

Project: Building an Excellency Network for Heightening Agricultural ecoNomic researCh and Education in Romania – ENHANCE  
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691681

## Deliverable D1.3

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## **Deliverable D1.3**

### **Quality management tools in research**

**December 2016**



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## I. Introduction

One of the major objectives of the project ENHANCE is to further develop the currently existing scientific potential of the agricultural economists of the USAMV. A specific focus of the project lies on a substantial enhancement of the quality of agricultural economic research, translating into an improved international acknowledgement and visibility of FMIEARD's staff. Due to the tasks of the faculty staff, research and teaching belong together and the exploration of synergies between them should, ideally, result in a simultaneous improvement in both fields. In order to provide an environment conducive to high-quality research, supporting management tools exist and might be further developed for USAMV's needs. This deliverable aims at summarizing internationally established tools for quality management which will be complemented by a description of the current status at the FMIEARD. Additionally, the faculty's self-assessment (D1.1) provides a complement on the way to reflect about existing and potential future quality management strategies.

## II. Quality in research and higher education

Obviously, before discussing specific tools and approaches, the object needs to be defined. Brookes and Becket (2007) provide an international perspective and discuss the transferability of quality management tools to higher education. Deliverable 6.2 solves this task and suggests a number of qualitative and quantitative indicators which will be applicable in the case of FMIEARD.

## III. Internal and external evaluations

Internal as well as external evaluation of structures and output indicators represent widely accepted and established tools.

One example of regular external evaluations is the procedure of the Leibniz Association (Germany) where institutes will be evaluated once in seven years. In some cases the period between the evaluations could be shorter. The exclusion of institutes from the Leibniz Association is the last option in cases of repeated evaluations with unsatisfactory outcomes. Deliverable 6.2 suggest a list of quantitative and qualitative indicators to assess the improvement in FMIEADR's research. While conducting a self-assessment, the FMIEADR will provide a clearer description of the current situation and specific fields in which the marginal benefit of improvement is highest.



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Based on the self-assessment's results the consortium will establish a manageable subset of indicators in order to assess the performance of the project in month 36. Due to this constraint, only short to medium-run developments will be observed towards the end of ENHANCE. The challenge is to combine short-run performance with a strategic development of the basis for a long-run improvement of FMIEADR's performance. Three major issues should be taken care off:

- Obviously, as a first stage of successful research stands the identification of research gaps and questions. Research which aims at international visibility, should be aware of the state of research at the international stage. With the emergence of open access in its various forms and online accessibility of publication, costs of access to previous research often declined which is especially relevant for researchers in countries with limited funding for research in general. However, there are still a number of journals and books, often the more prestigious ones, which rely on paid access (subscription-based).
- A second, and often most time consuming, stage consists of conducting research by answering the identified research questions. Given almost perfect information about previous research, theoretical foundation and methodological capabilities, time constraints might form the most important limitation for the researcher. In many places research competes with other tasks, often exogenous to the individual researcher, ranging from teaching to administration.
- Research findings need to be put to debate and critical feedback by colleagues helps to improve the quality of research. Therefore, presentations in various forms and at different fora represent a third stage of the research process.

Nowadays, research output is measured using bibliometric indicators. Whereas in some sub disciplines of social sciences books still represent the most important form of publication, in agricultural economics international academic journals represent the most accepted form. A rich literature developed rankings of journals and researchers based a variety of bibliometric measures (e.g. Henrekson and Waldenström, 2011). The most common measures rely on counts of publications and just vary with respect to the selection criteria or source of data. However, it should be highlighted that any exclusive focus on quantitative indicators based on (a subset of) journals comes at costs, like e.g. a bias towards mainstream economic theories and quantitative methods. Thus, bibliometric measures cannot be neglected any more but just provide an indication of general tendencies and should be used cautiously.

Visibility of research: Citations are usually interpreted as indicating the relevance of a given research output for fellow researchers. Again it matters from which source



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citation counts have been taken. Furthermore, despite an increasing number of publication outlets and articles, the majority of citations refers to just 10 percent of the publications. Whether any research output will be perceived by the research community depends, besides originality and quality, on its visibility to the community. A range of repositories are available to distribute discussion papers and articles. Download figures can be used as additional measures of visibility.

Beyond any individual researcher's competences, capabilities and motivation to engage in high-quality research an enabling general academic environment plays an important role. Aspects which should be covered by an assessment include the weight attached to research quality in appointing new personnel and promoting young researchers, measures of quality assurance like peer review of own publication series and the degrees of freedom for faculties in governing research profile and appointing new chairs. Obviously, not all aspects can be governed by the FMIEADR and, thus, cannot be used to measure the success of ENHANCE.

In order to divert the focus from standard bibliometric measures, i.e. pure counting of publications, the selection of a certain publication outlets might serve as an additional indicator. Any outlet, i.e. journal, discussion paper series, conference, book chapter, with a peer-review procedure is probably less prone to a low quality than outlets without such quality management systems in place (van Dalen, 1997). Thus, the existence of a peer review procedure might serve as a complementary indicator of quality assurance.

The University of Agronomic Sciences and Veterinary Medicine of Bucharest (USAMV) and its Faculty of Management, Economic Engineering in Agriculture and Rural Development (FMIEADR) are evaluated in regular intervals but the existing guidelines focus to a large extend on education and are only of limited use for assessing the performance of ENHANCE.

#### IV. Peer review

For single research output a review by peers aims at guaranteeing quality standards. Widely established examples are review systems of scientific journals for submitted manuscripts, review reports of theses at various stages of an academic curriculum or reviews of project proposals for third-party funding (e.g. Horizon2020). They could be done anonymously (single-blind or double-blind). Furthermore, internal review processes of manuscripts and proposals are possible. In such cases trust among colleagues needs to be established as maintaining anonymity is difficult. Any fear of



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breach of intellectual property could damage such internal review schemes substantially.

#### *Actual situation at FMIEADR/USAMV*

Starting with the year of 2001 FMIEADR has annually edited the scientific journal Management, Economics Engineering and Rural Development. Since 2006, all scientific papers have been published entirely in English. The quality of published articles is ensured by the peer-review process supported by expert evaluators, both from Romania and from abroad. The editorial board, consisting of personalities with vast experience and high competence for each research area, is also a key instrument. The paper evaluation form covers the terminology the author(s) used, the compliance with the standard structure of the scientific paper, the quality, the relevance of the intended objectives, the methods and the results, etc. The Journal encourages the development and publication of original papers with substantial scientific content, with high theoretical ambitions and practical value.

## **V. Recruitment procedures**

The overarching aim of recruitment procedures at all levels (from PhD students to full professors) should be to attract highly qualified staff. Elements are public and international advertisement of positions, transparent selection processes only based on the qualification of the applicants relevant to the position, for professorships it might be useful to invite external researchers to the committees and or send a short-list of applicants to external reviewers.

#### *Actual situation at FMIEADR/USAMV*

As increasing the quality of the education system directly depends on the skills and motivation of human resources, the FMIEADR seeks to recruit a highly qualified staff with high competence for teaching and research. Selection based on competence criteria applies to both permanent and associated academic staff.

Activities for the recruitment, evaluation and promotion of teaching and research are conducted in accordance with the Education Law no. 1/2011, the Methodology of competition for teaching and research positions in higher education and with the University Charter. Teaching positions are offered only through public competition.

The strategy of teacher recruitment and promotion in the FMIEADR involves a transparent process and equal treatment of all applicants in accordance with the



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methodology in force. Announcements for the vacant positions of associate professor and professor are published in both Romanian and English. Any persons meeting the minimum mandatory standards established by the legal framework and methodology of the USAMV of Bucharest can apply for these positions.

Human Ressources objectives in the FMIEADR are as following:

- Providing conditions for professors' continuous professional development (CPD), as stipulated in the Education Law and the Teaching Staff Statute;
- Organizing contests for vacant positions, on condition that they have a clear perspective;
- Orientation, encouragement and support for young academic staff to pursue graduate studies in prestigious universities abroad;
- Providing auxiliary teaching staff for a normal educational process;
- CPD and promotion for the academic support staff;
- Structuring the faculty council in committees with clear and distinct responsibilities;
- Criteria used for evaluating the activity of academic and auxiliary personnel in view of objectively assessing each and every one's contribution to the overall achievement of the tasks given, so as to increase responsibility.

## VI. Exposure to international academic debates

The regular exposure to the international academic debate is another quality management tool. The acceptance of contributions at international conferences involves often a review process and some elements of competition. Thus, each scholar has an incentive to the expectations of the conference organisers in terms of quality of contributions.

### *Actual situation at FMIEADR/USAMV*

FMIEADR encourages and supports the participation of both teachers and doctoral students in national and international conferences. The participation of PhD students or professors in international internships, an element of human resource development and a way to improve the quality of higher education and research activities, is only possible within the FMIEADR research projects with national or international funding.

The FMIEADR strategy includes the development and maintenance of good



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connections with other research institutions, partner universities, and extending such partnerships with national and foreign institutions.

Bilateral agreements signed with higher education institutions or international organizations facilitate the exchange of experience, best practices, and the FMIEADR student and professor mobilities at partner institutions, in order to develop the existing human resources and the material facilities. FMIEADR benefits from such activities as a result of bilateral agreements signed by the UASVM of Bucharest, both at institutional level and through various other types of programs or projects.

## VII. Structures

International guidelines, like the ERC-Code of Conduct, define a core set of principles of good scientific practices. Major elements of such guidelines are establishing good practices of doing research, handling of data, protection of intellectual property rights and establishing solution mechanisms in cases of conflict. Often senior researchers independent from the management figure as ombudspersons to be contacted by researchers.

### *Actual situation at FMIEADR/USAMV*

At national level there are legal rules regarding the good conduct in scientific research, technological development and innovation. The rules of conduct, completed and detailed in the Code of ethics and professional deontology in research and development covers several issues such as the research conduct, communication, publication / authorship, writing the application for funding; dissemination; monitoring and evaluation, management in research and development etc. Issues as copyright, intellectual property and conflicts of interest are also covered.

Based on legal norms, the USAMV has adopted its own specific codes and rules of ethics and professional deontology which, together with the University Charter, represent the guide of academic integrity so that the research and development staff meet their responsibilities with professionalism, objectivity, honesty and loyalty. Deviations from the norms of good conduct (i.e., making up the results, falsification of experimental data; plagiarism; introduction of false information in applications for grants and funding, the application files for empowerment, for university teaching positions or for positions of research and development etc.) are prohibited.



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In order to prevent and manage research misconduct the USAMV has developed educational curricula in research ethics for PhD students. PhD Supervisors ensure that students are aware of the ethical standards and that the research is conducted in line with the University's and the national guidelines.

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