



## VACANCY NOTIFICATION

### Scientist (Acoustic Seismology) (250146)

**Primary Location:** Italy-La Spezia

**NATO Body:** Centre for Maritime Research and Experimentation (CMRE)

**Schedule:** Full-time

**Application Deadline:** 2 March 2025

**Salary (Pay Basis):** 5,725.22 EUR (Monthly)

**Grade** NATO SSS Grade G15 (ABCL A2)

**Clearance Level** NS

Appointment will be subject to receipt of a NATO SECRET security clearance (provided by the national Authorities of the selected candidate) and approval of the candidate's medical file by the CMRE Medical Adviser.

**We are seeking a passionate and talented Acoustic Seismology Scientist to conduct scientific research and deliver innovative solutions to address the defence and security needs of the Alliance.**

#### 1. POST CONTEXT

This is a position within the Centre for Maritime Research and Experimentation (CMRE), an organization of the North Atlantic Treaty Organization (NATO).

CMRE is an established, world-class scientific research and experimentation facility that organizes and conducts scientific research and technology development, centred on the maritime domain, delivering innovative and field tested Science & Technology (S&T) solutions to address defence and security needs of the Alliance.

The position is within the Research Division (RD) which is responsible for identifying, developing and delivering Science & Technology (S&T) solutions to the needs of the Alliance in the maritime domain.

The Division leads the development of CMRE's scientific strategy and through its capability in ocean sensing, numerical modelling, big data analytics, artificial intelligence and autonomy, delivers the Centre's S&T goals while maintaining CMRE's reputation within the scientific community.

The Research Division is comprised of the four following branches:

1. Anti-Submarine Warfare (ASW)

2. Autonomous Naval Mine Warfare (ANMW)
3. Environmental Knowledge and Operational Effectiveness (EKOE) & Climate Change (CC)
4. Data Knowledge and Operational Effectiveness (DKOE)
5. Maritime Unmanned Systems Enablers (MUSE)

This position is within the ASW Branch and contributes to the projects 'Maritime Unmanned Systems for ASW' and 'Decision Support' within the Autonomous Anti-Submarine Warfare (AASW) program.

## **2. PRINCIPAL DUTIES**

- Supports the program of work in developing and investigating innovative and cutting edge scientific research in the area of Structural Acoustics, Seismology, Underwater Acoustics and Seismo-Acoustic Data Analysis to provide thorough scientific understanding of seismo-acoustic phenomena and to develop (autonomous) capabilities for ASW, to allow the selection and development of cutting-edge solutions in sensor design, signal processing and system configuration to support future NATO ASW.
- Contributes to the ASW program of work at the Centre, helping to re-establish the laboratory as a centre of excellence in at-sea research and experimentation.
- Executes CMRE's research activities in seismology, underwater acoustics and physical acoustics (including modelling), supporting the ASW program. Emphasis will be placed on conducting acoustic studies and data analysis to improve scientific understanding of the ocean and ocean seabed environments in areas of interest for ASW; on designing, implementing and testing seismo-acoustic data analysis algorithms exploiting measurements collected by manned and unmanned platforms; on contributing to the research in acoustics for ASW; and on supporting CMRE's sea trials and NATO exercises.
- Supports the organization and execution of ACT Projects, externally funded projects and NATO workshops and conferences on ASW; the development of proposals for external funding beyond ACT, seeking and winning funding from National Naval R&D funding agencies, National or NATO Multi-National projects, or from European funding mechanisms.
- Works closely as required with projects outside of the ASW program, in particular with the EKOE projects, this in order to ensure coherence of the centre's environmental acoustics and ASW activities.

## **3. SPECIAL REQUIREMENTS AND ADDITIONAL DUTIES**

### **a. Flexibility Clause**

The incumbent may be required to perform other related duties as directed.

All other related duties should correspond with the required competencies for the job.

b. Deployment/Travel

The incumbent may be required to perform duties on-board Centre or chartered vessels. The incumbent may be required to undertake TDY assignments within and outside NATO boundaries.

c. Certification

The incumbent needs to hold a fit for sea certificate in line with the International Maritime Organization (IMO) and International Labour Organization (ILO) standards before taking up duty.

#### 4. ESSENTIAL QUALIFICATIONS

a. Professional/Experience

- Scientific expertise in physics, mathematics, engineering, or equivalent.
- Strong background in seismo-acoustics and underwater acoustics.
- Solid knowledge of at least one of the following modelling tools of sound propagation in layered fluid/elastic media: OASES, parabolic equation-based tools such as RAM-GEO, SPECFEM, COMSOL, SCOUT.
- Strong background in data analysis and physical interpretation of acoustic and seismo-acoustic data.
- Proven track record of high quality scientific research in underwater acoustics, structural acoustics and/or seismology with a significant publication record.
- Strong scientific programming using standard software and operating systems such as Linux, MATLAB, Python, C/C++, FORTRAN.
- Experience participating in scientific project work within a multi-disciplinary environment.
- Experience participating in the submission and execution of scientific projects, delivering the expected and required outputs to the satisfaction of the customer.
- See Par. 4.b.

b. Education/Training

- MSc degree in physics, engineering, applied mathematics or related field and at least 5 years post-MSc experience as Scientist or Engineer with a specific focus on physics, acoustics, seismology or seismo-acoustic modelling.

OR

- PhD in physics, engineering, applied mathematics or related field with training in ocean and/or seabed acoustics and/or seismology and at least 2 years of relevant experience.

c. Language Requirements

A thorough knowledge of one of the two NATO languages (English and French), both written and spoken, is essential and some knowledge of the other is desirable.

English SLP 3333

**NOTE:** Most of the work of CMRE is conducted in the English language.

## **5. DESIRABLE QUALIFICATIONS**

- Ph.D. or relevant experience in physics, engineering, applied mathematics, or related field with a specific focus on physical acoustics, acoustic modelling and/or seismology.
- Demonstrated experience on seismo-acoustic field data processing.
- Background in signal/array processing (i.e., physically informed array processing, field data analysis).
- Knowledge of numerical modelling of sound propagation in layered elastic media, including the different governing equation approximations and the different numerical solution techniques commonly used in the community.
- Demonstrated experience in the role of Principal Investigator for scientific projects in the oceanographic and/or geoscience domain.
- Recent scientific publications as first author documenting results in acoustics, seismology or data processing.
- Experience working in an international organization.
- Demonstrated capability to obtain funding for new research activities and satisfying customer requirements and expectations.

## **6. ATTRIBUTES/COMPETENCIES**

The successful candidate possess the following competencies / personal attributes:

- Excellent communication skills, both oral and written – able to communicate at all levels;
- Very good interpersonal skills. Solicits inputs and encourages others;
- Innovative and driven. Always displaying sound judgement;
- Excellent time management and organizational skills.

All CMRE personnel are expected to conduct themselves in accordance with the current NATO Code of Conduct agreed by the North Atlantic Council (NAC), and thus display the core values of integrity, impartiality, loyalty, accountability, and professionalism.

## **7. REMARKS**

The duties are performed in an office, laboratory, workshop environment or on-board Centre ships. Slightly undesirable working conditions may apply.

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## **About Us:**

The Centre for Maritime Research and Experimentation (CMRE) is part of the NATO Science and Technology Organization (STO). The mission of the STO is to help position both national and NATO science and technology investments as a strategic enabler and technology advantage for the defence and security posture of NATO Allies and partners. The Centre conducts scientific research and technology development and delivers innovative field-tested S&T solutions to address the defence and security needs of the Alliance. CMRE has more than 60 years of experience and has produced a cadre of leaders in ocean science, modelling and simulation, acoustics and other disciplines, as well as producing critical results and understanding that have been built into the operational concepts of NATO and the Nations.

## **What we offer:**

- Salary (Pay Basis): 5,725.22 (EUR) Monthly. Salary value as per 2025. Subject to future adjustments in accordance with North Atlantic Council decisions.
- Grade ABCL grade A2 / NATO grade G15
- A world class research facility located in the sea port of La Spezia, Italy supported by two specialised research vessels.
- An exciting place in which to work situated at an ideal location, the port of La Spezia, Italy, enabling synergy with regional and global academic institutes and industry.
- Salary and conditions of employment will be in accordance with the NATO Civilian Personnel Regulations (NCPR), which includes a rewarding salary and a comprehensive system of allowances, supplements and insurances to support families and, in case of expatriated staff, offers an interesting “expatriate” package.
- A generous annual leave and, (where eligible) home leave.
- The successful candidate will be offered a three years’ definite duration contract which may be renewed for subsequent periods subject to business needs, satisfactory performance and the need to rotate skills and talent within the Organization.
- Applicants who prove to be competent for the post but who are not successful in this competition may be offered an appointment to another post of a similar nature, which might become vacant in the near future, albeit at the same or a lower grade, provided they meet the necessary requirements.

## **Our recruitment process:**

- Please note that we can only accept applications from nationals of NATO member countries.
- Applications (including the most relevant publications, the diplomas - stating the highest level of education - and a CV) for this vacancy are to be submitted using the E-recruitment system;

- Appointment will be subject to receipt of a security clearance (provided by the national Authorities of the selected candidate) and approval of the candidate's medical file by the CMRE Medical Adviser.

**Additional information:**

- CMRE values diverse backgrounds and perspectives and is committed to recruiting and retaining a diverse and talented workforce. We welcome applications of nationals from all Member States and strongly encourage women to apply.
- Selected candidates are expected to be role models of integrity, and to promote good governance through ongoing efforts in their work.

**For more information on how to apply:**

[How to apply for posts within NATO](#)

[6 tips to apply for posts within NATO](#)

**NOTE:**

**NATO will not accept any phase of the recruitment and selection prepared, in whole or in part, by means of generative artificial-intelligence (AI) tools, including and without limitation to chatbots, such as Chat Generative Pre-trained Transformer (Chat GPT), or other language generating tools. NATO reserves the right to screen applications to identify the use of such tools. All applications prepared, in whole or in part, by means of such generative or creative AI applications may be rejected without further consideration at NATO's sole discretion, and NATO reserves the right to take further steps in such cases as appropriate.**

**HOW TO APPLY:**

Applications are to be submitted using the NATO Talent Acquisition Program (NTAP) <https://nato.taleo.net/careersection/2/jobdetail.ftl?job=250146&lang=en>

Applications submitted by other means are not accepted. NTAP allows adding attachments. Essential information must be included in the application form. Particular attention should be given to Education and Experience section. Each question should be answered completely. Expressions such as "please see annex / enclosed document" or invitations to follow links to personal webpages are not acceptable and will be disregarded. All answers should be in English preferably, or French.