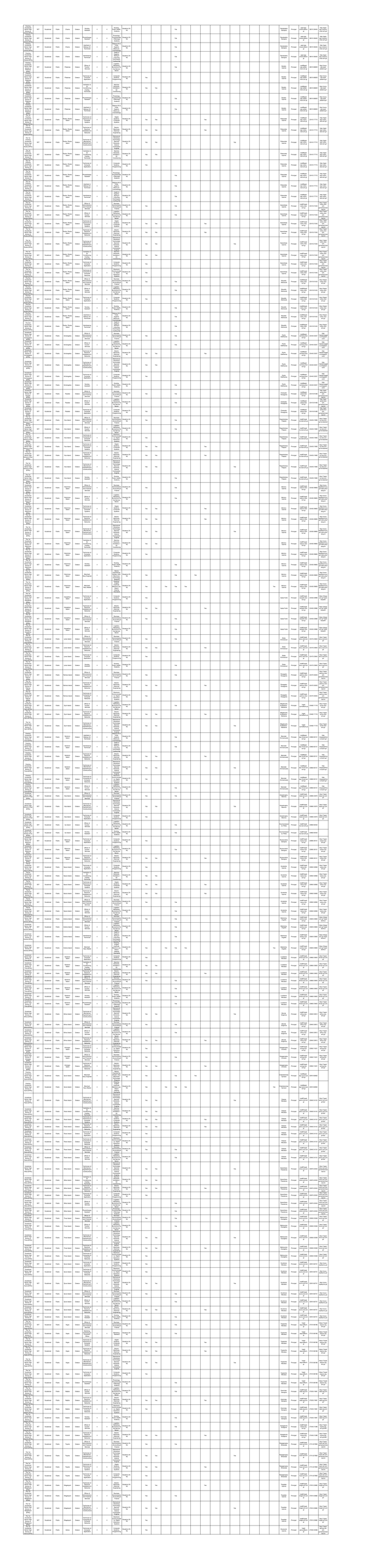
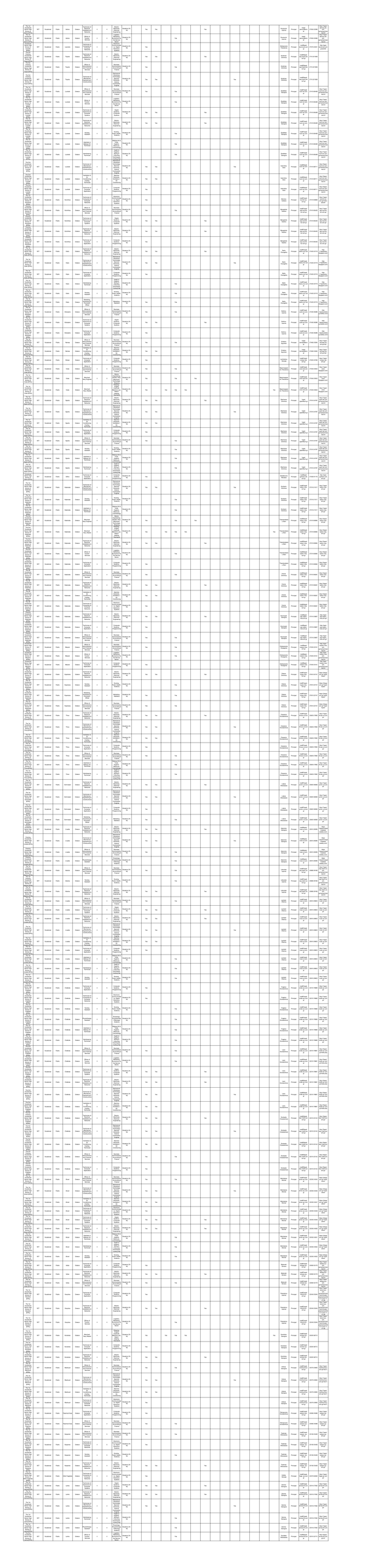
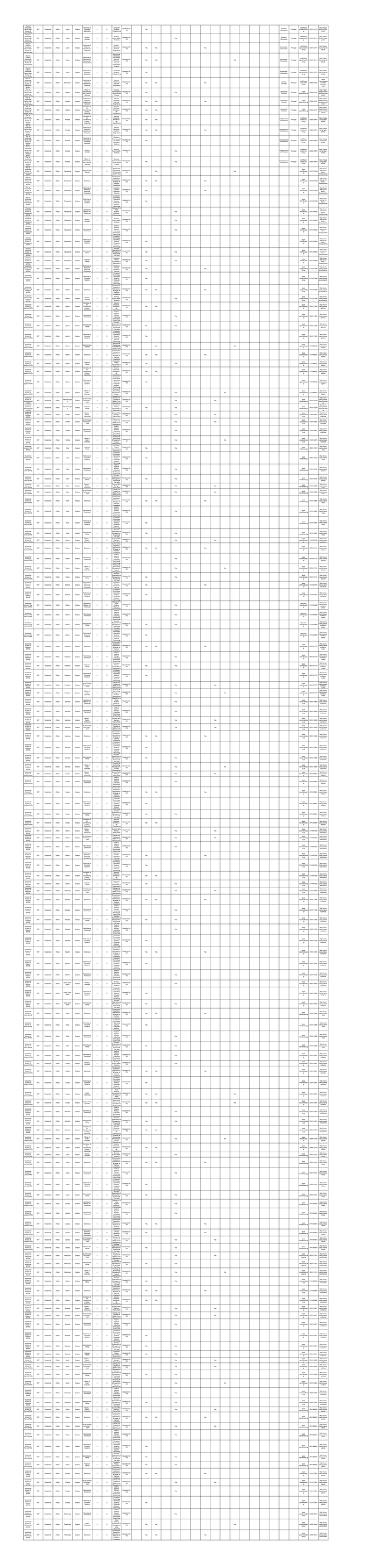
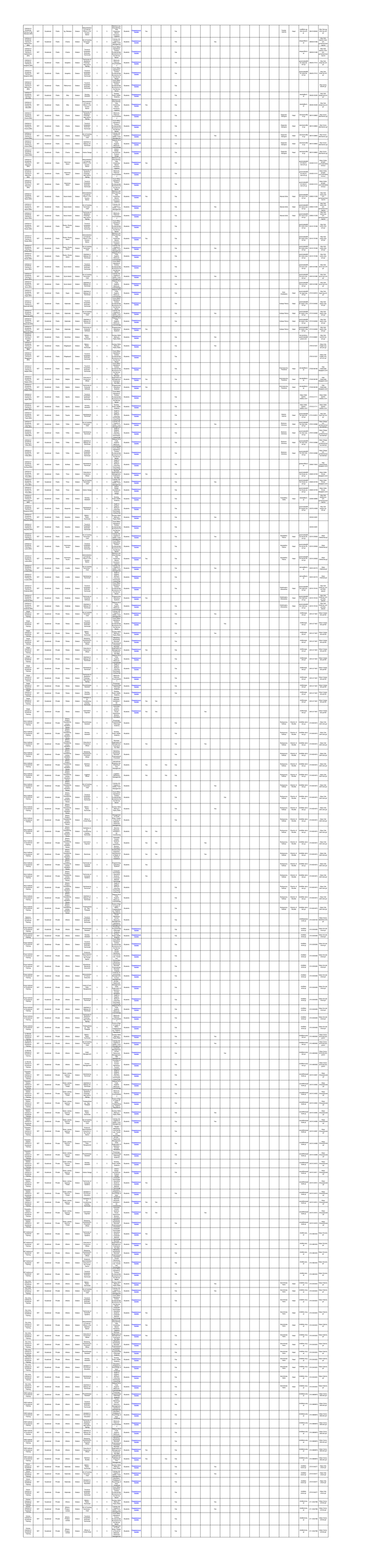


Figure 25 Mapping of educational activities / type of organization

ANNEX 1