



CERCA assessment 2021-2024

Terms and conditions

BACKGROUND

Currently comprising 39 research centres according to Resolution EMC/971/2020, of 5 May, recognising research centres in Catalonia as CERCA centres, the CERCA system was first defined by Law 7/2011, of 27 July, on tax and financial measures:

- Article 64.4 of this law provides that, “in order to maintain recognition as a CERCA centre, the centres' activity must undergo an external scientific assessment, with the periodicity determined by the ministry responsible for research. These assessments must be carried out in accordance with international scientific quality standards”.
- Article 64.5 states that “it is the responsibility of the ministry responsible for research to draw up and direct the Research Centres of Catalonia Programme, which aims to define and implement public policies relating to CERCA centres, support the centres and contribute to their international outreach. Any CERCA centre that is already set up and included in the Research Centres of Catalonia Programme when this law takes effect must undergo an external scientific assessment within two years of the entry into force of this law in order to maintain its recognition as a CERCA centre”.

In the Catalan Agreement on the Knowledge Society (PN@SC), approved in 2020, the following agreement was reached: “Establish periodic assessments of the quality of research and transfer activity”.

The CERCA Institute (I-CERCA) began the CERCA Centres Assessment Programme in 2012, in compliance with the above-mentioned Law 7/2011, and all CERCA centres underwent assessment.

This first assessment led to over 500 valuable recommendations for the directors of the CERCA centres. The CERCA assessors belonged to a range of institutions, including the National Institute for Agricultural Research (INRA), the National Institute for Health and Medical Research (INSERM) and the National Centre for Scientific Research (CNRS), in France; the Max Planck Society, Huawei, the Fraunhofer Institute and the German Archaeological Institute (DAI), in Germany; European institutions such as the European Molecular Biology Laboratory (EMBL), the European Organization for Nuclear Research (CERN), the European Space Agency (ESA) and Fusion for Energy (F4E); Tel Aviv University; Telecom Italia; the ALBA Synchrotron; the Spanish National Cancer Research Center (CNIO); Tecnalia; the Swiss Federal Institute of Technology in Lausanne (EPFL); the Roslin Institute; Imperial College London; the University of Oxford; New York's Memorial Sloan Kettering Cancer Center; the Bill & Melinda Gates Foundation; the Massachusetts Institute of Technology (MIT); Harvard University; Stanford University; Princeton University, and the University of California.

The second round of CERCA assessments began between 2015 and 2016 and ended in 2019. The methodology for round two incorporated a final assessment mark for each centre. The number of centres receiving each mark is provided below:

Results of the 2016-2019 assessment:

A	A-	B+	B	B-	C+
17	5	7	5	3	3

A total of 228 assessors were involved, of which 156 (68%) were from abroad. The increase in quality of the assessors in this second round of assessment was unmistakable. Furthermore, 69 researchers took part as assessors, accounting for 30% of the total. The primary institutions of origin (with at least three assessors) were:

Max Planck Society	10
University of Cambridge	7
University of Oxford	7
Spanish National Research Council (CSIC)	6
University of California	4
Harvard University	4
Imperial College London	4
Massachusetts Institute of Technology (MIT)	4
Madrid Institute for Advanced Studies (IMDEA)	3
Catholic University of Leuven	3
Irish Agriculture and Food Development Authority (Teagasc)	3
University College London (UCL)	3
Flanders Institute for Biotechnology (VIB)	3

The CERCA assessments have given rise to two economic benefits. The first was a one-time economic incentive, paid in either 2019 or 2020, for all the centres that had earned an A or A-. In 2019, this was carried out through AGAUR's IN_CERCA call. Meanwhile, the 2020 payments are still pending. Centres obtaining a B or C did not receive any incentive. The sum of these incentives is 4,715,000 euros, which were allocated from the budget of the Directorate General for Research (DGR).

These centres were awarded different amounts depending on the number of research groups at the centre, as specified in the self-assessment report (given that excellence had already been assessed previously). The amounts awarded by the CERCA Institute to each centre were as follows:

A-	€100,000	
A	€150,000	Fewer than 10 research groups
A	€200,000	Between 10 and 20 research groups
A	€345,000	More than 20 research groups

The second economic benefit was reserved exclusively for centres affiliated with the Ministry of Business and Knowledge that received an A mark. It involved an increase in the base amount received by these centres, according to different distribution parameters. This measure will take effect in 2020, with a total amount of two million euros to be distributed by the DGR with the intention of consolidating these amounts in future budgetary years.

Three centres were given a C+ mark and, accordingly, must follow the recommendations made in the assessment. If in the upcoming assessment (2020-2023) they earn a C mark again, they are expected to lose their status as a CERCA centre. This would be stated in a new resolution handed down by the minister responsible for research.

INSTITUTIONAL ASSESSMENT IN EUROPE

1. **Qualitative Assessment of Scientific Research in the Netherlands.** Assesses the scientific quality, social relevance and viability of research activity carried out by universities and research centres.
2. **Évaluer la recherche au Conseil National de la Recherche Scientifique (CNRS).** Maps out research for the next decade taking into account major social challenges.
3. **Evaluationsverfahren in der Max-Planck-Gesellschaft.** Assures the quality of research and accountability.
4. **Centros de Excelencia “Severo Ochoa” y “Unidades María de Maeztu”.** Funds and accredits public research centres and units in any scientific area that show scientific impact and leadership on an international scale and that actively collaborate with their social and business environment.
5. **Research Excellence Framework (REF) (2014 and 2021).** System for assessing research quality in academic institutions in the United Kingdom.

CERCA ASSESSMENT AIM

Each CERCA centre has a defined mission and vision. These are laid out in its statutes and govern its general scientific activity. **At an institutional level, CERCA assessment's primary aim is to measure how well the centres' have achieved their mission objectives and, if necessary, update them.**

METHODOLOGY

The institutional assessment process for CERCA centres must be dynamic and capable of adapting to the context of the individual research centres, bearing in mind that this may change. Institutional assessments follow the timeline laid out in the strategic plans, which typically span four years.

The vehicular language used for the assessments is English.

- **Timeline**

Approximately 10 centres are expected to undergo assessment every year from 2021 to 2024 and in four-yearly periods thereafter, so that assessment can be carried out on all 39 centres that currently comprise the CERCA system.

Each individual centre assessment has an indicative timeline lasting about three months, as detailed below:

1. Month 1

- a) Search for assessors for the assessment committee.
- b) Draft (CERCA centre) and submit the assessment document to the assessors (I-CERCA), explaining the criteria used for the assessments and the outcomes thereof.
- c) Submit a report on the state of science and technology in Catalonia to the assessors.
- d) Submit the previous CERCA assessment carried out at the CERCA centre within the overall framework of CERCA assessments (percentages of A, B, C and D marks received in the previous assessment period).

2. Month 2

- e) Prepare the logistics of the on-site visit.
- f) Meet with the assessors.
- g) Perform the on-site visit so that the assessment committee can carry out its assessment of the centre.
- h) Write up a draft of the assessment report.

3. Months 3 and 4

- i) Complete the assessment report, reflecting maximum consensus within the assessment committee.
- j) Open the appeals period (seven days).
- k) Distribute the final report to the members of the highest governing body of the CERCA centre.

- **Self-assessment report**

The centres under assessment must fill in a self-assessment report and attached it as an appendix.

This is a short document, in English, in which the CERCA centre describes the most outstanding aspects of its research, management, innovation and dissemination.

For the 2021-2024 assessment period, the centres will also be required to attach, as appendices alongside the self-assessment report, the reports issued by the scientific advisory board (SAB) for the previous four years, as well as any other assessments carried out by other third-party institutions (e.g., SeO (Severo Ochoa) or ISCIII).

In order for the assessors to determine whether the centres have achieved their mission, the latter will have to answer several questions on the following matters in the self-assessment report:

1. Follow-through on any previous recommendations.
2. Scientific activity and output.
3. International benchmarking (including, where applicable, Horizon Dashboard data, implementation figures, Horizon 2020 proposals, FP7 and H2020 funded projects).
4. Management and infrastructures.
5. Human resources.
6. Knowledge transfer.
7. Outreach.

Adhering to the principles of the San Francisco Declaration on Research Assessment <https://sfdora.org/read/> (DORA), I-CERCA will request that CERCA centres not include *ad hoc* bibliometric analyses in their self-assessment reports. Instead, they will be asked to attach their top 10 full-text publications from the last four years as an appendix.

- **Assessment criteria**

The main CERCA assessment criteria are the rigour and international relevance of the centre's actions, in a non-geographical sense, as established in REF 2014:

'World-leading', 'internationally' and 'nationally' in this context refer to quality standards. They do not refer to the nature or geographical scope of particular subjects, nor to the locus of research nor its place of dissemination. For example, research which is focused within one part of the UK might be of 'world-leading' standard. Equally, work with an international focus might not be of 'world-leading, internationally excellent or internationally recognised' standard.

In this regard, especially significant contributions include obtaining European Research Council (ERC) grants, coordinating European projects, actively participating in or chairing SABs of prestigious institutions, having researchers who are members of ERC assessment panels or those of comparable institutions, transferring knowledge and managing high-level IP, and receiving international recognition based on scientific merit.

- **Assessment committee**

The assessment committee acts collectively and by consensus, whenever possible, or by majority vote, when not. Its members have the responsibility to read all the submitted documentation, receive instructions from the members of the centre's governing body with respect to the assessment, interact with the centre's directors and staff during the on-site visit, discuss the different assessable aspects and issue recommendations to be fulfilled in the next period.

The awarding of the centre's final mark falls to the assessment committee chair, after having heard all the committee members at the end of the on-site visit. The chair must resolve any disagreement or contingency that may exist within the assessment committee.

The rapporteur is responsible for summarising the committee's discussions into an assessment report, under the supervision of the chair.

The committee must comprise, **at least**, the following members:

1. Up to two scientific assessors (one of them appointed chair).

2. Up to two members of the CERCA centre's scientific advisory board or its equivalent (chosen, if applicable, by the SAB chair).
3. Up to one KTT assessor.
4. Up to one assessor who is an expert in research centre management and administration.
5. One non-voting rapporteur, who must be the director of the CERCA Institute or a proxy acting on their behalf.

The two scientific assessors must be researchers who are well versed in the research areas of the CERCA centre under assessment. They may be chosen from among the institutions of origin against which the international benchmarking is performed in the self-assessment report, among others, provided that this is deemed not to jeopardise the centre's assessment.

Care must be taken to ensure the maximum gender balance in the assessment committee, in accordance with what is considered representative in the scientific discipline of the CERCA centre.

The members of the assessment committee must be appointed and remunerated by I-CERCA, taking the remuneration provided by the European Commission to its assessors as a point of reference.

All assessment committee members must agree in advance to respect the confidentiality of the data and discussions to which they have access throughout the assessment process. They also undertake to prevent any conflict of interest with respect to the centres under assessment or the management of the CERCA centre.

The identity of the assessment committee members may not be revealed until the day of the on-site visit. The list of assessment committee members must appear in the final assessment report for each CERCA centre.

- **On-site visit**

The on-site visit by the assessors (assessment committee) has two distinct parts:

1. Meeting with the assessors

Meeting at which the members of the CERCA centre's governing body have the opportunity to interact with the group of assessors, so that the latter may gain greater insight into the context and environment in which the centre works. This also allows the assessors to get to know each other before the next day's visit.

2. Visit to the CERCA centre

The visit to the centre follows a work schedule with primarily the following structure:

- a. Introductions.
- b. Welcome address to the assessors by the director of I-CERCA.
- c. Presentation by the director of the CERCA centre (approximately two hours).
- d. Question and answer session between the assessment committee and the director (approximately two hours).
- e. Short working lunch.
- f. Interviews with researchers or staff members, or a tour of the centre.
- g. Closed assessment committee work session.
- h. Informal presentation of the assessment results to the CERCA director.

The assessment committee should discuss the report and round it out with interviews with researchers from the centre, as appropriate. The assessment committee members also have access to previous assessment reports pertaining to other research centres, which they can use as a guide to better understand what is expected of them. Once the assessment committee has discussed its assessment and reached a conclusion, it can call a report session, inviting the members of the Board of Trustees or similar governing body of the CERCA centre to inform them of the result.

The CERCA Institute will allocate funds from its budget to cover the cost of the assessments. For informational purposes, the cost of an assessment may be up to €10,000. The cost of having SAB members participate on the assessment committee must be borne by the CERCA centre under assessment.

- **The assessment report**

When the assessment committee has finished drafting the assessment report, it must send it to the director of the centre under assessment, who then has a maximum seven-day appeal period to point out any errors or inaccuracies that need to be rectified.

After this time, the report must be updated to reflect any new changes, following consultation with the chair. When this is done, the report is considered complete.

The final report must be sent to all the members of the highest governing body of the CERCA centre and to the director of the centre.

FINAL ASSESSMENT MARK

- (A) Outstanding performance, placing the centre among the world's most influential and top performing institutions in its particular field in terms of originality, rigour and significance.
- (B) Excellent performance, whereby results are produced that nearly meet the highest international standards in terms of originality, rigour and significance.
- (C) Very good performance, meaning that it is beginning to garner international recognition, although focus on some strategic issues is required to achieve greater originality, rigour and significance.
- (D) Clear need for improvement. The centre should update its focus or make changes, as its current structure and/or performance does not provide guarantees for the Board of Trustees.

Every letter mark can be adjusted up or down slightly with a plus (+) or minus (-) at the discretion of the chair. The marking scale is more precise this way, thus reflecting the reality of the centre under assessment with greater accuracy.

Annex - Evaluation Questionnaire for CERCA Institutes

Evaluation Questionnaire for CERCA institutes

The time-window for evaluation comprises the centre's performance since the last CERCA evaluation was undertaken till the new date of evaluation (aprox. 4 years). The main aim of the CERCA evaluation is to measure the progress of each Centre against its Mission.

1. Mission

Description of the current Mission according to the historical documents of the Centre.

Please, list the recommendations of the last CERCA evaluation Report and indicate the level of implementation for each of them (if not implemented, justify why)

	Text	Implementation status	Comments
Recommendation 1			
Recommendation 2			
(...)			
Recommendation n			

General concept

- Explain briefly the relevance and originality of the main work focus, presenting the main goals and programmes. Indicate any possible change of focus in recent times.
- SWOT Analysis. Summary of strengths and weaknesses of the institution.
- Show a comparison at International level with the three main research institutions showing the relative position of the CERCA institute among the others in terms of scientific production, research funding and dimension. Include a brief description of the institution, number of researchers (senior/postdocs/predocs), number of admin staff, number of publications in peer reviewed journals, budget (approx.).
- In case of institutions belonging to EU countries provide the comparison of H2020 and/or Horizon Europe funding from the source:
<https://webgate.ec.europa.eu/dashboard/sense/app/93297a69-09fd-4ef5-889f-b83c4e21d33e/sheet/erUXRa/state/analysis>

- Describe the actions with a leading role/ collaboration in International projects or networks of “Big Science”.
- Attractiveness, especially for scientists from abroad. How is the centre actively implementing the recruitment of excellent senior and junior researchers? Which is the selection process? Give details on the main features of the OTM-Recruitment according to **HRS4R** plan of action, if awarded. Summarize the last HRS4R assessment report obtained.
- List the origin institutions of the postdoctoral researchers of the centre in the last four years.
- List the EU MSCA projects awarded in the last four years. *This information will be provided by UNEIX.*
- List the ERC grantees (Syn, StG, CoG and AdG), ICREA researchers, and other equivalent outstanding research positions currently working at the Centre. *This information will be provided by UNEIX.*

Results

Scientific Production and Productivity

The scientific information about publications will be obtained exclusively from the source: *Portal de la Recerca de Catalunya-PRC* (<https://portalrecerca.csuc.cat/>) since the year 2021. All CERCA centres must provide accurate bibliographic data to the PRC.

According to the principles of the San Francisco Declaration on Research Assessment (DORA) <https://sfdora.org/read/> no other ad-hoc bibliometric analysis must be provided or included in this questionnaire since it won't be used for the assessment.

Inform about the average number of publications per researcher and per year since last evaluation. [We understand as “researcher” those people signing articles with the Centre's institutional address].

Fill the following table with the publications of the institute in the last 4 years:

Total number of publications	Time period			
	Year 1	Year 2	Year 3	Year 4
Monographs (authorship)				
Individual contributions to collected editions and serials				
Articles in peer reviewed journals ¹				
Articles in other journals				

¹) Journals which use a review system that complies with the standards applicable in the given subject area.

Please, provide details about the **Open access** publications repository or repositories used by the institution

Provide the following information, for the 10 most relevant publications (articles or books). Alternatively in case of big and diverse research centres, provide it for a maximum of the 5% of the most significant publications in the last 4 years. For both cases, articles must show **a strong participation or leadership (corresponding author) from the CERCA centre authors.**

- Whole bibliographic reference (title, authors, journal or book title, year of publication, institutions of the authors.) [In boldface the authors belonging to the Institute]
- Short summary.
- DOI or equivalent
- Link to full text article

Services

List the scientific services and consultation services provided by the institution (only in case they are relevant for the centre activity). What's the ratio of institutional cost/benefit for the scientific platforms?

How is the quality of the service assured?

Does any agreement of sharing scientific platforms exist? If yes, please describe it.

Projects

Write a short list of the 5 most scientifically relevant **competitive projects awarded, since the last evaluation took place**, and not necessarily finished yet. (*Alternatively, write a short list up to 5% of the most relevant projects in the last four years, for big and diverse CERCA centres*). The **PI or coPI must be a member of the institute**. The information about the project should include the title, the name of the project coordinator, the funding institution and call identifier, the identification of the other partners, and a ½ page summary of the contents and implementation calendar.

Note that all projects informed must be included in the UNEIX database since 2021.

Also include the following data: Name of the coordinator at the Institute, Total budget of the project: total funded and CERCA Institute total budget for the project.

Knowledge and technology Transfer

Indicate the income obtained globally at the institute by knowledge and technology transfer. *This information will be provided by UNEIX*

Write a short list of the 5 actions (or 5% of the most relevant KTT actions) of knowledge and technology transfer since the last evaluation, which have reached a highest impact (contracts with companies, know-how agreements, spin-off companies' creation, participation in technology based companies, public-private partnership units in the research institute...).

The information about each action should include the title, the coordinator, the funding institution, the identification of the other partners, and a ½ page summary of description (equity, money invested, technology evaluations, technology or license agreements, evolution of the company growth, related patents, IP protection) and calendar, including a description of the expected impact.

Describe the **centre's policy for spin-off companies**, including a policy for equity ownership by researchers and the centre or alternatively licensing arrangements between the spin off companies and the centre with a royalty compensation scheme. Describe too the **policy for intellectual property** developed by researchers, including ownership of a significant part of the property of each patent, and technology transfer policies defining guidelines for licensing of such IP. **Please, include both policies in annexed documents in English if possible.**

Describe the actions implemented for internal technology scouting and **valorisation**.

Show briefly the main three achievements or items in the **institutional technology portfolio**.

Intellectual Property Protection

Please fill the following table with patents, software protection, plant variety rights,...)

All patents must be included in the UNEIX database

	IP protection		Licences ¹		Income ²		Expenditure ³	
	Spain	Abroad	Spain	Abroad	Spain	Abroad	Spain	Abroad
Protection rights granted since last evaluation ⁴								
Applications since last evaluation								

¹) Number of agreements

²) From protection rights, total to be given in € 1,000

³) Total process costs incurred (no R&D costs)

⁴) Total number of all patents etc. at the institution

Please, in case of patents fill the following table (in case of other type of protection rights provide similar information): *This information will be provided by UNEIX*

Title	
Authors	
WIPO Pat. App	
US Pub. No.	
Filing Date	
PCT No.	

Pub. Date	
Assignee(s)	

If it doesn't proceed, leave some of the fields empty.

Prizes and positions of importance

List memberships in Scientific Advisory Boards of R&D institutions, membership of relevant evaluation panels such as ERC, membership of the Royal Society, membership of IEEE, international prizes, NAS award or other equivalent recognition.

2. Future challenges and goals

Summarize the main strategic challenges for the institution in the next 4 years (maximum length 1 page)

3. Management

	Total no. of full-time equivalents	Total no. of persons	Women	
			Number	%
Total				
1. Academic staff¹				
Group leader senior				
Group leader junior				
Staff Scientists				
Postdoctoral				
Predocctoral				
Others				
2. Non-academic staff				
- Administration				
- Core scientific platforms				
- Laboratory support				
- IT staff				
Others				
TOTAL				

¹Personal assigned to the Institute, but not always necessarily paid by the Institute. Include adscriptions from Universities, Hospitals, CSIC, etc.

Please, provide the names of the **groups** and **group leaders** of the institution. *This information will be provided by UNEIX*

Justify the ratio between academic R&D and the rest of personnel

Ratio of foreign personnel in the centre. *This information will be provided by UNEIX*

How does the institute measure the quality of management?

What's the ratio between external economic resources and the ones provided by the trustees?
This information will be provided by UNEIX

Provide the main figures. [For the external economic competitive resources distinguish between national, European and international (outside Europe)] - Give the ordinary budget settlement of the last previous year. Detail in kind incomes in case may exist (from universities, CSIC, hospitals, ICREA,...). *This information will be provided by UNEIX*

Please, indicate the main actions of **philanthropy** received by the Centre and explain them briefly.
This information will be provided by UNEIX

Has the Centre capacity to build and endowment? Is this currently being done?

Is there an internal policy of long life learning/training for the institute's personnel?

Is there an incentive in kind or in salary complement for the R&D staff

Indicate in detail the level of fulfilment of **UNEIX** data requirements since 2019

Indicate how is the centre involved and implementing the **CERCA Strategy of Data Management**

4. Others

Describe how the centre manages the ethical and integrity issues in the projects, publications and actions.

Cooperation with neighbouring universities and others. Explain main contracts, joint appointments of professors, agreements for joint research units (JRU), etc.

List the main 5 actions of scientific dissemination/outreach since last evaluation, and describe them very briefly.

List and describe press-shots in international mass media in the last four years. Please, indicate how in the Communication actions and Press releases the Centre is fulfilling the specific requirements of the CERCA Code of Conduct, identifying the institution as a CERCA centre.

Please, highlight the 3 most representative actions implemented regarding gender balance achievement.

5. Self-assessment

Please, indicate in your opinion which is the final level of performance for the Centre/Institute according to the following classification:

(A) Outstanding performance, placing the centre among the few top influential and international performing institutions on its particular field by originality, rigor and significance.

(B) Excellent, with results that are closed to the highest standards at international level by originality, rigor and significance.

(C) Very good performance, beginning to be recognised at international level, although focus on some strategic issues is required to reach higher originality, rigor and significance.

(D) Clear need for Improvement. The centre should be re-oriented or transformed since the current structure and/or performance does not provide guarantees for the board of trustees

Please, provide an annex with all the institutional evaluation reports about the CERCA centre. This may include SAB, SeO, HRS4R, ISCIII, among others.

I hereby declare that all the information above is true.

Director signature and date



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Trustees:

