COMITE NATIONAL DE LA RECHERCHE SCIENTIFIQUE

SECTION 18

Earth and the Terrestrial Planets: structure, history and models

Evaluation of researchers

Criteria for the evaluation and recruitment of researchers

The evaluation of the activity of researchers or their recruitment is based on the review by the section of their application according to criteria corresponding to several types of works or investments. These criteria are necessarily multi-factorial in relation to the multiplicity of career paths but are neither exclusive nor exhaustive provided that the scientific output is sufficient. Each career is unique and can be marked by a series of phases of varied activity or, on the contrary, be homogeneous over time. The evaluation or application file as a whole and the researcher's ability to defend it during jury sessions will be evaluated. Beyond purely quantitative criteria, it is the quality of and investment in a researcher's work that will be decisive.

The section works from a document provided by the researchers evaluated or candidates for a promotion (CRCN to CRHC; DR2 to DR1; DR1 to DRCE) or for a competitive examination (CRCN, CRHC, DR2 and DR1 recruitment). Researchers are strongly recommended to respect the proposals and the number of pages for the length of files which are suggested by the CNRS (https://www.dgdr.cnrs.fr/drhchercheurs/concoursch/default-fr.htm). Regular evaluations of researchers will only be based on the reference period. This document must be as informative as possible (including contextual and quantitative data such as actual percentages of involvement in management, projects, responsibilities, etc.) while remaining concise and easy to follow. It must make it possible to assess the quality and originality of the works and to assess their scope, impact and national and international recognition. It should also make it possible to assess the relevance and effects of thematic, geographical and/or functional mobility during the career. The use of conventional recognition indicators is recommended (citation rate per item and *h*-index for example) but this remains one criterion among others. These will be updated in the application file. It must also inform the section of personal investment outside the research activity alone (scientific management and promotion, supervision of young researchers and team management, project management, education and training, technology transfers, dissemination of scientific and technique culture). It is the responsibility of the assessed researcher or candidate to provide elements enabling him or her to assess his or her own reputation in the event that the classical indicators are not sufficient.

The importance given to the following criteria increases from the CR body to that of the DR and through CRCN grades to CRHC and DR2 to DRCE. We will distinguish:

Contributions to scientific progress:

- The quality, originality, creativity, ambition and innovative and fundamental character of the work, scientific output and planned projects envisaged

- National and international (particularly European) scientific recognition and influence (joint projects and collaborationwith other countries, distinctions, quantified impact, etc.)
- Observed or foreseeable impact in the geosciences and in the scientific community in general
- Independence, thematic autonomy, risk-taking and interdisciplinarity
- Methodological, theoretical, numerical or instrumental development, investment in heavy-instrument operations (large-scale facilities and equipment, long research programmes at sea, etc.), creation and technology transfer of software or advanced instrumental resources to the scientific community and society
- Ability to federate and work in a team or consortium, integration and role in the laboratory and the scientific community
- Relevance and feasibility of projects and scientific strategy in the medium and long term, alignment with the needs, strategy and major projects of laboratories and the national, European and international communities
- Dynamic of scientific output (methods developed, results, etc.)

Collective responsibilities and research management

Beyond responsibilities as such, the evaluation focuses on the researcher's personal investment and on the medium- and long-term impact of the actions carried out in the context of his/her position.

Responsibilities in administering a laboratory or a team in a large laboratory:
- Investment in the collective life of laboratories (seminars, premises, equipment)
- Participation in research or higher education management bodies (scientific commissions, doctoral schools, recruitment and evaluation committees, etc.)
- Regional, national and international research programme management
- Editorial responsibilities
- Organisation of scientific events: Seminars, workshops, conferences, excursions
- Expertise (juries, laboratories etc.)

Mobility:

In each case, the assessment focuses on risk-taking, medium-term contributions and the long-term impact of the various movements. A mobility project can also be presented.
- Thematic mobility
- Change of geographical area
- Organisational mobility: Secondments, delegations, sabbaticals
- Mobility towards industry

Education, dissemination of information and scientific culture, research in training:

- Capacity for and quality of scientific supervision at Master's and PhD levels (quality of internships and supervised theses, promotion through publications, students' subsequent careers)
- University teaching (Bachelor's Degree, Master's Degree, PhD school), duration over the year, responsibilities for modules, sectors or pathways
- Dissemination of knowledge, scientific and technical culture, public information and scientific outreach to different audiences, especially young people, teaching and public conferences (schools, universities, all/inter ages, digital vectors)

Socio-economic promotion, development and transfer of technological knowledge, industrial relations:

- Work linked to major societal issues

- Patents, licences, participation in European and international cooperation initiatives for innovation
- Partnership and contributions in return, consortium assembly
- Cifre and BDI scholarships, co-financing with national institutes and agencies and industry
- Participation in ministerial groups and bodies, joint actions with societal and industrial actors, etc.

Specific criteria according to grade

In addition to the common criteria, evaluation of the activity of assessed researchers or candidates is carried out according to the criteria corresponding to the desired grade. The criteria for advanced grades are added to those for the previous grades. The proposals for classification by the section for researcher grade promotion (CRCN-CRHC, DR2-DR1 and DR1-DRCE) are established following the evaluation of the activity of the researchers carried out according to the same type of criteria.

CR researchers

Whether in recruitment competitions or posterior evaluations, research is assessed with regard to the duration of professional experience.

- Quality and regularity of scientific production, originality and scientific influence.
- Interest in projects and scientific strategy for the French and international community
- Autonomy, thematic evolution and development of a collaborative network in relation to thesis work and national and/or international collaborative work
- Involvement or interest in training for research and knowledge dissemination
- Involvement in the management of research programmes

Promotion to the **Senior [hors classe] (CRHC)** grade is assessed according to the same criteria but this grade recognises the experience and quality of activity throughout the career. However, the criteria of investing in the collective life of the laboratory at regional, national and international levels and of scientific expertise will be added.

DR2 researchers

- Responsibilities in administering a laboratory, team or platform
- Participation in research or higher education bodies
- Management of research programmes
- Thematic or methodological leadership, interdisciplinarity
- Supervision of theses and post-docs
- Animation of research in the community and at the interfaces
- Editorial responsibilities
- National and international expertise.

DR1 and DRCE researchers

At this level of career, the application must be balanced between scientific impact, international influence and investment in research management. The roles in setting up a solid research team or a scientific “school”, or in the promotion and management of very large facilities or infrastructure or any other important structure, must be quantitatively and qualitatively remarkable.