Deliverable D6.2

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ENHANCE

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Indicator sets developed and reported in the form of a fact sheet

April 2016

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I. INTRODUCTION AND BACKGROUND

The overarching aim of the project ENHANCE is to fully realise and 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.

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 in line with the guidelines of the "Methodology for External Evaluations, Standards, Standards of Reference, and list of Performance Indicators of the Romanian Agency for Quality Assurance in Higher Education" (2006) as required by the Romanian Agency for Quality Assurance in Higher Education based on Law No. 87/2006. However, these guidelines focus to a large extend on education and are only of limited use for assessing the performance of ENHANCE. Based on evaluation criteria of the Leibniz Association (Germany) and insights from scientometric literature, the following list offers a range of possible quantitative and qualitative indicators to assess the improvement in FMIEADR's research ("long list"). However, the list is not adapted to the specific Romanian context and cannot reflect the current level of research quality. While conducting a self-assessment, FMIEADR will provide a clearer description of the current situation and specific fields in which the marginal benefit of improvement is highest. 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.

Scientometric literature offers some insights into the determinants of successful research. At the same time, this research is biased towards quantitative measures of research output which does not represent an exhaustive definition of quality. Therefore, performance measures should consist of a combination of quantitative as well as qualitative indicators.

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. In order to illustrate the relevance of

earlier findings, Laband, et al. (2002) report that the references cited in American Economic Review's articles increases between 1950 and 2000. 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. Harris and Kaine (1994) clearly show that individual motivation of researchers, measured by four items derived from a set of questions to researchers, are associated with higher research performance. A specific challenge forms the high weight attached to teaching in Eastern Europe. Before the start of the political and economic reforms in Central and Eastern Europe, research tasks have been assigned to the Academies of Science. Universities had to concentrate on higher education tasks. Even if the strict separation has been abolished, this central planning legacy still affects governance of universities. More specifically, a full professor in Germany has to teach 8 hours (à 45 minutes) per week while the teaching load is much higher in Bucharest. Furthermore, incentives concentrate in many places, including Western Europe, on easily measurable and manageable indicators like number of students or successful graduations.

Research findings need to be put to debate and critical feedback by colleagues helps to improve the quality of research. Laband and Tollison (2003) illustrate the substantial increase from 1974 to 1999 in share of papers published in the American Economic Review which have been presented at conferences before. 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 subdisciplines 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. Lee (2007) illustrates that the identification of a set of core journals in research

assessment of UK universities risks the exclusion of heterodox economics and heterodox economists. Similarly, Corsi, et al. (2010) illustrate the bias in current evaluation criteria towards mainstream economic theories and quantitative methods in Italy. Finally, Henrekson and Waldenström (2011) show that different rankings differ considerably in their results. Thus, bibliometric measures can't 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 citation counts have been taken. Furthermore, despite an increasing number of publication outlets and articles, in economic research approximately one quarter of papers is not cited at all ("dry holes"). The majority of citations refers to just 10 percent of the publications analysed by Laband and Tollison (2003). 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. Based on such repositories 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.

Donovan and Butler (2007) test three different measures of quality and suggest the use of quantitative measures derived from engagement with end-users of research.

II.   POSSIBLE PERFORMANCE INDICATORS

In the following a broad selection of performance indicators ("long list") is suggested. Not all of them are easily measurable. Furthermore, some constraints might be

exogenous from FMIEADR's perspective and other aspects require longer processes in order to be changed. Therefore, the self-assessment (D1.1) needs to provide further details of the current status and possibilities for change. Subsequently, the list of performance indicators will be reduced and further specified ("short list") which will be part of D1.1. This short list of indicators will form the basis of the report in month 36 (D6.7). As research quality is a relative concept and impossible to measure with one single indicator, a pure maximisation of single or all indicators out of the following list does help to reach the aim outlined above. The criteria should increase the awareness for high-quality research and support the endogenous process within the faculty and university to find the right balance between the various tasks.

Awareness of and access to previous research at international level

- Library: Number of items in the field of economics and management (i.e. books, journals in print and online, databases)
- Language: Share of courses in English at different levels (Bachelor, Master, PhD)
- Textbooks: Share of international textbooks used in teaching

Conducting research

- Balance of tasks: Is there an appropriate balance between the various tasks of FMIEADR (particularly teaching, research and political consulting) in relation to its objectives? Do these tasks relate to each other convincingly?
- Description of tasks: Is there a transparent description of tasks at individual level and who decides about weights attached to the different tasks to be performed?
- Support by non-academic staff: Are there sufficient training opportunities for non-academic staff?
- Graduate schools: Does FMIEADR develop or participate in structured programmes to promote the training of PhD students?
- Promotion of post-doctoral staff: What are the measures to promote the development of post-doctoral staff?

Scientific exchange

- Conferences: Number of conferences and other scientific events with participation of external guests organised by FMIEADR's staff
- Presentations: Number of conference presentations (of it with a peer-reviewed selection of contributions)

- Reviews: Number of academic reviews of journal manuscripts in total and per researcher
- Collaboration: Does FMIEADR make appropriate use to collaborate with other universities and research centres in Romania and internationally? (e.g. number of Memoranda of Understanding, Cooperation Agreements, Strategic external (national and international) research co-operations)
- Participation in networks: Is FMIEADR positioned strongly in its national and international environment? [Indicators: Number of national and international collaborative projects, Membership of staff in national and international associations]
- Support of mobility: Does FMIEADR make use of national, European and non-European programmes to foster collaboration and to strengthen its strategic position? (e.g. number of mobility grant applications by researchers)
- Mobility: Does FMIEADR host national and international guests appropriately? Do the academic staff make use of opportunities to stay at other institutions within Romania and abroad (e.g. number of guests hosted by faculty and staff sent abroad differentiated by length of stay)? Is there a mobility concept for students and (young) researchers?

Quantity and quality of output

- Work performance: Research
  - Number of publications (scientific journals, share of peer-reviewed journals; monographs, discussion papers)
  - Amount of third party funds raised for research (national and international sources) with a peer-review selection (also as a ratio of Post-Docs and entire academic staff (without research fellows and visiting researchers))
  - Prizes and awards
- Work performance: Teaching
  - Number of graduate students (Bachelor, Master, PhD)
  - Number of courses (incl. total ECTS) (also at individual level)
  - Number of exams
  - Number of advised Master's theses and dissertations (total and per academic advisor)

Dissemination of research and public outreach

- Political consulting: evaluations and reports
- Knowledge-transfer outside academia: Number of press releases, newspaper reports, social media postings etc.

Visibility and acceptance of output

- Downloads: Number of downloads of online publications (e.g. AgEconSearch, RePEc, SSRN)
- Citations: Number of citations of published research (e.g. Google Scholar, variants of Hirsch index)
- Appointments: Have junior researchers from FMIEADR been appointed to professorships (or received comparable non-academic job offers)?

Appropriateness of governance (including Promotion of gender equality and work-family balance)

- Rights of disposal: To what extent does the faculty or units within the faculty have the right to decide independently about allocation of budget within the faculty, denomination and replacement of chairs, scientific and non-scientific staff below the level of professors, and allocation of office space and equipment?
- Appropriateness of funding: Will FMIEADR be able to achieve its own medium-term goals for the next few years with the existing facilities/financial provisions?
- Strategic plan: Does FMIEADR have a cohesive general concept with regard to the future development of its research profile? Is its work programme original and state-of-the-art?
- Recruiting strategy: Does FMIEADR pursue appropriate strategies to recruit personnel internationally?
- Staff development: Does FMIEADR have a staff development concept that provides quality training and continuing education opportunities for academic and non-academic staff?
- Promotion of gender equality: Is FMIEADR convincingly working towards achieving gender equality, e.g. through gender strategy plans and/or mentoring programmes? Has it implemented relevant national regulations to promote this goal?
- Work-life balance: Has FMIEADR implemented appropriate measures to facilitate a balance between its staff's family and working lives?

Internal quality management at FMIEADR

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- Quality management own publications: Which instruments are in place to manage the quality of the Scientific Paper Series Management, Economic Engineering and Rural Development?

III. ASSESSMENT OF FACULTY'S CONTEXT

The following table indicates which aspects fall within the management competences at the faculty, university or ministry level. Obviously, the subset of progress indicators to be selected should focus on aspects which can be, at least partly, affected by FMIEADR.

		Quantitative/ qualitative measure	Decision Level		
			FMIEADR	USAMV	Ministry
I. Awareness of and access to previous research at international level	Library: Number of items in the field of economics and management (i.e. books, journals in print and online, databases)	Quant.	x		
	Share of courses in English at different levels (Bachelor, Master, PhD)	Quant.	x	x	x
	Share of international textbooks used in teaching	Quant.	x		
II. Conducting research	Balance between the various tasks of FMIEADR (particularly teaching, research and political consulting) in relation to its objectives	Qual.		x	
	Transparent description of tasks at individual level and responsibilities to assign weights attached to the different tasks to be performed	Qual.	x	x	x
	Description of training opportunities for non-academic staff	Qual.		x	x
	Does FMIEADR develop or participate in structured programmes to promote the training of PhD students (graduate schools)?	Qual.	x	x	x
	Description of measures to promote the development of post-doctoral staff	Qual.	x		
III. Scientific exchange	Number of conferences and other scientific events with participation of external guests organised by FMIEADR's staff	Quant.	x	x	
	Number of conference presentations (of it with a peer-reviewed selection of contributions)	Quant.	x		
	Number of academic reviews of journal manuscripts in total and per researcher	Quant.	x		

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	Description of institutionalised collaboration with other universities and research centres in Romania and internationally (e.g. list of Memoranda of Understanding, Cooperation Agreements, Strategic external (national and international) research co-operations).	Qual.		x	x
	Use of national, European and non-European programmes to foster collaboration and to strengthen its strategic position (e.g. number of mobility grant applications by researchers).	Quant.	x		
	Description of strategy to host national and international guests and to support FMIEADR's academic staff to stay at other institutions within Romania and abroad (e.g. number of guests hosted by faculty and staff sent abroad differentiated by length of stay).	Qual./ Quant.	x		
	Description of FMIEADR's national and international collaboration [Indicators: Number of national and international collaborative projects, Membership of staff in national and international associations]	Qual.	x		
IV. Quantity and quality of output (Research)	Number of publications (scientific journals, share of peer-reviewed journals; monographs, discussion papers)	Quant.	x		
	Amount of third party funds raised for research (national and international sources) with a peer-review selection also as a ratio of Post-Docs and entire academic staff - without research fellows and visiting researchers	Quant.	x		
	Number of prizes and awards	Quant.	x		
IV. Quantity and quality of output (Teaching)	Number of graduate students (Bachelor, Master, PhD)	Quant.	x	x	x
	Number of courses (incl. total ECTS) (also at individual level)	Quant.	x	x	x
	Number of exams	Quant.	x		
	Number of advised Master's theses and dissertations (total and per academic advisor)	Quant.	x		
V. Dissemination of research and public outreach	Political consulting: evaluations and reports	Qual.	x		
	Knowledge-transfer outside academia: Number of press releases, newspaper reports, social media postings etc.	Quant.	x		
VI. Visibility and acceptance of output	Number of downloads of online publications (e.g. AgEconSearch, RePEc, SSRN)	Quant.	x		
	Number of citations of published research (e.g. Google Scholar, variants of Hirsch index)	Quant.	x		
	Appointments of junior researchers from FMIEADR to professorships or comparable non-academic jobs	Qual.	x		

VII. Appropriateness of governance	Description of decision rights within the faculty, rights with respect to budgetary allocation, denomination and replacement of chairs, scientific and non-scientific staff below the level of professors, and allocation of office space and equipment	Qual.	x		
	Assessment of appropriateness of funding given FMIEADR's own medium-term goals for the next few years	Qual.	x	x	x
	Description of FMIEADR's concept with regard to the future development of its research profile and its originality	Qual.	x		
	Description of FMIEADR's recruiting strategy	Qual.	x	x	x
	Description of FMIEADR's staff development concept	Qual.	x		
	Description of FMIEADR's concept in order to achieve gender equality	Qual.	x		
	Description of FMIEADR's concept in order to facilitate a balance between its staff's family and working lives	Qual.	x		
VIII. Internal quality management	Description of instruments in place to manage the quality of the Scientific Paper Series Management, Economic Engineering and Rural Development	Qual.	x		

References

Corsi, M., C. D'Ippoliti, and F. Lucidi. 2010. "Pluralism at Risk? Heterodox Economic Approaches and the Evaluation of Economic Research in Italy." *American Journal of Economics and Sociology* 69(5):1495-1529.

Donovan, C., and L. Butler. 2007. "Testing Novel Quantitative Indicators of Research 'Quality', Esteem and 'User Engagement': An Economics Pilot Study." *Research Evaluation* 16(4):231-242.

Harris, G., and G. Kaine. 1994. "The Determinants of Research Performance: A Study of Australian University Economists." *Higher Education* 27(2):191-201.

Henrekson, M., and D. Waldenström. 2011. "How Should Research Performance be Measured? A Study of Swedish Economists." *The Manchester School* 79(6):1139-1156.

Laband, D.N., and R.D. Tollison. 2003. "Dry Holes in Economic Research." *Kyklos* 56(2):161-174.

Laband, D.N., R.D. Tollison, and G. Karahan. 2002. "Quality Control in Economics." *Kyklos* 55(3):315-334.

Lee, F.S. 2007. "The Research Assessment Exercise, the State and the Dominance of Mainstream Economics in British Universities." *Cambridge Journal of Economics* 31(2):309-325.

Romanian Agency for Quality Assurance inHigher Education. 2006. "Methology for External Evaluation, Standards, Standards of Reference, and List of Performance indicators of the Romanian Agency for Quality Assurance inHigher Education. Bucharest.

van Dalen, H.P. 1997. "Measuring Giants and Dwarfs: Assessing the Quality of Economists." *Scientometrics* 38(2):231-252.