CSS Guide Book 2020-2024

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For INRAE researchers and assessors

INRAE

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Main abbreviations and specific vocabulary

Abbreviations

ASIRPA: Socio-economic analysis of the impact of public agricultural research

CEI: Commission for the Evaluation of Engineers

CRCN: Chargé.e de Recherche de Classe Normale: Research Fellow CN

CRHC: Chargé.e de Recherche Hors Classe: Research Fellow HC

CSS: Specialised Scientific Commission

DAR: Research Support Directorate

DEV: Evaluation Department

DipSO: Directorate for Open Science

DR1: 1st class Research Director

DR2: 2nd class Research Director

DREX: Exceptional class Research Director

DRH: Human Resources Department

EPST: Public Scientific and Technological Establishments

EREFIN: Evaluation of Finalised Research

Hcéres: High Council for the Evaluation of Research and Higher Education

HDR: Habilitation à Diriger des Recherches (Abilitation to Conduct Research)

INRAE: French National Research Institute for Agriculture, Food and the Environment

SRP: Participatory Science and Research

Specific vocabulary

Départements de recherche: research division

Dossier d'évaluation ou de candidature: "dossier" of evaluation or for an application, made up of an activity report or sheet, and an annex.

Direction générale: executive management

Président Directeur Général : Chief Executive Officer

Rapporteurs: referees

Référent DEV: DEV advisor

Unité: lab or unit

Foreword

Researcher's assessment at INRAE is an advisory evaluation, based on the opinion of peers ("beauty judgement"[1]). It is a multi-criteria evaluation, centred on qualitative criteria, without ignoring quantitative criteria.

The evaluation of INRAE researchers is carried out in accordance with the statutory provisions relating to the bodies of researchers in public scientific and technological establishments (Decree 83-1260 of 30 December 1983[2] laying down the statutory provisions common to the bodies of civil servants in public scientific and technological establishments (EPST)) and the provisions relating to the bodies of INRAE researchers (Decree 84-1207 of 28 December 1984, modified by decree 2019-1045 of 10 October 2019, about the specific statute of public servant employees at the French National Research Institute for Agriculture, Food and the Environment). These assessments are carried out by specialised scientific committees (CSSs) organised by reference to a discipline or group of disciplines. The CSS operating rules and evaluation criteria are set by INRAE's Chief Executive Officer. The Evaluation Department (DEV) is responsible for implementing the evaluation of researchers.

This document is intended for CSS evaluators, researchers and their superiors; it is valid for the 2020-2024 mandate.

The evaluation carried out within the framework of the CSSs is an advisory evaluation, useful for the individual careers of researchers. It aims to provide them with a distanced opinion on the quality of their results, their personal dynamics, the relevance and quality of their achievements, as well as the consistency of their work with the missions entrusted to them and INRAE's scientific strategy.

Evaluation by peers (members of the CSSs) analyses the quality of the work accomplished. It also takes into account the researchers' career paths, including the different missions possible within INRAE, the levels of responsibility, and the stage at which the researchers are at in their professional life (beginning, middle, end of career) by integrating possible breaks (geographical or thematic mobility, for personal reasons). To this end, the evaluation is multi-criteria, but it is not expected that each researcher will meet all the criteria.

Current developments in the research activities and the launching of INRAE imply strategic changes such as:

- expertise and support for public policy,
- research in partnership with a view to contributing to all forms of innovation,
- taking interdisciplinary practices into account.

At the same time, INRAE is taking account of the changing context in which scientists work by placing the emphasis on open science (in agreement with the DipSO, INRAE's Directorate for Open Science) and on scientific integrity, for which criteria have been defined for the evaluation of these practices.

At INRAE, the analysis of applications and evaluation of researchers is based on two main principles. The first is to take into account the different dimensions of research activity and the missions associated with it, such as the production of knowledge, training for and through research, working in partnership, expertise or the management of groups or systems. The second principle concerns qualitative evaluation by peers: in line with its international, European and national commitments, INRAE no longer takes into account certain metrics such as the impact factor or the H index when evaluating projects. Priority is given to qualitative analysis of the content of evaluation and application reports. Quantitative criteria are not ignored, but their use is measured and included in an overall analysis of the activity of those being evaluated. Open science practices (open access of publications, data, codes and software), ethics, deontology and scientific integrity in the conduct of research projects are also analysed and taken into account.

[1] Christophe Dejours : L'évaluation du travail à l'épreuve du réel, 2016, QUAE Editions

[2] http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000316777&fastPos=1&fastReqId=1906599245&categorieLien=cid&oldAction=rechTexte

Contents

I Assessment and advisory role of the specialised scientific committees (CSSs)

1.1 Composition of the CSSs

Each CSS is chaired either by the INRAE Chief Executive Officer or by a person appointed by him among scientific personalities from outside INRAE (the so-call "chairperson"). The missions of the CSS chairpersons are:

- to guarantee compliance with the INRAE evaluation framework,
- to guarantee the quality of the analyses and the content of the messages,
- to justify opinions where necessary,
- to contribute to improving the system,
- to distribute files among CSS members, with the help of the "bureau",
- to lead plenary sessions (with the help of someone from the DEV),
- to contact the CSS members for putative extraordinary plenary sessions (with the support of the DEV) for tenureship, equivalency for application, etc.

Each CSS comprises at least eight members, appointed for a four-year term by the chairperson of the CSS on behalf of the Chief Executive Officer of INRAE and are made up of:

- for at least a quarter and at most half of its members, scientific personalities from outside INRAE, chosen by the Chief Executive Officer from a list that he has previously submitted for approval to the Scientific Council of INRAE;
- a quarter of its members elected staff as representatives[3];
- members exercising their functions within INRAE, chosen from a list drawn up by the Chief Executive Officer.

1.2 Functioning of the CSSs

The chairpersons are accompanied by a DEV advisor ("Référent DEV") who provides information on the institutional context and assists with the running of the sessions in accordance with the rules set out in this Guide Book.

Each chairperson is supported by a "bureau" made up of 3 other members, at least one of whom must be from outside INRAE. The role of this bureau is to prepare the plenary meetings by distributing the dossiers to be evaluated among the members of the CSS.

The evaluation of INRAE researchers is carried out by peers who meet within the CSSs. The CSSs conduct a collegial evaluation. The evaluation covers all of the researcher's activities. Each dossier is evaluated taking into account the context (career path, environment, missions for the collective). The opinion of the head of the lab (unit) is brought to the attention of the CSS.

The members of the CSS give a distanced opinion on the quality of the results, the dynamics of the activity, the relevance and quality of the collaborations, the coherence of the work with INRAE's scientific strategy, the involvement in the team and the career path. In this way, the CSS enables researchers to benefit from an external view of their activities and strategies, in relation to their environment and their missions.

Under the terms of its legal statutes, the CSS gives advice to researchers and their superiors (lab, Division, and executive management) at the time of:

- the periodic evaluation (in-depth or light) of researchers,
- the tenureship of research fellows,
- promotion to the grade HC of research fellow (CRHC),
- promotion to the "Echelon exceptionnel" step for senior research fellows (CRHCEX)
- promotion to the grade of exceptional class research director 1 (DREX1),
- promotion to step 2 for research directors of exceptional grade (DREX2).
- the stage preceding entry as a researchers (requests for equivalence, integration into the corps of researchers).

[3] See decree 2019-1045, 10 October 2019, modifying decree 84-1207

In the specific case where the researcher's activity has evolved towards that of an engineer, the engineer assessment commissions (CEI) may be asked to give an opinion on a dossier at the request of the CSS (see Appendix VII).

In some cases, the CSS assesses INRAE engineer files. This concerns:

- engineers holding the positions of "Chef de Département (Division)", "Président de Centre" or Director of Research Support Departments,
- engineers working as researchers and wishing to be assessed by a CSS (see Appendix VII), after making a request to their manager.

INRAE researchers undergo an in-depth evaluation every 5 years[4], in the year following the evaluation of their lab, and a light evaluation between two in-depth evaluations. Particular attention is paid to those at the beginning of their career; normal grade research fellows (CRCN) are evaluated in depth one year after their recruitment, for their tenure, and then every two years for the first five years of their career.

The opinion of the CSS takes the form of a personal message sent to each researcher under evaluation, under cover of the lab (unit) director. Like the rest of the process, this contributes to dialogue between researchers and their hierarchy.

The message from the CSS focuses on the strengths and weaknesses of the activity, the strategies adopted, the results, the outlook and the career path; it may include advice or recommendations on opening up or refocusing the activity, on the approaches and strategies adopted and the resources required, in line with INRAE's strategic choices.

The CSSs also have the task of monitoring the career paths of researchers and issuing diagnoses to management on the difficulties encountered by some of them in their work. When the CSS detect such situations, they issue a "commentaire" or "point d'attention" to their line managers (head of division, or even lab management) alongside the message to the researchers. The aim is to encourage managers to take action to resolve with the researcher the difficulties identified (see Annex IV).

For further information:

- a "commentaire" is a message sent by the CSS to the hierarchy at level n+2 (generally the Division) and/or n+1 (generally the lab management), which does not require a formal response from the latter;
- a "point d'attention" is a message sent by the CSS to the n+2 hierarchical superior (generally the Division) and to executive management. Lab management is informed through the CSS message sent to the researcher.

1.3. Evaluation ethics

While ethics raises questions about the values, purpose and consequences of our research, deontology represents all the rules and duties associated with the practice of a profession. Here, then, we are concerned with the ethics of the 'profession' of assessor/evaluator (peer) and the way in which they conduct their work.

The role of the CSSs relates to the so-called "beauty" judgement[5] with the notion of trust and confidence which need to be managed by rules and within an ethical framework. The ethics of civil servants are governed by Law 2016-483 of 20 April 2016, which stipulates, among other things:

- values: civil servants shall perform their duties with dignity, impartiality, integrity and probity. They must also demonstrate neutrality and respect the principle of secularism,
- transparency to avoid conflicts of interest,
- protection for employees who have been implicated and conflicts of interest.

Although not all CSS members are civil servants, at the start of their mandate they sign a document setting out the principles to be respected, which are reiterated by the chairperson of the CSS at the start of the meeting. All persons working for the CSSs (DEV advisor, DEV staff) also sign a document on the ethical principles to be respected.

[4] Refer to Appendix V for the list of documents required for the different types of dossiers
[5] Christophe Dejours : L'évaluation du travail à l'épreuve du réel, 2016, QUAE Editions

Ethical principles for research professions signed by members of INRAE's CSSs

These principles are an adaptation of the National Charter of Ethics for Research Professions[6] in the context of evaluation by the INRAE CSS.
The evaluator acts intuitu personæ and therefore does not commit the organisation to which he or she belongs. The final product of the evaluation is a collective decision by the committee.
Within this framework, the assessor/evaluator commits to respect the principles described below.

Impartiality and transparency
a. The assessor/evaluator will assess all dossier with equal attention, using the documents provided by the Evaluation Department.
b. The assessor/evaluator shall not appraise the dossier of a person with whom he or she is working. On receipt of the list of persons to be assessed, the assessor must indicate any relationship of interest that could lead to a risk of conflict of interest: scientific proximity (same lab unit); collaboration on research or a publication completed less than 5 years ago; supervisory responsibility; family relationship, etc.
c. The assessor/evaluator commits not to read or consult the dossier of persons presenting a risk of conflict of interest, as indicated in paragraph b above.
d. The assessor/evaluator must declare any relationship of interest that may lead to a risk of conflict of interest (see above) and must leave the room when examining the dossier of researchers with whom he or she has expressed a relationship of interest.

Independence and collegiality
a. As the evaluation is collegial, the conclusions are drawn by the committee and not by the evaluator in charge of the dossier. Consequently, the names of the referees ("rapporteurs") for each dossier are not disclosed.
b. Messages to researchers are written clearly so that there is no room for interpretation.
c. The evaluator does not interact directly with the persons being evaluated, who may contact the committee through the DEV advisor or the committee chairperson.

Integrity and confidentiality
a. The assessor/evaluator shall refrain from using the information or data provided for purposes other than those of the assessment. He or she shall ensure that such information is not disclosed.
b. The assessor/evaluator undertakes to destroy, at the end of his/her term of office, all documents provided during the term of office.
c. The assessor/evaluator shall respect the secret of the deliberations and shall not report the debates or remarks made during the deliberations. Only the chairpersons (or the DEV advisor) may speak on behalf of the committees.

In addition, for each CSS campaign, the assessors/evaluators complete and sign a grid declaring any links of interest with each person who has submitted a dossier. By declaring a link of interest[7], the assessors undertake not to read the dossier of the person concerned and to leave the room when the dossier is discussed.

Your personal data is stored in a computer file. Details of how this data is processed are given in Appendix IX.

1.4 Scientific practices within an open science framework

Scientific practices are becoming more and more explicitly part of an open science framework, and most higher education and research institutions, including INRAE[8], are making open science a guiding principle of their activity. The transition to open science is guided by the Institute's policy.

[6] Charter signed by France Universités, Inserm, CNRS, CIRAD, INRIA, IRD, Institut Curie, Inra
[7] Links of interest: personal links (kinship, friendships or conflicts), professional links (DEV staff and people working for DEV, members of the same unit, scientific publications, projects, hierarchical relationship, etc.)
[8] Open Science Directorate, INRAE : https://ist.inrae.fr/list-a-inrae/dipso/

Open science contributes to the transparency and traceability of research processes, thereby helping to strengthen scientific practice with integrity and ethics. INRAE is also a signatory to the San Francisco Declaration on research evaluation[9], and the European "Agreement on reforming research assessment"[10] in line with the actions and methodological developments carried out by the Institute to date, whether in terms of characterising the reputation of a journal according to its disciplinary field or opening up the scope of evaluation to the diversity of the activities and products of targeted research. This commitment reinforces an institutional position that considers the scientific content of an article to be more important than publication indicators or the brand image of the journal in which it was published.

The transition to open science also implies a very high level of transparency and traceability of research processes, and greater attention to research data, its management and, whenever relevant, its sharing, with a view to enabling the re-use of results and source data (in all types of context), and even the reproducibility of certain experiments[11]. In this way, greater attention is paid to all the products of science and to "bibliodiversity": the value and impact of all the results of research work should be taken into account, in addition to scientific publications, and a wide range of impact measurements should be considered, including qualitative indicators of the outputs of the work, such as its influence on policies and practices.

It is therefore the responsibility of evaluation to take account of the changes in practices brought about by this development. The evaluation will pay particular attention to involvement in the dissemination of open access results, in the management and sharing of data and codes, and in the peer review of research results and products.
INRAE's professionals of publishing have put together a new summary to help you make the right choices: « Choosing the right publication journal means avoiding dubious publishers[12] » (text in French).

II Assessment criteria

2.1. Explicit evaluation criteria adapted to the diversity of research missions

To fulfil its missions, INRAE conducts targeted research that combines fundamental and applied aspects. This research produces generic knowledge that is validated and disseminated through scientific using (including publications). This research, particularly in its applied dimension, also produces tools, methods, techniques and operational knowledge that can be transferred to various public or private partners.

In addition to the production of new knowledge, other activities are part of the researchers' mission, such as contributing to innovation, providing expertise and support for public policies, contributing to teaching and training through research, promoting dialogue between science and society and leading groups.

It is therefore essential for INRAE that all these activities are recognised and evaluated in a balanced way. To this end, the researcher's evaluation dossier must provide the information necessary to assess each of the components of these activities.

In the context of the evaluation of researchers, these criteria are organised into the following 4 dimensions (see Appendix I for details):

9 DORA : https://sfdora.org/read/fr/
10 https://www.scienceeurope.org/our-resources/agreement-reforming-research-assessment/
11 Direction pour la science ouverte, INRAE : https://ist.inrae.fr/list-a-inrae/dipso/
12 https://ist.inrae.fr/produit/bien-choisir-sa-revue-de-publication-cest-eviter-les-editeurs-douteux/

A. Knowledge production

- Publications and use of original knowledge, recognised in the scientific reference community.
- Development and management of research projects (academic, participatory, with private or public partners).

B. Expertise and mobilisation of knowledge

- Scientific and technical expertise for decision-makers (national or international public authorities, regional or local authorities, agencies, etc.).
- Exploitation of scientific knowledge in support of innovation.
- Scientific and technical expertise for the national and international scientific community.
- Contribution to the analysis of the societal impact of research.
- Contribution to debates and information campaigns.

C. Training through research, initial and continuing training

- Contribution to training through research.
- Contribution to initial and continuing training.

D. Leading or directing institutional groups, major instruments, resources, programmes or networks.

INRAE's reference framework is based on the principles developed by the "EREFIN" approach[13] to the evaluation of targeted research (see Appendix II, mainly in French), and complements it in order to take into account all the dimensions of INRAE's missions, in a context of open science.

These dimensions are divided into a series of observable facts that enable researchers to characterise their activities and evaluators to objectively assess these activities and qualify the level of achievement. What is expected is that the person being evaluated should i) explain the facts, the work, the resources and the players involved and ii) carry out a reflective analysis indicating the steps he/she has taken to ensure that the dissemination of data, results and actions is effective and contributes to the re-use of these products. The narrative will be included in the activity report or sheet, and the list of actions and achievements will appear in the annex to the evaluation dossier.

Researchers' missions change over the course of their careers. The commitments and expected results vary depending on the stage of their career.

The evaluation is multi-criteria, but it is not expected that each researcher will meet all the criteria.

The evaluation also takes into account the conditions in which the activities and assignments are carried out. It considers the following contextual elements:

- the researcher's environment: working conditions, available resources, maturity or fragility of the collective project in which the researcher's activity takes place,
- periods of scientific reorientation: the CSSs are also attentive to these periods, whether they are the result of a personal choice, a change in collective projects or a reorganisation of structures,
- the different stages of a researcher's career: researchers' missions change over the course of their career. The commitments and expected results vary depending on whether the researcher is at the start of his or her career, has established a reputation or has significant leadership and management responsibilities. Young researchers must first and foremost develop their ability to produce generic knowledge and test their work against the judgement of their peers. Senior researchers generally combine several of the components (dimensions) of the profession. There are thus diverse personal profiles which INRAE needs and which the evaluation must take into account.

To ensure that these contextual elements are taken into account, evaluators are asked to explain them in their dossier.

[13] Groupe inter-organisme sur l'évaluation de la recherche finalisée (EREFIN) https://esr-wikis.adc.education.fr/ca2co/index.php/Nomenclatures_:_4.1.1_Nomenclature_propos%C3%A9e_par_le_groupe_EREFIN

2.2. New directions for INRAE

Current developments in the research professions and the creation of the new INRAE institute imply changes that may be taken into account during the evaluations, such as:

- expertise and support for public policy,
- research in partnership with a view to contributing to all forms of innovation,
- taking interdisciplinarity into account.

2.2.1. Expertise and support for public policies

Expertise and support for public policies means that the scientific and technical knowledge, tools and methods needed to clarify, design, implement and evaluate public policies are made available to those involved in public policies (ministries, agencies, local authorities, European and international institutions, etc.). At INRAE, these activities take a variety of forms: collective scientific expertise, prospective studies, studies and research for and on public policies, expertise, training, working groups, participation in public stakeholder bodies, design and management of observatories or databases, standardisation, etc. All of these activities can be organised around two entries that provide a global overview: the major stages in the life cycle of public policies on the one hand, and the modes of expertise and public policy support activities within INRAE on the other.

The entire scientific community of engineers and researchers at INRAE is expected to be involved in the research-expertise and public policy support continuum, to varying degrees depending on the stage in their careers, the fields, themes and subjects, and the size of the community[14].

2.2.2. Partnership research to contribute to all forms of innovation

Innovations are the fruit of a wide range of partnerships with research or training and education establishments, agricultural and agro-industrial technical centres or institutes, competitiveness clusters, public and private economic players, and civil society players - all of which favour co-construction of the value creation process between all the players in the chain. Today, the major challenges facing research (the agricultural, food, energy, environmental and climate change transitions), together with the challenges of the country's economic competitiveness and social cohesion, are reinforcing the need for responsible innovation. By "responsible innovations" we mean research initiatives with economic, political, environmental, societal or health impacts. Being a partner means producing something more and different from what would have been produced alone, creating social, societal or economic value, while maintaining the principles of scientific quality of research, defence of the general interest and public goods, and responsibility for the consequences and impacts of research.

It is therefore essential for the partnership approach adopted by researchers to be detailed and explained in terms of co-design, co-construction and co-production, on long-term programmes, punctuated by more targeted projects; a partnership that poses and enables answers to be found to original and shared research questions[15].

2.2.3. Interdisciplinarity: academic and private partnerships

The purpose of a partnership is to create something new, to do more together, by combining differences, ideas, skills, expertise and resources. Collaboration means working with people from different scientific cultures. The success of a partnership of this type requires the ability to engage in dialogue between disciplines. So, whether the partnership is academic, private, public and/or civic, at national level or involving a mix of nationalities, interdisciplinarity needs to be to positively complete through co-construction and co-realisation.

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[14] https://www.inrae.fr/collaborer/expertise-appui-aux-politiques-publiques - https://intranet.inrae.fr/national/eapp

[15] [15] https://intranet.inrae.fr/partenariat

Interdisciplinarity needs to be taken into account in the evaluation: to do this, the person carrying out the evaluation must highlight - if this is the case - the investment made in this interdisciplinarity. In addition to the possibility for researchers to have their dossier assessed by two different CSSs, the assessors must recognise the cost of this interdisciplinary effort and focus, in this context, on the quality of the research hypothesis and the relevance of this strategy.

2.2.4. Taking account of open science practices

INRAE's Open Science action plan, supported by the Directorate for Open Science (DipSO)[16], stems directly from the national policy described in the National Plan for Open Science[17] of the Ministry of Higher Education, Research and Innovation. It defines three main categories of open science activity:

- publications,
- data or software code,
- research and participatory science.

Publications

Definitions of the different types of publication are given in Appendix VIII (particularly on predatory journals). Researchers are free to define their publication strategy in their dossier. As part of the INRAE "Open Science" action plan, researchers are encouraged to apply the following good practices:

- deposit all publications in an open archive, in their authorised version, whether they have been published in subscription or open access journals (with or without Article Processing Charges) in order to guarantee their long-term preservation; this practice is compulsory[18],
- create your researcher identifier (IDHAL, ORCID, etc.)[19] to be uniquely identified and give your publications greater visibility in databases and open archives; referencing publications in HAL-INRAE is compulsory,
- protect your rights by checking the publisher's copyright assignment contract[20] in order to retain the possibility of exploiting your publications in open access, particularly for deposit in open archives[21],
- publish preprints (arXiv, bioRxiv) and consider other innovative models based on open peer review: Peer Community In (PCI), Open Research Europe, etc,
- use academic social networks as communication tools (ResearchGate, Academia, etc.) and not as publication deposit tools. Submitting full texts on these networks is not a substitute for submitting them to an open archive.

At INRAE, it is expected that the evaluation of researchers will be based on publications deposited in open access in order to achieve the objective of 100% of publications in open access by 2030. The DipSO is developing suitable tools and personalised assistance to achieve this objective via HAL INRAE. Within the framework of the evaluation by the CSSs, a simple procedure was set up so that the evaluated persons can directly export, under the format requested by the DEV for the annex, the list of the productions deposited in HAL INRAE (see in this Guide Book, Appendix VI).
It is recommended - in the annex of the evaluation or application dossier which groups the productions - to describe the contributions and role of the evaluated or candidate persons in obtaining a result by using the CreDit nomenclature[22] as a vocabulary reference.

16 Directorate for Open Science, INRAE : https://ist.inrae.fr/list-a-inrae/dipso/
17 https://www.ouvrirlascience.fr/deuxieme-plan-national-pour-la-science-ouverte-2021-2024/
18 https://hal.inrae.fr/hal-04028495
19 https://coop-ist.cirad.fr/etre-auteur/utiliser-un-identifiant-chercheur/9-relier-vos-identifiants-idhal-et-orcid-id
20 https://coop-ist.cirad.fr/etre-auteur/proteger-vos-droits-d-auteurs/3-etudiez-attentivement-l-accord-de-publication
21 https://coop-ist.cirad.fr/etre-auteur/savoir-lire-un-contrat-d-edition/1-verifiez-le-contenu-de-votre-manuscrit-et-les-droits-y-afferents
22 https://credit.niso.org/

Data and software codes

Data and codes must be managed throughout their life cycle in accordance with F.A.I.R. principles[23], i.e. Easy to Find, Accessible, Interoperable and Reusable. The aim of the FAIR principles is therefore to promote the discovery, access, interoperability and re-use of shared data. Each FAIR principle is divided into a set of characteristics that data and metadata must have in order to facilitate their discovery and use by both humans and machines.

Appendix VIII describes the four elements of the FAIR principle, together with recommendations for implementing them.
The case of software source code: there is a process for depositing software source code via HAL INRAE, and archiving it permanently in Software Heritage[24]. The deposit in HAL INRAE allows the "citability", the archiving being dealt with by Software Heritage. To be transferred to Software Heritage, the deposited file must be under a free licence and cannot be under embargo.

Participatory science and research

"Participatory science and research are forms of scientific knowledge production in which civil society players participate actively and deliberately, either individually or collectively, alongside researchers". (Charter for Participatory Science and Research in France, March 2017).

- Possible types of stakeholder: non-academic participants can come from a wide variety of backgrounds: schoolchildren and their teachers, enthusiastic and aware volunteers, science enthusiasts, enthusiasts of the system (particularly in the case of fun digital platforms), amateur experts, or participants with a professional or economic interest in the project (e.g. farmers, breeders, foresters, processors, elected representatives, associations, etc.).
- Some types of action: in Participatory Science and Research (PRS) projects, the degree of participation by non-academic stakeholders and the methods used are also very diverse. Numerous typologies have been proposed to distinguish the different types of participatory projects. For example, Bonney et al. distinguish between 3 types of PRS project: contributory projects (i.e. crowdsourcing-type contribution to data collection), collaborative projects (involvement of non-academic stakeholders in data collection, interpretation and exploitation) and co-created projects (involvement of non-academic stakeholders at all stages, including defining research questions and project governance).
- The main features of a PRS project: PRS projects always aim to produce knowledge. They also contribute, more or less explicitly, to a form of scientific mediation, enabling the appropriation of scientific results or elements for understanding controversies, or acculturation to the research process. Finally, there may be objectives aimed at transforming society (action research, intervention research, involved research, etc.) through the empowerment of participants, the co-design of public policies or agricultural systems, the creation of new varieties, etc.
- Relationships with collaborators: PRS represents a profound change in the way knowledge is created with the various project stakeholders and disseminated. This often implies a degree of risk-taken by the persons involved, who may fear being manipulated.
- Indicators for monitoring a PRS project: a project can undoubtedly be considered a success if the various partners are satisfied at the end of it, in terms of both "advancing knowledge" and "mediation, education". As a result, there may be a variety of outputs from such approaches, in addition to scientific publications and data.

2.2.5. Particular attention paid to scientific integrity

Scientific integrity corresponds to the set of rules and values that must govern research activity in order to guarantee its honest and scientifically rigorous nature, in terms of data acquisition and processing methods, interpretation and dissemination of results, and recognition of contributions. In its document "Policy and measures to promote scientific integrity"[25], INRAE reasserts the importance it attaches to respect for this value, which is now enshrined in law and in the Research Code, and whose

[23] Wilkinson, M., Dumontier, M., Aalbersberg, I. et al. The FAIR Guiding Principles for scientific data management and stewardship. Sci Data3, 160018 (2016). https://doi.org/10.1038/sdata.2016.18
[24] https://www.softwareheritage.org/?lang=fr
[25] https://www.inrae.fr/sites/default/files/pdf/POLITIQUE_SCIENTIFIQUE_WEB.pdf

founding principles are: reliability, honesty, impartiality, independence, objectivity and transparency.

Researchers - as well as members of the CSSs - are invited to pay particular attention to points such as (but not limited to) the following when drafting and reading the dossier:

- the appropriateness of the approaches used and the methodologies implemented in relation to the issue addressed,
- the reliability and traceability of data collection methods, as well as the archiving and availability of data,
- data processing procedures to ensure the robustness of the results,
- collaboration and publication strategy,
- practices for disseminating and publishing results to ensure that contributions are recognised. Particular attention must be paid to the signing of publications (authorship), while respecting the diversity of practices and disciplines: guidelines on this topic have been formalised in a note from INRAE's Ethics and Scientific Integrity Committee[26], which states in particular that:
  - all authors must make a direct and substantial intellectual contribution to at least one of the following points: conceptualisation of the research, design or development of research methods and tools, collection, analysis, management, interpretation or visualisation of data, validation of results, drafting of the manuscript,
  - all authors must be able to defend all or part of the content of the publication,
  - the project leader (who may be the corresponding author) is responsible for the accuracy of the entire content of the publication. The other authors are responsible for the veracity of the assertions that their position within the project enables them to verify,
  - all authors must approve the final version of the manuscript and the list of co-authors.
- impartiality in expertise, proofreading of articles and reviewing of projects,
- participation in initiatives to raise awareness of scientific integrity and provide support for students and supervised staff in this area.

The researchers being assessed are therefore asked to document the attention they pay to respecting scientific integrity in the diversity of the missions they carry out and at all stages of the knowledge production and dissemination chain. This analysis can be clarified by explaining the importance of the functioning of the group in which they work in taking this value into account. The role of the CSSs is to recognise good practice and organisational methods that promote scientific integrity and to identify any practices that deviate from this.

2.3. CRCN tenureship criteria

Tenureship are reviewed at the end of the first year of recruitment. As recruitment dates are spread throughout the year, tenureship is granted in 2 waves. The dossier of research fellows recruited from September (year n-1) to February of year 'n' are examined by the CSSs in the first quarter of year 'n+1'; for the others, they are examined at the end of September/beginning of October of year 'n+1'[27].

The opinion on tenureship is based on an analysis of the following three criteria:

- the conception and ownership of the research project; this ownership is assessed by the quality of the presentation of the research project: the CSS will seek to assess through this presentation:
  - the ability of the CRCN to position the project in relation to the research developed in the unit,
  - his/her mastery of the scientific context and the relevance of his/her skills to the project presented,
  - his/her ability to explain and justify the approach planned for the next two years,
- the effective responsibility for the research project; effective involvement in the initial work is expected. It must confirm the mastery of the methods and tools to be implemented: bibliography and analysis of scientific articles, undertaking

[26] https://intranet.inrae.fr/national/app/uploads/2021/02/Note_signatures_CoDISINRAE_vfinale61.pdf
[27] See the corresponding « Conseil Pratique » at https://intranet.inrae.fr/evaluation/Chercheurs/Conseils-pratiques

of experiments, initial exploitation of results, making contact for collaborations, additional training, etc. It will be confirmed by initial achievements,

- collaborations, in particular within the lab: interaction with different colleagues in the lab unit, the interest shown in the unit's research and integration into the team are assessed through various actions that the researchers and their scientific supervisor will specify in the dossier. In addition to integration into a host team or unit, it is the ability of the CRCN recruited to become part of a research group that is assessed.

As the conditions and expectations of this 1 year internship have been defined with the managers and set out in a follow-up document[28], the CSSs must assess whether the commitments have been fulfilled on both sides.

In addition, the CSSs pays attention to the suitability of the environment for the proposed project and to the extent to which the skills of the researchers are being put to good use.

The CSS's opinions are forwarded to INRAE's executive management, which will arbitrate on tenureship decisions.

2.4. Follow-up of CRCNs during the five years following recruitment, and of new DR2 employees

Recruitment as a researcher at INRAE is an essential step in a scientific career. Being a new scientist in a research team and unit with permanent status is a different situation from a fixed-term contract or a post-doctorate contract with short-term assignments. Therefore, in order to ensure that new recruits at INRAE have all the conditions for a good start, a three-stage monitoring system has been set up for the first five years of post-recruitment activities.

After tenureship, and three and five years after recruitment, the CSSs will examine the dossier of these researchers, in accordance with the standard "in-depth" evaluation procedures. For the five-year assessment, the Division head's opinion is required.

The annual competitions for the recruitment of INRAE DR2s are open to INRAE researchers who are already CRCN or CRHC, as well as to any external candidate who meets the conditions for competition. Non-INRAE researchers recruited as DR2s will have an "in-depth" evaluation two years after their recruitment.

2.5. Criteria for promotions

The CSSs review promotions from CR Classe Normale (CRCN) to CR Hors-Classe (CRHC), from CRHC to CDHC échelon Exceptionnel (CRHCEX) and from DR1 to DREX1 and DRX1 to DREX2. Access to the DR corps (DR2) is by a specific competitive examination, and promotion to DR1 by a specific promotion committee which does not involve the CSSs.
Applications per se (excluding evaluation procedure) do not require the opinion of the hierarchy. As a result, the hierarchy is not informed of any application. If he/she so wishes, the candidate may inform them.

2.5.1. Criteria for CRHC promotion

The process for promotion to the Hors Classe grade for CRCN is described in INRA memorandum 2018-24. It states in particular that:

"There are two possible routes open to research fellows:

1. an extension of the research fellow's career for researchers who have made a regular contribution to the production of

[28] This is a « shuttle » document provided by the division, as soon as the recruitment started, to the head of the lab, that allows to follow the conditions of the internship by the lab and the division, in connexion with the scientist. At the end of the internship, this document is given to the CSS members.

academic and non-academic knowledge, in all the diversity of the research's profession, by moving from the CRCN grade to that of CRHC after examination of the applications by the specialised scientific commissions (CSSs),

2. a switch to research management functions for researchers with proven international scientific influence, group leadership and training activities, and a contribution to the exploitation of knowledge for innovation and/or public policy support (CRCN or CRHC to the Research Director (DR) grade)."

The entire scientific career of candidates for the grade of CRHC since their recruitment to the Institute is examined. The assessment focuses on the results of the candidate's activities and the quality of his or her achievements. Candidates for promotion are asked to provide any background information they consider useful in analysing this record. In particular, the CSSs will examine the career path of the researcher, analysing regularities, risk-taking, reorientations or ruptures in the dimensions covered by the researcher's activities. It is important for the candidate to make explicit the transitions and choices made along the way, to reflect on his or her career path and to demonstrate its coherence.

In this context, the CSSs gives an opinion on the scientific quality of the application. The CSSs will review the various dimensions of the activity in relation to the activity profile declared on the four dimensions covered by the evaluation (see Appendix I). At the same time, it will examine these dimensions from the angle of:

- the quality and regularity of outputs,
- the role played in the group(s) in which the person has performed or is performing his/her tasks,
- interactions and network of collaborations outside the lab.

Based on the above criteria, the CSS gives each application either a favourable, reserved or unfavourable opinion. A reserved opinion indicates that the application does not yet meet the expected criteria, but that these criteria are not far from being met. An unfavourable opinion indicates that the criteria are far from being met. These opinions and the supporting arguments are forwarded to the Institute's executive management for final decision.

As stipulated in memorandum 2018-24, given an equivalent level of advice from the CSSs (mainly applications that have received a favourable opinion), staff who have reached the top step of their grade will be given priority in order to unblock their career. After final decision by INRAE's executive management on the basis of the opinions formulated by the CSSs, a letter is sent by the Human Resources Department (DRH) to each candidate informing them of the decision taken by the INRAE's executive management. Researchers who wish to obtain information on this decision following this letter are invited to contact the DEV (css-contact-dev@inrae.fr). If, following a favourable opinion, the candidate is not promoted for lack of opportunity, the opinion remains valid for a further 2 years. In this case, the candidate must apply again (ticking a box in the registration system), but without submitting a new application.

2.5.2. Criteria for promotion to the exceptional "échelon" of CRHC

Decree 2022-758 sets out the conditions for access to the new exceptional HEB step (echelon) for CRHC (memorandum INRAE 2023-2). Promotion to this exceptional step is open to CRHCs with at least three years' experience in the 7th step of the CRHC grade. For promotion to the exceptional step of CRHC, the CSS examines the candidates' dossier. The CSS issues an opinion ("proposed" or "not proposed") to INRAE's executive management.

The criteria for promotion to this exceptional step of CRHC will relate to the period since appointment to the grade of CRHC. The CSS will use the same criteria as for promotion to the grade of CRHC (particularly the quality of new productions, the new roles played in the collectives and the strengthening of interactions and the network of collaborations outside the unit of the CR) over the period since the appointment to the grade of CRHC.

2.5.3. Criteria for DREX promotion

The CSSs must give their opinions on two types of promotion to the grade of Director of Exceptional Class (DREX): DREX1 and DREX2. DREX1 is the first step of DREX and this promotion concerns people who are first class research directors (DR1). Promotion to DREX2 is open to people who are already DREX1.

For promotions from DR1 to DREX1, researchers are asked to describe their activities in greater detail since their promotion or recruitment to DR1. For promotions from DREX1 to DREX2, researchers are asked to describe in more detail their activities since their promotion to DREX1.

In order to give their opinion on promotion to these two steps of the grade of director of exceptional class, the committees examine the four dimensions A, B, C and D (see Annex I), and more particularly:

- the quality, originality and visibility of scientific output, including training aspects,
- the strategic vision of the field,
- contribution to INRAE's targeted research mission,
- the nature of the collective responsibilities assumed within INRAE.

III CSS working methods

The CSSs work on the evaluation, promotion and tenure of research fellows (see 1.2). The methods are identical. The only differences are the channels through which advice and messages are sent. For the other points, an opinion is written for the attention of executive management to assist in decision-making and arbitration.

3.1. Information available to evaluators to clarify the context

Researchers in the same unit are evaluated (in "in-depth" mode) in the same year, generally the year following the Hcéres evaluation of the lab. The full Hcéres report is made available to the CSS members.

CSS members have access to the various documents provided by the researchers being evaluated or applying (see Appendix V for the list of documents by type of evaluation or application). In particular, researchers can send a personal message to the CSS, entered online on the application submission site, independently of their hierarchy.

Researchers undergoing evaluation send their dossier to the head of the lab, who issues an opinion after an interview. In drafting this opinion for the CSS, the management provides additional information, for example, specifying the researchers' environment or any particular tasks they may have been given. The opinion of the lab manager is not required in the case of promotions. When the employee is a candidate AND is undergoing evaluation, the opinion of the lab manager must relate only to the period covered by the evaluation, and not to the application.

Researchers may provide additional information on the first pages of their activity report or sheet, in particular concerning prolonged absences during the period. It is therefore their responsibility to specify these factual elements in this dedicated space, as in the interests of fairness, this is the only additional information that will be taken into account by the CSS.

3.2. Analysing dossiers and producing messages

Prior to the committee work, referees are appointed by the CSS "bureau" for each dossier. The anonymity of the referees is preserved throughout the process. There are no exchanges between the referees and the researchers or their superiors. Each assessor has access to all the dossiers of the researchers assessed by their CSS (with the exception of links of interest, see above).

To carry out their analysis of the dossier, the referees:

- base their analysis primarily on the qualitative evidence of the work carried out, as described in the activity report or sheet. They may also refer to the activities listed in the annex,
- consider the evaluation criteria (see Appendix I and II),
- identify the results in terms of the various dimensions of the activity and analyse their quality,
- assess the activities and missions in relation to INRAE's ambition and purpose,
- assess the activities and missions in terms of expertise and support for public policy, partnership and innovation, open science, scientific integrity and interdisciplinarity,
- give an opinion on the activity profile and its relevance to the lab's overall project and to the stage of the researcher's career,
- weight this opinion according to contextual factors,
- examine the prospects presented by the researchers.

The number of referees per dossier varies according to the type of evaluation:

- light evaluation: 1 referee
- in-depth evaluation: 1 referee
- CRHC or CRHCEX application: 2 referees
- DREX1 and DREX2 applications: 2 referees
- tenure: 1 referee

To present their analysis at the meeting, the referees complete a reading grid provided to them to help them build their analysis of the dossier. The completed grid is provided to the DEV before the plenary session, in accordance with the procedures indicated each year.

The presentation of the dossier at the plenary session is followed by a collective analysis by the members of the CSS. On this basis, the referees draw up a message (for evaluations) or an argument (for applications) which is validated at the meeting by all the members of the CSS.

In the frame of a "light" evaluation, focusing on a summary and qualitative description of activities and outputs, the CSS gives an opinion on the dynamics of the activity since the last in-depth evaluation. The message sent to researchers may be very concise.

If the analysis of the dossier shows that the intervention of a manager in the hierarchical chain beyond the head of the lab is desirable, the committee drafts an additional message addressed to the head of the Division and the INRAE executive management. These "commentaires" or "points d'attention" may concern the activity and results of the researchers, but also difficulties linked to their environment or a mismatch between skills and the lab's scientific strategy. If a researcher fails to submit a dossier, a "commentaires" or "points d'attention" is systematically made[29].

About ten days after the CSS meeting, the chairperson of the CSS, accompanied by the DEV advisor, meets with the heads of the Division concerned to inform them of the CSS's analyses and the main messages it sends to INRAE's executive management, particularly with regard to specific situations to which it wishes to draw the attention of the general management and the hierarchy ("commentaires" or "points d'attention"). Management will then decide on the appropriate follow-up for each of these situations (see Appendix IV).

3.3. Dissemination of evaluation results

The CSS's message to evaluation researchers is sent under cover of the lab manager. The researcher may respond to the CSS by

[29] See above paragraph I and Appendix IV.

writing his/her response in the space provided. The response will be forwarded to the chairperson of the CSS by the Evaluation Department; it will be brought to the attention of the whole CSS at the next plenary meeting.

Researchers may, within a period of two months, lodge an informal appeal with the INRAE Chef Executive Officer against the written assessment concerning them (application of articles 30 and 50 of decree no. 83-1260 of 30 December 1983 and articles 10 and 13 of decree no. 84-1207 of 28 December 1984). This appeal must state the reasons clearly and precisely.

The opinions formulated by the CSS on tenureship and applications for promotion to CRHC and DREX are recorded in minutes signed by the chairperson of the CSS and forwarded to the Chief Executive Officer and the Human Resources Department.

At the end of the campaign, CSS opinions on tenure and promotion are forwarded to Division heads. Messages from the CSS to researchers are also forwarded to the heads of Division. Application or evaluation dossier are not forwarded, except in the case of a "commentaire" or "point d'attention".

It should be noted that only evaluations result in a personalised message from the CSS to the researcher. The application process does not result in the drafting of a personalised message: candidates receive a letter from the HRD informing them of the result of the promotion and candidates are invited to contact the DEV for more detailed information on their dossier.

Appendix I - Criteria for assessing researchers' activities

This section describes the criteria used to analyse researchers' activities according to four dimensions and 14 types of activity. The purpose of this analysis grid is to allow an exhaustive approach to evaluation and to highlight different activity profiles (multi-criteria evaluation). It will also serve as a guide for completing the "annex" documents that accompany the various activity sheets and reports.

A. Knowledge production

- Publications and other uses of original knowledge, recognised by the leading scientific community
- Development and management of research projects (academic, participatory, with private or public partners)

B. Expertise and mobilisation of knowledge

- Scientific and technical expertise for decision-makers (national or international public authorities, local authorities, agencies, etc.)
- Exploitation of scientific knowledge to support innovation
- Scientific and technical expertise for the national and international scientific community
- Contribution to the analysis of the societal impact of research
- Contribution to debates and information campaigns

C. Training through research, initial and continuing training

- Contribution to training through research
- Contribution to initial and continuing training

D. Leading or directing institutional groups, major instruments, resources, programmes or networks

- Unit or team management
- Conception or scientific responsibility for collective resources or facilities (large instruments, observatories, platforms, collections of biological resources, etc.), collective scientific infrastructures and research infrastructures (including e-infrastructures)
- Participation or responsibility in thematic or disciplinary, national or international networks
- Leading communities ("community manager") associated with the development of open science (e.g. community of developers or users)
- Responsibility for or significant contribution to research support activities within units or departments (departmental deputy, partnership officer, European officer, HR officer, etc.)

A. Knowledge production

A1. Publications and other use of original knowledge, recognised in the scientific reference community

Quantitative criteria such as journal impact factors or the H-indexes of the people evaluated are not used. These products are therefore seen from the point of view of bibliodiversity. The publication and promotion of researchers' work is the primary descriptor of their research activity. Their validation by peers will have been the subject of an evaluation process - by a scientific mechanism recognised (journal, promotion platform, conference, etc.) by the scientific communities, including transparent evaluation processes as proposed by scientific communities[30].

Researchers are invited to explain their publication and exploitation strategy, as well as their personal contribution to these

[30] Such as : https://peercommunityin.org/

productions, where appropriate by explaining their authorship policy[31].

In the context of scientific integrity, the strategy for statistical analysis of the results may be explained. It is also recommended that the results of a study or research project should be used as a whole, rather than being broken down into several articles or other types of use.

In the context of open science:

- new forms of publication (data paper, preregistration or registered report, open peer review, etc.)[32] should be indicated,
- manuscripts[33], deposited in an open archive, are taken into account in the evaluation as a descriptor of the dynamics of the activity between two evaluation events. Their validation by peers remains essential and will be closely monitored by the CSSs,
- datasets, codes and software (or applications) are identified as original knowledge. The data will comply with the FAIR principles (Easy to Find, Accessible[34], Interoperable, Reusable),
- emphasis may be placed on the methods used to manage and make this data available (data management plan, etc.),
- the re-use of open science data, combined with innovative analysis methodologies or the production of metadata is taken into account,
- productions must be listed in the form of a bibliographic reference specifying the link to the publisher's website (DOI), the link to the reference in an open archive (e.g. in HAL INRAE) and the full text deposited in the archive. Note: HAL export automatically produces references in this form.

A2. Developing and leading research projects (academic, participatory, with private or public partners)

These activities include setting up partnerships or partner networks and focus on co-designing and co-constructing the process of creating value between the players by explaining the choices and partnership strategies.

- Involvement (setting up or participating) in research projects mainly in partnership with one or more academic partners, co-designing and co-constructing research programmes with different types of partners, specifying the shared research questions.
- Interdisciplinary dialogue to set up long-term research programmes, made up of shorter-term projects.
- Implementing participatory research approaches involving non-scientific stakeholders - professionals, individuals or groups[35] - who participate actively and deliberately, whether in collecting data, co-designing research objectives or getting involved in another stage of the research process...
- Coordination of, or participation in, national or international multi-actor consortia.

Innovation is not just about economic criteria, but about all the criteria for responsible innovation, such as contributions to society, health, the environment and politics. Mention the international and interdisciplinary dimension - if any - of the programmes and projects.

B. Expertise and mobilisation of knowledge

31 Examples of types of contributions: https://www.casrai.org/credit.html

32 A two-stage publication and evaluation model: i) before starting the research, the authors submit the protocol (the "materials and methods" of the research) associated with the hypothesis and its context. The journal carries out an initial assessment; if the protocol is accepted (In Principle Acceptance, IPA), the authors have the "go-ahead" to publish the results in the journal; ii) once the results have been obtained, the second assessment looks at whether the results match the protocol.

33 "Manuscript" here refers to a document that is accessible on an open archive but has not yet been peer-reviewed.

34 « As open as possible, as closed as necessary»

35 The term "non-scientific-professional actors" refers to actors acting as citizens.

B1. Scientific and technical expertise activities for decision-makers (national or international public authorities, local authorities, agencies, etc.)

Expertise, foresight and public policy support activities are developed in close synergy with research work, in order to strengthen the research - innovation - public policy support continuum.

The aim is to make the most of scientific and technical knowledge to respond to and support those responsible for designing, implementing and evaluating public policies.

Three main types of contribution can be distinguished according to their position in the life cycle of public policies:

- providing stakeholders with insight into the societal issues that may be addressed by public intervention through collective scientific assessments, forecasts or studies (in the sense of "advanced studies"),
- helping to design public policies and their instruments. In particular, this takes the form of analysis and evaluation of public policy instruments, both before and after the fact,
- scientific and technical support for the implementation of public policies. It covers a wide range of skills and a large number of projects carried out in research units and/or in specifically dedicated internal or partnership structures.

These points concern:

- collective scientific expertise or studies,
- foresight activities: participation in foresight coordinated by the General service for collective scientific expertise (DEPE: Délégation à l'Expertise scientifique Collective, à la Prospective et aux Études) or directly coordinated by a body involved in public policy (ministry, agency, local authority, etc.), participation in the foresight group of a research alliance, etc,
- scientific and technical information activities, popularisation, contribution to public policies,
- training initiatives for public players (linked to dimension "C"),
- participation in non-academic public bodies (board, scientific council) and expert committees (ANSES, OFB, EFSA, Cerema, etc.),
- participation in collective systems (observatories, platforms, collections, ...) or responsibility for permanent systems (linked to the "D" dimension) used to support public policies,
- expertise in response to a public or private commission (institutional expertise carried out by an individual or a team),
- a contribution to standardisation.

These activities give rise to different types of products, in particular: expert reports, collective scientific expertise, forecasts or studies; technical publications, summary works for transfer purposes, technical guides, recommendations and proposals for standards or regulations, decision-making tools, organisation and proceedings of seminars for public-sector players, etc. These activities with public policy players give rise to new and often original research questions.

B2. Developing knowledge and know-how in support of innovation

- Participation in innovation-oriented projects (proof of concept, pre-maturation, prototype, pilot tests, pre-industrial demonstrator, etc.).
- Declarations of inventions and valuable results and intellectual protection of results: know-how, biological material, registered models, software, databases, patents, plant breeders' rights....
- Creation of or participation in the creation of a company to exploit its research results, or collaboration with a start-up, to remove scientific and technological barriers and enable the emergence of innovative start-ups based on INRAE research[36].
- Expertise for professional organisations or private players.
- Publication and promotion in journals and platforms aimed at professionals.

B3. Expertise activities for the national and international scientific community

These activities reflect the integration of researchers into the scientific community, the recognition of their scientific expertise and contribute to their visibility.

- Contribution to scientific publishing. The evaluation will take into account the contribution made by researchers to the validation of knowledge in response to requests from journal editorial boards or open platforms dedicated to this validation stage. Publishing activities related to open science will also be taken into account.
- Activities relating to the evaluation of scientific projects, thesis reports, HDRs and research entities are included in this section.
- Participation in thesis committees, recruitment bodies, individual or group evaluation bodies, competition juries, selection juries; participation in scientific councils.
- Representation of INRAE on national, European or international bodies or organisations involved in strategic discussions (ANR, alliances, PEER, Belmont, etc.).
- Participation in open science initiatives in accordance with the plan drawn up by INRA and adopted by INRAE[37].

B4. Contribution to the analysis of the societal impact of public research

The commitment of researchers is necessary for the deployment of the method, the collection and quality of data, and the analysis of INRAE's contribution to societal impacts that have already been or are in the process of being deployed. It contributes to developing a culture and understanding of societal impact within research teams, to improve reflexivity on the positioning of research and its values in the production of benefits for society.

Activities related to the deployment of the ASIRPA method[38] will be taken into account during the evaluation by the committees.

B5. Contribution to debates and information activities

- Dissemination of knowledge (documents aimed at a wide audience of non-specialists, books, films, website, etc.).
- Designing and leading debates with citizens (conferences or symposia, other events).
- Scientific and technical information activities, popularisation works, contributions for the benefit of public (citizens, elected representatives, local authorities) or private players. Organisation of visits by journalists and political figures.

C. Training through research, initial and continuing training

C1. Training through research

- Supervision of young researchers or students (universities, engineering schools, etc.). The evaluation will assess the different levels of contribution. In all cases, this contribution must be reflected in proven outputs.

This criterion will take into account the existence of a pool of students, the rules of the doctoral schools and the possibility of being entrusted with teaching duties in a reasonable geographical area.

C2. Initial and continuing training

- Responsibility for the design and management of a teaching programme integrated into a training programme, a doctoral school or a national or international training network (Erasmus Mundus programme, Marie Curie network, etc.).

[37] https://www.inrae.fr/inrae-engage-science-ouverte

[38] ASIRPA (Analyse des Impacts de la Recherche Publique Agronomique) is an approach to assessing the socio-economic impact of research at the level of a research institution. Developed by INRA a few years ago and continued by INRAE, it is based in particular on case studies carried out according to standardised procedures and is regularly the subject of new developments. https://www6.inrae.fr/asirpa/

- Design and implementation of a teaching project (module integrated into a team-based teaching project, MOOCs, serious games, etc.).
- Participation in a teaching module, organisation of M2 internships, explicit responsibility for training courses; organisation of summer universities.
- Contribution to training aimed at professionals involved in public policy or socio-economic players.

D. Coordination and management of institutional groups, major instruments, collective resources, cross-disciplinary programmes or networks.

These activities may be carried out at different levels of responsibility:

- lab or team management,
- design or scientific responsibility for collective resources or facilities (large instruments, observatories, platforms, collections of biological resources, etc.), collective scientific infrastructures and research infrastructures (including e-infrastructures),
- participation or responsibility in thematic or disciplinary, national or international networks,
- leading communities ("community manager") associated with the development of open science (e.g. community of developers or users),
- responsibility for or significant contribution to research support activities within units or departments (deputy head of department, partnership manager, European manager, HR manager, communication manager, public policy support correspondent, etc.)
- steering or coordinating collective expertise, foresight or study operations.

Appendix II - EREFIN matrix of research unit activities

The EREFIN group has combined a proposed list of activities with a list of the corresponding types of output, which can be used to support the evaluation of structures[39]. These elements has been used and adapted as well for evaluation of individuals.

Activities / Recipents and collaborators	Production of knowledge	Partnership, structures, networks coordination	Provision of knowledge and resources (expertise, training, dissemination)
A. Word of research	Production of knowledge • Publications of « A rank » and papers published in highly selective proceedings of major conferences for STICS and SHS • Publications in journals with an impact factor in the first quartile of those in the discipline • Books/special issues coordinated by one or more members of the unit • Books written by one or more members of the unit • Chapters in other works • Patents • Invited lectures at international conferences • Papers presented at conferences with proceedings Scientific partnerships	Academic partnership • European projects (PCRD) coordinated by the unit in progress during the period. • WP of ongoing European projects coordinated by the unit • International scientific projects, having been the subject of a competitive call for tenders, coordinated by the unit • Work packages from such international projects coordinated by the unit • International thematic networks or 'labelled' national inter-institutional networks, led by a member of the unit; responsibilities in learned societies • International conferences and congresses organised by the unit • Erasmus Mundus theses or internationally co-supervised theses • Membership of editorial boards of international scientific journals • Participation in the scientific committees of major international or national inter-institutional research programmes • Ongoing projects piloted by the unit, financed following competitive calls for tender (ANR, etc.)	Major instruments • Development, provision) of a major instrument for a scientific community (number of years /2 of FTE of researchers, engineers and scientific managers in the unit devoted to this activity) • Scientific databases and software made available to a scientific community

[39] https://esr-wikis.adc.education.fr/ca2co/index.php/Nomenclatures_:_4.1.1_Nomenclature_propos%C3%A9e_par_le_groupe_EREFIN

B. Socio-economic players

Production of operational knowledge and innovations

- Articles in technical or professional journals or in engineering journals widely distributed in the field
- Technical guides and summary works for professionals
- Decision-support tools and models delivered to users; registered software made available to users; patents
- Trademarks, new plant varieties, etc.
- Clinical trials, epidemiological studies
- Prototypes, processes, pilots, demonstrators delivered to users
- Licences associated with patents registered by the unit
- Companies set up by members of the unit Socio-economic partnerships

Socio-economic partnership

- Contracts or partnership research projects funded by partners in excess of €50,000 or involving at least 0.5 FTE from the unit
- Theses co-financed by socio-economic partners (such as Cifre grants) in progress during the evaluation period.
- Participation of unit members on the strategic orientation boards of partners or stakeholders Expertise and studies, provision of techniques and tools

Expertise and studies, provision of techniques and instruments

- Expert appraisal and study missions carried out for partners or clients (number of reports) or, number of years /2 of FTE of researchers, engineers and scientific managers in the unit devoted to these missions
- Guidelines for protocols (e.g. clinical protocol)
- Training courses for professionals (number of days X number of participants /20)
- Development (and provision) of a major instrument for socio-economic partners (number of years / 2 FTE of researchers, engineers and scientific managers in the unit dedicated to this activity)

C. Public authorities	Production of operational knowledge • Technical guides • Decision support tools and models available to public users (excluding research); registered software made available to a public body Partnerships with public authorities	Partnership with public authorities • Research projects with a public partner outside research: 'technical' ministries, regions .... with funding of more than €50,000 or involving at least 0.5 FTE from the unit; theses supervised in the unit and funded by public partners outside research • Participation of unit members on the strategic orientation or scientific councils of public partners (outside research establishments, ANR committees, etc.)	Scientific expertise • Institutionally validated reports submitted to public bodies; contributions to standards or regulatory texts. • Leading collective scientific assessments • Contributions to collective scientific expertise • Members of permanent expert committees (or groups of permanent experts from health safety agencies, etc.).
D. Students	• Theses defended during the evaluation period • Master's level internships prepared in the unit • HDRs from unit members defended during the evaluation period • Teaching works	• New Master's level training modules developed by members of the unit and implemented Coordination of or contribution to Erasmus Mundus or international Master's courses • Coordination of master's courses	• Training provided in higher education (number of teaching/research services provided by members of the unit (EC, researchers, engineers, etc.))
E. Citizens	• Reports analysing societal demand, prospective analyses, analysis of industrial needs Press articles, interviews, etc.	• Books aimed at a wide audience • Events for the general public, science-society debates organised by the unit, events in primary or secondary schools, etc.	

Appendix III - Names of the thirteen CCSs

Thirteen committees assess INRAE researchers; they are transversal to the Divisions. Twelve of them are mainly defined by discipline. The perimeters of these 12 CSS have been adapted to INRAE's new scientific dynamics in order to promote scientific interactions identified as strategic. These perimeters are validated by INRAE's scientific council. Each researcher chooses his or her evaluation committee after a proposal by the Division heads. In particular, it is recommended – if possible - that researchers from the same lab and discipline be evaluated by the same committee. Researchers with a multidisciplinary profile whose scientific disciplines are not sufficiently represented on a single committee may submit their applications to two committees. A thirteenth committee (SPR) assesses researchers with research management, leadership or support activities. The names and qualifications of the assessors are available on the INRAE Evaluation Department intranet website[40].

- Agronomy, Livestock and Forestry (AEF)
- Biology of Host-Aggressor, Symbiont and Commensal Interactions (BIHASC)
- Integrative Plant Biology (BIP)
- Animal Biology (BioA)
- Ecology, Population Biology, and Ecosystem Dynamics (EBP)
- Plant and Animal Genetics (GVA)
- Microbiology, Microbial Ecosystems, Agri-food Systems, Biotechnology (MEM)
- Mathematics, Computer Science, Digital Science and Technology, Artificial Intelligence and Robotics (MISTI)
- Nutrition and Toxicology (NuTox)
- Economic, Social and Management Sciences (SESG)
- Food, Materials, Biobased Products & Waste Resources Science and Engineering (SIAM&R)
- Research Support and Management (SPR)
- Environmental Sciences: Earth, Water and Atmosphere (STEA)

[40] https://intranet.inrae.fr/evaluation/Chercheurs/Composition-des-CSS2

Appendix IV - Details of specific messages issued by the CSSs

In certain situations, the evaluation committees wish to send "commentaires" or "points d'attention" to the hierarchy in addition to the message sent to the researcher.

- A "commentaire" is a message sent by the evaluation committee to the hierarchy at level n+2 (Division) and/or n+1 (lab), which does not require a formal response from the latter.
- A "point d'attention" is a message sent by the evaluation committee to the hierarchy at level n+2 (Division) and to the executive manager. The lab management is informed by reading the CSS message sent to the researcher. With the information it has in the dossier, the evaluation committee considers that the intervention of the n+2 hierarchical level is necessary (triangulation principle). The executive manager asks Division heads for their own analysis of the situation and the measures implemented or planned to resolve the difficulties identified by a CSS. In the light of the information provided, executive manager decides on the type of follow-up to be carried out.

Dealing with "points d'attention"

There are three levels of follow-up depending on the seriousness of the situation:

- Type 1 follow-up: short-term resolution
  The information provided by the hierarchy at level n+2 is explicit and the measures taken are likely to resolve the difficulties identified and encountered by the researcher in the short term (or bring about positive change in the situation). Executive manager then considers that the situation does not warrant any further follow-up.
- Type 2 follow-up: follow-up with review at a set deadline
  In the light of the information provided by the hierarchy at level n+2 and the measures already taken, the situation warrants monitoring over time (one or two years). This follow-up is carried out by the n+2 line manager (Division) who may request an early assessment in order to review the situation at the end of the set period.

Type 3 monitoring: implementation of the alert process
The analysis of the n+2 hierarchy corroborates the diagnosis established by the CSS and the responsibility of the researcher is leading. It is necessary to take note of the deficiency and allow the employee a period of time in which to improve his or her situation. Executive manager, under cover of the n+2 hierarchy, sends a personalised letter to the employee reminding them of their deficiency and specifying the deadline for an in-depth evaluation two years later.

Dossiers concerning researchers who have been the subject of a "point d'attention" are also forwarded to their "Président de Centre" for information, in accordance with INRAE's management charter.

NB: at each stage, if the problem is resolved, the researcher leaves the process.

Appendix V - The different types of evaluation and associated documents

I am undergoing a light assessment and am not a candidate, I must provide:

- The Activity Sheet for the period in question
- The "Evaluation" annex for the period, with the opinion of the lab director
- Optional: booklet of the main productions that are confidential or absent from HAL-INRAE or other public repositories.

I am undergoing a light evaluation and applying to CRHC or CRHCEX. I must provide:

- The "CRHC/CRHCEX Application With Evaluation" Activity Report (AR) since my recruitment, with perspectives
- Annex "CRHC/CRHCEX Application With Assessment" since my recruitment, with the opinion of the lab director for the period covered by the assessment only
- Optional: booklet of the main productions that are confidential or absent from HAL-INRAE or other public repositories.

I am undergoing a light assessment and applying for DREX. I must provide:

- The "DREX Application with Evaluation" Activity Report (AR), with perspectives
- Annex "DREX Application with Evaluation" since appointment to current grade, with the opinion of the lab director for the period covered by the evaluation only
- Optional: booklet of the main publications that are confidential or absent from HAL-INRAE or other public repositories.

I am undergoing an in-depth evaluation and am not a candidate, I must provide:

- The "Evaluation" Activity Report (AR) for the period
- The "Evaluation" annex for the period, with the lab director's opinion
- Optional: booklet of the main productions that are confidential or absent from HAL-INRAE or other public repositories.

I am undergoing in-depth evaluation and applying to CRHC/CRHCEX. I must provide:

- The "CRHC/CRHCEX Application With Evaluation" Activity Report (AR) since my recruitment, with perspectives
- The annex "CRHC/CRHCEX Application With Evaluation" since my recruitment, with the opinion of the lab director for the period covered by the evaluation only.
- Optional: booklet of the main productions that are confidential or absent from HAL-INRAE or other public repositories.

I am undergoing an in-depth assessment and applying for DREX. I must provide:

- The "DREX Application With Evaluation" Activity Report (AR), with perspectives
- The Annex "DREX Application with Evaluation" from the time of appointment to the current grade, with the opinion of the lab director for the period covered by the evaluation only.
- Optional: booklet of the main productions that are confidential or absent from HAL-INRAE or other public repositories.

I am a CRHC/CRHCEX candidate, not being evaluated, I must provide:

- The "CRHC/CRHCEX Application Without Evaluation" Activity Report (AR)" since my recruitment, without prospects
- The "HRCC/CRHCEX Application Without Assessment" annex since my recruitment without the opinion of the lab director
- Optional: booklet of the main productions that are confidential or absent from HAL-INRAE or other public repositories.

I am a DREX candidate who has not been evaluated, I must provide:

- The "DREX Application Without Evaluation" Activity Report (AR), with perspectives
- The "DREX Application Without Assessment" annex since appointment to the current grade without advice from the unit directorate
- Optional: booklet of the main productions that are confidential or absent from HAL-INRAE or other public repositories.

I am a CRCN undergoing N+5 monitoring after my recruitment. I must provide:

- The "Evaluation" Activity Report (AR) for the period
- The "Evaluation" annex for the period with the opinion of the lab director

- Optional: booklet of the main productions that are confidential or absent from HAL-INRAE or other public repositories.

I am a DR2 undergoing N+2 monitoring after my recruitment. I must provide:
- The "Evaluation" Activity Report (AR) for the period
- The "Evaluation" annex for the period with the opinion of the lab director
- Optional: booklet of the main productions that are confidential or absent from HAL-INRAE or other public repositories.

I am requesting a review of my CRCN tenure. I must provide:
- The "Trainee" Activity Report (AR)
- The "Evaluation" appendix with the opinion of the lab director
- Optional: booklet of the main productions that are confidential or absent from HAL-INRAE or other public repositories
- The follow-up/shuttle form will be provided to DEV by the Division, completed and signed.

Light Activity Sheet: for "light" evaluations outside of the application process: the aim is to provide a qualitative overview of all the researchers' activities over the last 2-3 years and to present their perspectives

Evaluation Activity Report: for in-depth evaluations outside of the application procedure, including CRCN N+3, N+5, DR2 N+2: consists of a reflective assessment of the conduct of projects and activities over the last 5 years and a presentation of future prospects.

"CRHC/CRHCEX Application With Evaluation" Activity Report: for in-depth or light evaluations with a CRHC/CRHCEX application: consists of a reflective assessment of the conduct of projects and activities since the recruitment and a presentation of prospects.

"DREX Application with Evaluation Activity" Report: for in-depth or light evaluations with a DREX application: consists of a reflective assessment of the conduct of projects and activities throughout the career and a presentation of prospects.

"CRHC/CRHCEX Application Without Evaluation" Activity Report: for CRHC/CRHCEX applications outside the evaluation period: consists of a reflective assessment of the conduct of projects and activities since the recruitment without the presentation of perspectives.

"DREX application without Evaluation" Activity Report: for DREX applications outside the assessment period: consists of a reflective assessment of the conduct of projects and activities mainly over the period since appointment to the current grade, with a presentation of prospects.

Trainee Activity Report: for those applying for tenureship: consists of a reflective assessment of the first year of work in the unit, with a view to the future.

Evaluation Annex: for light and in-depth appraisals, including N+5 CRCNs, N+2 DR2s and trainees: lists the work carried out in all areas of the activity profile over the appraisal period, with the lab director's opinion and signature, following an interview, a CV and organisation charts.

Annex "CRHC/CRHCEX Application Without Evaluation": for applications outside the assessment period: list of achievements in all dimensions of the activity profile since the recruitment, a CV and organisation charts. Without opinion or signature of the lab director, i.e. interview recommended but not mandatory.

Annex "CRHC/CRHCEX Application With Evaluation": for applications outside the evaluation period: list of achievements in all dimensions of the activity profile since the recruitment, a CV and organisation charts. With the lab director's opinion and signature, which follows an interview and relates solely to the assessment period.

Annex "DREX Application Without Evaluation": for DREX applications outside the assessment period: list of achievements in all aspects of the activity profile since appointment to the current grade, a CV and organisation charts. Without the lab director opinion or signature, .e. interview recommended but not mandatory.

Annex "DREX Application With Evaluation": for in-depth or light evaluations with a DREX application: list of work done in all areas of the activity profile since appointment to the current grade, a CV and organisation charts. With the lab director opinion and signature, which follows an interview and relates solely to the assessment period.

Fascicule of the main productions, confidential or absent from HAL-INRAE or other public repositories: reports, expert reports, teaching content, etc., that you consider important for describing your activities.

Appendix VI – User guide of HAL INRAE

Reminder: the use of HAL INRAE is a help to fill your Annex. Following this export, it is necessary for you to supplement the Annex on the items not present in HAL INRAE, and it is necessary for you to check the outputs proposed by HAL INRAE.

Go to: https://export.hal.inrae.fr/css/

Precautions of use

The list produced by this export is a support to help you to supplement the list of the productions in Annex of your dossier of evaluation or application for the CSS.

The quality of the export depends on the information present in HAL INRAE. It may be incomplete, the publications may not integrated in the right sections, etc. For more information, please see below the paragraph "To know about the functioning and the results of the export". It is your responsibility to check that the data is complete and accurate, and that publications are displayed under the relevant headings, and to rectify any errors if necessary.

Prerequisites

You must have an idHAL to use this export. The idHAL is the unique and perennial identifier of an author on HAL.

I don't have an idHAL, how can I create one?

- Watch the video tutorial to know how to create and manage your idHAL by clicking here.
- Every month, the HAL INRAE team offers training to create and manage your idHAL: https://ist.inrae.fr/produit/hal-inrae-formation/

I do not know if I have an idHAL - I forgot my idHAL?

- Connect on HAL INRAE, in top on the right. At the initials of your name, click on "My profile". Your idHAL will appear in "My identifiers". It is generally in the form "first name-last name". If you don't have an idHAL, the option "Configure my idHAL" is displayed.

Procedure for producing your list of publications

Go to https://export.hal.inrae.fr/css/

1. In the "Your idHAL" box, enter your idHAL (usually in the form "firstname-name").
2. Indicate the time step for the period of your evaluation in the "Start year" and "End year" boxes, in the form YYYY for the year of publication.

   Please note:
   - If you leave the date information blank, all your publications will be exported.
   - If you fill in the start year but not the end year, you will export all publications between the start year and the current year (2023).
   - If you fill in the end year but not the start year, you will export all publications with a date less than or equal to the end year entered.

   You can choose to display all authors in the form "First name(s) first name(s)" by ticking the option.

3. Click on "Search" or press the "Enter" key on your keyboard. Clicking on "Delete" deletes the information entered on the page.
4. Information about the export data is displayed (production type, volume).

   Click on "Download export". Your list of publications is exported in rtf format, which can be used with Word or LibreOffice[41]. The publications are distributed according to the CSS nomenclature based on the metadata entered in HAL INRAE. The export displays the publications linked to your idHAL. The publications which are not linked to your idHAL will not appear. Consult the FAQ for more details.

5. Other services offered
6.
   - Start the search on HAL INRAE. The results of your search are displayed in HAL INRAE.
   - Display the API request (.json format).
   - Display your HAL CV. If you do not have a CV: the system displays in HAL all the publications related to your idHAL.

The information of Open Access (OA)

At the end of each bibliographical reference, the mention OA is displayed if the full text of the publication is in free access on HAL or elsewhere (site of the review, server of preprint, another open archive...). This indication can be clicked on and gives direct access to the document.

Since 2023, dossiers submitted for evaluation or promotion must provide access to an authorised version of the full text of scientific articles. References to scientific articles that do not meet this Open Access criterion are indicated in the export file.

At any time, from HAL INRAE, you can add an authorised version of the full text, then replay the export once the file has been put online by the HAL INRAE moderation teams, who are responsible for checking its compliance with the journals' Open Access policies.

To know about the operation and the results of the export

The export uses HAL data to:
- distribute the publications into the different headings of the CSS nomenclature,
- form the bibliographic reference for each publication and the various elements it contains: author(s), title, date, title of work, title of conference, DOI, etc.

The correct procedure of the export depends on the exhaustiveness and the quality of your data in HAL INRAE. In case of error, you can correct your data in HAL INRAE. Use the link indicated at the end of each bibliographical reference of your export to post the corresponding publication in HAL INRAE. By being connected and identified as author of the publication, you can "Modify metadata" of the record in HAL and so proceed to corrections. If this button does not appear, it is because the system did not identify you as owner of the publication. Use the button "Ask for the property". The owner of the deposit will receive a request to share ownership. Once granted, you will have the right to modify the record.

See also: What does "Request ownership" mean?

The heading "Other productions not referenced or distibuted by HAL".

All your publications present in HAL are present in the export, including sometimes those which are not taken into account by

[41] We do not recommend the use of OpenOffice : when the volume of the data is too big, the list of publication is truncated.

the evaluation. They will be found in the last heading "Other productions not referenced or distributed by HAL". This nomenclature also includes publications which could not be correctly assigned to a heading due to incomplete data in HAL (missing metadata, see above).

Note

You can manually indicate in this section any publication that you wish to mention in your list of productions, even if it is not included in the sections defined by the CSS evaluation.

FAQ and contact

Please feel free to check:

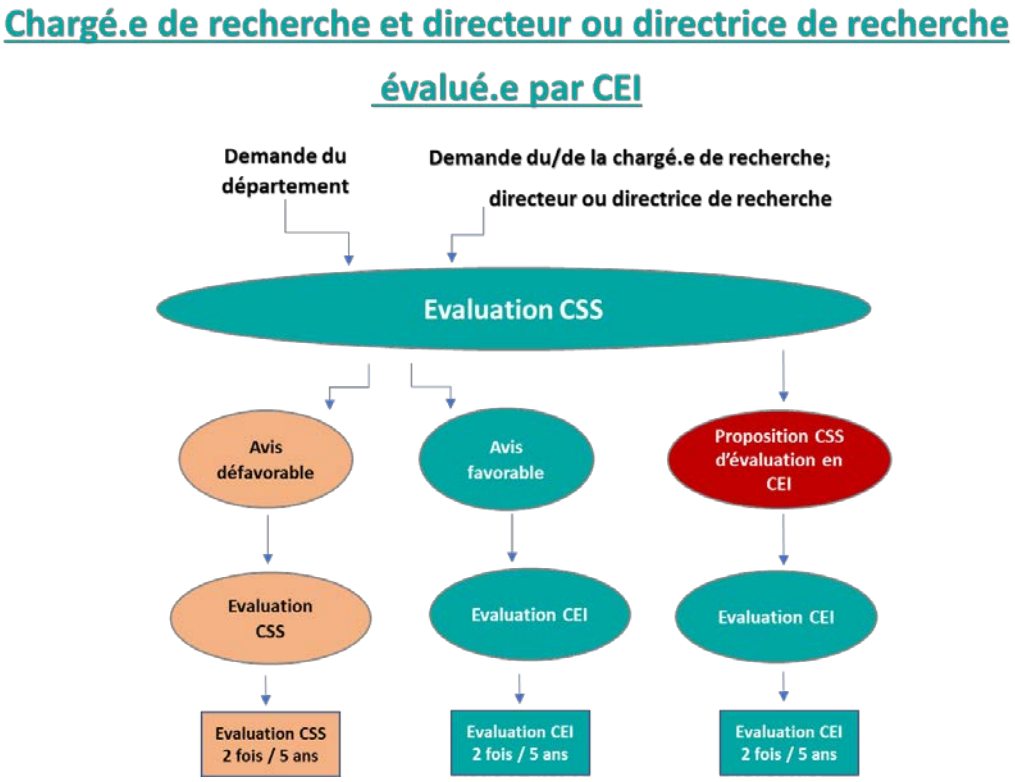
- the FAQ section of the site,
- your local librarian,
- HAL INRAE support: hal@inrae.fr for any questions about publications and CSS export,
- the Evaluation Department css-contact-dev@inrae.fr for any questions about CSS evaluation.

Appendix VII - Evaluation of engineers by the CSS and of researchers by the CEI at INRAE

Research fellows and research directors assessed by the CEI

The evaluation of research fellows (CR) and research directors (DR) is statutory and must be carried out by an ad hoc committee (decree n°84-1207). At INRAE, their evaluation is carried out by specialised scientific committees (CSS). CRs and DRs, whose typical missions correspond more closely to those of engineers, may nevertheless be evaluated by an engineer evaluation committee (CEI), which will formulate an opinion (message) for the researcher and also for the CSS to which they belong.
There are three ways for CRs and DRs to be assessed by a CEI:

- he/she submits a well-supported request in his/her file to the CSS to which he/she belongs: at the end of the evaluation, the CSS gives an opinion on the relevance of a future evaluation by a CEI,
- his or her hierarchy (lab or Division management) sends a substantiated request directly to the DEV: this request is then appended to his or her dossier at the time of his or her next assessment by the CSS; at the end of the assessment, the CSS gives an opinion on the relevance of a future assessment by the CEI,
- at the end of the assessment, the CSS considers that a CEI would be more appropriate for the assessment of the CR/DR and proposes that he/she be assessed by a CEI in the future.



CRs and DRs who receive a favourable opinion will then be assessed every 2-3 years by the CEI, at the same rate as their lab colleagues (twice in 5 years, as provided for in decree no. 84-1207).
In the event of a reserved opinion, DEV will contact the CR-DR to discuss the best strategy to adopt.

The analyses carried out by the CEI are forwarded to the CSSs for their review. However, if a CR or DR wishes to apply for promotion, it is the CSSs that give an opinion on the promotion:

- if the researcher is not in his/her evaluation year, he/she submits an application dossier during the CSS campaign,
- if the researcher is in his/her evaluation year, he/she submits an application dossier during the CSS campaign, which will only judge the application, and he/she submits a CEI evaluation dossier, which will send him/her a message

following his/her evaluation.

Engineers assessed by the CSS

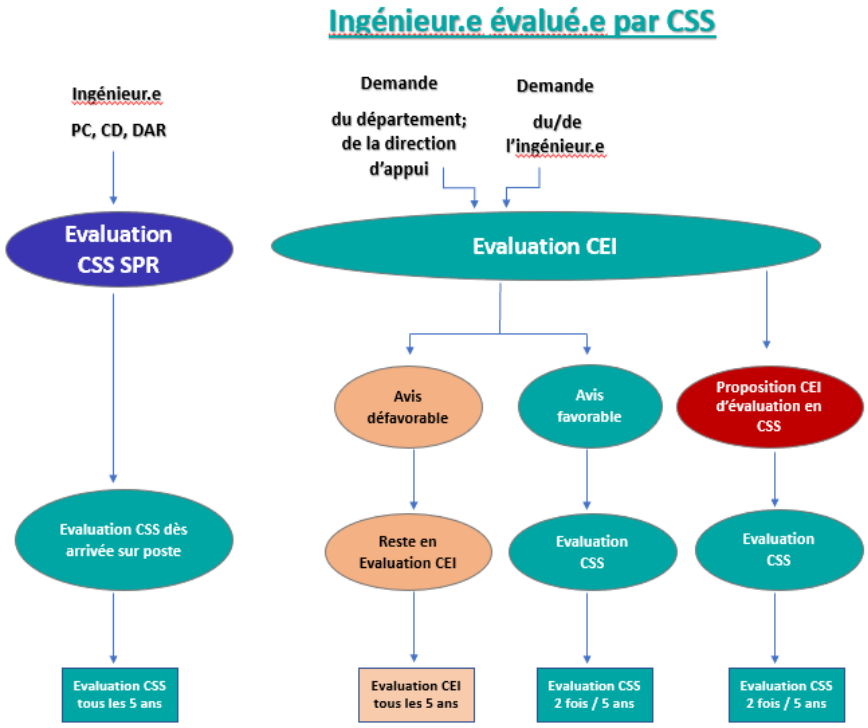
Employees holding the position of Head of Division, Director of Support Directorate (DAR) or Président de Centre (PC): by decision of the INRAE Chief Executive Officer, are assessed by the CSS Soutien et Pilotage de la Recherche (SPR), irrespective of the corps to which they belong. Some may also choose to be assessed by their disciplinary CSS. Finally, they are assessed every five years.

Engineers with typical tasks that are more in line with those of research fellows: engineers with typical tasks that are more in line with those of CRs or DRs may be assessed by a specialised scientific committee (CSS), which will issue an opinion (message) to the engineer.

There are three ways for engineers to be assessed by a CSS:

- he or she submits an application, with supporting arguments, to the CEI to which he or she belongs: at the end of the assessment, the CEI gives an opinion on the relevance of a future assessment by the CSS,
- his or her hierarchy (lab or division management) sends a substantiated request directly to the DEV: this request is then appended to his or her file at the time of his or her next CEI assessment; at the end of the assessment, the CEI gives an opinion on the relevance of a future CSS assessment,
- at the end of the assessment, the CEI judges that a CSS would be more appropriate for the engineer's assessment and proposes that he or she be assessed by a CSS in the future.

Engineers who receive a favourable opinion will then be assessed every 2-3 years by the CSS, at the same rate as their unit's CR or DR colleagues (twice in 5 years).



Appendix VIII - Some information on the new objects of open science

Publications

There are two complementary ways in which scientific publications resulting from research projects can be made freely available (open access):

- the green route, which involves depositing the publication in an open archive. Several institutional archives offer this option, including HAL INRAE. It is preferable to deposit documents in full text: either the "author manuscript accepted" version, or the "final editor" version. This depends on the publishers' policies[42],
- the golden route, which involves publication in an open access journal or platform. There are two options:
  - ❖ without publication costs (APC) for authors: the "diamond" model is recommended because it promotes bibliodiversity,
  - ❖ with publication charges (APC) for authors: these vary widely from one publisher or journal to another.

As far as the "golden route" is concerned, we must beware of "predatory journals" whose editorial and financial operations can be opaque. They often have little regard for integrity or scientific quality[43]. See this document in particular[44]. MDPI is one such predatory publisher. The Think Check Submit website[45], run by major players in scientific communication, offers a quick 3-step questionnaire to assess the type of publisher. INRAE's publishing professionals can also help you make the right choice in a new summary sheet: "Choosing the right publication journal means avoiding dubious publishers" (in French)[46].

You should also avoid subscription-based journals known as "hybrid journals" with a paying option for open access to an article because it is as paying twice.

FAIR data

"Findable data":

- data and metadata are identified by a unique, permanent global identifier,
- the metadata describing the data is as rich as possible and specifies the data identifier,
- data and metadata are recorded and indexed in a searchable format.

Recommendations for implementing this "findable" principle:

- identify data with DOIs (or persistent URLs),
- reference data in the INRAE data portal,
- use metadata standards that are relevant to your community, in an expressive way (possible inferences in searches),
- implement standard query mechanisms (SPARQL, SQL, standard APIs).

"Accessible":

- data and metadata are accessible by their identifier via a standardised communication protocol:
  - ❖ the protocol used is open, free and can be implemented universally,
  - ❖ the protocol used enables authentication and authorisation if required,
- the metadata is accessible even when the data is no longer accessible.

42 https://v2.sherpa.ac.uk/romeo/
43 Refer to : https://beallslist.net/
44 https://www.interacademies.org/sites/default/files/2022-04/6.%20Summary%20report%20-%20French%20%20%281%29.pdf
45 https://thinkchecksubmit.org/
46 https://ist.inrae.fr/produit/bien-choisir-sa-revue-de-publication-cest-eviter-les-editeurs-douteux/

Recommendations for implementing this "Accessible" principle:

- the http protocol, which respects accessibility principles, is recommended by INRAE,
- if you make your data available via APIs, we recommend the use of REST APIs based on the http protocol,
- prefer to deposit your data in certified warehouses (such as datainrae) that offer open access,
- preferably, data and metadata should correspond to the standards of the communities indicated.

"Interoperable":

- data and metadata use a formal, accessible, shared and widely applicable language for knowledge representation,
- data and metadata use vocabularies that respect the FAIR principles,
- data and metadata include links to other (meta)data.

Recommendations for implementing the "Interoperable" principle:

A common implementation of this principle is to use Semantic Web technologies (RDF, OWL, SKOS) to represent and link data and metadata. However, the FAIR principles are not linked to these technologies, and other approaches exist. For example, in the case of tabular data sharing, the implementation of this principle may consist of:

- putting the data in a repository that enables it to be uniquely and permanently identified by a DOI and downloaded by humans and machines,
- using an open, independent format (e.g. CSV rather than Excel), and following best practice for publishing tabulated files[47] (e.g. a single piece of information per cell),
- contextualise the data: indicate links to other data (previous or more recent versions, additional data, etc.), and links to publications (articles citing the data, data papers[48], etc.),
- increase their ability to be combined with other data by using a standard vocabulary for naming the file's columns, and controlled vocabularies.

"Reusability:

Before reusing data, a few checks should be carried out:

- check the quality and context of the data; data can have a different meaning depending on the context.
- carry out additional research,
- conduct a meta-analysis,
- save time by re-using data that has already been collected, for example to broaden the scope of your research.
- make sure that the conditions of use are explicitly specified, in particular through a user licence, and that they are compatible with the use you are planning.

[47] Refer to: https://www.w3.org/TR/2016/NOTE-tabular-data-primer-20160225/

[48] Data paper: an article whose aim is to describe a set of scientific data (data, dataset) using precise information known as metadata. Published in the form of a peer-reviewed article in a traditional scientific journal or in a data journal dedicated exclusively to this type of article.

Appendix IX - RGPD information sheet for the evaluation of INRAE researchers

RGPG stands for "general data protection regulation"

Your personal data is recorded in a computerised file. The data controller is INRAE - 147 rue de l'Université - 75338 Paris Cedex 07 - France ; Tel : + 33 01 42 75 90 00. The data is collected for the purpose of the statutory evaluation of researchers by the specialised scientific committees (CSS). These purposes are implemented by the Evaluation Department.

The processing is necessary to comply with the legal obligations to which INRAE is subject as regards the CSS[49].

The categories of data collected are all the data contained in the researchers' evaluation dossiers, the frames of which are accessible on the website https://intranet.inrae.fr/evaluation. The recipients of your data are, on the one hand, the Evaluation Department and the members of the CSSs, and on the other hand, the head of Division and INRAE's executive manager in the case of a "commentaire" or "point d'attention" made to your dossier by the CSS.

The information and data contained in the activity sheets and reports and annex may be analysed by automatic data and text mining tools in order to carry out statistical processing for the purposes of information, clarification, creation of indicators and decision-making tools for the Chief Executive Officer. The information extracted and analysed is anonymous and aggregated. Analyses of previous dossiers from past years may also be carried out. All analyses are carried out by the Evaluation Department and the tools used are installed directly on the INRAE servers and equipment available to the Evaluation Department. No personal data is likely to be made available to a third party or to be transferred.

This information is kept in the best conditions of security and confidentiality, for the retention periods indicated in the management repository: https://intranet.inrae.fr/archives-inra/Media/Fichier/Referentiels/Referentiel-DEV.

In accordance with the European regulation on the protection of personal data and the French Data Protection Act, you have the right to access, rectify and limit the information that concerns you.

If you wish to exercise this right and/or obtain communication of the information concerning you, please contact: css-contact-dev@inrae.fr.

In the event of difficulties, you may also contact INRAE's Personal Data Protection Officer (DPO). Her contact details are: 24, Chemin de Borde Rouge - Auzeville- CS 52627; 31326 Castanet Tolosan Cedex; France Tel: +33 1 (0)5 61 28 54 37; Email: cil-dpo@inrae.fr

[49] Decree 83-1260 et 84-1207