

Criteria for evaluating, hiring, promoting CNRS researchers

Section 6 du comité national du CNRS

December 15, 2016

1 Presentation

In this note, we review criteria used by Section 6 of the National Committee (period 2016-2021) for the evaluation of researchers.

Let us recall that Section 6 of the National Committee has only an advisory role, although its recommendations are followed most of the time.

This document may be periodically updated.

There is no mandatory criterion, besides quality of scientific results: if a researcher solves a problem, that is well-known to be extremely important and difficult, we will propose her/him for a recruitment or a promotion, regardless of the other criteria.

2 Scientific production

This is obviously the first point that will be considered, for all types of evaluations.

2.1 Publications in scientific journals and conference proceedings

Our evaluation is qualitative. We take into account all aspects: originality, importance, difficulty, quality of the journals and conferences, personal contribution in case of co-authors,...

Concerning promotions, we mostly focus on publications since the last promotion or recruitment.

2.2 Software systems and platforms

Software systems and platforms are often scientific contributions by themselves, and will be fully considered as such. In order to evaluate the quality and significance of this kind of contributions, Section 6 will rely on criteria described in the Inria document¹; which can also be used as a guide for describing such contributions.

Only software that is distributed openly or has a documented use in industry can be evaluated: we need to be able to appreciate its importance, its originality, and its impact. Typically, free software should be downloadable: an URL for the code and the manual should be provided.

Evaluation criteria include size, significance, number of downloaded copies accompanied by some indication of their usage, as well as the operating level for experimental platforms.

¹ INRIA criteria are described in https://www.inria.fr/content/download/6424/58284/version/ce_realisations.pdf and <https://www.inria.fr/medias/recrutement-metiers/pdf/criteria-for-software-self-assessment>.

2.3 Patents

Exploited patents must appear in the section “Technology transfer”. Unexploited patents are considered as second class publications.

3 Scientific outreach

This criterion becomes increasingly important for more senior positions.

This includes:

- invitations as a speaker to conferences, international schools, and prestigious seminars;
- participations in program committees of conferences and in editorial boards of scientific journals;
- participations in PhD and habilitation committees, especially abroad;
- awards and distinctions;
- prestigious projects, as for example ERC in Europe.

4 Collaborations

Several types of collaborations are considered:

- scientific collaborations;
- construction of major collaborative projects;
- participation to local, national, or international collaborative projects
- participation to pluri-, inter-, or trans-disciplinary projects.

5 Research management

Service to the community, such as research management, is a criterion whose importance increases with academic rank. We give some examples below.

Major responsibilities (often necessary for a promotion DR1 or DRCE):

- national level evaluation instances (membership in CNU, CoNRS...);
- Inria evaluation committee membership;
- direction of a research laboratory;
- direction of a GdR, as well as other national or international scientific associations;
- direction of a Labex;
- responsibility of a multi-partner European project.

Other important responsibilities (often necessary for a DR2 recruitment) :

- direction of a research team;
- responsibility of an ANR project (or another coordinated action of a similar scale);
- responsibility of other institutional projects;
- responsibility of industrial contracts;
- participation in university councils;
- participation in hiring committees.

These two lists are not exhaustive. The size of projects and teams is a factor in evaluation of research management activities.

6 Student supervision, teaching

This criterion starts to be important at the DR2 level only, but can also be considered for the CR level. For the DR2 applications, a Habilitation à diriger des Recherches (or an equivalent foreign qualification) is strongly recommended.

The evaluation of supervision is qualitative. For instance, in case of PhD students indicate the duration of their thesis, impact of their work, as well as their employment after completing the thesis.

The teaching criterion mostly concerns the master level on advanced topics, lectures in schools open to researchers,...

7 Technological and industrial transfer, dissemination, popularization, industrial contracts, partnerships

In this part, we evaluate the efforts demonstrating the relevance of the research results for the society.

In some research areas, industrial transfer effort can be an important evaluation criterion.

In other areas (for instance quantum informatics), a popularization effort will be more relevant: publications in magazines or newspapers for general public, interviews in the media, general public conferences etc.

Evaluating an industrial contract requires some information: contract type (institutions involved), list of partners, objectives, duration, results of the contract so far (together with pointers to reports, if possible), level of the financing of the contract.

To give an example, CIFRE contracts are favorably considered, while consulting activities that are not conducted within a formal contract involving research institutions (universities, CNRS, INRIA,...) are not much considered.

8 Mobility

Geographic mobility is an advantage. For a recruitment at DR2 level, it is mandatory to have changed affiliation at least once during the career. Thematic mobility, such as interdisciplinary actions or changing the main research topic, is also considered favorably.

9 Research project

This section is mandatory for a recruitment or a promotion, but is also very useful for the periodic evaluations.

The criteria that we consider are its relevance, importance, originality, feasibility, local, its positioning in the national and international contexts.

10 Recommendations concerning the application

An application should present a summary of the research activity (for a relevant period, in case of an evaluation). It is important to be aware that the application will be read by members of Section 6, hence researchers in computer science, but not necessarily specialist in the domain. Therefore, an accessible introduction is necessary, as well as a description of the context.

It is desirable that the applicant indicates one to four publications, which she/he considers as the most important and most representative of her/his research (for a relevant period, in case of an evaluation). These publications will be downloaded by evaluators, therefore they must be easily accessible on-line.

11 Specific recommendations for CR applications

An information notice is available on the CNRS site <https://concourschercheurs2017.dsi.cnrs.fr>. We give below additional informations, that are more specific to Section 6

All application files may be written in English.

11.1 Age of the candidates

There is no age limit for the CR2 and CR1 applications.

However, Section 6 considers that a CR2 candidate has typically completed at most 7 years of research activity, including the PhD and the post-docs. Of course, these 7 years do not include interruptions such as extended maternity (or paternity) leave. Beyond 7 years, the CR1 application is more appropriate.

We also consider that a CR1 candidate has typically completed at most 10 years of research activity (computed as above).

On the other hand, there is no lower bound. A post-doc is an important advantage, but it is not strictly mandatory.

11.2 Research statement

As explained in Section 10, the research summary should be accessible to all members of the section. This presentation should also aim at being concise.

It is desirable to point out some publications (the CNRS notice recommends 3 publications), that will be downloaded by evaluators. Concerning software and platforms, see Section 2.2.

11.3 Research project

CR applications *must* indicate several possible host laboratories: at least two, ideally three.

The research project may of course depend on the host laboratory. It may thus be necessary to propose several projects, explaining both how they relate with the applicant's previous work and with that of the indicated host team.

11.4 Factual data

Of course, the application must start with a short list of successive positions held and contain a list of publications and other scientific productions. If other sections are relevant (scientific outreach, management, transfer and popularization, teaching,..) they should also be included.

11.5 Reference letters

The candidates may (but this is not mandatory) solicit reference letters. A reference letter should preferably be sent directly by the author of the letter to the president of the committee (`comon-cnrs@lsv.fr`). Alternatively, they can be sent to `cch@cnrs.fr`, as proposed in the CNRS notice.

We recommend a maximum of three supporting letters per application.

12 Specific recommendations for the DR2 applications

The recommendations for the CR applications apply also here, except that there is no maximal recommend age. A minimal experience is specified by the CNRS in its notice (cf. <http://www.dgdr.cnrs.fr/drhchercheurs/concoursch/pdf/n-dr2.pdf>).

The research project is typically broader than an individual project: it may for example include PhD students, researchers, or post-docs.

We also expect that the sections "scientific outreach" (Section 3), student supervision (Section 6), collaborations (Section 4), management (Section 5) are not empty. Note that an HdR (Habilitation à diriger des Recherches) or a foreign equivalent qualification is strongly recommended.

Reference letters (typically at most 3) can be addressed to Section 6 as described in Section 11.5.

13 Recommandations spécifiques pour les promotions DR1 et DRCE

The whole career is considered for this kind of promotion. It is therefore necessary to provide a perspective on the entirety of scientific results, as well as other aspects listed in this document. Of course, the activity since the last promotion (or the recruitment) takes still the most important part for the evaluation.

While the quality of scientific results still plays an important role, the contributions to the society (this includes management of science, supervision of students, popularization of science, industrial transfer... as described in the Sections 2 to 8) have a more significant weight.

Finally, the date of the last promotion/recruitment is also a criterion.

We do not wish to receive reference letters for this kind of promotions.