



Research Assessment
Committee

CRITERIA FOR THE ISSUE OF ADVANCED RESEARCH ACCREDITATIONS

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Criteria approved by the Research Assessment Committee on 2 December 2021

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TABLE OF CONTENTS

General Criteria	4
Field of Humanities.....	5
Field of Social Sciences	10
Field of Sciences	14
Field of Life Sciences.....	17
Field of Medical and Health Sciences	20
Field of Engineering and Architecture.....	23

GENERAL CRITERIA

Preface

AQU Catalunya is a signatory of the San Francisco Declaration on Research Assessment (DORA) and is aware of the recommendations proposed in the Leiden Manifesto and supports it.

The task entrusted to the CAR, which it undertakes by means of specific committees made up of specialists in the respective fields, is to accredit whether the applicants satisfy a minimum threshold of quality and experience. The task entrusted to the CAR, which it undertakes by means of specific committees made up of experts in the respective fields, is to accredit whether the applicants satisfy a minimum threshold of quality and experience in research activities that, among other functions, allows them to take part in calls for applications at universities in the Catalan university system. In no case do the accreditations serve to assess the scientific activity itself, as a peer review, nor are they determining factors for obtaining an academic or research post in university selection processes, nor are they to establish rankings or listings of people or to award scholarships or research grants; all these tasks are the responsibility of the universities themselves or of other institutions, by means of the mechanisms they establish within the current legal framework.

research activities that, among other functions, allows them to take part in calls for applications at universities in the Catalan university system. In no case do the accreditations serve to assess the scientific activity itself, or the possible suitability for a post in a university, nor are they to establish rankings or listings of people or to award scholarships or research grants; all these tasks are the responsibility of the universities themselves or of other institutions, by means of the mechanisms they establish within the current legal framework.

Thus, the following criteria are aimed at establishing whether the research activity of the applicants reaches the necessary threshold to receive the corresponding accreditation. Given this nature of accreditation, specific commissions establish quantitative indicators and are guided in part by proxy indicators. However, direct indications of quality, such as citations received by publications or other indications of proven quality, will also be taken into account. As a general criterion, the CAR has considered for years that the quality contrasted and demonstrated by objective and accepted means within each field of knowledge prevails over the quantity of publications. With this objective, it is important that applicants highlight indicators of the direct objective quality of their contributions.

FIELD OF HUMANITIES

As a general criterion, the purpose of accreditation is to certify the achievement of a certain level of excellence in research within the applicant's field of specialisation. For the issue of advanced research accreditation, the Specific Committee for the Accreditation of Advanced Research in the Field of Humanities will assess all the research activity that applicants have carried out to date; the activities they have undertaken with respect to research training, development, management and administration; and any other general merits.

Consideration will be given to the time frame in which applicants have carried out their scientific activity and, especially, to their career in recent years. Candidates will be judged primarily on whether they have performed outstanding scientific activity with an international outlook over the past 10 years. The basic assessment areas and the criteria for each one are as follows:

Scientific career

Applicants must demonstrate a consolidated teaching and research career, in accordance with Article 46 of Law 1/2003, of 19 February, on universities in Catalonia. With respect to their research career, applicants must demonstrate a minimum of three years' postdoctoral research activity in order to be accredited.

Publications and transfer of research results

Value will be placed equally and jointly on publications and the transfer of research results. Moreover, the originality and thematic variety and impact or international projection of the research carried out by the applicants are determining factors.

In books and book chapters

Only books of an original nature (of which the applicant is the author or co-author) published by specialised publishers will be considered.

The assessment of books and book chapters is broken down into three levels:

Level A:	International or national publisher of the highest quality, holding first-rate positions in the repositories of academic publishers in its discipline, such as Scholarly Publishers Indicators (SPI).
Level B:	International or national publisher of great quality, holding outstanding positions in the repositories of academic publishers in its discipline, such as Scholarly Publishers Indicators (SPI).
Level C:	International or national publisher of notable quality, based on objective evidence of quality within its field.

Criteria for the issue of advanced research accreditations

The Humanities Specific Committee will take into account the opinion of specialists and the quality assessment, which is based on a number of quality indicators, including number of citations, the applicant's particular contribution, reviews, inclusion in specialised bibliographies, impact and originality.

When an applicant is the editor of a collective book, the assessment will focus on their scientific contribution, the quality of the publication overall and the recognition of the publisher.

In the case of exhibition catalogues, texts will be taken into account provided that they are the result of specific research or represent an objective advancement in knowledge. In contrast, exhibition curatorship by itself is considered a transfer merit.

In journals

With respect to articles, primary value will be placed on publications in journals having undergone a peer-review process and appearing in citation indexes, such as those of Scopus or Clarivate Analytics (particularly the Social Sciences Citation Index and the Arts & Humanities Citation Index), or in other specialised bibliographic databases of international standing. In order to specify the effective repercussion of the research carried out by the applicant, consideration will be given whenever possible to the position of the journal in journal assessment repositories (which present rankings by impact index or by other assessment criteria) and to the number of citations received by each article. Assessment will also be made of the degree of creativity, thematic diversity and innovation of the applicant's research.

The Specific Committee dealing with Humanities classifies article contributions into three levels of quality – A, B, C – which indicatively correspond to certain quartiles¹ of the journals in which the articles have been published, defined by international reference citation databases.

Level A:	A journal of international or national scope, of the highest level of quality within its discipline, which simultaneously fulfils the following conditions: 1) the contributions undergo a rigorous peer review process and 2) are present in at least two directories and databases such as: Web of Science (AHCI or JCR [Q1 or Q2], SCOPUS (Q1), CARHUS A, CIRCO A, or the classification of journals with the FECYT quality seal (Q1).
Level B:	International or national journal which simultaneously fulfils the following conditions: 1) the contributions undergo a rigorous peer review process and

¹ When journals have a Journal Impact Factor (JIF), or other similar scientific impact indexing systems, the impact value of the year of publication of the article will prevail and, for articles published in the same year, the impact value closest to the closing date of the call to which the application has been submitted will prevail.

Criteria for the issue of advanced research accreditations

	2) they are present in at least two directories and databases such as: Web of Science (AHCI or JCR [Q3 or Q4], SCOPUS (Q2 or Q3), CARHUS B, CIRC B, or the classification of journals with the FECYT quality seal (Q2).
Level C:	Journal of notable quality within its field, with a rigorous assessment system.

The Specific Committee dealing with Humanities will take into account the opinion of specialists and the quality assessment, which is based on a number of quality indicators, including number of citations, the applicant's contribution (in case of co-authorship), impact, originality, thematic diversity, rigour of the review process and the variety of journals in which published. The Committee has prescribed that the assessment of an article will take precedence over that of the journal in which it is published when determining the corresponding level of quality (A, B or C).

Applicants must have at least twenty contributions in the categories described, of which at least ten must be of level A or B; of these ten contributions, four must be published in international journals or by international publishers. At least five contributions must have been published within the last 10 years.²

Deficiencies relating to quantity may be compensated by merits of very high or exceptional quality in the form of publications in which the applicant is the principal and corresponding author. The quality must be duly justified and proven by indicators and verified repercussion evidence provided by the applicant.³

As a general rule, publications in journals or publishing houses whose processes of acceptance and review of originals are deficient in the justified opinion of the experts of the corresponding specific committee, regardless of the position of the journal or publishing house in the bibliometric rankings, are not considered to be quality contributions. In this respect, papers published in journals which have practices that compromise their quality (such as editorial deadlines that are too short to guarantee the quality of the review and an unjustifiably high volume of articles or self-citations) will be treated as non-indexed publications, unless they are accompanied by sufficient evidence of quality.

As regards the transfer of research results, activities that can be formally documented will be valued. In the case of technological applications, it will be assessed whether current use can be demonstrated by the applicant, or whether the applicant is sufficiently advanced in

² These are not required absolute minimums but rather a general point of reference in the field of Humanities which will be compared in each case with the average quality of the applicants' publications and the average productivity in the respective area.

³ The term *repercussion evidence* is considered more precise than the term *impact*, as it allows other aspects to be considered apart from the journals' impact factor (e.g. citations, reviews, and the influence index of journals or authors).

Criteria for the issue of advanced research accreditations

the procedure for international rights protection, so that the Committee can assess the real interest of the application.

Research projects

Consideration will be given solely to research projects funded within the frame of competitive grant programmes run by public administrations (international, European, state or autonomous regional) or by actors in the private sector (foundations, companies, etc.), assessing their results and their impact in the respective field. Particular value will be placed on the number and importance of the projects in which the applicant has participated, depending on the area of specialisation.

In order to obtain accreditation for advanced research, the applicant must have been principal investigator (PI) on a state and/or international competitive research project. Value will also be placed on the degree of leadership and the initiative shown in generating new projects.

Training activity

Applicants' ability to form a research group or nucleus and whether they are supervising or have supervised doctoral theses will be assessed. Value will be placed on applicants' involvement in the teaching and/or coordination of postgraduate and Master's courses.

In order to obtain accreditation for advanced research, the applicant must have supervised at least one doctoral thesis; only in exceptional and highly justified cases may this condition be compensated by other merits.

Other merits

The Committee will assess all other merits submitted by the applicant, such as research prizes or awards, recognised stages of research, guest talks at conferences and presentations at congresses, research stays, positions of scientific responsibility (editorial committees, international and national scientific committees, organisation/chairing of congresses, etc.), reports issued by academics of acknowledged standing, institutional activity in research promotion and management, etc. With regards to research stays, special value will be placed on scientific productivity. Special value will also be placed on merits that underline the applicant's international outreach. Having three or more recognised stages of research at the time of applying will be considered outstanding evidence.

Weighting of each area

The weighting of each area in the final score will be as follows:

Publications and transfer of research results	65%
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Criteria for the issue of advanced research accreditations

Projects	15%
Training activity	15%
Other merits	5%

Each area of assessment will be rated out of 10 points. In order to obtain a favourable report, a score of 5 or above is required for “Publications and transfer of research results” as well as for either one of the remaining main areas of assessment, i.e. “Projects” and “Training activity”.

FIELD OF SOCIAL SCIENCES

As a general criterion, the purpose of accreditation is to certify the achievement of a certain level of excellence in research within the applicant's field of specialisation. For the issue of advanced research accreditation, the Specific Committee for the Accreditation of Advanced Research in the Field of Social Sciences will assess all the research activity that applicants have carried out to date; the activities they have undertaken with respect to research training, development, management and administration; and any other general merits. Consideration will be given to the time frame in which applicants have carried out their scientific activity and, especially, to their career in recent years. The basic assessment areas and the criteria for each one are as follows:

Scientific career

Applicants must demonstrate a consolidated teaching and research career, in accordance with Article 46 of Law 1/2003, of 19 February, on universities in Catalonia. With respect to their research career, applicants must demonstrate a minimum of three years' postdoctoral research activity in order to be accredited.

Publications and transfer of research results

Value will be placed equally and jointly on publications and the transfer of research results.

In journals

With respect to articles, primary value will be placed on publications in journals having undergone a peer-review process and appearing in citation indexes, such as those of Scopus or Clarivate Analytics (particularly the Social Sciences Citation Index and the Arts & Humanities Citation Index), or in other specialised bibliographic databases of international standing. In order to specify the effective repercussion of the research carried out by the applicant, consideration will be given whenever possible to the position of the journal in journal assessment repositories (which present rankings by impact index or by other assessment criteria) and to the number of citations received by each article. Assessment will also be made of the degree of creativity, thematic diversity and innovation of the applicant's research.

The Specific Committee dealing with Social Sciences classifies article contributions into three levels of quality – A, B, C – which indicatively correspond to certain quartiles⁴ of the journals

⁴ When journals have a Journal Impact Factor (JIF), or other similar scientific impact indexing systems, the impact value of the year of publication of the article will prevail and, for articles published in the same year, the impact value closest to the closing date of the call to which the application has been submitted will prevail. For the field of Law, use is made of the latest edition of CARHUS Plus+.

Criteria for the issue of advanced research accreditations

in which the articles have been published, defined by international reference citation databases.

Level A:	For all fields of knowledge: JCR Q1, JCR Q2; Scopus Q1 (SJR) For the field of Law: CARHUS Plus+ A
Level B:	For all fields of knowledge: JCR Q3; Scopus Q2 (SJR) For the field of Law: CARHUS Plus+ B
Level C:	For all fields of knowledge: JCR Q4; Scopus Q3 (SJR) For the field of Law: CARHUS Plus+ C

The Commission reserves the right to adjust the quality levels of the scientific articles to which the applicant has contributed, taking into consideration aspects that go beyond the journal's quartile placement, such as the number of citations (e.g. Google Scholar), the number of authors and the order in which they sign, as well as the journals' appearance in other reference indexes, repositories or specialised lists⁵. The Specific Committee dealing with Social Sciences has prescribed that the assessment of an article will take precedence over that of the journal in which it is published when determining the corresponding level of quality (A, B or C).

As a general rule, publications in journals or publishing houses whose processes of acceptance and review of originals are deficient in the justified opinion of the experts of the corresponding specific committee, regardless of the position of the journal or publishing house in the bibliometric rankings, are not considered to be quality contributions. In this respect, papers published in journals which have practices that compromise their quality (such as editorial deadlines that are too short to guarantee the quality of the review and an unjustifiably high volume of articles or self-citations) will be treated as non-indexed publications, unless they are accompanied by sufficient evidence of quality.

With regard to contributions other than articles published in indexed journals, the Committee will assess their quality according to three levels (A, B and C). Where applicable, it will also take into account the quality of the publishers through which monographs and book chapters are published, the number of citations, the number of authors and published reviews. The expert opinion of the reviewers, together with the information contained in

⁵ In this context, for example, in the field of Economics and Business, other classifications and repositories of journals of systematic and comprehensive quality can be considered, including, especially, the *Catégorisation des revues en Économie et en Gestion* of the Comité national de la recherche scientifique (CNRS, France); *VHB-JOURQUAL3*, produced by the Verband der Hochschullehrer für Betriebswirtschaft (VHB, Germany); and the *Academic Journal Guide*, drafted by the Chartered Association of Business Schools (CABS, United Kingdom).

Criteria for the issue of advanced research accreditations

listings and repositories (e.g. Scholarly Publishers Indicators, SENSE and others of international standing), will also be taken into consideration.

In this regard, the proposed minimum number of contributions required for an **accreditation of advanced research** to be issued is as follows:

High quality contributions	Level of quality		
	“A”	“B”	“C”
20 (altogether, including those of A, B and C quality), where:	Minimum 10		Maximum 5

In other words, twenty high quality contributions, with at least ten “A” contributions and no more than five “C” contributions.

Deficiencies relating to quantity may be compensated by merits of very high or exceptional quality in the form of publications in which the applicant is the principal and corresponding author. The quality must be duly justified and proven by indicators and verified repercussion evidence provided by the applicant.

With respect to the transfer of research results, value will be placed on results whose current use can be demonstrated by the applicant and on results that are so far along in the process to protect their rights internationally that this provides evidence of real interest in their application.

Research projects

Consideration will be given solely to research projects funded within the frame of competitive grant programmes run by public administrations (international, European, state or autonomous regional) or by actors in the private sector (foundations, companies, etc.), assessing their results and their impact in the respective field. Particular value will be placed on the number and importance of the projects in which the applicant has participated, depending on the area of specialisation. In this respect, applicants must have led at least one competitive research project, in particular projects funded under either national or international programmes. This requirement may only be waived in duly justified cases that demonstrate relevant merit. Value will also be placed on the degree of leadership and the initiative shown in generating new projects.

Training activity

Applicants’ ability to form a research group or nucleus and whether they are supervising or have supervised doctoral theses will be assessed. Applicants must have supervised at least one already defended PhD thesis; only in exceptional and highly justified cases may this

Criteria for the issue of advanced research accreditations

condition be compensated by other merits. Value will be placed on applicants' involvement in the teaching and/or coordination of postgraduate and Master's courses.

Other merits

The Committee will assess all other merits submitted by the applicant, such as research prizes or awards, recognised stages of research, guest talks at conferences or universities, research stays, positions of scientific responsibility (editorial committees, international and national scientific committees, organisation/chairing of congresses, etc.), reports issued by academics of acknowledged standing, institutional activity in research promotion and management, etc. With respect to research stays, special value will be placed on scientific productivity.

Weighting of each area

The weighting of each area in the final score will be as follows:

Publications and transfer of research results	70%
Projects	15%
Training activity	10%
Other merits	5%

Each area of assessment will be rated out of 10 points.

FIELD OF SCIENCES

For the issue of advanced research accreditation, the Specific Committee for the Accreditation of Advanced Research in the Field of Sciences will assess all the research activity that applicants have carried out to date; the activities they have undertaken with respect to research training, development, management and administration; and any other general merits. Consideration will be given to the time frame in which applicants have carried out their scientific activity and, especially, to their career in recent years. The basic assessment areas and the criteria for each one are as follows:

Scientific career

Applicants must demonstrate a consolidated teaching and research career, in accordance with Article 46 of Law 1/2003, of 19 February, on universities in Catalonia. With respect to their research career, applicants must demonstrate a minimum of three years' postdoctoral research activity in order to be accredited.

Publications and transfer of research results

Value will be placed equally and jointly on publications and the transfer of research results.

With respect to articles, primary value will be placed on publications in journals having undergone a peer-review process and appearing in citation indexes such as the Science Citation Index Expanded. Applicants should submit at least thirty high-quality publications.⁶

As a general principle, quality (demonstrated by objective internationally accepted parameters) will prevail over quantity. Specifically, deficiencies relating to quantity may be compensated by merits of very high or exceptional quality in the form of publications in which the applicant is the principal and corresponding author. The quality must be duly justified and proven by indicators and verified repercussion evidence provided by the applicant.

As a general rule, publications in journals or publishing houses whose processes of acceptance and review of originals are deficient in the justified opinion of the experts of the corresponding specific committee, regardless of the position of the journal or publishing house in the bibliometric rankings, are not considered to be quality contributions. In this respect, papers published in journals which have practices that compromise their quality (such as editorial deadlines that are too short to guarantee the quality of the review and an

⁶ These are not required absolute minimums but rather a general point of reference in the field of Sciences which will be compared in each case with the average quality of the applicants' publications and the average productivity in the respective area.

Criteria for the issue of advanced research accreditations

unjustifiably high volume of articles or self-citations) will be treated as non-indexed publications, unless they are accompanied by sufficient evidence of quality.

In order to specify the effective repercussion of the research carried out by the applicant, consideration will be given whenever possible to the position of the journal in journal assessment repositories (such as the Journal Citation Reports) which present rankings by impact index, and to the number of citations received for each article.

When a substantial part of the applicant's research activity has been carried out within a collaborative research model, they should provide objective indicators of their personal contributions.

With respect to the publishing of books, special value will be placed on original books (where the applicant is the author and/or the editor of a multi-author book) published by specialised publishing houses of international standing.

With respect to the transfer of research results, value will be placed on results whose current use can be demonstrated by the applicant and on results that are so far along in the process to protect their rights internationally that this provides evidence of real interest in their application.

Research projects

Consideration will be given solely to research projects funded within the framework of competitive grant programmes run by public administrations (international, European, state or autonomous regional) or by actors in the private sector (foundations, companies, etc.), assessing the amount of funding, the results and the impact in the respective field.

Particular value will be placed on the number and importance of the projects of which the applicant is or has been the principal investigator (PI), depending on the area of specialisation.

Assessment will also be made of applicants' ability to mobilise resources, their level of leadership and the initiative they have shown in generating new projects.

Training activity

Very special value will be placed on applicants' ability to form a research group or nucleus and on supervising and having supervised doctoral theses. Value will be placed on applicants' involvement in the teaching and/or coordination of postgraduate and Master's courses.

Other merits

The Committee will assess all other merits submitted by the applicant, such as research prizes or awards, recognised stages of research, guest talks at conferences or universities, research stays, positions of scientific responsibility (editorial committees, international and

Criteria for the issue of advanced research accreditations

national scientific committees, organisation/chairing of congresses, etc.), reports issued by academics of acknowledged standing, institutional activity in research promotion and management, etc. With respect to research stays, special value will be placed on scientific productivity.

Weighting of each area

The weighting of each area in the final score will be as follows:

Publications and transfer of research results	65%
Projects	15%
Training activity	15%
Other merits	5%

Each area of assessment will be rated out of 10 points.

In order to obtain a favourable report, a score of 5 or above is required for “Publications and transfer of research results” as well as for either one of the remaining main areas of assessment, i.e. “Projects” and “Training activity”.

FIELD OF LIFE SCIENCES

For the issue of advanced research accreditation, the Specific Committee for the Accreditation of Advanced Research in the Field of Life Sciences will assess all the research activity that applicants have carried out to date, as well as any other research management and administration merits. Consideration will be given to the time frame in which applicants have carried out their scientific activity and, especially, to their career in recent years. The assessment criteria and areas are as follows:

Scientific career

Applicants must demonstrate a consolidated teaching and research career, in accordance with Article 46 of Law 1/2003, of 19 February, on universities in Catalonia. With respect to their research career, applicants must demonstrate a minimum of three years' postdoctoral research activity in order to be accredited.

Publications and transfer of research results

Value will be placed equally and jointly on publications and the transfer of research results.

With respect to articles, primary value will be placed on publications in indexed journals having undergone a peer-review process and appearing in citation indexes such as the Science Citation Index Expanded. Applicants should submit at least forty publications.⁷

Special consideration will be given to applicants who submit around twenty publications belonging to the first quartile of the respective category of the Journal Citation Reports and to those who are the corresponding author or the first or last signatory of 50% of them (10).⁸ Exceptionally, the Committee may place value on articles in other quartiles. As a general principle, the quality of the publications (demonstrated by objective internationally accepted parameters) will prevail over quantity, as long as the applicant is the first, last or corresponding author.

No consideration will be given to reviews, purely descriptive works and reiterations of previous work, except in cases where a significant contribution has been made to the consolidation and advancement of knowledge in the respective field.

In order to specify the effective repercussion of the research carried out by the applicant, consideration will be given whenever possible to the percentage of distribution by quartiles of the Journal Citation Reports in which the applicant's articles appear, and to the number of citations received for each article, as evidence of the repercussion of the applicant's

⁷ although this is intended as a recommendation rather than a required minimum. In the event that the applicant does not reach this threshold, the remaining contributions will be considered.

⁸ See Note 6.

Criteria for the issue of advanced research accreditations

research. Assessment will also be made of the degree of creativity, thematic diversity and innovation of the applicant's research.

As a general rule, publications in journals or publishing houses whose processes of acceptance and review of originals are deficient in the justified opinion of the experts of the corresponding specific committee, regardless of the position of the journal or publishing house in the bibliometric rankings, are not considered to be quality contributions. In this respect, papers published in journals which have practices that compromise their quality (such as editorial deadlines that are too short to guarantee the quality of the review and an unjustifiably high volume of articles or self-citations) will be treated as non-indexed publications, unless they are accompanied by sufficient evidence of quality.

With respect to the publishing of books, special value will be placed on those of an original nature (when the applicant is the author and/or the editor of a multi-author book) published by specialised publishing houses. When this is the case, greater value will be placed on books published by publishing houses of international standing.

With respect to the transfer of research results, value will be placed on results whose current use can be demonstrated by the applicant and on results that are so far along in the process to protect their rights internationally that this provides evidence of real interest in their application.

Research projects

Consideration will be given solely to research projects funded within the framework of competitive grant programmes run by public administrations (international, European, state or autonomous regional) or by actors in the private sector (foundations, companies, etc.). Consequently, non-competitive grants of contractual nature are excluded. Particular value will be placed on the number and importance of the projects of which the applicant has been the principal investigator (PI), depending on the area of specialisation.

In order to obtain accreditation for advanced research, the applicant should be or have been PI in three research projects, preferably with one currently in progress. The number of projects may be less than three if one project is considered to be highly important (PI in an international project).

Assessment will also be made of applicants' ability to mobilise resources, their level of leadership and the initiative they have shown in generating new projects.

Training activity

Very special value will be placed on applicants' ability to form a research group or nucleus.

In order to obtain accreditation for advanced research, the applicant should have supervised at least three doctoral theses, the last having been defended preferably within the past three years.

Criteria for the issue of advanced research accreditations

Other merits

The Committee will assess all other merits submitted by the applicant, such as research prizes or awards, recognised stages of research, guest talks at conferences or universities, research stays (at least three months), positions of scientific responsibility (editorial committees, international and national scientific committees, organisation/chairing of congresses, etc.), reports issued by academics of acknowledged standing, institutional activity in research promotion and management, etc. With respect to research stays, special value will be placed on scientific productivity.

Weighting of each area

The weighting of each area in the final score will be as follows:

Publications and transfer of research results	70%
Projects	15%
Training activity	10%
Other merits	5%

Each area of assessment will be rated out of 10 points.

FIELD OF MEDICAL AND HEALTH SCIENCES

For the issue of advanced research accreditation, the Specific Committee for the Accreditation of Advanced Research in the Field of Medical and Health Sciences will assess all the research activity that applicants have carried out to date, as well as any other research management and administration merits. Consideration will be given to the time frame in which applicants have carried out their scientific activity and, especially, to their career in recent years. The assessment criteria and areas are as follows:

Scientific career

Applicants must demonstrate a consolidated teaching and research career, in accordance with Article 46 of Law 1/2003, of 19 February, on universities in Catalonia. With respect to their research career, applicants must demonstrate a minimum of three years' postdoctoral research activity in order to be accredited.

Publications and transfer of research results

Value will be placed equally and jointly on publications and the transfer of research results.

With respect to articles, primary value will be placed on publications in indexed journals having undergone a peer-review process and appearing in citation indexes such as the Science Citation Index Expanded. Applicants should submit at least forty publications⁹. Special consideration will be given to applicants who submit around twenty publications belonging to the first quartile of the respective category of the Journal Citation Reports and to those who are the corresponding author of ten of these.¹⁰ In this respect, and even if they are published in media of recognised value, clinical cases, publications corresponding to conference papers, letters to the editor and all those contributions that do not have a minimum length, which do not make an original contribution to knowledge or have not had a significant impact on the scientific community, such as notes or discussion of other articles, will not be considered.

In order to specify the effective repercussion of the research carried out by the applicant, consideration will be given whenever possible to the percentage of distribution by quartiles of the Journal Citation Reports in which the applicant's articles appear, and to the number of citations received for each article, as evidence of the repercussion of the applicant's research.

⁹ These numbers are intended as recommendations rather than required minimums. In the event that the applicant does not reach this threshold, the remaining contributions will be considered.

¹⁰ See note 8.

Criteria for the issue of advanced research accreditations

As a general principle, quality (demonstrated by objective internationally accepted parameters) will prevail over quantity, as long as the applicant is the first, last or corresponding author.

As a general rule, publications in journals or publishing houses whose processes of acceptance and review of originals are deficient in the justified opinion of the experts of the corresponding specific committee, regardless of the position of the journal or publishing house in the bibliometric rankings, are not considered to be quality contributions. In this respect, papers published in journals which have practices that compromise their quality (such as editorial deadlines that are too short to guarantee the quality of the review and an unjustifiably high volume of articles or self-citations) will be treated as non-indexed publications, unless they are accompanied by sufficient evidence of quality.

With respect to the publishing of books, special value will be placed on those of an original nature (when the applicant is the author and/or the editor of a multi-author book) published by specialised publishing houses. When this is the case, greater value will be placed on books published by publishing houses of international standing.

With respect to the transfer of research results, value will be placed on results whose current use can be demonstrated by the applicant and on results that are so far along in the process to protect their rights internationally that the Committee may assess the real interest in their application.

Research projects

Consideration will be given solely to research projects funded within the framework of competitive grant programmes run by public administrations (international, European, state or autonomous regional) or by actors in the private sector (foundations, companies, etc.). Consequently, non-competitive grants of contractual nature are excluded. Particular value will be placed on the number and importance of the projects of which the applicant has been the principal investigator (PI), depending on the area of specialisation.

In order to obtain accreditation for advanced research, the applicant should be or have been PI in three research projects, one of which is currently in progress or which has ended in the last two years. The number of projects may be less than three if one project is considered to be highly important (PI in an international project).

Assessment will also be made of applicants' ability to mobilise resources, their level of leadership and the initiative they have shown in generating new projects.

Training activity

Very special value will be placed on applicants' ability to form a research group or nucleus.

In order to obtain accreditation for advanced research, the applicant should have supervised at least three doctoral theses, the last having been defended preferably within the past three years.

Criteria for the issue of advanced research accreditations

The number of co-supervisors will also be taken into account in the assessment of supervised theses.

Other merits

The Committee will assess all other merits submitted by the applicant, such as research prizes or awards, recognised stages of research, guest talks at conferences or universities, research stays, positions of scientific responsibility (editorial committees, international and national scientific committees, organisation/chairing of congresses, etc.), reports issued by academics of acknowledged standing, institutional activity in research promotion and management, etc. With respect to research stays, special value will be placed on scientific productivity.

Weighting of each area

The weighting of each area in the final score will be as follows:

Publications and transfer of research results	70%
Projects	15%
Training activity	10%
Other merits	5%

Each area of assessment will be rated out of 10 points.

In order to obtain a favourable report, an overall score of at least 50 points is required, as is a score of 5 or above for the main areas of assessment: “Publications and transfer of research results”, “Projects” and “Training activity”.

FIELD OF ENGINEERING AND ARCHITECTURE

For the issue of advanced research accreditation, the Specific Committee for the Accreditation of Advanced Research in the Field of Engineering and Architecture will assess all the research activity that applicants have carried out to date; the activities they have undertaken with respect to research training, development and management; and any other general merits.

In the field of Architecture, assessment will also be made of the international recognitions of the applicants' work, their recognised prizes, whether they have been published and any undertakings as the curator of an exhibition.

Consideration will be given to the time frame in which applicants have carried out their scientific activity and, especially, to their career in recent years. The assessment criteria and areas are as follows:

Scientific career

Applicants must demonstrate a consolidated teaching and research career, in accordance with Article 46 of Law 1/2003, of 19 February, on universities in Catalonia. With respect to their research career, applicants must demonstrate a minimum of three years' postdoctoral research activity in order to be accredited.

Publications and transfer of research results

Value will be placed equally and jointly on publications and the transfer of research results.

As an indicator of dissemination and impact of the applicant's publications in journals, it will be verified that they are indexed in thematic categories pertaining to the areas of Engineering and Architecture of the citation indexes Science Citation Index Expanded (SCIE), Social Sciences Citation Index (SSCI) and Arts & Humanities Citation Index (AHCI). In the case of journals indexed in SCIE and SSCI, the information appearing in the Journal Citation Reports (JCR) allows classification of titles into quartiles according to their relative number of citations, which is considered another quality indicator of the medium in which they are published.

In the areas of specialisation in which there are indicators admitted by the academic, scientific and professional community, such indicators will be used. Otherwise, consideration will be given to the criteria of originality, significance, quality and repercussion of the work.

In the assessment process, a guideline indicator of an acceptable level of scientific and technical publications is the authorship of twenty-four quality contributions and articles published in journals of recognised standing. In the case of the latter (published articles), only articles appearing in relevant positions in the subject area listings of the JCR for the applicant's specialised field will be considered.

Criteria for the issue of advanced research accreditations

This is not an absolute number but rather a general reference. The fact that more than half of an applicant's publications are in the first quartile of the respective subject area will be an advantage, in addition to their being the first signatory or principal investigator.

As a general principle, quality (demonstrated by objective internationally accepted parameters) will prevail over quantity. Specifically, deficiencies relating to quantity may be compensated by merits of very high or exceptional quality in the form of publications in which the applicant is the principal and corresponding author. The quality must be duly justified and proven by indicators and verified repercussion evidence provided by the applicant. Moreover, in order to specify the effective repercussion of the research carried out by the applicant, consideration will be given whenever possible to the number of citations received. Consideration may also be given to patents in operation.

As a general rule, publications in journals or publishing houses whose processes of acceptance and review of originals are deficient in the justified opinion of the experts of the corresponding specific committee, regardless of the position of the journal or publishing house in the bibliometric rankings, are not considered to be quality contributions. In this respect, papers published in journals which have practices that compromise their quality (such as editorial deadlines that are too short to guarantee the quality of the review and an unjustifiably high volume of articles or self-citations) will be treated as non-indexed publications, unless they are accompanied by sufficient evidence of quality.

Congress proceedings published with ISSN will not be considered publications in journals, even if they are indexed in SCIE, SSCI or AHCI. Such congress proceedings, as well as also those referenced in such databases as Clarivate Analytics' Conference Proceedings Citation Index, will have only a complementary consideration with respect to the publications in indexed journals. Nevertheless, for the field of information and communication technologies, referenced works in relevant positions in the GGS Conference Rating (GII-GRIN-SCIE <http://gii-grin-scie-rating.scie.es/>) may be considered.

With respect to the publishing of books, special value will be placed on those of an original nature (when the applicant is the author and/or the editor of a multi-author book, excluding congressional proceedings) published by specialised publishing houses. When this is the case, greater value will be placed on books published by publishing houses of international standing.

Research projects

Consideration will be given solely to research projects funded within the framework of competitive grant programmes run by public administrations (international, European, state or autonomous regional) or by actors in the private sector (foundations, companies, etc.). In order to obtain accreditation for advanced research, the applicant must have directed at least one research project approved in a public competitive grant programme, and especially one funded in a national or international programme. Only in exceptional and highly justified cases may this condition be compensated by other merits. A project's importance will be based on the amount of funding it received and on the journal

Criteria for the issue of advanced research accreditations

publications and patents that it has generated. Particular attention will be paid to applicants' ability to mobilise resources, their level of leadership and the initiative they have shown in generating new projects.

Training activity

Value will be placed on the applicant's ability to form a research group or nucleus and contribute actively to researcher training. In order to obtain accreditation for advanced research, the applicant must have supervised more than one doctoral thesis. Attention will be paid to the number of co-supervisors. Only in exceptional and highly justified cases may this condition be compensated by other merits. Value will be placed on applicants' involvement in the teaching and/or coordination of postgraduate and Master's courses.

Other merits

The Committee will assess all other merits submitted by the applicant, such as research prizes or awards, recognised stages of research, guest talks at conferences or universities, research stays, positions of scientific responsibility (editorial committees, international and national scientific committees, organisation/chairing of congresses, publication of congress proceedings, etc.), reports issued by academics of acknowledged standing, institutional activity in research promotion and management, etc. Research stays at centres of international standing will be assessed whenever they have been for a length of over six months and have entailed a significant contribution to the applicant's training and specialisation as a researcher or have helped to strengthen the internationalisation of his or her research team.

Weighting of each area

The weighting of each area in the final score will be as follows:

Publications and transfer of research results	70%
Projects	15%
Training activity	10%
Other merits	5%

Each area will be rated out of 10 points.

In order to obtain a favourable report, an overall score of at least 50 points is required, as is a score of 5 or above for the main areas of assessment: "Publications and transfer of research results", "Projects" "Training activity".

Specific considerations for the field of Architecture

While the foregoing criteria are applicable from a conceptual standpoint, in the field of Architecture the following specific aspects will be taken into account because of the characteristics that distinguish Architecture from Engineering:

It must be understood that, with respect to **Publications**, measurement is made of the incidence of a researcher's activity on the experts in an area. In this respect, the closest parallel in the field of Architecture would be the capacity of a thoughtful professional to contribute, with his or her contributions, to the advancement and shaping of knowledge. To the extent that these contributions sketch out some precise guidelines, are the object of a reflexive conceptualisation and have an influence on the progress of the world of Architecture, they may be assessed as publications. The transfer of research results contributed by the applicant will also be assessed in this area.

Within the **Projects** area, measurement is made of the ability to define objectives, establish the strategies necessary to achieve them and mobilise the pertinent human resources. On the basis of this principle, the acceptance of projects may be broadened in the field of Architecture to include more diverse activities, as long as they present the three aforementioned aspects and are of an entity comparable to that described in the area of **Research projects**.

The area of **Other merits** may include significant aspects of the field of Architecture that are without parallel in other fields. In the absence of more objective measures, architects are accustomed to, and find completely acceptable, assessment by all types of panels and juries. The placement of their effort in the hands of a group of prestigious professionals is the usual way of obtaining commissions, winning competitive biddings, participating in exhibitions or having their works published. For this reason, in this area, all these formulas of competition and jury must be included, with a change in the weightings set out above.

Consequently, in the field of Architecture, the following weighting of merits will be applied:

Publications and transfer of research results	50%
Projects	10%
Training activity	20%
Other merits	20%

Each area of assessment will continue to be rated out of 10 points.

In order to obtain a favourable report, an overall score of at least 50 points is required, as is a score of 5 or above for the main areas of assessment: "Publications and transfer of research results", "Projects" "Training activity".

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