

## DOCUMENT PROVIDING CLARIFICATION ON THE APPLICATION OF CRITERIA FOR THE CLASSIFICATION OF SCIENTIFIC CREDENTIALS

This document was drawn up by the the University Board for Scientific Credentials in September 2018 and is aimed at providing clarification on the application of criteria for the Classification of scientific credentials. It was updated in accordance with the new criteria established by the Senato Accademico at the meeting held on July 19th 2021. Hereunder the document full text is quoted (written in black); **the red written insertions in italics** have been added to elucidate the application of rules and simplify the task of Department scientific boards.

-----

This document was approved by the Senato Accademico at the meeting held on July 19th 2021 (S.A.Resolution 3.18)

### **Guidelines on the evaluation procedure for Scientific Credentials (research products published in 2021)**

(University Board update meeting 01.07.2021)

This document complements the decisions taken in 2014, 2015 and 2019, contained in the following documents:

- Resolution of the Senato Accademico dated October 20th 2014 (macro-areas 1 and 2)
- Resolution of the Senato Accademico dated December 15th 2014 (only macro-area 1)
- Minutes of the meetings of the University Board for Scientific Credentials dated March 23rd 2015 (macro-area 1), 31st March 2015 (macro-area 2) and April 13th 2015 (macro-areas 1 and 2)
- Resolution of the Senato Accademico dated September 16th 2019 (RV1A/RV1 ranks changed to RV1B for macro-areas 1 and 2)

The evaluation model for scientific credentials is based on the following fundamentals:

- all authors are assigned to one of the two broad disciplinary areas (Macro-area 1, Engineering, and Macro-area 2, Architecture) depending on their scientific -disciplinary field (SSD, Settore Scientifico Disciplinare). Acknowledged authors are: professors, research assistants (TI, RTDA, RTDB), PHD students, post-doc fellows, study grant fellows, technical & administrative staff.

*To be remembered:*

- a) PHD students are assigned to the Supervisor's department, thus inheriting His/Her Scientific-Disciplinary field (SSD, Settore Scientifico Disciplinare). If there is no Supervisor they are assigned to the Tutor's department and SSD. If the Tutor is also lacking they are assigned to the Coordinator's department. On this point, please refer to the registered data contained in "PHD Students Manager".*
- b) Post-doc fellows are assigned to their Fellowship Manager's department and they inherit His/Her Scientific-Disciplinary field (SSD, Settore Scientifico Disciplinare). In the case of Research Grants announced by the Politecnico di Milano Territorial Centers, Post-doc fellows are assigned to the department allocating financing. In the case of more than one department, they are assigned to the department allocating most part of the financing. In the case of more than one department allocating the same amount of financing, it is the Vice Rector who decides to what department they should be assigned on the basis of the scientific character of the research.*
- c) Study grant fellows are registered as Collaborators (Collaboratori) and therefore are not automatically identified as eligible for scientific credentials. They can be acknowledged as "internal authors" (and be eligible for credentials) only upon recommendation by the department.*
- d) Persons from the technical & administrative staff are eligible for credentials, provided that they belong to a department.*

*Relevant department and Scientific -Disciplinary field (SSD, Settore Scientifico Disciplinare) pertaining to acknowledged authors are related to the year of publication of products being classified.*

- The following types of research products are subject to evaluation:
  - Books (LA)
  - Book contributions (CL)
  - Journal articles (RV)

- Conference papers (CV)
- Patents (BV)
- Projects (PR)
- Evaluation is referred to the calendar year (from January 1st to December 31st). Bibliographic records may be created and included in the catalogue in the time period between the publication date and December 31st of the year following publication.
- Presence of detailed descriptions for each product in the context of the relevant macro-area. Products are assigned to a specific macro-area depending on the scientific disciplinary field (SSD, Settore Scientifico Disciplinare) of the first author who was acknowledged (i.e., linked to the bibliographic description of the product) at the time of publication.
- Possible anomalies or singularities of products, as well as requests for promotion of specific products to higher ranking categories, are considered by the University Board for Scientific Credentials. The Board is made up of 5 Department Directors (three of them from Macro-area 1, two from macro-area 2). All 5 members have been appointed by the Senato Accademico for a three-year term of office.
- The following products do NOT count as “scientific products” for Politecnico di Milano:
  - Products that have not yet been published or have been published prior to the author’s recruitment date.
  - Products that do not show an explicit statement of the author’s affiliation with Politecnico di Milano.
  - Products consisting of less than 3 pages (or less than 6000 characters, spaces included) unless there are well-grounded reasons for an exception to this rule.
  - Introductions, editing notes, editorials, comments.
  - Educational books, handbooks, encyclopedias, proceedings of post-graduate schools and/or of continuing education (masters, short course).
  - Scientific/technical reports, departments internal documents, draft research reports, technical and/or test and/or certification and/or evaluation reports.
  - PhD Theses (also published as books, unless the text has undergone later reworking).
  - General knowledge books, articles appearing in practitioner magazines or publications.
  - Journal articles (or monographs) that are not published at regular intervals (i.e., journal articles appearing in non-periodical print sources) and/or are aimed at the promotion or marketing of services or product categories.
  - Publications authored by external study grant fellows, contract professors or other research collaborators if no other internal affiliated co-author can be found.

- Partition of weight among acknowledged internal co-authors in the case of products by co-authors affiliated to the University.

*The NOT acknowledged authors are considered as not belonging to the University.* In the case of products that have co-authors who are **not** affiliated to the University the weight is calculated as the result of the ratio between the number of external authors ( $N_e$  = Number of External authors) and the number of authors affiliated to the Politecnico ( $N_i$  = Number of Internal authors) according to the following calculation formula:

- $N_e/N_i \leq 2$                       Correction factor 1 (full weight)
- $2 < N_e/N_i < 5$                   Correction factor 0,6
- $N_e/N_i \geq 5$                       Correction factor 0,4

In particular cases and on previously well-grounded request by a Department Board, the University Board for Scientific Credentials will consider possible exceptions to the above rules.

*The algorithm does not apply to Patents.*

## Ranking categories in use

LA		Scientific books with ISBN code			
		Macro-area 1		Macro-area 2	
LA1	5	Books in English with international distribution that have undergone peer review before publishing		7	Internationally outstanding discipline-specific books that have undergone international peer review before publishing
LA2	NV	Books with mainly nationwide distribution that have undergone peer review on a nationwide basis		5	Nationwide outstanding books that have undergone peer review on a nationwide basis
LA3	NV	Books not included in the above ranking categories		2,5	Scientifically outstanding books wherein no ex-ante evaluation is made explicit
LA4	NV	Books not included in the above ranking categories		NV	Books not included in the above ranking categories
Products are evaluated by the University Board for Scientific Credentials on request of Department Boards.				Book texts consisting of less than 68000 characters are evaluated as CL (Book contribution) and are treated accordingly. Critical editions of former texts with outstanding critical apparatus are evaluated as LA (Books). Scientifically significant miscellaneous works (exposition catalogues, festschrift, post-published conference papers – excluding encyclopedias or general knowledge works) will be considered as a sum of book contributions and evaluated as CL (Book contributions). One author cannot claim more than one CL per book.	

CL		Scientific book contributions with ISBN code			
		Macro-area 1		Macro-area 2	
CL1	1,2	Book contributions in English with worldwide distribution that have undergone peer review before publishing		1,2	Contributions to internationally outstanding, discipline-specific books that have undergone peer review on an international basis
CL2	NV	Book contributions with mainly nationwide distribution that have undergone peer review on a national basis		0,6	Book contributions with nationwide distribution that have undergone peer review on a national basis
CL3	NV	Book contributions not included in the above ranking categories		NV	Book contributions not included in the above ranking categories
Products are evaluated by the University Board for Scientific Credentials on request of Department Boards. Department boards must check that the text of products proposed for the CL1 category is at least 17000 characters long (spaces included). Products in the CL category consisting of less than the average length (17000 characters) will be bottom-ranked, unless there is a well-grounded request by a Department Board for a higher category ranking. If a specific book has been assigned to a Politecnico affiliated author and has been ranked as LA, it cannot contain a Contribution (to be ranked as CL)					

RV	Journal articles			
	Macro-area 1		Macro-area 2	
RV1	1,7	Articles published in journals that have been indexed in the Web of Science database (formerly ISI-Web of Knowledge) as well as in the Scopus database in the year being examined	1,7	Articles published in journals that have been indexed in the Web of Science database (formerly ISI-Web of Knowledge) or in the Scopus database in the year being examined, as well as in journals that show evidence of worldwide distribution and rigorous selection procedures (these journals are included in an official list approved by the University Board)
RV2	0,4	Articles published in journals that have not been indexed in the Web of Science / Scopus databases but are under the supervision of a scientific committee and show evidence of a review process applied	0,6	Articles published in journals that are not included in the two RV1 lists but are included in the ANVUR "A" rank list or are run by a scientific committee and show evidence of a review process applied
RV3	NV	Articles not included in the above ranking categories	NV	Articles not included in the above ranking categories
<p><i>The journal list is updated at conclusion of each step of the Classification procedure, limited to journal titles where authors have published their articles.</i></p> <p><i>If the record entered in Iris is correct (i.e., if the Journal that was linked to the article is correct ...) the system notifies that the journal is comprised among the sources of WoS or Scopus; it also notifies if the journal is included in the ANVUR "Class A" and scientific journal list. Otherwise, Helpdesk Catalogo Ricerca will check for the WoS / Scopus identifiers that are present in the records.</i></p> <p><i>Departments are fully responsible for the upgrading of a journal into the RV2 Rank, provided that it conforms to the prerequisites above mentioned. The list of journals submitted for upgrading (and approved by the Department Board) must be forwarded to the University Board through an email sent to Helpdesk Catalogo Ricerca. Without such communication the University Board will evaluate the single article but will not accept the upgraded rank of the journal.</i></p>				

CV	Conference papers (also in electronic format on CDs or in the Internet) except for abstracts or extended abstracts (minimum text length should be 6000 characters, or not less than two pages)			
	Macro-area 1		Macro-area 2	
CV1	0,4	Contributions to international conferences published by the conference promoting organization	0,4	Contributions to international conferences published by the conference promoting organization
CV2	NV	Contributions to conferences published by the conference promoting organization	0,2	Contributions to conferences published by the conference promoting organization
CV3	0,4	Selected contributions to international conferences issued by an international publisher after the conference date	0,4	Selected contributions to international conferences issued by an international publisher after the conference date
CV4	NV	Selected contributions to national conferences issued by a national publisher after the conference date	0,2	Selected contributions to national conferences issued by a national publisher after the conference date
CV5	NV	Conference contributions not included in the above ranking categories	NV	Conference contributions not included in the above ranking categories

<p>In order to be evaluated as CV1 or CV3, products should have an ISSN or ISBN or be indexed in the Web ofScience or Scopus databases (as well as in other databases) or be published as open access. Evaluation is conducted by the University Board for Scientific Credentials on request of Department Boards.</p> <p>In the case of multiple publications it is requested that multiple bibliographic records are submitted to the catalogue.</p>	<p>In order to be evaluated as CV products should have an ISBN/ISSN code.</p> <p>In the case of multiple publications it is requested that multiple bibliographic records are submitted to the catalogue.</p> <p>Contributions to miscellaneous works resulting from significant reworking of unpublished conference proceedings will be evaluated as CL (Book Contributions), provided that they have the requested text length (not less than 17000 characters)</p>
--	---

BV	<b>Patents (including Drawings and Registered Models)</b>				
Macro-area 1 and Macro-area 2					
Commissioned Research			Autonomous Research		
BV1 + BV2	1,5	1st national filing (implicit concession in use)	BV1	0,5	1st national filing
			BV2	1	Concession in use
BV4 + BV2	2	1st international filing (implicit concession in use)	BV3	0,5	1st international patent extension already published by a national office
BV3	0,5	1st international patent extension already published by a national office (if reported by the professor or if reported to the TTO)	BV4	1	1st international filing
BV5	NV	Patents not included in the above ranking categories	BV5	NV	Patents not included in the above ranking categories

In the case of products evaluated as BV3 a new record should be submitted to the catalogue as soon as an act of international granting has occurred.

In the case of BV2 products the existing record should be modified by adding the information on the license/assignment date.

PR	Projects				
Macro-area 1			Macro-area 2		
PR1	1	Winning projects in competitions in charge of an international jury panel	4	Winning projects in competitions in charge of an international jury panel	
PR2	0,5	Award-winning projects or projects invited to competitions in charge of an international jury panel	2,4	Award-winning projects (or worthy of mention or marked as outstanding) or invited to a competition in charge of an international jury panel	
PR3	0,2	Award-winning projects or projects invited to competitions in charge of a national jury panel composed for the most part of academic experts who do not belong to the institution organizing the competition	1,4	Award-winning projects (or worthy of mention or marked as outstanding) or invited to a competition in charge of a national jury panel composed for the most part of academic experts who do not belong to the institution organizing the competition	
PR4	NV	Projects not falling under the above ranking categories	NV	Projects not falling under the above ranking categories	

*Products are evaluated by the University Board for Scientific Credentials on request of Department Boards.*

### **Some notes from the University Board for Scientific Credentials**

The outcome of former evaluation procedures showed that Department Boards have operated homogeneously. For this reason, the University Board for Scientific Credentials was able to limit itself to sample examination of products, asking for explanations from departments when necessary. This is the procedure running since 2014.

It is recommended that the Department Boards:

- should create an electronic archive to store all documentation in support of the examination activities of statements showing authors' affiliation to the Politecnico di Milano, as well as the prerequisites for evaluation of products as RV2 or CV1/CV3. Such archive should remain at the disposal of the University Board when necessary.
- should keep only one record of the product in the evaluation procedure in the case there are two or more products with the same title and authors.

### **Publications with DOIs**

The rules of evaluation procedures historically refer to print publications.

From 2014 onwards online publications with DOIs are included in the evaluation procedure. To avoid the double counting of the same product (issued online with a DOI and then published in print), publications with DOIs are collected in a 'buffer' for later re-working of the record as soon as the product is published in print.

### **RV2 journal list for Macro-area 1**

The list includes journals that are indexed neither in Web of Science nor in Scopus. These journals, however, are supervised by a scientific committee (or similar body) and employ a peer review process. The list is updated every year on the basis of the relevant *Resolutions of the Department Boards that were received by Helpdesk CatalogoRicerca*.

### **RV2 journal list for Macro-area 2**

The list of RV2 journals for macro-area 2 is complemented with classification of journals created by ANVUR for the expected SSDs (Settori Scientifico-Disciplinari = Scientific Disciplinary Sectors) according to the rule that a journal which has been ranked "A" by ANVUR cannot be placed below a journal ranked RV2 by the University. The list is updated every year on the basis of the relevant *Resolutions of the Department Boards that were received by Helpdesk Catalogo Ricerca*.