

The Role of the Evaluation Units in the Italian Universities

Alessandro Del Puppo and Angelo Montanari
University of Udine, Italy



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UNIVERSITY AS A SOCIAL INSTITUTION

University can be thought of as a **social institution** only if:

- ▶ it makes compatible and globally meaningful role and organization models (research, teaching, administration, third mission) that, by themselves, would follow divergent orientations
 - ▶ it manages differences;
- ▶ it defines and manages the relationships with the other actors of the social system at the local, national, and international levels
 - ▶ it exploits its autonomy.

AUTONOMY AND EVALUATION

Autonomy and evaluation constitute an **inseparable pair**.

However, their implementation in the Italian university system has followed quite different paths with respect to

- ▶ timing: 1996 (autonomy) vs. 2010 (evaluation);
- ▶ motivations of political decision makers;
- ▶ perception and application of the tools by means of the universities.

Effect: the failure to launch a virtuous process (evaluation without autonomy does not work).

WHICH UNIVERSITY DO WE WANT?

As a matter of fact, in order to successfully exploit autonomy and evaluation, we need to discuss and come to an agreement on

- ▶ the **university model** we want to implement:
 - ▶ the traditional university model?
 - ▶ a business model of university?
 - ▶ the university as a professional organization?
- ▶ the **differentiations** we want (or do not want) to introduce in the system:
 - ▶ research universities and teaching universities?
 - ▶ top universities and technical universities?

THE EVALUATION OF RESEARCH IN ITALY - 1

Year	Initiative
1996	Observatory
1999	CNVSU - CIVR - Evaluation Units
2003	VTR
2006	ANVUR
2010	ANVUR (regulation) Evaluation units + OIV
2011	I VQR (2004-2010) Fulfillments of Law 150/2009 Law 240/2010 (Gelmini)

where CNVSU stands for National Evaluation Committee, CIVR for Steering Committee for Research Evaluation, ANVUR for National Agency for Research Evaluation, OIV for Independent Organism for the Evaluation, and VQR for Evaluation of Research Quality, and VTR denotes the first Exercise of Research Evaluation (3-year period).

THE EVALUATION OF RESEARCH IN ITALY - 2

Year	Initiative
2012-13	AVA Quality Control Unit (Presidio della Qualità) Annual Relation by the Evaluation Units
2012-13	Performance evaluation
2012-13	I ASN
2014	SUA-RD (2011-2013)
2015	II VQR (2011-2014)
2016	II ASN

where AVA stands for Self-Assessment, Periodic Evaluation, and Accreditation, ASN for National Scientific Qualification, and SUA-RD for Annual Unique Document on Departmental Research.

RESEARCH EVALUATION?

▶ **Research evaluation**

- ▶ quality of achieved results (publications, patents, ..);
- ▶ productivity (with respect to some academic outputs);
- ▶ impact of the scientific achievements.

▶ **Performance evaluation**

- ▶ input/output relation;
- ▶ goal/result relation.

▶ **Total sum of the achievements** related to the research process

- ▶ preparation to research, research, third mission, divulgation, dissemination, knowledge and technological transfer.

WHY DO WE MEASURE RESEARCH? - 1

- ▶ Evaluation of Research Quality (**VQR**): a national exercise.
 - ▶ What does the VQR evaluate? Universities, departments, PhD committees, or individuals?
- ▶ The key role of **research metrics**
 - ▶ journal quality/impact matrix;
 - ▶ difficult to take into account contextual aspects;
 - ▶ no evaluation of actual/perceived opportunities.
- ▶ Some possible **issues**:
 - ▶ evaluation focuses on scientific products, viewed as the summation of various individual contributions, and does not take into account the underlying process (we know and evaluate the result, but we do not know and evaluate how it has been achieved);
 - ▶ the evaluation benchmark for university research refers to an have-to-be (excellence) which is not connected to the whole set of institutional functions of the university.

WHY DO WE MEASURE RESEARCH? - 2

- ▶ the National Scientific Qualification (**ASN**):
 - ▶ the **assessment of the scientific quality** of journals;
 - ▶ the selection and classification of a subset of journals as **first-class** ones (fascia A).

Both the **assessment** of the scientific quality of the journals, **where the Italian researchers have published their results**, and the **selection**, among them, of the subset of top-class journals have been done (directly or indirectly) by **ANVUR**.

The whole process turned out to be quite difficult and controversial, and its outcomes have been revised over the years.

THE ACCREDITATION OF THE PHD PROGRAMS

Necessary **conditions** for the accreditation of a PhD program (we restrict our attention to the most significant ones):

- A1) **scientific qualification of the institution hosting it** (such a condition basically reduces to condition A4);
- A2) **topics, and possibly curricula, of the PhD program** (homogeneity and coherency);
- A3) **composition of the PhD committee** ((i) minimum number of members = 16, where at least 12 are full or associate professors, (ii) the coordinator must be a professor, and (iii) the scientific areas of at least 80% of the members must belong to those of the PhD program);
- A4) **scientific qualification of the members of the PhD committee** (they must show documented (international) research results in the areas of the PhD program).

CONDITION A4): THE INDEXES R , $X1$, AND I

Item 1. **Indexes R and $X1$** of the most recent VQR (taking into consideration all the members of the PhD committee):

- ▶ index R (normalized average evaluation of research products) must be at least equal to 1;
- ▶ index $X1$ (normalized percentage of research products with an excellent or a high evaluation) must be at least equal to 0.9;
- ▶ the sum $R + X1$ must be at least equal to 2.

Item 2. A “**discrete**” index I , whose value must be at least 0.8, that takes into account the whole scientific production of the PhD committee members over the last 5 years.

Its value is obtained as the average of the values of another index, called index A , for all the members of the committee (such an index A measures the whole scientific production of each member of the committee).

CONDITION A4): THE INDEX A

$A = 0, 0.4, 0.8, 1.2$ depending on whether the considered member of the PhD committee (full professor, associate professor, or researcher) satisfies 0, 1, 2 or 3 of the **thresholds** of

- ▶ the candidate members of the ASN committee for full professorship (for full professors);
- ▶ the full professors (for associate professors);
- ▶ the associate professors (for researchers),

with respect to the appropriate scientific areas.

CONDITION A4): ITEMS 3 AND 4

Item 3: a **qualitative index of scientific activity**, that checks whether all members of the committee have a minimum number of journal publications in the last 5 years (bibliometric areas) or 10 years (non-bibliometric areas).

Item 4: **scientific qualification of the coordinator**, whose evaluation is done on the basis of his/her curriculum vitae with respect to a given number of parameters.

Condition A4) is satisfied if **at least 3** of the above 4 items are fulfilled ($R + X1, I$, qualitative index of scientific activity, and scientific qualification of the coordinator).

ELIGIBILITY VS. RANKING: THE ROLE OF THE EVALUATION UNIT

The Evaluation Unit must check whether a PhD program proposal is **eligible for accreditation**, according to the previous conditions.

Should the Evaluation Unit limit itself to that?

At the University of Udine, it also provides a **ranking** of the various PhD program proposals that can be used by the decision makers (in particular, the Deputy Rector for Research) when the number of funded positions for each PhD program must be determined.

Every year the Evaluation Unit assigns each proposal to one out of **5 quality classes** (from A to E, being A the top class and E the bottom one with respect to the global scientific quality of the PhD program).

HOW IS THE RANKING DETERMINED? - 1

The ranking of the various PhD program proposals pairs the outcomes of a **quantitative analysis** of the research performance of the members of the PhD committees and of a **series of meetings** with the various actors of a PhD program (coordinator, a subset of the members of the PhD committee, and a subset of the PhD students).

Analysis of the **research performance**:

- ▶ as for the **bibliometric areas**, it is based on a bibliometric index called “fractional productivity” (FSS, source Research Value), that measures the strength of the scientific production of each member of the committee on the basis of a number of factors, including the number of publications, the number of citations, and the number and the order (if relevant) of authors, in comparison to the production of all the members of the Italian scientific community in the area he/she belongs to;

HOW IS THE RANKING DETERMINED? - 2

- ▶ as for the **non-bibliometric areas**, it refers to the thresholds of the three indexes used in the ASN 2016.

For each scientific area, the three indexes respectively count the number of published books (index ASN-1), the number of journal papers or book chapters (index ASN-2), and the number of publications in top-class journals (index ASN-3) in a given time period (in the last application, we considered the period 2011-2015).

For each member of the PhD committee, the absolute value of each index is computed and compared with the corresponding ASN threshold (some temporal normalization is needed to guarantee data consistency).

SOME GENERAL ISSUES

We would like to conclude pointing out some general issues:

- ▶ Since evaluation gives important messages to the academic/scientific community, it is important to properly regulate the evaluation of research with respect to a **clearly-defined ultimate (meta-)goal**.
- ▶ We should never forget that a university is (and it cannot be different) a social institution, and thus the evaluation of research must get along with the **other functions of the university**.
- ▶ If we want to exploit evaluation as a tool to give value to the merits of researchers, a **high level of institutional autonomy** is necessary.

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