VQR and Open Science

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ANVUR
1. VQR 2015-2019
A first, still experimental, evaluation exercise was conducted by CIVR in 2007 (called VTR 2001-2003).

ANVUR conducted three VQR evaluation exercise:
- the first in 2011-2013, the VQR 2004-2010
- the second in 2015-2017, the VQR 2011-2014
- the third one started at the end of 2019 and it will be completed by the end of July 2022, the VQR 2015-2019.

Evaluation concerns Institutions, does NOT concern individuals.

It is not appropriate to use the results to compare different SSDs, particularly within the same institution.
## ANVUR and GEV

**Governing Board**
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M. Avellino, P. Bonetti, R. Gori, G. Racale

### GEV
| Area 1 - Mathematics and Computer Sciences | Prof. Giovanni Federico Gronchi |
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| Area 9 - Industrial and Information Engineering | Prof. Sara Rainieri |
| Area 10 - Ancient History, Philology, Literature and Art History | Prof. Carlo Giovanni Cereti |
| Area 11a - History, Philosophy, Pedagogy | Prof. Lina Scalisi |
| Area 11b - Psychology | Prof. Rosalinda Cassibba |
| Area 12 - Law | Prof. Marina Brollo |
| Area 13a - Economics and Statistics | Prof. Emanuela Marrocu |
| Area 13b - Economics and Management | Prof. Maria Rosaria Napolitano |
| Area 14 - Political and Social Sciences | Prof. Maurizio Ambrosini |
| Interdisciplinary Impact/Third mission | Prof. Sauro Longhi |
VQR 2015-2019: key facts

- 17 Disciplinary Panels and 1 Third Mission Panel in charged of evaluation
  - 615 experts for the research outputs
  - 30 experts for the Third Mission
- 24 Assistants
- 11,299 external peer reviewers were used in the evaluation
- 134 Institutions assessed
  - 98 Universities,
  - 14 Public Research Institutes (supervised by the Ministry)
  - 22 Other Institutions performing research activities (on a voluntary basis)
- 65,119 researchers involved
- 182,648 research outputs and 676 Third Mission case studies evaluated
Evaluated Institutions

- Public Universities
- Special Tertiary Education Schools
- Private Universities
- Public Research Institutes (supervised by the Ministry)
- Volunteer Institutions
2. Open Science
Open Science

• Open science and evaluation: the VQR

✓ Multidimensionality

✓ Use of indicators

✓ Ethical principles and conflicts of interest

✓ Transparency and availability in open access
Open science and research evaluation

• The VQR 2015-19 was completed in early 2022, and the final report was published on 20 July 2022

• Many of the principles and commitments currently under discussion in Europe are already implemented within the VQR

• Continue the discussion on the most suitable ways for the adoption of systems of evaluation coherent with the principles of the Open Science
Multidimensionality of the evaluation

The VQR considered as assessable products:
• Journal articles
• Monographs, Contributions in volume, Curatorships
• Contributions and abstracts in conference proceedings
• Critical editions, translations and scientific comments
• Patents: awarded between 1/1/2015 and 31/12/2019

and also
• Compositions, drawings, architectural projects, design works
• Artistic, theatre and musical performances
• Exhibitions, art prototypes
• Databases, software, thematic maps
• Psychological tests and audiovisual materials.
Multidimensionality of the evaluation
Multidimensionality of the evaluation

Moreover, with the VQR the Institutions were evaluated also in relation to the Third Mission activities, classified in 10 possible fields of action:

<table>
<thead>
<tr>
<th>Fields of action</th>
<th>Total submitted case studies</th>
<th>% on total submitted case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Intellectual and industrial property valorisation</td>
<td>40</td>
<td>5,92</td>
</tr>
<tr>
<td>b. Academic entrepreneurship</td>
<td>53</td>
<td>7,84</td>
</tr>
<tr>
<td>c. Technology transfer structures and other Third mission intermediaries</td>
<td>75</td>
<td>11,09</td>
</tr>
<tr>
<td>d. Production and management of artistic and cultural heritage</td>
<td>57</td>
<td>8,43</td>
</tr>
<tr>
<td>e. Clinical experimentations and health protection</td>
<td>55</td>
<td>8,14</td>
</tr>
<tr>
<td>f. Lifelong learning and open education</td>
<td>49</td>
<td>7,25</td>
</tr>
<tr>
<td>g. Public Engagement, defined as non-profit institutional activities with educational, cultural and social value</td>
<td>222</td>
<td>32,84</td>
</tr>
<tr>
<td>h. Production of public goods and policy instruments for inclusion</td>
<td>66</td>
<td>9,76</td>
</tr>
<tr>
<td>i. Innovative tools to support Open Science</td>
<td>8</td>
<td>1,18</td>
</tr>
<tr>
<td>j. Activities related to the UN 2030 Agenda for Sustainable Development Goals and SDGs</td>
<td>51</td>
<td>7,54</td>
</tr>
<tr>
<td>Total</td>
<td>676</td>
<td>100,00</td>
</tr>
</tbody>
</table>
3. Procedure
Informed peer review vs. Pure Peer review

- VQR 2015-19 was based on the methodology of informed peer review
- The citation information used was provided by ANVUR, differentiated according to the characteristics of the area and the sector.

(STEM+LS in red, HSS in blue, Economy in green)

Area 1 Mathematics and Computer Sciences
Area 2 Physics
Area 3 Chemistry
Area 4 Earth Sciences
Area 5 Biology
Area 6 Medicine
Area 7 Agricultural and veterinary sciences
Area 8a Architecture
Area 8b Civil Engineering
Area 9 Industrial and Information Engineering
Area 10 Ancient History, Philology, Literature and Art History
Area 11a History, Philosophy, Pedagogy
Area 11b Psychology
Area 12 Law
Area 13a Economics and Statistics
Area 13b Economics and Management
Area 14 Political and Social Sciences
Interdisciplinary Impact/Third mission
The way in which citation indicators were used is described in detail in the evaluation documents of each Disciplinary Expert Group (GEV) [https://www.anvur.it/attivita/vqr/vqr-2015-2019/gev/](https://www.anvur.it/attivita/vqr/vqr-2015-2019/gev/).

In the same section, the international citation indicators used in the VQR are also available, allowing to know the classification of the product according to the indicators defined by the GEV.

The indicators are a useful aid to evaluation, but did not give rise to any automatism, as confirmed in the GEV documents: «The use of citation indicators cannot in any case determine an automatic evaluation of the product; GEV members evaluate the quality of each product given by the institutions and have the final responsibility for the evaluation.»
VQR 2015-2019: evaluation method

• Evaluation criteria
  – Research outputs:
    ▪ Originality;
    ▪ Methodological rigour;
    ▪ Impact
  – Case Studies:
    ▪ Social, economic and cultural dimension of the impact
    ▪ Relevance in relation to the context;
    ▪ Added value for the beneficiaries;
    ▪ Contribution of the department or similar structure

• Each research output / case study may be categorised as:
  A. Excellent and extremely relevant (score 1)
  B. Excellent (score 0.8)
  C. Standard (score 0.5)
  D. Sufficient significance (score 0.2)
  E. Low significance or Not admissible* (score 0)

*publications excluded from the assessment. Missing research products are also included in category E.
Ethical principles and conflicts of interest

• As regards the appointment of GEVs:
  - The GEV was appointed by the Governing Board following a public call with predetermined criteria and on the basis of a public draw based on a predetermined algorithm and made public on the Agency’s website.
  - Any replacement or addition of GEV members was carried out using the same algorithmic rules, which ensure adequate representation of gender, qualification and proportionality to the number of Scientific Disciplinary Areas.
  - In each GEV at least 80% of the members were different from those of the GEV of the previous VQR.
  - All the activities of the GEVs were recorded and the members of the GEV inserted their assessments in an ad hoc platform, keeping track of the evaluations of each component. The final assessment is collegial.

• In the event of a divergent assessment between the two GEV managers of the product, the product was evaluated by a consensus group.
• Each external referee could not evaluate more than 50 products.
Ethical principles and conflicts of interest

• The VQR 2015-19 call also defines:
  - cases of incompatibility between the role of GEV member and some academic roles (Rector, General Manager, Department Director, President and Director of EPR, Members of the ANVUR Board of Directors)
  - commitment for GEV members to respect the Agency’s Code of Ethics
  - rules for the management of possible situations of conflicts of interest with respect to products assessed by GEV members and external referees.

• When assigning products to GEV members and external referees, the IT platform automatically checked the possible conflicts of interest, based on information from the ministerial database.
Transparency and evaluation

• ANVUR published on its website:
  ✓ details of the assessment methods used and the data used in the evaluation process
  ✓ all names of the evaluators involved in VQR 2015-19
  ✓ the list of GEV members

• At the end of the evaluation, ANVUR published the list of external referees, without making known the association between the evaluator and the evaluated product (https://www.anvur.it/attivita/vqr/vqr-2015-2019/elenco-revisori-vqr/)

• For the first time, at the end of the evaluation, ANVUR also published the list of products and case studies submitted for evaluation (https://www.anvur.it/attivita/vqr/vqr-2015-2019/elenco-dei-prodotti-e-dei-casi-di-studio-valutati/)
4. Open Access
Open Access

• In the case of articles financed by at least 50% public funds, products subject to evaluation have been made available in open access.

• Whenever:
  (1) the share of financing is lower than 50%,
  (2) the product has a higher embargo period,
  (3) monographs not available in OA,
  (4) types of products other than articles,
  at least the metadata has been made known.
Open Access

• Open access products are available in one of the following ways:
  - Journal or volume OA
  - Archives of the University with open access
  - Disciplinary archives with open access
  - Working papers
  - Personal websites of researchers

• The products can be:
  - in the final published version (Version of Record),
  - in the version of the typescript accepted for publication (Author’s Accepted Manuscript),
  - in the version sent to the journal for publication (Submitted Version).
Availability in open access

- Open access: 54%
- Under embargo: 22%
- Not financed with public funds: 22%
- Editor does not allow OA distribution: 2%
- NA: 0%
Availability in open access for areas
Availability in open access by type

- Article: 59.43% open access, 40.57% non-open access
- Conference Proceeding: 43.78% open access, 56.22% non-open access
- Book chapter: 16.16% open access, 83.84% non-open access
- Book: 10.89% open access, 89.11% non-open access
- Other: 82.46% open access, 17.54% non-open access
Availability in open access for Institution

- Other research organization
  - Open Access: 90%
  - Under embargo: 10%
  - Not financed with public funds: 0%
  - Editor does not allow OA distribution: 0%
  - NA: 0%

- Public Research Organization
  - Open Access: 70%
  - Under embargo: 20%
  - Not financed with public funds: 10%
  - Editor does not allow OA distribution: 0%
  - NA: 0%

- University
  - Open Access: 60%
  - Under embargo: 40%
  - Not financed with public funds: 0%
  - Editor does not allow OA distribution: 0%
  - NA: 0%
Availability in open access by language

The diagram shows the percentage availability in open access by language. The categories are:
- Open Access
- Not financed with public funds
- NA

The bars are color-coded to represent English (ENG) and Italian (ITA).
Thanks for your attention