

NAVAL ARCHITECT AND MARINE ENGINEER QUALIFICATION IN CEMT MEMBER COUNTRIES

INTRODUCTION

The rules concerning the Naval Architect and Marine Engineer profession are different from one country to another. In some countries there is no particular rules, in others an official recognition or a registration is necessary.

If you have in your country a recognized Naval Architect and Marine Engineer diploma and want to go working in another EU country in naval architecture, marine or ocean engineering, this document will provide you information about how the naval architect and marine engineer qualification is handle in the CEMT member countries, i.e.

Denmark - France - Germany - Greece - Italy - - Netherlands
Poland - Portugal - Serbia - Spain - Turkey - UK

The document also provides for each country the main University/School which deliver recognised Naval Architect and Marine Engineer diploma.

A Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005
on the recognition of professional qualifications

and an users guide

Everything you need to know about the recognition of professional qualifications
66 Questions -66 Answers

have been amended and published on March 2011.

Mutual recognitions have been defined for few professions, Doctor of Medicine, Nurse, Dental practitioner, Veterinary surgeon, Architect but not for marine activities.

All details on: http://ec.europa.eu/internal_market/qualifications/index_en.htm

This CEMT document provides the present situation for Naval Architects and Marine Engineers in the member countries which can be summarized as follows:

Country	Professional regulation	Licence registration	Recognised diploma	Titles
DENMARK	NO	NO	University	B.Sc M.Sc PhD
FRANCE	NO	NO	Engineer schools Universities Architecture	Ing "school" DEA DESS Docteur Achitecte DPLG
GERMANY	NO	NO	Universities	B Sc M Sc Doctor B Eng M Eng
GREECE	YES	YES	Universities	M Sc Doctor
ITALY	YES	YES	Universities	BEng MEng PhD
NETHERLAND	NO	NO	University Higher Technical education	Msc, Bsc, PhD B Eng, M Eng
POLAND	NO	NO	Universities	B Sc M Sc Doctor
PORTUGAL	NO	NO	University	B NArch/MEng Master Doctorate
SERBIA	NO	NO	Faculty	B Sc M Sc Ph D
SPAIN	YES	YES	High schools	Ing Naval Ing Nav & Ocea
TURKEY	(*)	(*)	(*)	(*)
UK	YES	YES Eng Tech CEng / IEng	Universities	BEng MEng PhD

(*) not communicated

If you need more detailed information don't hesitate to contact CEMT which will provide you a contact through its members in the targeted country.

DENMARK

Professional regulation

The diploma attests of the academic qualification. There is no particular regulation referring professional qualification.

There is no particular legal obligation to work as an engineer. The extent of the responsibility in a given working post is defined by the company management.

The acceptance of a person as an engineer is the responsibility of the company management.

Recognized diploma

University

Title: Bachelor of Science / Master of Science / Doctor

DTU, the Technical University of Denmark, Copenhagen

Practically (B.Sc.) and scientifically (M.Sc. & Ph.D.) oriented.

FRANCE

Professional regulation

The diploma attests of the academic qualification. There is no particular regulation referring professional qualification.

There is no particular legal obligation to work as an engineer. The extend of the responsibility in a given working post is defined by the company management.

The acceptance of a person as an engineer is of the responsibility of the company management.

In case of a submission to public call for tender for sea or inland harbour crafts, to obtain the required insurance, being member of IFAN (Institut Français des Architectes Navals) appears very desirable. It is often the same for private call for tender for relatively large size pleasure crafts.

Recognized diploma

Ecoles d'ingénieurs (Engineering schools)

Title: Ingénieur / Mastères / Docteur

ENSTA (Ecole Nationale Supérieure de Techniques Avancées - Paris & Brest)

ECN (Ecole Centrale de Nantes)

EGIM (Ecole Généraliste d'Ingénieur de Marseille)

ISITV (Institut des Sciences de l'Ingénieur de Toulon et du Var)

CENTRALE MARSEILLE (Specialized master in marine engineering and energies)

Universités (Universities)

Title: DEA/DESS / Docteur

UTC (Université de Technologie de Compiègne)

UBS (Université de Bretagne-Sud)

Ecoles d'architecture (Architecture schools)

Title: Architecte DPLG

ENSAN (Ecole Nationale Supérieure d'Architecture de Nantes)

ENSAPLV (Ecole Nationale Supérieure d'Architecture de Paris-La Villette)

Ingénieur maison (House engineer)

Any company can nominate "house" engineers which may be or not recognized by another company

GERMANY

Professional regulation

The diploma attests of the academic qualification. There is no particular regulation referring professional qualification.

There is no particular legal obligation to work as an engineer. The extend of the responsibility in a given working post is defined by the company management.

The acceptance of a person as an engineer is of the responsibility of the company management.

Recognized diploma

Universities (Fachhochschulen)

Title: Bachelor of Science / Master of Science / Doctor

Hamburg, Berlin, Rostock and Duisburg (scientifically oriented)

Universities of Applied Science

Title: Bachelor of Engineering / Master of Engineering

Bremen and Kiel (practically oriented)

GREECE

Professional regulation

The Technical University Diploma attest of the academic qualification, but in order to work as a responsible engineer it is required to be member of the Greek Chamber of Engineers (T.E.E.) after examination of acceptance either immediate by upon completion of the studies or later.

The Diploma can undertake all activities regarding the ships-design and operation in general, without limits on his own responsibility either as a independent or as an employ in a company.

Recognized diploma

Universities

Title: Master of Science/Doctor

M.T.U. (Technical University of Athens),

Title: Bachelor of science without authorization to sign ships-design, and calculation

T.E.I. (Technological educational institution)

ITALY

Professional regulation

The diploma attests of the academic qualification but to be able to have engineering responsibilities it is necessary to join the Council of Engineers (industrial).

To be authorized to put signature to projects of ships of every type and tonnage it is necessary to enter the Registers of the technical personnel of the Port Authorities.

There is no general rule which provides the obligation of employment in all the activities connected with the ship, from design to running. But it is mandatory a registered Naval Architect for:

- the Statement of a New Naval Construction that, according to the Navigation Code, should be produced to the Port Authority
- the works made to determinate the risks onboard
- the building of ships with state contribution, and therefore have to be enrolled in specific registers

Recognized diploma

- *Universities*

Titles: Naval Architect: Bachelor (BEng) / Master (MEng) / Doctorate (PhD)

Universities of Genova, Napoli Federico II, Napoli Parthenope, Trieste

Title: Yacht Designer: Bachelor (BEng) / Master (MEng)

University of Genova – Campus of La Spezia

NETHERLANDS

Professional regulation

The diplomas attest of academic or high technical qualification in Maritime Technology and do not make a reference to either Naval Architecture or Marine Engineering. This kind of specialisation is part of the graduation package. There is no particular (legal) regulation (requirement) with regard to any part of the design and construction of floating structures referring to professional qualifications. It is best practise that when hiring such expertise a diploma of one of the recognised educations is a minimum requirement. In case of a non-Dutch diploma a certified official reference document stating the equivalent level of trained skills may be required. It is the responsibility of the company management to decide whether individual skills meet their requirements.

Recognized diploma

- **Academic education (University)**

Titles: Bachelor of Science (3Years) / Master of Science (5years)

Ph D (doctors degree + 3-4 years)

Technical University of Delft

- **Higher technical education:**

Titles: Bachelor of Engineering (3 Years) / Master of Engineering (4 Years)

Hogeschool In Holland, Delft

Hogeschool Noord Nederland, Leeuwarden

STC –college, Rotterdam

POLAND

Professional regulation

The diploma attests of the academic qualification. There is no particular regulation referring professional qualification.

There is no particular legal obligation to work as an engineer. The extend of the responsibility in a given working post is defined by the company management.

The acceptance of a person as an engineer is of the responsibility of the company management.

Recognized diploma

Universities

Title: Bachelor of Science / Master of Science / Doctor

Politechnika Gdanska (the Gdansk University of Technology)

ZUT Szczecin (the Westpomerania University of Technology)

Practically (B.Sc. & M.Sc.) and scientifically (M.Sc. & Ph.D.) oriented.

PORTUGAL

Professional regulation

The diploma attests of the academic qualification. There is no particular regulation referring professional qualification.

There is no particular legal obligation to work as an engineer. The extend of the responsibility in a given working post is defined by the company management.

The acceptance of a person as an engineer is of the responsibility of the company management.

Recognized diploma

Universities

Titles: Bachelor course on Naval Architecture and Marine Engineering (3 years)

Master degree on Naval Architecture and Marine Engineering (2 years)

Doctoral Programme on Naval Architecture and Marine Engineering

IST (Instituto Superior Técnico) part of the Universidade Tecnica de Lisboa)

SERBIA

Professional regulation

The diploma attests of the academic qualification. There is no particular requirement (license, registration or membership in professional association) in order to practice as an professional engineer.

Recognized diploma

University: University of Belgrade

Title: Bachelor of Science (Ing.) 3 years of schooling

Master of Science (Dipl. Ing.) 3+2 years of schooling

Doctor (Ph.D.) 3+2+3 years of schooling

Faculty of Mechanical Engineering

Department of Naval Architecture

SPAIN

Professional regulation

The diploma attests of the academic qualification. There is no obligation to join the COIN (Colegio Oficial de Ingenieros Navales) but it appears very convenient in particular cases, when an insurance is necessary to cover the engineering responsibilities, for example as independent professional or in a SME (Small and Medium Enterprise).

The registration is compulsory for the profession except when the activities are developed exclusively within the frame of the Administration.

There is no general rule which provides the obligation of employment in all the activities connected with the ship, from design to running. But it is mandatory an Ingeniero Naval to:

- Registered “Ingenieros Navales”:
 - Carrying out and signing complete or partial Ship Designs.
 - Designs of Transformations or Big Repairs of ships.
 - Ship Building, Transformation or Big Repair, Management.
 - Elaboration of Documentation, Reports, Manuals, etc. as required by Public Administration.

- Public Servant “Ingeniero Naval”
 - Approval of Ship Designs, (New buildings, Big Repairs, Transformations,...)
 - Supervision and follow up of the building process and its official trials.
 - Supervision and follow up of all inspection activities relative to structure and stability, general arrangement and compartmentation machinery, equipment, etc.
 - Coordination and Direction of ISM audit teams, and audit carrying out.
 - Inspection as Port State Authority.

Recognized diploma

a) Pre Bolonia regulation

Escuelas Superiores:

Title: Ingeniero Naval / Ingeniero Naval y Oceánico

- ETSIN (Escuela Técnica Superior de Ingenieros Navales – Universidad Politécnica de Madrid)
- EPS (Escuela Politécnica Superior – Universidad de la Coruña)
- UPCT (Escuela Técnica Superior de Ingeniería Naval y Oceánica - Universidad Politécnica de Cartagena)

There are titles of Ingeniero Técnico Naval, of a Medium level of University education that provide qualification por partial competences, (either Structural or Equipment and Service purposes).

b) Post Bolonia regulation

There is a transitional regulation that stablishes the requirements for the Studies of those Master titles that provide the present competences of Ingenieros Navales, and correspondingly for the Degree titles with the competences of Ingenieros Técnicos Navales.

Any University obtaining approval for Master or Degree titles from the “Consejo de Coordinación Universitaria” will deliver the corresponding diploma whose denomination has no requirements, what is producing a complete mess.

TURKEY

Professional regulation

Information not communicated

Recognized diploma

Information not communicated

UNITED KINGDOM

Professional regulation

The diploma attests of the academic qualification and the Engineering Council (UK) sets generic standards of professional competence for all engineering disciplines and defines the routes to obtaining that competence.

Two titles have been defined:

- **professional engineering technician:** a person who is a member of a licensed professional society and also registered with the Engineering Council as an Engineering Technician (EngTech)
- **professional engineer:** a person who is a member of a licensed professional society and also registered with the Engineering Council (UK) as a Chartered Engineer (CEng) or Incorporated Engineer (IEng)

There is no statutory requirement to either be a member of a professional society or registered with the Engineering Council in order to practice as an professional engineer or engineering technician, although engineers engaged in specific activities may require a licence, seagoing engineers.

RINA and IMarEST whose requirements for membership match these standards may be licensed to register members with the Engineering Council. The membership class is fixed versus considering the academic diploma and the initial and continuing professional development.

Members of RINA in the class of Member (MRINA) may register as a Chartered Engineer (CEng). Members in the class of Associate-Member (AMRINA) may register as an Incorporated Engineer (IEng). Members in the class of Associate (ARINA) may register as an Engineering Technician (EngTech)

Members of IMarEST in the class of Member (MIMarEST) and Member Fellow (FIMarEST) may register as a Chartered Engineer (CEng). Members in the class of Associate-Member (AMIMarEST) may register as an Incorporated Engineer (IEng), Members in the class of Associate (AIMarEST) may register as an Engineering Technician (EngTech).

Recognized diploma

Universities

Title: Bachelor (BEng) / Master (MEng) / Doctorate (PhD)

University of Strathclyde

University of Newcastle

University of Southampton

Southampton Solent University

University College London

University of Plymouth