

# TWO DECADES OF ACADEMIC AGRONOMIC EDUCATION IN TRANSITION FROM THE COMMUNIST RECLUSION TO THE ACADEMIC FREEDOM AND UNIVERSITY AUTONOMY

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**Abstract:**

*There have been almost 20 years since Romania has left the totalitarian system and has entered, step by step, slower or faster, the democracy. After the two decades it is normal for us to be wondering if the Romanian agronomic education has evolved as the society has, or if the Romanian agronomic education has approached the university standards from the west European countries and if it has reached an acceptable level of compatibility. The negative consequences of the financing system, with long term negative effects upon the education's quality, forces us, if we are responsible for the state of Romanian education, to change, as soon as possible, the present financing methods.*

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There have been almost 20 years since Romania has left the totalitarian system and has entered, step by step, slower or faster, the democracy. After the two decades it is normal for us to be wondering if the Romanian agronomic education has evolved as the society has, or if the Romanian agronomic education has approached the university standards from the west European countries and if it has reached an acceptable level of compatibility.

In 2009 we mark the passing of two important decades of the evolution of the Romanian society, generally, and the high education, in particular:

- the first decade 1989-1999 (the preBologna decade), is chronologically delimited by the December '89 events in Romania and the meeting of European education ministries when the Bologna Declaration has been made (1999). This decade is characterized by a fast and without precedent quantitative expansion, but also chaotic, without fundamentals;
- the second decade 1999-2009 (the postBologna decade) has debuted in Romania with the applying of university reform regarding the European high education system. Some important "structural" steps have been made, but we are still far from the common frame of university reference, especially regarding the qualitative compatibility of the Romanian high education with the European high education.

1. Regarding the expansion of universities, domains and specializations within the preBologna decade, there is a simple explanation: the extremely low level of the Romanian society's intellectualization in the period 1948-1989.

Within the European Union the university structures correspond to the 1997 UNESCO international standard (ISCED 1997) and the new Classified Science Domains by the Frascati Manual, being very restrictive and synthetic (9 fundamental studying domains with 26 specializations for the entire high education system).

The increase of the number of domains, faculties, specializations and students during the preBologna decade, but also the first half of the postBologna decade, has had strong "qualitative" consequences.

First, the increase of the students and specializations number has led to the increase of the disciplines, departments' numbers and to the increase of the didactic staff number, all this in only 15 years.

The didactic expansion, realized in two ways: attracting possible didactic staff from outside the system and retaining graduates in high education has been done without considering the pedagogical requirements, professional performance and scientific perspective of the candidates. What European universities have managed to achieve in 50 years (1950-2000) regarding the massification of the high education, Romania has achieved in only 10-15 years, with obvious qualitative consequences upon competitiveness.

The education and scientific processes assume slow, but solid accumulations for the assertion of some schools or centers of excellence. Elite high education staff can be formed, from the didactic and scientific point of view requires being involved, in early student years or at least during the Ph.D. studies, in some great university centers, performing academic and scientific environments from the occidental Europe or USA. Most of the great academics that existed after 1948 have had the opportunity to work and develop in well known European or American universities.

2. Besides the qualitative education's massification, another characteristic of universities' evolution during the preBologna decade refers to the chaotic diversification of the agronomic specializations and their grouping within the Romanian universities, by different criterion than the curricula based ones.

Another aspect of the specialization's expansion is represented by their "market" names, tempting for the candidates, specializations which are actually variations of the already existing ones, with only slight differences regarding the curricula, number of hours per semester and disciplines.

There is a great need of a profound restructuring of the faculties and departments, considering the principle of approaching the specializations of the same curricular area. However, applying some scientific principles is necessary for the universities structuring.

3. A third problem of the agronomic universities structures refers to the weighting of the admission places for classical specializations and for the new ones. In any market system the number of places offered for admission must be correlated with the demand and the absorption capacity of the market. The greatest agronomic universities in Europe (Hohenheim, Wageningen, Boku-Viena, Copenhagen, Uppsalla) have confronted these issues. During the '70-'80 decade of the last century the agricultural engineering specialization has been dominant regarding the number of students, with a 60-70% of the total number of students. During the next decades, as a response to the profound restructuring processes in the European agriculture the market of high qualified jobs has been essentially changed. Considering the new UE agricultural configuration, the request for agronomic engineers, horticulture engineers, zootechnic engineers has been substantially diminished, instead the request for finance, management and consultancy specialist being increased.

In a study presented by Professor P. Liebig, the Rector of Hohenheim University, in 2000, at the conference of the rectors of agronomic universities, has described the evolution of occidental agronomic universities and their structural changes. During the '70s and the '80s the number of students from the agronomic specialization was representing 60-70% of the total number of students from agronomic universities, while in the last decade of the last century it got to only 25%, but the number of students from the new specializations, as biotechnology, rural sociology, rural economy, has increased.

4. The fourth important issue for the optimization of the didactic process refers to the diversification of the didactic job that can be occupied by agronomic universities'

graduates. Some graduates chose the business environment, while other will be hired in local and central administration. These tendencies require a new formula for the curricula, so case studies, designing and simulation, team work, integral information of practical works, the active courses, the dialogue with the students, the interactive education, are demanded for the future of education.

5. Scientific research in high education is another issue that needs to be taken into consideration. Even more, considering the experience of many European, American and Asian prestigious universities, scientific research, generating new knowledge, represents the central axis.

A university that does not fulfill the science parameters, accepted and practiced in the entire world, is not considered to be a university, but a high education institution, which usually only organizes bachelor studies, without organizing master or doctoral studies. At the same time, such an institution will receive less financing than other more developed ones.

In USA and most European countries the competition in scientific research is centered mainly in two directions: receiving financing for research grants and increasing the visibility of the didactic staff, and implicitly of the universities, departments and excellence centers, by bibliometric performances from the main knowledge flow according to the ISI Thomson Reuters – Web of Science.

During the postBologna decade, while having access to the ISI data base, agronomic universities have achieved worldwide recognized performances, as shown in Table 1.

#### **Bibliometric performances in universities 1999-2008**

Table 1

<b>Scientometric indicators</b>	<b>Total/ universities</b>	<b>From which: USAMV</b>	<b>% USAMV out of total</b>
Number of articles (ISI)	12715	150	1,18
Number of papers in conferences (ISI)	10448	1366	13,07
Number of projects in conferinces (ISI)	1357	29	2,14
<b>TOTAL</b>	<b>24520</b>	<b>1545</b>	<b>6,3</b>

As one may notice, regarding the most important indicator, the number of papers published in the main publications, ISI graded, our universities have reached an insignificant part, of only 1,18% from the total scientific "products" of the Romanian universities.

Concerning the presence of each agronomic university (Bucuresti, Cluj, Iasi, Timisoara) in the ISI-Thomson Reuters data base, Table 2 and Table 3 show their contribution to the Romanian university science during the 2000-2004 and 2005-2008 period.

#### **Presence of agronomic universities in ISI-TR 2000-2004 data base**

Table 2

<b>USAMV</b>	<b>Article</b>	<b>Proceedings</b>	<b>Meeting</b>	<b>Editorial</b>	<b>Letter</b>	<b>Book</b>	<b>Total</b>
Timișoara	10	20	-	-	-	-	30
București	3	14	2	-	-	-	19
Cluj	8	3	2	-	1	-	14
Iași	-	3	-	-	-	1	4
<b>Total</b>	<b>21</b>	<b>40</b>	<b>4</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>67</b>

**Presence of agronomic universities in  
ISI-2005-2008 data base**

Table 3

<b>USAMV</b>	<b>Article</b>	<b>Proceedings</b>	<b>Meeting</b>	<b>Editorial</b>	<b>Letter</b>	<b>Book</b>	<b>Total</b>
Cluj	44	985*	6	-	-	-	1035
Timișoara	20	191	4	-	-	-	215
București	54	127	11	-	-	-	192
Iași	10	24	3	-	-	-	37
<b>Total</b>							<b>1479</b>

\* The large number of proceedings has resulted after the ISI indexing, (in 2005, 2006 and 2007) of the following symposiums:

- Symposium on 25 Years of Horticultural Faculty of Cluj-Napoca, Cluj-Napoca, ROMANIA, Jun.20-21, 2002;
- Symposium on Novelties in the Pathology and Breeding of Domestic Animals, Cluj-Napoca, ROMANIA, oct. 17-20, 2002;
- Symposium on Achievements and Prospects in Animal Breeding and Agricultural Biotechnology, Cluj-Napoca, ROMANIA, nov.15-16, 2002;
- 2nd International Symposium on Prospects for the 3rd Millennium Agriculture, Cluj-Napoca, ROMANIA, oct. 09-11, 2003;
- Symposium on Prospects of the 3rd Millennium Agriculture Cluj-Napoca, ROMANIA, oct. 20-23, 2004;
- Symposium on Prospects of the Agriculture of the 3rd Millennium Science, Cluj-Napoca, ROMANIA, oct. 06-07,2005;
- Symposium on Prospects for the 3rd Millennium Agriculture , Cluj-Napoca, ROMANIA, oct.05-06, 2006.

**Participation of USAMV at the  
CNCSIS – 2004-2007 grants program**

Table 4

<b>USAMV</b>	<b>Value - thousands lei -</b>	<b>%</b>
Cluj	3848,3	32,3
Timișoara	2773,4	23,3
București	2734,3	23,0
Iași	2553,9	21,4
<b>Total USAMV</b>	<b>11.909,0</b>	<b>9,8</b>
<b>TOTAL UNIVERSITIES</b>	<b>121.756,0</b>	<b>-</b>

**The success ratio at the  
grants program 2004-2007**

Table 5

<b>USAMV</b>	<b>Number of grants</b>		<b>Success Ratio</b>	<b>Value of a grant - thousand lei -</b>
	<b>Proposed</b>	<b>Financed</b>		
Cluj	328	131	39,9	29,4
Timișoara	343	106	30,9	26,2
București	194	64	33,0	42,7
Iași	169	53	31,4	48,2
<b>Total</b>	<b>1034</b>	<b>354</b>	<b>34,2</b>	<b>33,6</b>

Regarding the data from Table 4 and Table 5 I will not comment anything except that agronomic universities have a good weight in the national grants' value, and higher success rate comparing to their weighting of Romanian universities.

Agronomic scientific research in Romania is still based on themes which have been already solved either in Romania or in other countries. Many of the grants' themes are of local interest (at most of area interest). I do not claim that these themes aren't necessary, on the contrary, there are very useful from a practical point of view, but they cannot qualify for university scientific research. With this kind of themes the success ratio of the projects in European competition (FP6 and FP7) is very low and is very likely to remain low in the future.

6. Evaluation and classification of the universities. I will not refer to the evaluation and accreditation system but I wish to present some points of view regarding the integration of high education within the space of the European Union. As much as we refuse to accept, from different personal reasons, evaluations and classifications are taking over extremely quickly.

Another appreciation I would like to add refers to the system of universities' gradualization, in universities of international (or European) interest, regional interest, national and local interest. This system requires an obvious difference, made with maximum attention, to define classification criterion on each category.

In no country with an evolved high education system, the universities are not classified in the same category. In USA, from a number of 3000 universities, only a small number are considered top universities and have access, through their own performances, to all the facilities offered by the American society.

The gradualization of universities will create the premises for a correct place of the budgetary financing system and for the acceptance of the study tax and credit system. We must admit that the current financing system of the high education, based on the number of students and the difference of the university and faculty cost coefficients, have massively contributed to the qualitative degradation of the education process, by discouraging any kind of exigencies in the students' preparation.

The negative consequences of the financing system, with long term negative effects upon the education's quality, forces us, if we are responsible for the state of Romanian education, to change, as soon as possible, the present financing methods. For a short while, until the university classification system is settled, we must adopt the system of financing university studies for the period of a single education cycle (bachelor, master, doctoral).