



Criteria and recommendations for the evaluation, the recruitment, the promotion of researchers

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1 Presentation

We first present here, in a general manner, criteria used by Section 6 of the national committee for scientific research (2016-2021) for all types of evaluations of researchers. We then give at the end of the document some specific recommendations for the different ranks of recruitment and promotions. Keywords of the section can be consulted on the Web site of the national committee <http://www.cnrs.fr/comitenational/sections/section.php?sec=06>.

No criterion (except for scientific output) are absolutely essential, whatever the rank: if a researcher obtains for example a very important result, it may compensate other weaknesses.

This document may be further updated during the tenure of the section.

2 Scientific output

This item is obviously the first to consider, for all kinds of evaluations, recruitment, and promotions.

2.1 Publications of articles in journals and conference proceedings

Evaluation is performed in a qualitative manner and takes into account all aspects: originality, interest, difficulty and scope of contributions, quality of the journals and conferences, contribution to the results in case of co-authors, etc.

The section can also take into account a possible publishing strategy if it is explained, such as, for example, avoiding remote conferences so as to limit their ecological impact, avoiding venues that are not open access without article processing charges, etc.

For promotions, the activity since the last promotion or recruitment are preponderant.

2.2 Software production and experimental achievements

Some software contributions, platforms, experimental achievements, published corpora or datasets, are scientific productions in their own right and are fully taken into account by the section. To evaluate their quality and relevance, the section will rely on criteria related to the audience, originality, maturity, maintenance level, distribution of the software, as well as on the implication level of the researcher in its design, implementation, maintenance, and management.

So that the section may evaluate software, the section needs to be able to test it or it needs to have been transferred in such a way that its importance, originality, and impact can be assessed.

For free software, there must be a URL for download and an installation guide. It is for instance possible to take inspiration from the document produced by the scientific board of INS2I: <https://cn6.fr/documents/logiciels-csi-ins2i.pdf> (in French) to present software contributions.

The complexity, the interest, the number of copies used or the exploitation level, the trace of use of software and other experimental achievements are evaluation criteria.

2.3 Patents

Patents, if they are exploited, must appear as part of the transfer activities. If they are not exploited, they are considered to be minor publications.

3 Scientific visibility

This criterion takes more and more importance for higher ranks.

They include (for instance):

- being invited as speaker in conferences, international schools, prestigious seminars;
- taking part in program committees of conferences or editorial boards of journals;
- being a member of a PhD or habilitation jury, in particular abroad;
- prizes and distinctions;
- scientific expertise reports;
- prestigious contracts, such as ERCs.

4 Collaborations

Several types of collaborations are taken into account by the section, for example:

- scientific collaborations;
- setting up and coordinating projects;
- participation to local, national, or international collaborative research contracts;
- participation to pluri-, inter-, or trans-disciplinary research projects.

It is important to make the role within projects clear: principal investigator, workpackage leader, participants, etc. The section appreciates a description of the outcomes and outputs of collaborations.

5 Research administration

Taking part in administrative tasks in the service of the community, notably in research administration, is a criterion whose importance increases with the rank. These responsibilities can be more or less important; we give examples below.

Major tasks (very important for a DR1 or DRCE promotion):

- participating to national instances for scientific council and evaluation (CNU, CoNRS, Inria, etc.);
- being the director of a research lab;

- being the director of a GdR (national structure organizing the scientific animation in a given research area) or of a national or international scientific organization;
- being the director of a Labex (local laboratory of excellence);
- having the responsibility of a multi-site European project;
- being the vice-president of a university.

Other important tasks (very important for a DR2 recruitment):

- being the leader of a research team;
- having the responsibility of an ANR research project (or of another collaborative action, projects with a broader scope being in the category above);
- having the responsibility of other institutional contracts;
- being in charge of an industrial collaboration;
- participating to elected boards or council within universities;
- participating to evaluation committees (e.g., ANR);
- participating to recruitment committees.

These two lists are not complete. Moreover, the quantification of the importance of presented tasks is to be adapted to the size of projects or teams. The section suggests to provide a quantitative and qualitative self-evaluation of the corresponding workload, as well as giving a description of the way these responsibilities are exercised.

6 Supervision, teaching

The supervision criterion is not much relevant for CRCN recruitment, but becomes important for other kinds of recruitment or promotions. For DR2 candidates who had a career in France, a habilitation is helpful to attest that the candidate is able to supervise research. In case of co-supervisions, a quantitative evaluation of the participation of the different supervisors is expected.

Evaluation of the supervision is done in a qualitative manner. In addition to the quality of the work, the evaluation can take into account aspects such as following up on the professional outcome of PhD students and post-doctoral researchers even after their contract, the duration of the PhD studies, the appreciation by the scientific community or some context information.

Teaching at all levels (including research-oriented thematic schools) will be taken into account with respect to their scientific relevance (innovative subject or approach).

7 Transfer, diffusion and scientific mediation, industrial contracts, partnerships

This is about evaluating the effort realized to showcase the interest of the research work for society.

Depending on the research area, the effort in industrial transfer may be an important evaluation criterion.

More theoretical areas, in which the scope of transfers are limited, will require instead an effort in the diffusion of the research: publication in general audience magazines, media interventions, general audience conferences and events, etc.

So that the section may evaluate an industrial contract, it is necessary to make clear when this is not confidential information: the nature of the contract (whatever the signatory parties may be), the participants, the object, the duration, and its outcomes with, if possible, pointers to reports; and,

if applicable, the monetary amount. As an example, CIFRE industrial PhD contracts are favorably considered.

Consulting activities can be considered, as long as they bring some scientific value.

8 Mobility

The section favorably considers geographic mobility (a strong point for a DR2 recruitment, at least once in the career), but also thematic mobility (not obligatory, but an additional asset).

9 Research plan

This section is desirable and useful for a recruitment or a promotion, but also for periodic evaluations, in particular for five-year evaluations.

Criteria taken into account are relevance, importance, originality, feasibility of the research plan, its position in the local, national, and international context, etc.

10 Recommendations concerning how to organize dossiers

Dossiers include a description and self-appraisal of research activities (over the evaluation period for periodic evaluations). It is important to be aware that the dossier is read by at least one member of the section, a computer science researcher, but not necessarily a specialist of the research area. A legible introduction, as well as a positioning with respect to the state of the art, are therefore necessary.

It is desirable that the researcher indicates which publications she or he considers as the most important and representative (over the evaluation period for periodic evaluations). These publications are often referred to by the reviewers. They must therefore be easily accessible online, which is in any case conform to the national policy for open science. In the case of collaborative works, the section suggests to provide an indication of the nature of the contribution (for example following the CRediT model: <https://casrai.org/credit/>).

For information only (and in order to avoid drifting in one direction or the other):

- presentation of past works should be 6 to 7 pages, including at least one page of positioning;
- presentation of the research plan should be around 4 pages (in addition to a possible bibliography); on top of this, an explanation can be added about how this plan integrates within desired target teams in the case of a recruitment or a mobility.

The section would like to highlight the fact that taking into account the criteria described in this document can only be done based on the indications given in the dossier. It is therefore important for candidates not to forget to provide all necessary information: description or estimation of the participation of the candidate in collaborative productions, self-appraisal of software contributions, quantitative estimation of the workload of administrative responsibilities, etc.

11 Specific recommendations for CRCN recruitment

An information notice for application dossiers is provided by CNRS on the Web site of the competition. We give below additional details more specific to the choices of Section 6.

11.1 Presentation of past research

As explained in Section 10, past research must be presented in a way that is accessible to all members of the section. This presentation must also aim for concision (typically 6–7 pages, as indicated above). It is desirable to put forward a small number of productions (CNRS recommends a maximum of 10 – this list can be ordered by importance). When these productions are publications, they must be accessible for download by the reviewers. Concerning software production and other achievements, refer to Section 2.2.

11.2 Research plan

It is strongly recommended that CRCN candidates propose an integration within several possible hosting research labs: at least two, ideally three.

The research project can of course be described differently depending on the hosting research lab. It may therefore be necessary to propose several projects and explain how they relate to past research of the candidate and to the target hosting research team.

11.3 Factual information

The dossier must begin with a brief reminder of successive positions held and must include a list of works and achievements. If other sections are relevant (visibility, collaborations, administration, transfer and mediation, teaching, etc.), also fill them in. Prizes and distinctions (if they exist) can be mentioned as part of the visibility, by giving information that allows the section to evaluate their importance. Finally, it is desirable to indicate possible breaks in the professional career that the candidate deems important to bring to the attention of the section.

Reports on the PhD thesis and defense can be attached to the dossier.

11.4 Reference letters

The candidates can (this is not obligatory) request reference letters from researchers, such as the PhD or postdoc supervisor, but also researchers who have had not directly worked with the candidate. These letters can be provided by the procedure set up by CNRS, following the deadline imposed by CNRS.

We wish to limit the reference letters to 3 letters per candidate. To these 3 can be also added support letters from potential hosting teams or research labs, very useful to evaluate the potential for integration.

12 Specific recommendations for CRHC promotion

The rank of “chargé de recherches hors classe” was created at CNRS in 2017. The section is in charge of evaluating dossiers for a promotion to this rank. Criteria are the same as for the evaluation of researchers.

A research plan (see Section 9) is requested for such a promotion.

It is possible to apply the same year to the DR2 competition and for a CRHC promotion. Being promoted CRHC does not impact negatively a possible DR2 application, current or future.

We do not wish to receive any reference or support letter for these promotions.

13 Specific recommendations for DR2 recruitment

They are the same as for CRCN applications.

The research plan is normally broader than an individual project and includes PhD students and possibly post-doctoral researchers.

The section will in particular consider in an important way criteria related to “visibility” (Section 3), “collaborations” (Section 4), “administration” (Section 5), “supervision” (Section 6).

Reference letters from external researchers, typically one to three, can be sent in the same way as for CRCN competitions. A support letter from the hosting laboratory can also be sent in case of a mobility.

Having changed research environments at least once during the career (PhD included) is strongly recommended.

14 Specific recommendations for DR1 and DRCE promotion

Evaluation for promotions takes into account the whole career. It is therefore necessary to put in perspective all works and undertakings. But, of course, activity since the last promotion (or recruitment) has a more important role.

If the quality of obtained results still plays an important role, contributions to society (including administrative tasks, supervision, mediation, transfer, etc., as described in Sections 2 to 8), has a significant weight.

A research plan (see Section 9) is requested for such a promotion.

We do not wish to receive any reference or support letter for these promotions.