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Evaluation of Research Quality



Valutazione Qualità della Ricerca

Evaluation of Research Quality 2011-2014 (VQR 2011-2014)

Criteria for the Evaluation of Research Outputs

Group of Experts for Evaluation for Area 03 – Chemistry (GEV03)



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1. Introduction

This document describes the organization of the Group of Experts for Evaluation for the Chemistry Area (from now on, GEV03) and the criteria the Group will use in evaluating research outputs. The document is divided in eight parts. Section 2 lists the Scientific Sectors (SSD), the Academic Recruitment Fields and the ERC Sectors which are relevant for the GEV. Section 3 summarizes the internal operating rules of the GEV. Section 4 describes the evaluation criteria for the research outputs. Section 5 describes the peer review process and the guidelines for the selection of external reviewers. Section 6 describes the bibliometric criteria: the journal databases, the bibliometrics indicators, the algorithm and the calibration procedure. Section 7 describes the evaluation criteria for specific outputs. Finally, Section 8 describes how the GEV plans to solve potential conflicts of interest between GEV members and authors of research outputs.

2. Delimitation of the GEV Area

The Group of Experts for the Evaluation of Area 03 – Chemistry (named as GEV03) will take care of the evaluation of the outputs presented by researchers belonging to Scientific Sectors (SSD), Academic Recruitment Fields, and ERC Sectors as indicated in Tables 1-3.

Chemistry Area (GEV03) - Scientific Sectors (SSD)	
CHIM/01	ANALYTICAL CHEMISTRY
CHIM/02	PHYSICAL CHEMISTRY
CHIM/03	GENERAL AND INORGANIC CHEMISTRY
CHIM/04	INDUSTRIAL CHEMISTRY
CHIM/05	SCIENCE AND TECHNOLOGY OF POLYMERIC MATERIALS
CHIM/06	ORGANIC CHEMISTRY
CHIM/07	PRINCIPLES OF CHEMISTRY FOR APPLIED TECHNOLOGIES
CHIM/08	MEDICINAL CHEMISTRY
CHIM/09	PHARMACEUTICAL AND TECHNOLOGICAL APPLICATIONS OF CHEMISTRY
CHIM/10	FOOD CHEMISTRY
CHIM/11	CHEMISTRY AND BIOTECHNOLOGY OF FERMENTATION
CHIM/12	CHEMISTRY FOR THE ENVIRONMENT AND FOR CULTURAL HERITAGE

Table 1. Scientific Sectors (SSD) of reference for GEV03.



Chemistry Area (GEV03) - Academic Recruitment Fields		
03/A ANALYTICAL AND PHYSICAL CHEMISTRY	03/A1	ANALYTICAL CHEMISTRY
	03/A2	MODELS AND METHODS FOR CHEMISTRY
03/B INORGANIC CHEMISTRY AND APPLIED TECHNOLOGIES	03/B1	PRINCIPLES OF CHEMISTRY AND INORGANIC SYSTEMS
	03/B2	PRINCIPLES OF CHEMISTRY FOR APPLIED TECHNOLOGIES
03/C ORGANIC, INDUSTRIAL AND APPLIED CHEMISTRY	03/C1	ORGANIC CHEMISTRY
	03/C2	INDUSTRIAL AND APPLIED CHEMISTRY
03/D MEDICINAL AND FOOD CHEMISTRY AND APPLIED TECHNOLOGIES	03/D1	MEDICINAL, TOXICOLOGICAL AND NUTRITIONAL CHEMISTRY AND APPLIED TECHNOLOGIES
	03/D2	DRUG TECHNOLOGY, SOCIOECONOMICS AND REGULATIONS

Table 2. Academic Recruitment Fields of reference for GEV03

Chemistry Area (GEV03) - ERC Sectors
PE4_1 Physical chemistry
PE4_2 Spectroscopic and spectrometric techniques
PE4_3 Molecular architecture and Structure
PE4_4 Surface science and nanostructures
PE4_5 Analytical chemistry
PE4_6 Chemical physics
PE4_7 Chemical instrumentation
PE4_8 Electrochemistry, electrodialysis, microfluidics, sensors
PE4_9 Method development in chemistry
PE4_10 Heterogeneous catalysis
PE4_11 Physical chemistry of biological systems
PE4_12 Chemical reactions: mechanisms, dynamics, kinetics and catalytic reactions
PE4_13 Theoretical and computational chemistry



PE4_14 Radiation and Nuclear chemistry
PE4_15 Photochemistry
PE4_16 Corrosion
PE4_17 Characterisation methods of materials
PE4_18 Environment chemistry
PE5_1 Structural properties of materials
PE5_2 Solid state materials
PE5_3 Surface modification
PE5_4 Thin films
PE5_5 Ionic liquids
PE5_6 New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles
PE5_7 Biomaterials, biomaterials synthesis
PE5_8 Intelligent materials – self assembled materials
PE5_9 Coordination chemistry
PE5_10 Colloid chemistry
PE5_11 Biological chemistry
PE5_12 Chemistry of condensed matter
PE5_13 Homogeneous catalysis
PE5_14 Macromolecular chemistry
PE5_15 Polymer chemistry
PE5_16 Supramolecular chemistry
PE5_17 Organic chemistry
PE5_18 Molecular chemistry
PE5_19 Combinatorial chemistry
LS1_8 Biophysics (e.g. transport mechanisms, bioenergetics, fluorescence)
LS1_9 Structural biology (crystallography and EM)
LS1_10 Structural biology (NMR)
LS2_3 Proteomics
LS2_4 Metabolomics
LS2_5 Glycomics
LS2_8 Epigenetics and gene regulation
LS2_10 Bioinformatics
LS7_3 Pharmacology, pharmacogenomics, drug discovery and design, drug therapy

Table 3. ERC Sectors of reference for GEV03



3. Organization of the GEV

GEV03 is organized as follows:

Coordinator: Gaetano Guerra

Assistant: Claudia Fabbri

3.1 Sub-GEV composition

Sub-GEV name and related research areas (SSD)	Coordinator	Members	
Sub-GEV01 (CHIM/01; CHIM/02; CHIM/12)	PALLESCHI Giuseppe	ADAMO CIFUENTES CURRI MINUNNI PALLESCHI PINNA ZERBETTO	Carlo Alejandro Maria Lucia Maria Giuseppe Nicola Alessandro Francesco
Sub-GEV02 (CHIM/03; CHIM/04; CHIM/05; CHIM/07)	RUSSO Nino	BALUCANI CANESCHI CENTI FORNASIERO MASCIOCCHI RUSSO	Nadia Andrea Gabriele Paolo Norberto Nino
Sub-GEV03 (CHIM/06; CHIM/08; CHIM/09; CHIM/10; CHIM/11)	BRANDI Alberto	BALBONI BOTTA BRANDI CAVALLARO MAGGINI MANNINA MARRA MOLINARI	Gianfranco Maurizio Alberto Gennara Michele Luisa Alberto Henriette

Table 4. Sub-GEV composition, corresponding Scientific Sectors (SSD), coordinators and members.



3.2 Assignment of research outputs to the GEV and within the GEV

The assignment of research outputs to the GEV will occur according to the SSD of the author. On the basis of the SSD specified in the research output descriptive form, the GEV may decide to assign the output to another GEV, if the content is found to be more appropriate to the latter; in this case the evaluation of the output is based on the criteria of the GEV of destination.

The assignment of research outputs to the members of the GEV03 in charge with their evaluation will occur according to the SSD indicated by the author in the research output descriptive form. The SSD assigned to the output may differ from the author's SSD, since it refers to the GEV and, within the GEV, to the SSD which, according to the author, is more competent to evaluate the output. The GEV03 will divide research outputs by type of publication and by research area and will assign them to the appropriate Sub-GEV. The Sub-GEV Coordinator will assign them to two competent Sub-GEV members.

If a research output is assigned to more than one GEV (for instance since co-authors indicate different SSD belonging to different GEV), the output will be evaluated according to the VQR Guidelines for the Groups of Experts for Evaluation (Sub-section 3.2). If necessary, the Coordinators of the GEV involved will constitute specific Inter-Area Consensus Groups.

3.3 Operating rules of the GEV

The operating rules of the GEV are recalled as follows:

- The convocation of GEV will occur 15 days ahead of any meeting. The meeting is convened by the Coordinator who is also in charge of the agenda;
- Decisions within the GEV are made by simple majority rule among members who attend a meeting. In order to vote, physical presence is not required if presence is assured via web or phone connection. When it is necessary to vote on a specific point outside a scheduled meeting, votes are expressed electronically;
- The assistant assigned by ANVUR to the GEV attends the GEV meetings, with secretariat functions and without voting rights. At the end of each meeting, minutes and a synthetic report outlining the main decisions will be drafted in Italian and English, circulated among GEV members, approved by the Coordinator and the members, and then sent to ANVUR to be filed.



4. Evaluation of research outputs

The evaluation of outputs by the GEV follows the informed peer review methodology, which consists in employing different, and if possible mutually independent, evaluation methods, to be harmonized within the GEV, which ultimately remains responsible for the final evaluation.

The available evaluation tools are:

- Peer review evaluation by (normally two) external reviewers selected independently by two different GEV members;
- Direct evaluation by the GEV, which can conduct an internal peer review according to the same procedure described for external peer review;
- Bibliometric analysis, to be conducted according to the procedure described below in this document. Research outputs subjected to bibliometric analysis are not assigned *automatically* to the classes of merit established by the Ministerial Decree (MD) and by the VQR Call. The allocation is instead based on the expert judgment of the GEV, which will employ any possible knowledge beside bibliometric indicators, such as the expertise of its members and the information described in research output descriptive forms.

5. Peer review evaluation

Each research output to be evaluated by peer review will be sent to two external reviewers, independently chosen by the two GEV members to whom the output was assigned. Alternatively, an output will be evaluated within the GEV according to the same procedure, provided that the necessary expertise is available and that no conflict of interest is present.

5.1 Selection of external peer reviewers

The selection of external reviewers, among Italian and foreign scholars, given its essential goals in the public interest, follows the principle of honest institutional cooperation and is founded on the criteria of correctness, objectivity and impartiality.

Great attention will be devoted to maintaining the anonymity of the reviewers, both at the stage of preparation of the list of reviewers and at the operational stage of the evaluation.



The results of the evaluation of individual outputs and the identity of the reviewers in charge will not be made public. A list with the reviewers' names will be published by ANVUR within 30 days of the publication of the VQR Final Report.

Reviewers will be selected among the most authoritative and scientifically qualified scholars and specialists in the disciplines relevant to the research outputs to be examined. They are expected to have been active in research during the period covered by the VQR.

Starting from the list provided by ANVUR, the GEV will prepare an updated list of external reviewers such to adequately satisfy the standards set by the GEV in terms of scientific quality and experience with evaluation. The list will be extended with new reviewers selected by the GEV. In particular, through the Sub-GEV Coordinators, the Coordinator will invite GEV members to suggest a significant number of experts who satisfy the required standards and are available for the evaluation. The GEV Coordinator will collect the indications, accompanied by information contained in a specific proposal form, and will consequently modify the initial list.

The list integration will last for the entire evaluation process, on the basis of the needs that might emerge after the outputs are transmitted by institutions.

In order to reduce potential conflicts of interest, the GEV will employ, whenever possible, reviewers that are active in foreign universities and institutions.

5.2 Peer evaluation

The evaluation by external or internal reviewers is based on an evaluation form, together with guidelines for reviewers, to be prepared by the GEV following ANVUR indications. The evaluation form will allow the reviewer to assign a score for each of the three evaluation criteria established by the DM and the VQR Call, that is, originality, methodological rigor, and attested or potential impact. The form will also include an empty space where a brief comment should be entered, to summarize a motivation for the answers provided to the questions.

The GEV will translate the indications contained in the evaluation form into one of the five classes established by the VQR Call.

In case of non-converging evaluations by the reviewers, the Sub-GEV creates Consensus Groups with the task of proposing to the GEV the final score for the outputs under examination, using the consensus report methodology.



When peer evaluations are strongly diverging, the Consensus Group can also request the opinion of a third expert.

In case of conflict in the evaluation between the members of the Consensus Group, this group will be integrated with the Sub-GEV Coordinator or the GEV Coordinator.

In any case, the GEV ultimately remains responsible for the final evaluation.

6. Bibliometric analysis

The research outputs indexed in the databases ISI WoS and Scopus will be evaluated by bibliometric analysis, and in particular:

- Scientific article, in the form of articles, letters and conference paper published on journals;
- Scientific article of critical literature review (Review).

Within the articles classified with the bibliometric algorithm, 10% will be randomly selected and undergo a peer review process in order to measure the correlation between the two evaluation methods. The sample articles selected for this double evaluation will be chosen through a stratified random sampling for Sub-GEV.

6.1 Databases

The GEV will use the databases of Thompson Reuters Web of Science (WoS) and Scopus Elsevier (Scopus), according to the author indications reported in the research output descriptive form.

6.2 The time window of citations

By computation of bibliometric indicators, the GEV will use the citations updated to February 29th, 2016.

6.3 Self-citations

Inclusion or exclusion of self-citations in bibliometric evaluation is nowadays a debated issue in the scientific community. The GEV03 decided, on the basis of suggestions given from the Bibliometric Evaluation Group settled during the first plenary meeting of GEV's Coordinators, to include the self-citations, examining with particular attention articles in



which the self-citations are more than 50% of the total citations. The final decision about the class of such outputs will be made taking into account the informations provided by the author in the research output descriptive form and, if necessary, by means of the informed peer review, involving GEV members or external reviewers.

6.4 Bibliometric indicators

The evaluation will use, for all the articles published on indexed journals in WoS and Scopus databases, an algorithm which considers the number of citations and the impact indicator (or Journal Metric- JM) of the hosting journal, depending on the publication year.

Following the opinion of the scientific community in the bibliometric sector and taking into account the differences in measuring the impact of a journal of the indicators, the GEV03, on behalf of the Bibliometric Evaluation Group, decided to use more than one indicator of JM. In particular, for each database, two indicators are going to be used: one to measure the *popularity* of the source of publication (the citations received are considered independently from the publication source) and the other to measure the *prestige* (the citations are weighted on the basis of the authoritativeness of the publication source).

The impact indicators that will be used are listed below:

- in WoS (<https://www.webofknowledge.com>): 5-year Impact Factor (5YIF), as indicator of popularity, and Article Influence (AI), as indicator of prestige¹;
- in Scopus (<http://www.journalmetrics.com>): Impact per Publication (IPP), as indicator of popularity, and SCImago Journal Rank (SJR), as indicator of prestige².

In the research output descriptive form the author/institution will be asked to indicate the database and one of the two corresponding indicators to be used for the evaluation³.

The choice of the indicator is not mandatory. If the author/institution does not chose any indicator, GEV03 will evaluate the output using a default choice for JM.

¹The choice is 5YIF instead on the well-known impact factor (IF) as a) the first is more stable with respect to the publication year and b) the time window in which the citations are considered (5 years) is the same of AI.

² The time window in which the citations are considered is, in this case, of 3 years for both the indicators. Moreover, the definition of IPP is the same as the 5YIF while that of the SJR, although not identical, is very similar to that of AI.

³ In WoS most recent journals could not have 5YIF and AI. In this case, if the author/institution indicates WoS as database, IF will be used as default indicator. If one of IPP or SJR is not available in Scopus for a particular journal, that of the two available will be used.



As default impact indicators will be used:

- 5YIF for WoS
- IPP for Scopus.

6.5 The algorithm for classifying outputs

The algorithm used for the assignment of the articles to one of the five classes of merit, defined in the VQR Call, is based on a combined use of the bibliometric indicator measuring the impact of the journal on which the paper has been published and the citational indicator measuring the impact of a single article (CIT). The relative weigh of these two indicators can be chosen considering the publication year. Each article is evaluated within a specific reference category (more details below) and the publication year. The evaluation procedure in the reference category is previously calibrated, in order to ensure that the probability ex ante worldwide of each item, of a given category in a given year, to fall into one of the classes of evaluation is the one defined by the VQR Call:

- Excellent [top 10% of the distribution of the international scientific production of the belonging area];
- Good [10% - 30% of the distribution of the international scientific production of the belonging area];
- Fair [30% - 50% of the distribution of the international scientific production of the belonging area];
- Acceptable [50% - 80% of the distribution of the international scientific production of the belonging area];
- Limited [80% - 100% of the distribution of the international scientific production of the belonging area].

The indication of the percentiles related to the classes of merit does not refer to the percentage results expected from the evaluation of the outputs presented for the VQR. The evaluation of a single item is not comparative: each item will be assigned to the class of merit independently from the collocation of the other outputs.

The first step in the evaluation of a given article is the identification of the reference category known as Subject Category (SC) in WoS and All Science Journal Classification (ASJC) in Scopus (from now on SC). A journal can belong to one or more SC, in this case the



indication of which SC has to be used for an output published in such a journal is given by the author/institution who proposed the item. This indication, however, may be modified by the GEV, if the content of the article appears more relevant to another of the SCs to which the journal belongs.

A multidisciplinary category is present in both WoS (Multidisciplinary Sciences) and Scopus (Multidisciplinary) including journals, such as Nature, Science, etc., characterized by a plurality of scientific subjects. Articles published in a journal with only this category will be reassigned to another SC on the basis of (i) the citations included in the article and (ii) the citations received by the article. In particular, one SC (or more) will be set for each of the journals cited/citing, the SC will then be chosen using a rule of majority decision. In this way, the publication will be compared with publications of the same subject or disciplinary area. Assigning the new SC, the article will maintain the JM of the journal and the number of citations received, without modifying the distribution of the SC of destination.

The same procedure will be adopted for the journals appearing only in other multidisciplinary subject categories of WoS and Scopus (ex. Chemistry, Multidisciplinary in WoS).

6.6 Calibration procedure

The calibration of the bibliometric algorithm is a function of the particular SC in the particular year analyzed. The algorithm also distinguishes the type journal article⁴ and letter or review, calculating different empirical cumulative distributions due to the different number of citations typically received from such publications.

The empirical cumulative distribution of the bibliometric indicator JM is computed relative to the journals belonging to the selected SC for the year of publication of the article to be evaluated and a percentile is assigned to each of the journals. Besides, the empirical cumulative distribution function of the number of citations CIT of all the articles published by journals belonging to that SC is computed and a percentile is assigned to each of the articles. At the end of this procedure, each research output will be associated to two percentiles (journal percentile and citations percentile). The two percentiles identify a point in the region $Q = [0,1] \times [0,1]$ of the Cartesian plane, where the X-axis represents the JM percentiles and the Y-axis the number of citations percentiles. Then Q , is divided in five

⁴ The conference papers published on journals belong to this class, too.



zones or regions such that the percentage of items belonging to each of the levels established in the VQR Call is satisfied.

Such division is obtained by mean of straight lines according to the following equation:

$$CIT = A \cdot JM + B_n$$

The slope A is the same for all the lines to guarantee the homogeneity of the adopted criteria. B_n intercepts are calculated by ANVUR, depending on the distribution of each particular SC, to guarantee that the percentages of the VQR Call are satisfied. An example of division of Q in 5 zones is represented in Figure 1. Although the distribution of the articles is different depending on the category and on the year, the algorithm allows a calibrated evaluation with respect to the ensemble chosen.

The slope A of the threshold lines is established by the GEV. It plays a very important role because, depending on A value, the final classification will result more influenced by the percentile of citations (slope in absolute value smaller than 1) or by JM (slope in absolute value greater than 1). For example in Figure 1 an horizontal line represents an evaluation based only on the citations' percentile. Taking into account the literature state of art in the bibliometric field and the different statements for a correct application of bibliometry for evaluational purpose⁵, very high slope must be avoided, due to the impossibility to use only the JM of a journal as a surrogate (proxy) of the impact of a single article published in it. In other words, whenever possible, absolute values of A smaller than 1 must be used to favour the information provided by CIT which is a measure of impact at level of the individual output subject to evaluation (article level metric). This choice is not general, but depends on the different citation practices of the different disciplines/communities, as well as from the number and composition of the SCs, that makes more or less reliable at decreasing the year of publication, the information provided by citational data.

⁵ For example see *San Francisco Declaration on Reserach Assessment (DORA)* - <http://www.ascb.org/dora/> - and *IEEE Statement on Appropriate use of Bibliometric Indicators* - https://www.ieee.org/publications_standards/publications/rights/bibliometrics_statement.html.

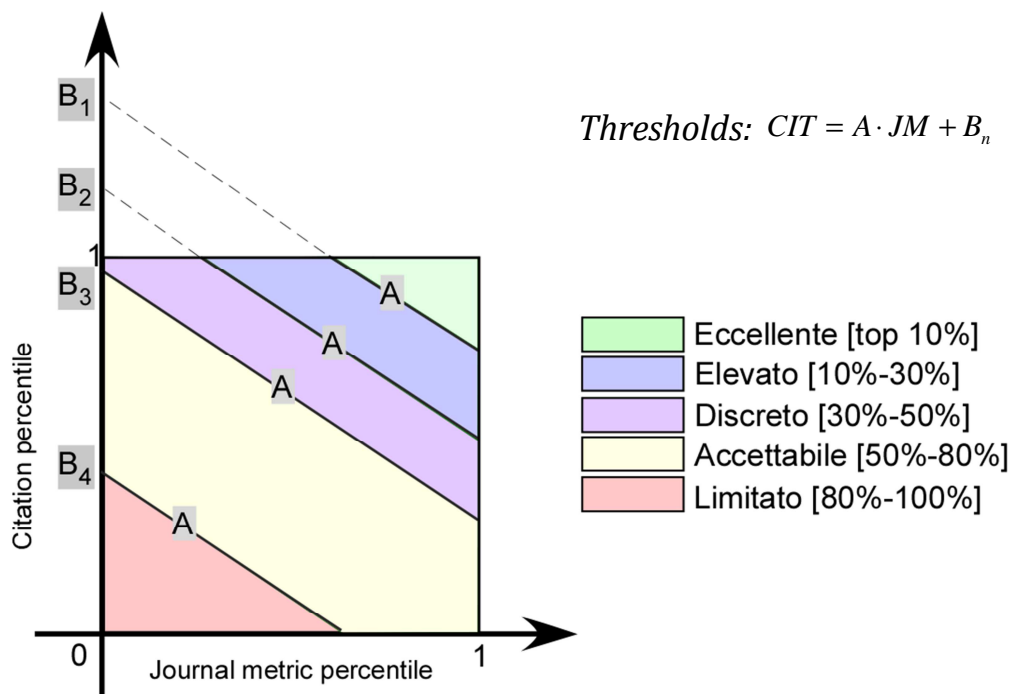


Figure 1. Representation in percentiles of all the articles published in a given SC in a given year. Each publication is placed in the plane according to the percentile of the impact indicator of the journal JM (row) and the percentile of the number of citations CIT (column). The plane is divided into 5 zones according to the percentages of the VQR Call. The slope of the straight lines delimiting the zones is the same for all the straight lines. B_n intercepts are calculated by ANVUR, depending on the distribution of each particular SC, to guarantee that the percentages of the VQR Call are satisfied.

On the basis of numerous simulations performed by the ANVUR Bibliometric Evaluation Group, GEV03 considered the citational data stable since 2013. Therefore, the slope to be used depending on the year are the following:

- 2011: -0,4
- 2012: -0,6
- 2013: -0,8
- 2014: -1,2

The slope can range most to 30% in the years 2011, 2012, 2013 to avoid degenerate cases⁶. In 2014, where the citation are less stable, the slope will be in the range [-2,0-1,0].

⁶ As, for example, the possibility to classify in the Excellent class outputs never cited.

For example, the calibration of a SC is shown in Figure 2 through four parallel lines. The chosen slope is -0.6 , to favour the weight of citations in the final evaluation. As it can be noticed in the figure, the points representing the articles of the SC are distributed unevenly. By appropriately selecting the values of the intercepts, it is possible to ensure that the percentage of the VQR Call are guaranteed with higher accuracy than the tenth of a percent. In other words, when the bibliometric algorithm is applied to the "worldwide" production on journals, the percentages established in the MD and in the VQR Call are obtained. It follows that a specific article submitted to VQR will be evaluated always referring to the percentile of the "international scientific production of the area it belongs to."

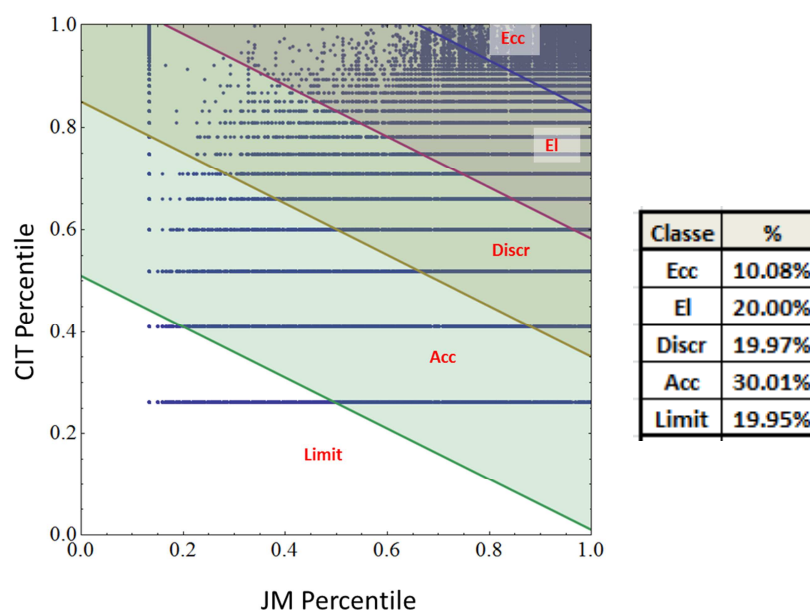


Figure 2. Example of application of the bibliometric algorithm to a sample SC. The division of the sub-space Q by parallel lines allows to respect the percentage established in the VQR Call when the algorithm is applied to the worldwide population of that particular SC.

Once the calibration procedure has been made, the assignment of outputs submitted to VQR is as follows. JM percentiles for the journal in which the article was published and that of citations received are computed to locate the point in the space above. The evaluation of the output according to the bibliometric algorithm depends on the zone into which the point is found.

There are borderline cases in which articles are published in journals of high prestige but receive few citations (the bottom right area in Figure 2) or published in journals with low value of JM, but with a high citation impact (the upper left area in Figure 2). In such cases of uncertainty, evaluation procedure will take place through informed peer review which will include an internal peer evaluation by GEV or external if there are not the required skills in the GEV. To identify the items of this type, it is sufficient to track additional two straight lines, with a positive slope, that identify the areas at the upper left and the bottom right of Q (see Figure 3).

With the purpose of detecting such articles, GEV03, consistently with what shared with the other bibliometric GEV, considered to draw (see example in Figure 3) two straight lines with positive slope to form two triangles. The one in the upper left is delimited by the left and top sides of Q and the straight line connecting the point (0; 0.5) with the intersection between the border line area of the "Excellent" zone and the top side of Q. The other in the bottom right is an isosceles right triangle that includes the 5% of outputs for 2011 and 2012 and 7% for 2013.

Finally, due to the low relative number of references for articles published in 2014, the GEV03 decided to submit to informed peer review all the articles published in 2014, except those whose classification, on the basis of the proposed algorithm, results in a "Excellent" final evaluation.

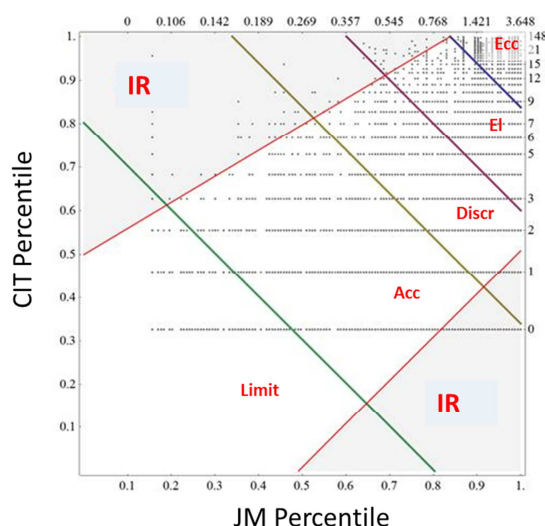


Figure 3. Example of identification of the uncertain zones to be managed by informed peer review (IR).



7. Research outputs

In VQR 2011-2014, the following output types listed in the VQR Call are eligible for evaluation:

- Research monograph;
- Scientific article;
- Scientific article (Review essay);
- Letter;
- Contribution in a book (Chapter or essay);
- Patents (according to the specification and limitation described in the following paragraph);
- Scientific article in conference proceedings subjected to peer review (according to the specification and limitation described in the following paragraph).

All the other output types listed in the VQR Call are considered not eligible for evaluation.

7.1 Specification and limitation of output type

- Evaluation criteria for Patents:
 - 1) They will be evaluated always by peer-review;
 - 2) Their first publication time will be considered;
 - 3) Patents still not granted are not considered;
 - 4) If they are limited to Italy, they will be not classified more than “Acceptable”.
- Type of outputs not evaluable and with classes of merit precluded:
 - 1) Conference Abstracts and Proceedings without JM will not be considered;
 - 2) Extended Conference Abstracts and Proceedings with JM will be evaluated by peer review and will be not classified more than “Acceptable”;
 - 3) Outputs written in a language different from English will be not classified more than “Acceptable”.



8. Conflicts of interest

GEV members will not evaluate nor give out to other GEV members or external experts:

- Outputs they are authors of, or co-authors;
- Outputs whose authors or co-authors are relatives and similar, until forth cousins;
- Outputs presented by Universities where GEV members still have or had work relationships or official collaborations, including the affiliation to research agencies, since 1/1/2011;
- Outputs presented by research agencies under MIUR surveillance or from other public or private subjects volunteering VQR, where GEV members have or have had job relationships or official collaborations, including the affiliation to research agencies, since 1/1/2011.

Conflicts of interest do exist:

- If the structure has a permanent internal organisation (territorial or disciplinary – i.e. local section of research agency, institute, department) limited to outputs presented by this same structure;
- If the structure does not have a permanent internal organisation (territorial or disciplinary – i.e. local section of research agency, institute) in relation to any output;
- If the structure has several internal hierarchical levels, (i.e. more than one institute included in the same department) conflict of interests exists to the lowest level (i.e. GEV members affiliated to different institutes of the department are in conflict of interests in relation with to outputs presented by authors coming from the same institute only).

In case of conflict of interests, the GEV Coordinator will assign the evaluation procedure to another GEV member, without conflict of interests.

In case of conflicts of interest concerning the GEV Coordinator, the outputs assignment will be operated by the VQR Coordinator or other person he/she decides to entrust.