

Guidelines for the recruitment and career advancement of researchers and technologists (I-III professional level) in line with the OTM-R (*Open, Transparent and Merit-based Recruitment of Researchers*)

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1 GENERAL PRINCIPLES

This document defines the guidelines of the National Institute of Oceanography and Applied Geophysics - OGS for the recruitment procedures, both fixed-term and permanent, and for the career advancements of researchers and technologists (professional levels I-III), in complience with the OTM-R strategy (*Open, Transparent, and Merit-based Recruitment of Researchers*)¹.

It is hereby stated that the terms 'researcher,' 'technologist,' and 'candidate' are to be understood as referring indiscriminately to both 'female researcher' and 'female technologist'.

For both recruitment and career advancement, OGS implements open, transparent and merit-based procedures, comparable at international level, by including in the notices clear and objectives information on how and when to carry out the selections and on the evaluation criteria of the candidates characterized by objectivity and transparency.

The OGS's adhesion to the European Strategy for Human Resources for Research² requires adopting criteria in addition to those already considered by national regulations which take into account the principles and recommendations set out in the European Charter for Researchers and in the Code of Conduct for the Recruitment and Career Development of Researchers³.

The OGS models itself on and aspires to the European Framework for Researchers' Careers with the distinction of the four levels envisaged therein, compatibly with the limits and differences dictated by national regulations:

- a) First Stage Researcher (R1): until attaining a PhD;
- b) Recognised Researcher (R2): PhDs or equivalent, not yet fully independent;
- c) Established Researcher (R3): researchers who have developed a level of independence;
- d) Leading Researcher (R4): researchers who lead research in their area or field.

The guidelines are also intended to incorporate the indications of the organisation's *Gender Equality Plan* (GEP) ⁴, aimed at achieving a gender balance in the workplace in line with the European Strategy for Gender Equality⁵.

OGS also adheres to the recommenda5ons of the San Francisco Declara5on on Research Assessment (DORA), and the Coalition for the Advancement of Research Assessment (CoARA), which define good practices for the assessment of research and researchers.

1.1 European Charter for Researchers and Code of Conduct for the Recruitment and Career Development of Researchers

The European Commission recommends that Member States establish strategies and evaluation systems for the recruitment and career development of researchers inspired by the general principles contained in the European Charter for Researchers and the Code of Conduct for the Recruitment and Career Development of Researchers.

¹ https://euraxess.ec.europa.eu/useful-information/policy-library#group-collapsible-research-careers

² https://euraxess.ec.europa.eu/jobs/hrs4r

³ https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=CELEX%3A32005H0251

⁴ https://www.ogs.it/sites/default/files/2023-08/piano%20di%20uguaglianza%20di%20genere%202022-2024%20%281%29.pdf

⁵ https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/gender-equality-strategy it

The Charter and Code use the internationally accepted definition of research from the Frascati Manual. Accordingly, researchers are described as "professionals engaged in the conception or creation of new knowledge, products, processes, methods and systems and in the management of the projects concerned".

This definition can also be extended to the technologist profile; OGS, in applying the contents of the Charter and of the Code, therefore always refers in an undifferentiated manner to the professional figures of researcher and technologist.

More specifically, these guidelines refer to "persons carrying out professional activities in research and technological development, at any stage of their career, regardless of their classification. This includes any activity in the field of 'basic research', 'strategic research', 'applied research', experimental development and 'knowledge transfer', including innovation and advisory, supervisory and teaching activities, management of knowledge and intellectual property rights, exploitation of research results or scientific journalism".

The Charter and the Code recommend that "the full range of candidates' experience should be taken into account in the selection procedure. While focusing on their overall potential as researchers, their creativity and degree of independence should be taken into account."

"This means that merit should be assessed qualitatively and quantitatively, with emphasis on outstanding achievements in a diverse personal career and not exclusively on the number of publications. Therefore, the importance of bibliometric indicators should be appropriately weighted within a broad range of evaluation criteria, considering teaching and supervisory activities, teamwork, knowledge transfer, research management, innovation and public awareness activities. For candidates from industry, special attention should be paid to any patents, development activities or inventions."

The Charter and Code also recommend that "career breaks or changes in the chronological order of the curriculum vitae should not be penalised but considered a potentially valuable contribution to the professional development of researchers along a multi-dimensional career path. Applicants should be allowed to submit evidence-based CVs that reflect a meaningful set of accomplishments and qualifications for the position to which they aspire."

In particular, periods of maternity/paternity leave will be appropriately taken into account when assessing the candidates' overall career.

Recognition and evaluation of the qualifications obtained by candidates in the course of their careers must be based on their actual achievements and not on the scientific value of the Institute (Italian or foreign) where the candidates acquired these qualifications.

1.2 San Francisco Declaration on Research Assessment (DORA)

OGS, as a signatory to the San Francisco Declaration on Research Assessment⁶ supports the adoption of the following practices in research assessment:

a) not to use journal-based metrics, such as Journal Impact Factors, as a substitute measure of the quality of individual scientific articles, or to evaluate the contributions of an individual researcher, or in hiring, promotion or funding allocations;

b) to make explicit the criteria used in assessing scientific production [...] and to emphasise, especially for younger researchers, that the scientific content of an article is much more important than publication-related metrics or the name of the journal in which the article was published;

c) for research evaluation purposes, consider the value and impact of all research products (including datasets and software) as well as publications, and consider a wide range of forms of impact measurement, including qualitative indicators such as influence on policy and practice.

⁶ https://sfdora.org/read/

1.3 Coalition for the Advancement of Research Assessment (CoARA)

OGS supports the vision of the Coalition for the Advancement of Research Assessment⁷ "that the evaluation of researchers recognises the different results, practices and activities that maximise the quality and impact of research. This requires basing evaluation primarily on qualitative judgement, for which peer review is central, supported by a responsible use of quantitative indicators".

OGS intends to implement the fundamental commitments of the Agreement for Research Evaluation Reform⁸, in particular:

- (a) to "recognise the diversity of research activities and practices, with diversity of results, and reward early sharing and open collaboration" respecting diversity, inclusion and collaboration;
- (b) to "recognise that researchers should not excel in all types of tasks and provide a framework for researchers to contribute to the definition of their research goals and aspirations".
- (c) to "abandon the inappropriate uses in research evaluation of parameters based on journals and publications, in particular the inappropriate uses of the Journal Impact Factor (JIF) and the h-index". "Inappropriate uses include:
 - i. rely solely on author-based metrics (e.g. article count, patents, citations, funding, etc.) to assess quality and/or impact
 - ii. evaluate results based on metrics related to the location, format or language of the publication;
 - iii. rely on other metrics that do not adequately represent quality and/or impact".

1.4 Applicable legislation

These guidelines refer to the legal and contractual provisions currently in force on recruitment in the public sector, and in particular to:

- a) Articles 51 and 97 of the Constitution;
- b) Law No. 241 of 7.8.1990, as amended;
- c) Presidential Decree no. 171 of 12 February 1991 Annex 1, as amended and supplemented by Article 15 of the National Collective Labour Agreement for the 2002-2005 regulatory period;
- d) Presidential Decree no. 487 of 9 May 1994;
- e) Legislative Decree no. 165 of 30 March 2001, as amended and supplemented;
- f) Presidential Decree No. 33 of March 13 2013, as amended and supplemented;
- g) Presidential Decree No.218 of November 25 2016, as amended and supplemented;
- h) National Collective Labour Agreement (CCNL) in force;
- i) Section II of the OGS Personnel Regulations;

Competition procedures shall be governed by the following principles, based on the above regulations:

- a) the recruitment of public sector employees through the competition system meets the public administration's need to recruit the most capable and deserving candidates in compliance with the constitutional principles of good performance and impartiality of public administration;
- b) the procedure for recruiting staff must be open, transparent, ensure equal treatment of candidates and be comparable at European and international level;
- c) the selection procedure must be adequately publicised;
- d) the manner in which it is carried out must guarantee impartiality and ensure economy and rapidity of completion, resorting, where appropriate, to the use of automated systems, also aimed at achieving forms of pre-selection;

⁷ https://coara.eu

⁸ https://coara.eu/app/uploads/2022/09/2022 07 19 rra agreement final.pdf

- e) objective and transparent evaluation mechanisms must be adopted, suitable for verifying the possession of the scientific, technological and professional requisites required in relation to the position to be filled;
- f) equal opportunities for male and female workers must be guaranteed;
- g) the selection boards must be made up, in compliance with equal opportunities, of experts with proven competence in the subjects of the competition, who are not members of the administration's political management body, who do not hold political office and who are not trade union representatives or appointed by trade union confederations and organisations or by professional associations.

2 **CALLS FOR SELECTION**

Approval and issue of notices of competition

OGS competition procedures are announced through the approval and publication of notices of competition, in compliance with the provisions of current national regulations and the principles of the European Charter for Researchers and Code of Conduct for the Recruitment and Career Development of Researchers.

OGS competition notices specify the future working conditions, the procedures and criteria adopted for selection, and the way in which the administration communicates its final judgement.

Competitions are launched on the basis of the personnel requirements defined in the Integrated Activity and Organisation Plans, updated annually and approved by the Board of Directors.

The calls for applications are issued by the Director General on the basis of this document and the specific guidelines approved by the Board of Directors.

The full text of the call, with its annexes, is published on the OGS institutional website.

The call for applications is published on the telematic platform - Recruitment Portal - inPA⁹. As of 1 January 2023, the publication of public selections on institutional websites and on the inPA portal exempts public administrations from the obligation to publish in the journal Gazzetta Ufficiale.

For all externally open competitions and in order to facilitate access to the competition procedure for all EU citizens, notices are published on the EURAXESS¹⁰ website, including an excerpt of the notice itself in English to facilitate the accessibility of the competitions to foreign candidates, which explicitly refers to the relevant publication on the OGS official website in Italian.

The publicity may also be complemented by publishing on the OGS institutional social networks.

Criteria for the formulation of notices 2.2

Notices must specify:

- a. the profile and level of the post to be filled;
- b. whether the position is open-ended or fixed-term;
- c. the limit on the number of successful candidates in relation to the positions advertised;
- d. the scientific-disciplinary sectors, where they coincide with one of those indicated in the Ministerial Decree no. 855 of 30.10.2015, as amended or, alternatively, the scientific area or technological sector of reference, according to the functional and operational requirements of the Institute;

⁹ https://www.inpa.gov.it

¹⁰ https://euraxess.ec.europa.eu/jobs/

- e. the kind of scientific and technological skills required;
- f. admission requirements;
- g. the assessable scientific and technological qualifications; h) any other evaluable qualifications;
- h. the maximum number of scientific publications and other research products that can be evaluated, to be presented at the candidate's choice;
- the maximum period to be taken into account for the evaluation of scientific or professional activities already carried out;
- j. the examination tests to be taken;
- k. the possibility of conducting the oral test electronically, where applicable, for candidates residing abroad or in cases of proven necessity;
- I. the language skills required;
- m. the place of work.

For each competition, a Head of Procedure is appointed by the Director General, external to the commission, with the task of guaranteeing and ascertaining the legitimacy of and compliance with the competition provisions, as well as with the deadlines relating to each stage of the same procedure. As a rule, the person in charge of the procedure is the Human Resources Management Manager, unless otherwise specified by the Director General.

2.3 Exclusions

Admission to the competition is subject to verification of the possession of the admission requirements as declared by candidates themselves pursuant to Articles 46 and 47 of Presidential Decree no. 445 of 28 December 2000, as amended. Failure to possess even one of the aforementioned requirements will result in exclusion from the competition.

Any exclusion from the competition, for any reason, shall be ordered, at any time during the competition procedure, by order of the Director General on the indication and proposal of the person in charge of the procedure.

The exclusion measure is communicated to the person concerned within 5 days from the date of its adoption.

2.4 Entry methods

The procedures for access to the OGS selective and competitive procedures for researchers and technologists, in compliance with national regulations, are shown in the following table:

Research manager - professional level I	national open competition based on qualifications
First researcher - professional level II	national open competition based on qualifications and exams, with oral test
Researcher - professional level	national open competition based on qualifications and exams with first written test, second written theoretical-practical test and oral test*
Technologist manager- professional level I	national open competition based on qualifications and examinations, with oral test
Senior technologist - professional level II	national open competition on the basis of qualifications and examinations with first written test, second written theoretical-practical test and oral test**
Technologist - professional level III	national open competition based on qualifications and examinations with first written test, second written theoretical-practical test and

oral test*

*Note: for fixed-term positions there may be only one written test.

♦ Note: for career advancements there may be only one oral test.

2.5 Entry requirements

The entry requirements for the selection and competition procedures for OGS researchers and technologists are set out in the following tables and refer to the legal and contractual provisions currently in force on recruitment to the public service.

Art. 15 of the CCNL of 7/4/2006 amended and supplemented attachment 1 of the Presidential Decree 171/91 with reference to the requirements for access to level III of the researcher and technologist profile of research organisations, where for level III researcher in place of work experience of at least two years post-graduate in research activities acquired through scholarships PhDs or from other equivalent training channels, it has established the requirement of possessing a PhD related to the activity required by the notice or to have carried out for three years activities, certified pursuant to paragraph 4 of art. 63 of the CCNL 21.02.02, of research or technological and/or professional activity at universities or qualified public and private research bodies and centres, including foreign ones.

With reference to the knowledge of at least one spoken and written foreign language referred to in Annex 1 of Presidential Decree No. 171/91, the regulations in force (Art. 37 of Legislative Decree No. 165/01 as amended by Art. 7, paragraph 1, Legislative Decree No. 75 of 25 May 2017) modified the requirement of possession of the language referred to in Annex 1 of Presidential Decree No. 171/91, providing for the mandatory knowledge of English and, where appropriate in relation to the professional profile required, of other foreign languages.

A good knowledge of the Italian language is an admission requirement only for profiles that are called upon to perform an activity for which knowledge of legal or administrative subjects is necessary.

Italian citizenship, or citizenship of one of the Member States of the European Union or of a non-EU country with the limits set out in Article 38 of Legislative Decree no. 165 of 30 March 2001, constitutes a minimum requirement.

The age limit does not constitute a requirement for admission to selection and competition procedures unless there are specific derogations. In this regard, with Directive 2000/78/EC, the European Union justifies variable treatment linked to age only where this is reasonable and proportionate to the activity for which one is competing.

Entry requirements: Research Manager - Professional level I

• acquired ability, proven by objective elements, to independently determine advances of particular originality, significance and international value in the prevailing field of research.

Entry requirements: First Researcher - Professional level II

- acquired ability, proven by objective elements, to independently determine advances of particular originality, significance and international value in the prevailing field of research;
- university degree, specialist degree;
- knowledge of at least English language, spoken and written.

Entry requirements: Researcher - Professional level III

- aptitude, proven by objective elements, to determine advances in knowledge in the specific field;
- qualification allowing access to the doctorate, i.e. university degree, specialist degree;

- Ph.D. related to the activity required by the call for applications, or to have carried out three years of post-graduate research or technological and/or professional activity, at universities or qualified public and private research bodies and centres, including foreign ones;
- knowledge of at least English language, spoken and written.

Entry requirements: Technologist Manager – Professional level I

- acquired ability to independently perform design, development, and management functions related to technological and/or professional activities of particular complexity, or coordination and direction of services and complex technical-scientific structures of significant interest and size, even in sectors requiring the execution of professional activities;
- university degree, specialist degree;
- successful completion of the state examination and registration in the professional register where required for the functions to be carried out;
- specific professional experience of at least 12 years in the field specified in the call;
- knowledge of at least English language, spoken and written.

Entry requirements: Senior Technologist - Professional level II

- acquired ability to independently perform design, development, and management functions related to complex technological and/or professional activities, or to coordinate technical skills for such purposes, even in sectors requiring the execution of professional activities;
- university degree, specialist degree;
- successful completion of the state examination and registration in the professional register where required for the functions to be carried out;
- specific professional experience of at least 8 years in the field specified in the call;
- knowledge of at least English language, spoken and written.

Entry requirements: Technologist - Professional level III

- acquired ability to independently carry out tasks of reviewing analyses, technical collaboration related to technological activities, and performing technical and professional activities, including tasks related to analysis reviews;
- university degree, specialist degree;
- Ph.D. related to the activity required by the call for applications, or to have carried out three years of post-graduate research or technological and/or professional activity, at universities or qualified public and private research bodies and centres, including foreign ones;
- successful completion of the state examination and registration in the professional register where required for the functions to be carried out;
- knowledge of at least English language, spoken and written.

2.6 Recommended requirements

For selections for Level I and Level II positions, the elements listed in the following tables constitute non-binding recommended requirements.

In compliance with the recommendations of the San Francisco Declaration on Research Assessment (DORA) and of the Coalition for the Advancement of Research Assessment (CoARA), author-based bibliometric indicators (number of publications, number of citations, H-index, etc.) may only be used as recommended preferential qualifications by the OGS, but may not constitute entry requirements.

"PhD or equivalent research experience" means any qualification, also obtained abroad, attesting proven experience, of at least three years certified by a research institution, in the field relevant to the call of interest. Equivalence is deemed automatic for personnel already in service at public research institutions or universities as researcher or professor (with a qualification equal to or higher than level III/grade) for at least three years. For technologists only, industrial experience of at least three years in a field related to the one put out to tender is also considered equivalent.

Author-based bibliometric indicators must refer to the most favourable database for the candidate, among those most widely used internationally, i.e. Google Scholar, Scopus and Web of Science (WoS).

Recommended requirements: Research Manager - Professional level I

- Ph.D.;
- national scientific qualification as a university professor of the first level in a field relevant to the one being advertised or, failing that, all the following criteria:
 - a) publications (WoS or Scopus or Google Scholar) ≥ 10 in the last 10 years
 - b) citations (WoS or Scopus or Google Scholar) ≥ 1500
 - c) H-index (WoS or Scopus or Google Scholar) ≥ 25

Recommended requirements: First Researcher - Professional level II

- Ph.D.;
- national scientific qualification as a university professor of the second level in a field relevant to the one being advertised or, failing that, all the following criteria:
 - a) publications (WoS or Scopus or Google Scholar) ≥ 5 in the last 5 years
 - b) citations (WoS or Scopus or Google Scholar) ≥ 750
 - c) H-index (WoS or Scopus or Google Scholar) ≥ 15

Recommended requirements: Technologist Manager – Professional level I

- Ph.D.;
- national scientific qualification as a university professor of the second level in a field relevant to the one being advertised or, failing that, all the following criteria:
 - a) publications (WoS or Scopus or Google Scholar) ≥ 5 in the last 10 years
 - b) citations (WoS or Scopus or Google Scholar) ≥ 500
 - c) H-index (WoS or Scopus or Google Scholar) ≥ 10

Recommended requirements: Senior Technologist - Professional level II

- Ph.D.;
- national scientific qualification as a university professor of the second level in a field relevant to the one being advertised or, failing that, all the following criteria:
 - a) publications (WoS or Scopus or Google Scholar) ≥ 3 in the last 5 years
 - b) citations (WoS or Scopus or Google Scholar) ≥ 250
 - c) H-index (WoS or Scopus or Google Scholar) ≥ 5

3 SELECTION BOARDS

3.1 Selection Board Composition

The Selection Boards are appointed by an act of the Director General of OGS following the deadline for receipt of applications for admission.

The composition of the Examination Boards shall comply with the principles set out in art. 9, paragraph 2 of D.P.R. no. 487 of 9 May 1994 and articles 35, letter e) and 35 bis of D.Lgs. no. 165 of 30 March 2001, as amended and in the OGS *Gender Equality Plan*.

The number of members of the commissions may vary between a minimum of three and a maximum of five, plus an alternate member so as to ensure, where possible, equal gender representation.

All Committees are composed of a majority of members from outside the OGS, may include experts, including foreign ones, and preferably have at least one internal member.

The members of the commissions must have a high scientific profile and international qualification in the scientific-disciplinary field being competed for, as can be deduced from their CVs, which must be published on the Organisation's website at the time of the commission's appointment.

Commissions for research manager, technologist manager, first researcher and first technologist (professional level I and II) are chaired by research managers or technologist managers or by ordinary university professors with proven international experience.

The commissions for competitions for researchers and technologists (professional level III) are chaired by research managers or technologist managers, or by first researchers or first technologists, or by full or associate university professors.

The members of the committees may also be selected from a shortlist of national and international experts proposed by the Scientific Council for each individual competition procedure.

3.2 Incompatibility

At the first meeting, the members of the committee shall declare the non-existence of grounds for incompatibility¹¹ and the absence of conflict of interest between them.

Once they have seen the list of candidates, the members of the committee declare that there are no grounds for incompatibility and that there is no conflict of interest with the candidates.

3.3 Reporting the competition results

At the end of the competition, the individual committees shall draw up a report on the results of the competition for each candidate, whether or not a winner. These minutes will record the marks obtained by each candidate with reference to the qualifications submitted, the written tests and the oral tests where these have been taken.

In line with the aim of transparency of OGS notices and competition procedures, candidates' right of access to the records of the procedure is guaranteed, subject to a formal request to the administration, submitted in accordance with the procedures set out in the Access to Records Regulations published on the OGS institutional website.

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¹¹ **Art. 51. c.p.c. Abstention of the judge**. - The judge is obliged to abstain 1) if they have an interest in the case or in another case concerning the same question of law; 2) if they or wife/husband are a relative up to the fourth degree of kinship or are a cohabitant or habitual companion of one of the parties or of any of the defendants; (3) if they or wife/husband have a pending lawsuit or a serious enmity or credit or debt relationship with one of the parties or any of the counsel; (4) if they have given advice or given legal assistance in the case, or have given evidence in it as a witness, or have served as a judge at another stage of the proceedings or as an arbitrator or have served as an expert witness in it (5) if they are a guardian, curator, attorney, agent or employer of one of the parties; if, in addition, they are a director or manager of a body, firm, association, committee, company or establishment having an interest in the case. In any other case in which there are serious reasons of convenience, the judge may ask the head of the office for authorisation to abstain; when the abstention concerns the head of the office, authorisation shall be requested from the head of the higher office.

Article 52. c.p.c. Recusal of the judge. - In cases where the judge is obliged to abstain, any of the parties may propose an objection by means of an appeal containing the specific reasons and means of proof. The appeal, signed by the party or lawyer, must be lodged with the clerk's office two days before the hearing, if the appellant knows the names of the judges called upon to hear or decide the case, and before the beginning of the hearing or discussion of the case in the opposite case. A recusal suspends the trial.

4 EVALUATION CRITERIA

In order to identify the elements for consideration in the evaluation of candidates, the selection procedure must take account of all the experience gained by the candidates in the field of interest of the competences covered by the call.

To this end, each candidate must submit a verifiable *curriculum vitae*, from which activities and qualifications suitable for the position and professional level covered by the competition notice emerge. In order to facilitate the work of the board, the *curriculum vitae* submitted by the candidate must be drawn up in the European or similar format, reporting the information in an accurate manner, indicating the start and end date of the activities carried out, as required by the notice.

The elements to be taken into consideration for the evaluation of researchers and technologists, both for initial recruitment and career advancement, are listed below, divided into five criteria.

It should be noted that candidates may achieve the maximum score assigned to a criterion even without evaluating every single element of it.

OGS reserves the right to update the assessment elements associated with each criterion, according to possible recruitment needs of specific professional figures.

4.1 Scientific production and innovation

The criterion assesses the production related to scientific and technological activity through the following elements referring to the field of specific interest of the call:

- a. scientific publications (articles in ISI scientific journals, books and international book chapters with ISBN, articles in international and national journals with review, proceedings of scientific congresses);
- b. patents and inventions;
- c. datasets, cartography and software codes, if clearly searchable in public repositories (such as GitHub) or with Digital Object Identifier (DOI) or by handle;
- d. reports and technical reports on scientific and technological studies and projects, only for technologists;
- e. Ph.D. theses.

4.2 Professional and scientific experience

This criterion assesses scientific and professional depth through the following elements referring to the area of specific interest of the call:

- a. design, coordination or responsibility for national and international projects; participation in the same only for level III positions;
- b. responsibility for applied research or service activities carried out for public and private entities; participation in the same only for level III positions;
- c. organisation, coordination or management of research infrastructures or laboratories of national and international relevance; participation in the same only for level III positions;
- d. responsibility for work packages, activities (tasks), operational units of national and international projects; participation in the same only for level III positions;
- e. participation in evaluation committees of national and international projects;
- f. participation in editorial boards of scientific journals; activity as reviewer for scientific journals only for level III positions;
- g. participation in scientific or technical committees of scientific institutes and universities, consortia and other equivalent bodies, national and international scientific working groups;
- h. invited lectures at national and international scientific conferences;

- i. coordination or management roles in national and international scientific societies or organisations and networks;
- j. scientific prizes and awards, including the *Abilitazione Scientifica Nazionale* in Italy (National Scientific Qualification);
- k. responsibilities for supporting, managing or enhancing research;
- I. institutional positions within the Institute or in other research organisations;
- m. direction or responsibility for research or experimental facilities operating in the relevant sector;
- n. IT support activities for research and innovation, only for technologists;
- o. management activities of instruments and equipment in respect of and for the conservation of the environment, reduction of the energy and carbon footprint, only for technologists;
- p. support activities for research and innovation, only for technologists dedicated to these specific profiles.

4.3 Training

The criterion assesses the training activity, both as trainer and instructor, through the following elements referring to the specific field of interest of the call:

- a. PhD or equivalent qualification, obtained in Italy or abroad; it is specified that, even in cases
 where the PhD is a requirement for access, its scientific quality, the grade obtained if
 declared, and its relevance to the disciplinary sector put up for competition, may be
 evaluated;
- b. master's degree, specialisation courses obtained in Italy or abroad;
- c. qualification to practice the profession and enrolment in professional registers;
- d. qualifying courses given and university teaching;
- e. participation in doctoral colleges;
- f. lecturer/tutor or co-author/co-tutor or supervisor of master's theses, PhD theses, research fellows and post-doctoral students in Italy and abroad, internship and vocational training tutor;
- g. technical and professional certifications in fields relevant to the position advertised, only for technologists.

4.4 Open Science

The criterion assesses the promotion of Open Science through the following activities related to the area of specific interest of the call:

- a. dissemination of knowledge to the scientific community, through the organisation of and participation in conferences, seminars, summer schools, workshops, addressed to the scientific world;
- dissemination of knowledge to the general public and to schools, through the organisation of and participation in conferences, seminars, summer schools, workshops, addressed to the general public;
- c. Science policy and Science diplomacy;
- d. scientific involvement of citizens (citizen science);
- e. science outreach activities through the mass media;
- f. other public engagement and third mission activities.

4.5 Mobility

The criterion assesses mobility experiences through the following elements

- a. geographical mobility: working or training periods in other research institutions with particular reference to foreign scientific institutions, provided that they are related to the area of relevance of the call;
- b. inter- and trans-disciplinary mobility: working periods devoted to different scientific or technological disciplines, provided that they can be traced back to the sector pertinent to the call.

5 BREAKDOWN OF EXAMINATION TESTS AND MARKS

The following table shows, for each professional level of the researcher and technologist profiles:

- a. the breakdown of the examination tests;
- b. the scores expressed in hundredths to be assigned to the evaluation of qualifications and to the individual examination tests where foreseen;
- c. the eligibility thresholds for the evaluation of qualifications and individual examination tests, also expressed in hundredths.

In the case of competitions based on qualifications and examinations, the qualifications must be given an overall mark of no less than 1/3 and to the maximum extent permitted by law.

The notice must indicate the qualifications that may be assessed and the maximum number of points that may be attributed to them per category of qualification, as well as the maximum number of points that may be attributed to any examination tests, in accordance with the criteria described in section 4 and the following tables.

Research Manager – Professional level I		Maximum Score	Eligibility threshold
	Scientific production and innovation	60	
	Professional and scientific experience		
Qualifications	Training	40	70
	Open Science	40	
	Mobility		

First Researcher – Professional level II		Maximum Score	Eligibility threshold
Qualifications	Scientific production and innovation	50	60
	Professional and scientific experience	30	
	Training		
	Open Science		
	Mobility		
Exams	Oral tests	20	15

Researcher – Professional level III		Maximum Score	Eligibility threshold
	Scientific production and innovation	20	
	Professional and scientific experience	20	30
Qualifications	Training		
	Open Science		
	Mobility		
Exams	First written exam	20	15
Exams	Second theoretical practical written exam	20	15

Oral tests 20 15

Technologist Manager – Professional level I		Maximum Score	Eligibility threshold
	Scientific production and innovation	30	50
	Professional and scientific experience	40	
Qualifications	Training		
	Open Science		
	Mobility		
Exams	Oral tests	30	20

Senior Technol	ogist – Professional level II	Maximum Score	Eligibility threshold
	Scientific production and innovation	20	
	Professional and scientific experience		
Qualifications	Training	20	30
	Open Science		
	Mobility		
	First written exam*	20	15
Exams	Second written theoretical practical exam* ◆	20	15
	Oral tests	20	15

Technologist	Professional level III	Maximum Score	Eligibility threshold
	Scientific production and innovation	10	
	Professional and scientific experience		
Qualifications	Training	25	25
	Open Science		
	Mobility		
	First written exam	20	15
Exams	Second written theoretical practical exam*	20	15
	Oral tests	25	20

^{*} For fixed-term positions, there may be only one written test. In this case, the marks for the two written tests indicated in the table are added together.

5.1 Evaluation of qualifications

At its first meeting, the Board, before viewing the list of candidates, having taken note of the evaluation criteria set out in Article 4, determines the details of the evaluation criteria and the marks to be awarded.

At subsequent meetings, the Selection Board shall carry out a reasoned assessment of the qualifications, as deducible from the candidates' curricula vitae, with reference to the specific scientific-disciplinary sector, i.e. the scientific area or technological sector of reference, and to the profile, if any, defined in the competition notice, considering the criteria described in Article 4.

OGS intends to favour the access of young researchers and technologists, by defining in the evaluation criteria a normalisation of the data related to publications and titles, in relation to the years of post-graduate and post-doctoral experience or, alternatively, to the activity carried out in the last years, duly taking into account the periods, adequately documented, of non-voluntary detachment from research and technological development activities, with particular reference to parental duties, periods of illness and the provisions of Law n. 104 of 5 February 1992. The standardisation criterion shall be defined at the first meeting of the commission.

[•] For career advancements, only the oral examination is envisaged. In this case, the score from the written tests is evenly distributed between qualifications and the oral examination.

The decisions taken shall be published on the OGS website. Seven days after the publication date, the committee may continue its work.

In subsequent sessions, the examination board conducts a reasoned evaluation of qualifications, as can be inferred from the candidates' curriculum vitae, with reference to the specific scientific-disciplinary field, or the scientific area or technological sector of relevance, and to any profile defined in the competition announcement. This evaluation takes into account the criteria described in section 4 and the scores established in section 5.

The selection board shall carry out the evaluation of 'Scientific production and innovation', described in section 4.1, on the basis of the following criteria, where applicable:

- a. originality, innovativeness, methodological rigour and relevance of each scientific publication;
- congruence of each publication with the scientific-disciplinary sector, i.e. the scientific area or the technological sector, for which the procedure is announced and with the eventual profile;
- c. scientific relevance of the editorial position of each publication and its diffusion within the scientific community¹²;
- d. analytical determination, also on the basis of criteria recognised in the international scientific community of reference, of the individual contribution of the candidate in the case of their participation in collaborative work.

In assessing scientific production, the committees shall also make use of the following indicators, referring to the date of the deadline for applications and using the same data source for all candidates:

- a. total number of citations;
- b. total number of publications;
- c. combinations of the above parameters aimed at enhancing the impact of the candidate's scientific production (Hirsch index).

5.2 Examination tests

Depending on the profile and level, the examinations are divided into:

- a. a written test in Italian or English, at the candidate's choice, aimed at ascertaining knowledge of the subjects referred to in the subject and requirements of the notice;
- b. a second written theoretical-practical test in Italian or English, at the candidate's choice, on the subjects referred to in the subject and requirements of the notice;
- c. an oral test, in Italian or English, at the candidate's choice, consisting in the discussion of topics related to the activity indicated in the notice, the written tests, the curricular experiences and the scientific and technological qualifications (publications, monographs, books and book chapters, technical reports, preliminary project reports).

The notice may provide for the oral test to be conducted electronically, where applicable, for candidates residing abroad or in cases of proven necessity¹³.

¹²In compliance with the general principles stated in section 1, OGS considers the impact factor unsuitable for evaluating the scientific output of individual researchers and technologists. Therefore, it urges the evaluation committees not to use it.

¹³ Article 7 of Legislative Decree No. 487/1994, as amended by Legislative Decree No. 82/2023, establishes that *oral examinations* take place in a room open to the public, with sufficient capacity to ensure maximum participation. In the event that it is not possible to proceed in this manner, the examination may be conducted via videoconference, provided that technical solutions are implemented to ensure participant identification, the regularity and integrity of the examination, the security of communications, and their traceability, in compliance with data protection regulations. In any case, the examination must be made public through digital means.

The assessment of the language skills required by the notice of competition is carried out by the Commission during the oral test without the awarding of marks, as these are a requirement for admission to the competition procedures. For this assessment, the Commission may make use of an external language expert.

6 FINAL AND TRANSITIONAL RULES

These guidelines completely replace the "General procedures for conducting public competitions for the permanent positions of Researcher and Technologist (Professional levels I-III)" approved by Resolution No. 1-6/2016 on May 9, 2016, along with subsequent amendments and integrations.

These guidelines will be reviewed every three years based on the monitoring of their effectiveness in terms of:

- a. quality of scientific production;
- b. management capacity of laboratories and infrastructures;
- c. capacity to attract projects;
- d. capacity to attract foreign researchers;
- e. gender balance.

To this end, the OGS Scientific Council defines the appropriate indicators to carry out this monitoring.

The regular monitoring of the outcomes of recruitment procedures and career progressions shall be particularly aimed at identifying possible anomalies and possible areas where to implement the actions provided for by the OGS Gender Equality Plan, with particular reference to the following priority areas:

- a. gender equality in recruitment and career advancement;
- b. gender mainstreaming in research.