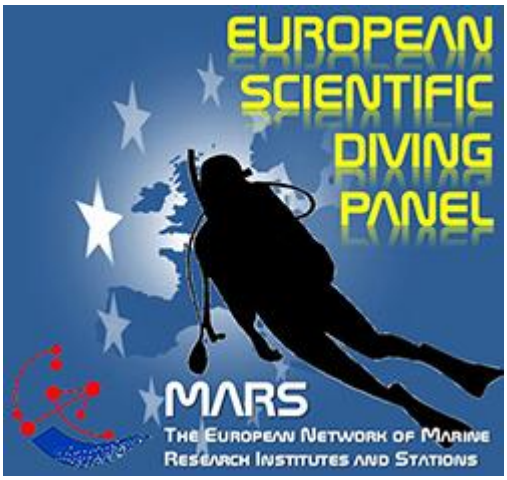
Mobility of Occupational Scientific Divers in Europe

Approach to the training of the Occupational Scientific Diver by ESDP members using the two competency levels for scientific diving at work ESD&AESD



ESDP Consultation Document Number 7

(version 1.0 August 2025)

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This consultation document is a product of the European Scientific Diving Panel (ESDP), an expert group constituted of representatives from the national scientific diving committees of 16 European countries at the time of writing this document. ESDP, based on its Terms of Reference, has produced a series of consultation documents that provide guidelines to conduct safely scientific programs involving diving operations. They are available at the website https://www.esdpanel.eu.

Photo 1 : Blue Water safety diver during training for the Advanced Belgian Scientific Diver photo A.Norro/RBINS

Preface

The European Scientific Diving Panel (ESDP) is not a training agency but an expert group providing (amongst other) mobility of occupational scientific divers between member countries. As such it is assessing the compliance of training and certification provided by professional training bodies in ESDP member countries for occupational scientific diving with the agreed competency level "European Scientific Diver" (ESD) and "Advanced European Scientific Diver" (AESD).

In other words, it is the national training certificate that is the starting point for using the mutual recognition system known as (A)ESD system. From this it follows that no European certificate exists for occupational scientific diving but only national occupational certification.

The competence levels were defined in the ESDP consultation document "Common Practices for recognition of European Competency levels for Scientific Diving at Work". This document was first published in 2008, revised in 2017, and again updated in October 2022. This document is the base for the (A)ESD system of recognition of EU competency levels for scientific diving at work, in short the (A)ESD system.

It describes in one hand the minimum levels of competence for the European Scientific Diver (ESD) and the Advanced European Scientific Diver (AESD) and on the other hand the way national professional certification obtained in one ESDP member state can be recognised in another ESDP member state ensuring mobility for the researcher using scientific diving at work. The unique feature of the (A)ESD system is to provide direct access to the water, when the system is fully in place and the considered ESDP members are complying with consultation document 1 .. This access

is gained for short stay while the application of the EU directive cited in the consultation document n°1 generally requires some time to be effective in practice.

This document is designed to provide information for scientists and students seeking to work in another EU member state (mobility). It will further develop the training to become occupational scientific divers as it is implemented by the ESDP member countries.

Rationale

Occupational scientific diving is a crucial tool and platform in aquatic sciences worldwide. It offers a safe, efficient, and resilient methodology for direct observation, complex experimental design, and selective sampling of the underwater environment. To fully benefit from this platform, scientists must be properly trained and have sufficient knowledge of safety procedures, best practices, and the legal framework in which they work.

Reliable and comparable national training and certification systems are essential to allow mobility across EU and affiliated states' national borders. Since 2000, the competency levels for ESD and AESD have provided the basis for the reciprocal acknowledgment of scientific divers' competencies among the ESDP member states. At the date of publication (August 2025) The members of the ESDP are Belgium,Finland, France, Germany, Italy, Norway, Poland, Sweden and the United Kingdom.

This is fully ensured for short stays like field work undertaken for international scientific projects or other diving needed e.g. for a thesis. As soon as the situation of the diver becomes permanent in another member state, e.g. by signing a work contract, additional local rules or laws will apply. (see EU directive cited in consultation document 1).

This ESDP consultation document offers insight into the application of mobility rules based on a common occupational scientific diver levels of training. The way different ESDP member states undertake training and certification is described in detail below based on a common framework permitting the comparison. The national last update date is also provided.

Aims and objectives

- To make sure the (future) occupation scientific diver understands what is behind the mobility gained by its national occupational scientific diver certification. This is ensured by a full understanding of the (A)ESD system including the no-existence of any European certification in this matter.
- To help researchers and students to find occupational scientific diver training in their homelands and other European countries

Occupational Scientific Diving Training in ESDP Member States

Belgium (last updated July 2025)

Name of the training courses

In Belgium, training for the Belgian Scientific Diver (BSD) and Advanced Belgian Scientific Diver (ABSD) is provided by the Belgian Working group on scientific diving (BWGSD) linked to the programming federal public services BELSPO. The training is implemented by RBINS (Royal Belgian Institute of Natural Sciences located at Brussels in collaboration with other institutions belonging to the BWGSD. In Belgium they provide the professional competencies as found in the RD 2003 last updated in 2018 and published in the Belgian official document (Moniteur Belge, Code of well being at work.hyperbaric work https://emploi.belgique.be/fr/themes/bien-etre-au-travail/principes-generaux/code-du-bien-etre-au-travail).

Offshore North Sea training can also be organised at the request of the employer for already certified occupational scientific divers who need to dive in the Belgian North Sea area. Additional specific training can be arranged at the demand of the certified occupational scientific diver employer e.g. cold water diving, CCR diving for sciences, based on the ESDP consultation document 4 ESDP "*Best Practice for using Closed Circuit Rebreather for Scientific Diving at Work*". The instructor team includes instructors from RBINS and other scientific institutions that are part of the Belgian national committee Belgian Working Group On Scientific Diving (BWGSD).

Training objective(s)

An advanced Belgian Scientific Diver is a diver capable of organizing a scientific diving team. He/she may attain this level by experience under suitable supervision and the presentation of a Work Method Statement document and a participation of a one week session including 10 dives during which he(her) demonstrates his(her) competencies according to the standard ABSD. The motived application for this level is introduced by the scientific institution the diver belongs too.

A Belgian scientific diver is a diver capable of acting as a member of a scientific diving team. He/she may attain this level by the participation to a two weeks training including 20 scientific dives. Application is introduced by the diver him(her)self with the support of their Scientific Institution.

Training provider(s)

This training is organised by the Belgian Working Group on Scientific Diving and operated by the Royal Belgian Institute for Natural Sciences (RBINS) annually (started 2008).

Target group

Members of permanent staff, contract staff, research students, technicians, and trainees or students of nationally recognized research institutions.

National certification/accreditation process

Upon successful completion of the training, and after a proposition made by the Belgian Working Group on Scientific Diving, the Federal Public Service BELSPO issues the Belgian legal certificate as stipulated in the Royal Decree (Belgian Law). Both certificates represent occupational certification and are recognised as professional competencies in Belgium. Those National certificates are fully compliant with ESD for the BSD certificate and with AESD for the ABSD certificate.

Entry level

All trainees must be affiliated with a recognised Belgian scientific institution. The required entry levels are based on CMAS 2* plus fifty logged dives for the BSD, and based on CMAS 3* for the ABSD. Regular (annual) medical checks are mandated by Belgian law, as per the Royal Decree of February 2018, *Code du bien-être au travail, Livre 4, Travaux en milieu hyperbare*.

Extent of training period

RBINS Organises the theoretical training as follows: 30 hours of theory provided at the University (3 ECTS Method of Scientific Diving, Titulary Dr. Alain Norro, (Vrije Universiteit Brussels (VUB)), followed by two weeks of practical tuition, which includes 20 scientific dives. VUB students that are non divers can also take the theoretical lessons but will not receive the BSD.

Equipment requirements

Participants are required to bring their personal diving equipment; however, arrangements can be made with the research station hosting the training if needed. A drysuit is mandatory for North Sea diving, except during the June to October period, provided the water temperature is above 10 degrees Celsius. During North Sea training, trainees must have the following additional safety equipment: a power whistle, a red SMB and reel, at least one cutting tool, and a safety helmet for wind farm diving.

How to reach and apply

The training application form is sent out in March each year to all members of the Belgian Working Group on Scientific Diving and individuals (researcher or students) who have expressed interest. Pre-registration is possible through the Belspo webpage given below. It is compulsory to have the application supported by a Scientific institution. The certificate must be renewed every five years (see the Belspo web page https://www.belspo.be/belspo/research/coop_diving_en.stm).

Application for the ABSD level is open all year and is organised at the demand of scientific institution.

For additional information and applications, you can contact the working group or Alain Norro at scientific_diving@belspo.be.

Cyprus (last update July 2025)

- Name(s) of the training course and training provider

The Scientific Diving Training Course funded by the Honor Frost Foundation under the framework of the Cyprus Regional Development Program is provided by Cyprus Marine & Maritime Institute (CMMI) and University of Southampton (UK).

- Training objective(s)

The aim is to provide trainees with the opportunity to learn skills and tools required to become certified as Cypriot scientific divers, which is compliant to the ESD or AESD competency levels as defined in the respective standard.

- Target group and extent of the training

The one-week training is aimed at researchers or students working in a field of marine sciences (mainly biologists and archaeologists).

The 1-week long training covers the skills and methods that are required by ESD and AESD, but the trainees are obviously not expected to complete the total dives required for each level during this week.

- Entry level

Their entry level must be equivalent to at least Advanced Open Water Diver (PADI AOWD) with experience of 50 dives. Medical obligations have not yet been defined.

- Training venue, facilities, and cost

Training takes place at CMMI and associated organisations facilities in Cyprus. It is Free of charge for the moment. Future courses will be charged but still not decided.

- Equipment requirements

All diving equipment is provided during training.

- National certification/accreditation process

Cyprus does not have national training that is compliant with the ESD or AESD standard. Cyprus is not yet a full member of the European Scientific Diving Panel and hence the mutual recognition of the national certificates with other countries as equivalent is pending.

- How to reach and apply

Contact for additional information and applications: Louis Hadjioannou, email louis.hadjioannou@cmmi.blue.

Finland (last update June 2025)

- Training provider(s)

Scientific divers are trained at two institutions in Finland. Finnish Scientific Diving Academy (FSDA) at the Tvärminne Zoological Station of the Helsinki University and LUKSIA Adults' Educational Centre of Western Uusimaa. Both training programs provide the foundation for reaching the ESD/AESD competency levels.

FSDA

- Training objective(s)

The training programs aim to develop professional scientific divers with a modern approach, trained in project planning, management, risk assessment, scientific diving techniques, supervision and boat operations for diving. They are open to anyone working with a research institution OR holds a Bachelors in related subjects.

- Name(s) of the training course(s) (make a list if several)

Foundations on Scientific Diving: (Advanced open water SCUBA training with dry suit).

Occupational Scientific Diver: (close to ESD compliance, additional dives may be required).

CCR Scientific Diver.

Polar/under Ice scientific diver.

Underwater propulsion vehicles (upon request).

Other training on advanced technologies and training tailored to specific research projects in addition to consultancy services in expedition logistics, field work and equipment design (upon individual arrangement with the Coordinator of the Academy).

- Entry level

The minimum entry level requirements for the OSD program are the basic diving training (Foundations) to the equivalent of AOWD, drysuit experience and 20 dives and a valid medical for occupational scientific diving.

- Extent of training period

The duration of the OSD training is 6 weeks. For the CCR training 4 weeks. The training takes place at the Tvärminne Zoological Station in Southern Finland.

Polar Scientific diving takes one week at the station in Kilpisjärvi (in northern Finland).

- Cost

Course fees are 3000 € for the OSD program and 2800 € for CCR. Finnish university students may apply for grants provided by Onni Talas Foundation and some other sources. The Polar Scientific diving course fee is 2000€.

The prices do not include accommodation and catering.

- Equipment requirements

For OSD drysuit, single tank setup, and full-face mask are used in the training.

For the CCR program, an own CCR-unit with adequate training is required.

For Polar Scientific Diving all equipment including double tank setup is provided.

- Target group

The FSDA offers education for professional scientists looking for specialist or more advanced training and student level courses. Training can be obtained by both Finnish and international individuals or groups with collaborative connections to the station.

- How to reach and apply

Contact for more information about registration the coordinator for the Finnish Scientific Diving Academy Edd Stockdale by email: edward.stockdale@helsinki.fi.

LUKSIA

- Name(s) of the training course(s) (make a list if several)

Luksia provides training in Finnish language. The training leads to the Professional examination for the diving industry - scientific diving.

- Entry level, Training objective(s) and Target group

No previous diving experience is required.

The selection process includes an entrance evaluation. The evaluation consists of a Cooper test (running), 200m swimming, 25m free diving, lifting ten metal plates from four meters depth (one by one), a psychological test, a pressure chamber test, a diving doctor examination, and a valid medical for occupational scientific diving (cost is covered in the course fee).

- Target group

Anyone related to underwater research, mainly students or researchers of archaeology and biology, can apply.

- Training venue and facilities

The training takes place at the Ojamo diver training centre in Lohja.

- Equipment requirements

All diving equipment is provided during training.

- Cost

The cost for the training was 1700 € in 2024.

- How to reach and apply

Contact for more information: Jarno Seppänen, email jarno.seppanen@luksia.fi

Both schools:

- National certification/accreditation process/renewal

Both schools provide certificates for the completion of the training for occupational scientific diving. The student's records including the certificate and evidence for additional (scientific) dives are validated as AESD or ESD compliant upon application by the board of the Finnish Scientific Diving Steering Association. The (A)ESD recognition is valid for five years.

Renewals are handled upon application *mutatis mutandis* by the board of the Finnish Scientific Diving Steering Association.

France (last updated June 2025)

- Name(s) of the training course(s) (make a list if several)

Name of the training program is CAH Certificat d'Aptitude à l'Hyperbarie (CAH) mention B "techniques, sciences, pêche, aquaculture, médias et autres interventions), with 4 classes:

- 0: max 12m, HSE approved
- I: max 30m, HSE and IDSA approved
- II: max 50m, HSE approved
- III: beyond 50m

CAHs are valid for 5 years; their renewal requires a refresher course in a certified training organization (1 to 2 days). Refresher training for the CAH is organized in the 12 months preceding the expiration date of the certificate.

NB: Divers holding a valid CAH mention A (civil engineering) are entitled to participate in projects using occupational scientific diving.

- Training objective(s)

Training objectives are:

1. to use his/her own equipment
2. to adopt an adequate behavior and to control the technical skills on the surface
3. to immerse and return to the surface safely
4. to control the ventilation when diving
5. to respond appropriately to the usual situations
6. to cite the basic theoretical principles
7. to move independently at - 12 meters
8. to master his/her autonomy at - 30 meters
9. to master his/her autonomy at - 50 meters
10. to master his/her autonomy beyond - 50 meters
11. to master the collective equipment
12. to know the environment of diving
13. to master the mixed-gas diving at - 30 meters, - 50 meters, beyond - 50 meters

General topics

- theoretical knowledge of the regulatory provisions (Distinguish the fields of application of the different mentions (A,B,C,D), apply regulatory provisions to hyperbaric interventions, apply regulations related to the environment of interventions)
- theoretical knowledge related to professional activity (State the physical principles of hyperbaric pressure, distinguish and prevent the physiological effects of hyperbaric exposure, apply the physical laws related to diving, prevent and know how to respond to diving accidents)
- materials and equipments (List the means of collective protection, protective individual equipment and work equipment, cite the principles of equipment operation, maintenance operations and regulations, use collective and individual facilities related to different types of diving)

- organization of interventions (Use documents contributing to the protection and monitoring of workers, risk assessment, set up, prepare and check diving gears, determine the composition of a diving team, adapt the intervention to the environment conditions
- different procedures of interventions (normal situation, degraded situation, emergency situation)

Class 0 (- 12 m)

- Control of intervention procedures down to - 12 m (orient oneself on the surface and in immersion with and without instrument, carry out simple interventions up to - 12 m respecting safety rules in force)
- Practice of the apnea (Master the technique to perform interventions down to -10 m maximum, apply the apnea and rescue procedures)

Class I (- 30 m)

- Same than Class 0, but up to - 30 m, - 10 m for apnea, master the intervention procedures to gas-mixtures other than air

Class II (- 50 m)

- be able to orient themself on the surface and in immersion by using the environment to direct oneself as well as the instruments, master the techniques to perform interventions up to -50 m in respecting the safety rules in force, master the intervention procedures to gas-mixtures other than air)

Class III (>- 50 m)

- Orientation with instruments both on the surface and in immersion, master the techniques allowing to carry out interventions beyond - 50 m respecting the safety rules in force, master the intervention procedures for binary and ternary gas-mixtures, master communication codes specific to deep technical intervention)

- Target group

That training program is **compulsory** to all individuals working in a hyperbaric environment, including all scientists.

- Entry level

The required entry level is equivalent to CMAS 3 stars (preferably) or CMAS 2 stars if the applicant has significant diving experience proven by logbook. The applicant must present a valid professional diving medical examination.

- Extent of training period

Minimum duration of training has also been defined:

- Class 0 (- 12 m) 24 hours
- Class I (- 30 m) 49 hours

- Class II (- 50 m) 70 hours
- Class III (>- 50 m) 70 hours

- Training provider(s), Training venue and facilities

Except for underwater archaeology, for all occupational scientific diving activities, training providers must be agreed by certification bodies (currently BCS: http://www.bcs-certification.com/index.php/nos-expertises/hyperbare/) accredited by the French Committee for Accreditation (fulfils the requirements of the standard NF EN ISO/CEI 17065:2012):

List of certified hyperbaric training organisations_BCS 27 September 2024

- GRASM - Groupe de Recherche Archéologique sous-marine, 35 Anse du Pharo, 13007 Marseille (B 0, I, II) - EPIR, PORT DE L'ILE ROUSSE, BP 141, 20220 ILE ROUSSE (B 0, I, II)

- LYCEE DE LA MER PAUL BOUSQUET, 112 rue des Cormorans, 34200 SETE (B 0, I) (+UFR- Université de Perpignan, ancienne criée, 66660 PORT VENDRE)

- ECOLE NATIONALE DES SCAPHANDRIERS, 1196 Boulevard de la Mer, 83600 FREJUS (B 0, I, II, III). *The legal status of this center is not entirely clear (December 2024). It will have to be verified if necessary.*

- SNOTRA, 6 chemin de Sues, 13760 Saint Cannat (B O, I, II), New Lac Sport (NLS) 20 Rue Marie de Lorraine, 37700 La Ville-aux-Dames

- ANDROMEDE PLONGEE BIO, 7 place Cassan, Carnon plage, 34130 MAUGIO (B 0, I, II)

- ANODIA AQUADOMIA, 51 Avenue André Zenatti - Résidence Herold's Palace, 13008 MARSEILLE (B 0, I, II)

- CAP TREBEURDEN, Siège social: CENTRE ACTIVITES PLONGEE, 54 Corniche de Goas Treiz, 22560 TREBEURDEN (B 0, I, II, III)

- ARIMAIR Plongée, 400 rue Alain Colas, 29470 Plougastel-Daoulas (B 0, I, II, III) + Base Aéro Navale Quai Jean Jaurès, 83430 SAINT MANDRIER SUR MER

- ASSOCIATION FORMATION SUBAQUATIQUE - AFS, 1 rue des ALGUES, 50110 TOURLAVILLE

- UNDER THE POLE, 1 Rue des Senneurs, 29900 CONCARNEAU

- DCI - Défense Conseil International - CIFPM, Centre Formation Plongée Militaire, BAT R - Quai Ouest - Darse PEM Nord 83430 SAINT MANDRIER S/MER

Note: Currently, university diplomas (DU) in scientific diving in the marine or freshwater environments can be delivered within the framework of continuing education (Univ. Perpignan-UPVD, univ. La Rochelle, Sorbonne university). There is, for example, a partnership between UPVD and the Lycée de la Mer Paul Bousquet (Sète) which allows the delivery of a "scientific" CAH, mention B.

Note: There's also an agreement, renewable annually, between the University of Dijon (Biogeosciences Lab) and Cap Trébeurden that offers a professional qualifying training program for scientific divers, Class 0B and 1B.

- Cost

The cost for the training programs are generally paid by the research units or by continuing education (CNRS, universities, IRD, etc.) - excluding travel and accommodation. On the average, they are (*indicative value to be verified with the approved training organisation when compiling the file*):

- Training: 1800-6500 € depending on the training bodies and the certificate
- Refresher training : 1500-3000 €

- Equipment requirements

Trainees are required to bring their personal diving equipment except tank, weight belt, regulators. CCR is subject to a specific training (not included in the CAH training).

- National certification/accreditation process

After that training is completed, CAH competence is awarded by the certified training organization (independent of the research and teaching sectors). Scientific competence is recognized by a jury of peers.

- How to reach and apply

Contact for more information: CNPS (comité national de la plongée scientifique), Gérard Thouzeau (gerard.thouzeau@univ-brest.fr)

Germany (last update 2020)

- Name(s) of the training course(s) (make a list if several)

Training courses are called "Geprüfter Forschungstaucher" (Certified Research Diver) and "Taucheinsatzleiter" (Dive Mission Leader <-> Advanced European Scientific Diver).

- Training objective(s)

Their objectives to educate professional scientists working underwater include project planning, environmental assessments, risk assessments, modern techniques, NITROX, supervision of dive groups ("Dive mission leader").

- Training provider(s), Training venue and facilities

Training centers for ESD ("geprüfter Forschungstaucher") Certificates in Germany can only be accredited by the German Statutory Accident Insurance (DGUV) according to the German Seventh Book of the Social Law. There are seven accredited German training centres:

1. Center for Scientific Diving (CSD) of the Alfred Wegener Institute for Polar and Marine Research - Biological Institute Helgoland BAH
2. Scientific Diving Center of the Christian-Albrechts-University of Kiel - Institute for Geosciences
3. University of Hamburg, Center for Marine and Climate Research
4. University of Rostock
5. University of Oldenburg Institute for Chemistry and Biology of the Sea (ICBM)
6. Limnological Station Iffeldorf - Aquatic Systems Biology, Technical University of Munich
7. TERAQUA GdBR
8. Leibniz Center for Tropical Marine Ecology (ZMT)

- Target group

The courses can be attended by anyone who has to do scientific related work underwater and is an employee. This includes, for example, underwater journalism, engineering, archaeology, biology, oceanography.

- Entry level and Extent of training period

Entry level requirements vary according to target level of training:

- Full course ESD (8-9 weeks): No entry level
- Advanced training ESD (4 weeks): CMAS ** (or equivalent) and 30 h dive time, experience in dry diving
- Dive mission leader (1 week): ESD, 60 hours scientific work under water after the ESD examination. Experience in project planning.
- Cross-Over (AAUS/CAUS etc.) (1 week): Being fully competent as ESD. It is a competence test, no training.
- Surface supplied (1 week):

Trainees are also required to have a medical exam according to German standards for professional diving (G31) or an equivalent (accepted) international certificate.

- National certification/accreditation process

Training units and courses to AESD (eq. "Dive mission leader"), Cross-Over from other (national and international non-ESD) certificates and additional training like surface-supplied / mixed-gas diving are accredited by the German Commission for Scientific Diving (KFT).

- Cost

The cost of training is from 900 to 1200 €.

- Equipment requirements

Trainees must also bring their personal dive equipment except for tank, weight belt, FFM and regulators.

- How to reach and apply

For contact and more information, see the training centers:

https://www.forschungstauchen-deutschland.de/index.php/en/scientific-diving-in-germany/training/ausbildungsbetriebe

Gibraltar (last update June 2025)

No training provided.

Italy (Last Update July 2025)

Names of the training courses

Training courses for scientific divers in Italy are delivered by Universities as a part of the MSc programs (e.g., MSc in Marine Biology at the University of Bologna has a specific Scientific Diving [1] class including practical sessions for a total of 6 ECTS) or as summer schools, also jointly organised by multiple institutions. The most renowned and historic non-academic training course is the one organized annually since 1989 by the International School for Scientific Diving (ISSD) [2]. All qualified courses that contribute, at least in part, to the achievement of the minimum standards for scientific divers are recognized by the Italian Association of Scientific Divers (AIOSS) [3], which is the authority that evaluates the training and issues certifications to its members, according to the Italian law. Upon request, AIOSS organizes specific training and refresher courses for public bodies that do not have their own internal training system.

Training objectives

Acquire knowledge of specific underwater scientific methodologies and techniques in the proper disciplinary sectors, of national and international regulations and of safety at work and first aid procedures, with the ultimate aim of achieving the training standards required by ESDP and the Italian regulatory body (UNI: 11948-2/2024) [4] for Italian scientific divers and advanced scientific divers.

Training providers

- Universities
- International School for Scientific Diving (ISSD, an NGO)
- Italian Association of Scientific Divers (AIOSS, the professional association of workers)
- temporary consortia of research institutes and/or universities

Target group

University students and graduates in all scientific disciplines. Ungraduated technicians from public and private institutions dealing with scientific diving are admitted to non-academic courses.

Entry level

Usually second level divers (with national or international certifications for 30 m depth from recreational diving training agencies compliant with ISO/CEN and/or CMAS standards) with at least 20 dives. Some specific courses may have higher access levels.

Extent of training period

The duration varies from one week, for intensive courses on specific topics, to one semester for regular university courses (6 ECTS). All course formats include theoretical and practical sessions, including open water dives supervised by high academically qualified scientific diver trainers.

Training venue and facilities

The courses are held within academic programs (for example, the Master's Degree in Marine Biology at the University of Bologna, in English from 2026), as academic summer schools, as extra-university courses organized by the historic International School for Scientific Diving (ISSD) and by consortia of

research institutions, always with academic level teachers. The Italian Association of Scientific Divers (AIOSS) provides teachers, seminars, and courses for member institutions.

The places of the organizing bodies and, for water activities, the facilities rented from qualified diving centers.

Cost

Costs vary depending on the type of course, for those within the academic training paths they are included in the university fees, otherwise up to a maximum of approximately 2000 euros.

Equipment requirements

Participants are required to have all personal diving equipment regularly serviced. Tanks and weight belts are usually provided on site. Scientific equipment is usually provided by the organizing body.

National certification/accreditation process

Please note that no course automatically issues an Italian scientific diver certification. The issuing of certifications remains the responsibility of the Italian Association of Scientific Divers (AIOSS), after verification of the achievement of all standards.

How to reach and apply

The courses are advertised by AIOSS (on the website and via mailing list) [5], by ISSD and on the websites of the organizing universities and research institutes.

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[1] https://www.unibo.it/en/study/course-units-transferable-skills-moocs/course-unit-catalogue/course-unit/2025/503872
[2] http://www.issdonlus.it/
[3] https://www.aioss.eu/english/
[4] https://store.uni.com/en/uni-11948-2-2024
[5] https://www.aioss.eu/english/events-and-news/

Norway (Last Update July 2025)

- Name(s) of the training course(s) (make a list if several)

The names of the training programs are "Klasse A", “Klasse B”, and "dykkeleder" (dive leader).

- Target group

All individuals who need to work while diving including occupational scientific diving.

- Training provider(s)

Training is provided by diving schools for "Klasse A" certificate, e.g. Høyskulen i Bergen (Norwegian language only) and NYD (Oslo). There might be other training providers as well.

- Training objective(s)

The training objectives are in work dive education (welding, inspections, etc.).

Klasse A, i.e. the minimal criteria, leads to the level of theory knowledge similar to between PADI Advanced diver-PADI Rescue diver.

Klasse B is the continuation course, which includes work down to 50 m with accelerated decompression and work in constrained environments. Dive leader deals with organisation, supervision and emergency handling.

Please note: These professional courses do not teach anything related to scientific tasks under water.

- Entry level

No previous diving experience is required for entering the training. The trainees need to be able to swim, hold breath and a few other uptake requirements, and pass the medical exam according to Norwegian standards conducted by a certified diving medical.

Link to approved (Norwegian/foreign countries) doctors can be found here: https://www.statsforvalteren.no/en/Rogaland/Health-and-care-services/Offshore-health-services/Approved-doctors/.

Information about diving and medical requirements can also be found here (Norwegian only): https://dykkemedisin.no/

- Training venue and facilities

Høyskulen på Vestlandet: https://www.hvl.no/studier/studieprogram/yrkesdykking/ *)

NYD: https://nyd.no/en/courses/become-a-commercial-diver/ *)

*) The providers have slightly different prerequisites regarding physical/water ability skills between each other.

- Equipment requirements

None.

- National certification/accreditation process

Certification according to Arbeidstilsynets standards (National Work Environment Agency) after completing the course and passing the exam. Work certification from EU countries might be able to be approved according to the rules about no-hindrance of employment between EU countries.

- Extent of training period

The duration of training for the classes are “Klasse A”: 8 weeks, Klasse B: 9 weeks and Dive leader: 2 weeks. Høyskulen på Vestlandet (Bergen) offers “Klasse A+B” as a one year (60 ECTS) study programme. NYD (Oslo) offers A +B as a 16w course. The two week dive leader comes in addition.

- Cost and how to reach and apply

The cost and information about application processes can be found at the web pages of the course providers Høyskulen i Bergen (15 000 NOK (2025)) and NYD (Oslo)(65 000 NOK (2025)).

Poland (last update June 2025))

Poland is not yet undertaking Occupational Scientific diving training.

Sweden (last update July 2025)

- Training provider(s)

Today it is up to the specific universities to put together an education package, based on the ESD/AESD standards for their occupational scientific divers to achieve the ESD/AESD-competency level.

Note: We have had 5 training courses in collaboration with Germany and Finland 2015-2022. The University of Gothenburg is actively working to get financing for further courses.

- Name(s) of the training course(s) (make a list if several)

The name of the training courses is Swedish Scientific Diver.

- Training objective(s)

Educating professional scientists working under water, including project planning, environmental assessments, risk assessments, modern techniques and supervision of dive groups ("Dive mission leader") at the minimum level of competence that according to the ESDP standards.

- Target group

Students and academic personnel with at least a Bachelor degree in a science discipline can apply for the training program.

- Entry level

The minimum entry requirements for the training is a Bachelor's degree. To apply for the examination "Swedish scientific diving certificate" the occupational diver license "S30"is required.

At the latest collaborative courses the entry level has been CMAS** /PADI rescue diver or equivalent, targeting especially PhD-candidates, master students, and early career researchers. The trainees must have passed the medical assessment "fit for diving at work" and have an insurance cover for occupational diving provided by the training organization prior to any training .

- Extent of training period

Duration of the training program for the ESD level Swedish certificate is five weeks of practical and about 2-3 weeks of theoretical training for the collaborative or combined courses, or 3 weeks of competency training after having completed a course as occupational diver (S30).

- Training venue and facilities

The previous courses have been held at the Kristineberg Center, University of Gothenburg together with either AWI (Helgoland) or Tvärminne (Finland).

- Cost

The cost of future training hasn't been decided yet. Training courses are announced through academic channels.

- Equipment requirements

- National certification/accreditation process

All occupational diving certificates (including occupational scientific diving certificates) are issued by the Swedish armed forces on behalf of the Swedish government.

The courses are evaluated by our national Swedish scientific diving committee.

- How to reach and apply

The Netherlands (Last update June 2025)

- Name(s) of the training course(s) (make a list if several)

In the Netherlands, training for Scientific Diver is provided in two accredited courses: Scientific Diving - Theoretical Course (part I) and Scientific Diving - Practical Course (part II). Together they provide training on the ESD competence level. Training provider(s)

The training is for now organized by Wageningen University Marine Animal Ecology Group.

- Target group

Scientific Diving - Theoretical course (part I): Students, staff, management, citizen scientists that are interested in occupational Scientific Diving.

Scientific Diving - Practical course (part II): students, PhD, staff of research institutions and universities.

- Training objective(s)

Achieve the necessary competency level (ESD) in theory and practice to conduct scientific dives safely and respond to emergencies providing first aid administering also normobaric oxygen. Renewal every year.

- Entry level

Scientific Diving - Theoretical course (part I): No pre-requirements

Scientific Diving - Practical course (part II):

1. Successfully completion of the Scientific Diving - Theoretical Course
2. Recent medical check (<1 year old) – adhering to dutch law on hyperbaric work: www.arbocataloguswoo.nl and https://www.arbocataloguswoo.nl/images/SWOD/pdf/ENG/UK-SWOD-ARBOCAT-WoO-CAT-001-6-II-SCUBA-other-2024.pdf
3. Ability to swim (375m in maximum 14 min) and high physical fitness
4. Required: Advanced Open Water certification (any agency)
   Preferrable: deep dives & navigation experience, Rescue diver (any agency)
5. 50 logged dives
6. Bachelor in Life Sciences and scientists and persons recognised by a scientific institution.

- Extent of training period

Theoretical course: 56 h study including exam.

Practical course: 12 days of field study including 20 scientific dives and examination.

- Training venue and facilities

Theoretical course: online

Practical course: Training takes place in Krk, Croatia.

- Equipment requirements

Theoretical course: computer and internet access

Practical course: Diving equipment (wing, regulators, fins, tanks, weights) are provided. All other equipment should be brought or can be rented. Drysuit is obligatory if training for projects within the Netherlands (pre-requirement for Dutch Occupational Diving in the A-scope). Otherwise a drysuit is allowed but not obligatory. If the student wants to partake in projects within the Netherlands, taking this training in drysuit is required (Dutch Occupational Diving in the A-scope).

- Cost

Theoretical course: free for students, fee (tbd) for external candidates.

Practical course: 3500-4000€ per person. Not included are travel, catering, and accommodation. Waivers and/or funding are available. Students following the course as part of their study program pay only for catering.

- National certification/accreditation process

Both courses combined lead to a certification by the Wageningen University aiming for the recognition of the candidate as fulfilling the competency level of European Scientific Diver (ESD).

At the time being, the Netherlands cannot yet confirm the competency level "ESD" as it is not yet a full member of the European Scientific Diving Panel*.

> *Please be aware that the rules and regulations in the Netherlands are rapidly changing at the moment (June 2025), with the implementation of a separate scope for occupational Scientific Diving (A - Scientific or AS scope) expected in 2026. The certification of Wageningen University is not yet formally recognized in The Netherlands, but does adhere to national standards, and with that to ESD training standards, as set by the Dutch National Scientific Diving Committee which are recognized in the meantime. The national standards adhere to ESD levels of competency.
>
> National Scientific Diving Committee: https://www.wur.nl/en/article/dutch-scientific-diving-1.htm
>
> National standards can be found here: (https://www.wur.nl/en/show/scientificdivingstandards_vapr2024-1.htm

- How to reach and apply

How to reach and apply: Scientific.diving@wur.nl and https://www.wur.nl/nl/onderzoek-resultaten/leerstoelgroepen/dierwetenschappen/marine-animal-ecology-group/research/scientific-diving-at-wur.htm
Contact for more information and application:

https://www.wur.nl/en/article/dutch-scientific-diving-1.htm

United Kingdom (Last update July 2025)

« The UK Scientific Diving Supervisory Committee (SDSC) is using a system that cannot be summarised in the same way as for the other ESDP members. It is better to refer to the following web pages https://uk-sdsc.com/scientific-diving-training-in-the-uk/"