

Summary report on research accreditation

I. General information

Name of organization	Institute of Agricultural Technique “Mecagro”
Organization type (to underline)	Ministerial research institute
Research mission of organization	The activities of research-development, the creation and implementation of the intellectual proprieties in the efficient aim of the contribution of mechanization in the realization of the technology process from the agro-alimentary sector, in addition to the commercialization technical-scientific productions.
Strategic research direction (s)	<p>Strategically directions:</p> <ul style="list-style-type: none"> - Agricultural biotechnologies, the fertility of the soil and the alimentary security; - Efficient of the energy complex and the assurance of energy security, inclusive through the using the renewable resources. <p>In the basic of the strategically directions of ITA “Mecagro” the developing of the activity of research on the following concrete directions:</p> <ul style="list-style-type: none"> – The development of the political documents according to the mechanization development of the agro-alimentary sector and efficient using of the technical means. – The development of the scientific research and owners according to technologies elaboration and technical means for the agro-alimentary sector (phytotechny, plant protection, horticulture, animal husbandry, processing industry). – The development of technologies and equipments for the production and utilization the renewable sources of energy from the raw material and agricultural waste. – The development and learning the technology process of models manufacture and experimental samples of the technical means, the promotion of the technical –scientific achievements on the domestic and foreign market.
Evaluated period	2007-2011
Web of organization	www.agriculture.md/mecagro

II. Research capacity (annual average for evaluated period)

Total number of employees	192
Number of scientific researches	22

Number of researches who possess honorific titles, scientific degrees, scientific and scientific-didactical titles.	ASM full members 0	ASM corresp. members 1	Professor 0	Associated professor 0	Dr. hab. 1	Dr. (PhD) 12
Number of researches involved in international projects	FP7 0	STCU 5	Bilateral 0	Others 4		
Number of young researches (under 35 years old)	Dr.(PhD) 0	PhD students 1	Others 1			
Financial resources (thousand MDL)	Public budget 4128,0	International project/grants 12,0	Research contracts 24561,8			
Distribution of expenditures (thousand MDL)	Salary 9234,0	Infrastructure development 9006	Other 8920			

Expenditures for infrastructure development (thousand MDL)	Equipments 478,5	IT infrastructure 75,0	Endowment of experimental resorts -
List of 3 basic research methods, installations, technologies (per accredited field)	<ol style="list-style-type: none"> 1. Pouring station for research of meters 2. Stand for the research of machines of plant protection 3. The set of tools for studying the processes of production and use of biofuels 		
List of provided scientific services	<ul style="list-style-type: none"> - Scientific research, design, manufacture, testing experimental samples of the technical means and automated system for crop, livestock, food and raw material processing; - Manufacture, testing machines, equipment, measuring instruments, devices, consumer goods; - Develop of technologies and equipment for production and use of renewable energy sources; - Commercialization of technical and spare parts; - Promoting the scientific achievements domestic and foreign market; - The implementation of the technology process, fitting and adjustment in the agricultural and manufacturing. - The maintenance of the means of measuring, elaboration of the ecological passport of the enterprises, normative admissible projects for released wastes in the atmosphere, the measuring of the parameters of harmful doses in the zone of work. 		
List of editorial activities	Cofoundation of Journal “Știința Agricolă” (Agricultural Science)		

III. Distribution of number projects and themes during evaluated period

	2007	2008	2009	2010	2011
Institutional projects	3	3	5	5	4
Projects in the frame of State Programmers	5	5	2	2	2
Technological transfer projects	1	1	2	4	3
Projects for equipment procurement	0	0	0	0	0
Project for young researches	0	0	1	0	0
Project in the frame of bilateral programmers	0	0	0	0	0
International projects/grants	0	0	0	0	1
List of 3 representative international projects/grants	Project STCU A/5398 “Development and use of the optimized compositions of biofuel mixtures based on physic-chemical modeling” (2011÷2013)				
Research contracts	12	12	8	9	10
List of 3 representative research contracts	1. Attestation of the jobs relative to labor protection (2007÷2011). 2. Evaluation of the emissions of substances that pollute the atmosphere (2007÷2011). 3. Inventory of the emissions of toxic substances (2007÷2011).				

IV. Scientific publications

Total number of publications abroad	Books 0	Chapters in books 0	Journal papers 10
Total number of publications in ISI journals and books	Books 0	Chapters in books 0	Journal papers 10
Total number of publications in the country	Books 5	Chapters in books 0	Journal papers 83
Total number of conference abstracts	International abroad 5	International in the country 11	National 1

<p>List of 5 representative publications (per accredited field)</p>	<ol style="list-style-type: none"> 1. Hăbășescu I., Cerempei V., Deleu V., and others. Energy from biomass: technologies and technical means. Chișinău: Bons Offices 2009- p. 368. ISBN 978-9975-80-301-4. 2. Chicu B., Lungu G., Vasilevschi S., and others. The protection of plants: technologies and technical means. Chișinău: Bons Offices 2010 - p. 312. ISBN 978-9975-80-418-9. 3. Technologies and technical means for the agriculture. Theme collection ITA “Mecagro”. Chișinău: Central printing, 2008- p.328. ISBN 978-9975-78-521-1. 4. Technologies and technical means for the agriculture. Theme collection ITA “Mecagro”. Chișinău: Bons offices, 2011 - p.312. ISBN 978-9975- 80-531-8. 5. Hăbășescu I., Cerempei V., Balaban N., Raiciv V., Molotcov Iu. Contributins to the Research, Production and Utilization of Liquid Biofuels in the Republic of Moldova, in: Renewable Energy Resources, Production and Technologies Proceedings of the 5th UEAA General Assembly and the Associated Workshop, Riga, Latvia, 28-31.05.2008. – p. 103-109.
<p>List of 5 citations</p>	<ul style="list-style-type: none"> - I.Hăbășescu. Effectiv biomass-source of renewable energy. Academos, nr. 3 (10), june 2008. p.75÷80. (A.Muntean, Tatiana Ivanova, A. Gudama. Prospects for solid biofuels in the Republic of Moldova. Materials of international conference, Chisinau, Agrarian University of Moldova, 2011-p. 212÷217); - Energy from biomass: technologies and technical means/ Hăbășescu. I., Cerempei V., Deleu V. and others; editor I. Hăbășescu. Chisinau: Bons Offices, 2009-368.(A.Gudama. The stage according using the waster agricultural and forestry for obtaining the heat in the conditions of the Republic of Moldova. Materials of international conference, Chisinau, Agrarian University of Moldova, 2011-p. 212÷214); - Technologies and technical means for agriculture. Thematic collection of the Institute “Mecagro”, Chisinau: Central typography, 2008-326p. (D. Novorjdin. Correcting the content of biofuel at the function of engine in unstable regime. Materials of international conference, Chisinau, Agrarian University of Moldova, 2011-p. 184÷188); - Cerempei V. Reconditionation of cylinder engine with chrome plating tractor and car mechanics. Review by the author of technical PhD thesis, Chisinau, 1990-21p.(reasoning operations and equipment necessary for reconditioning cylinder by blacksmith. Materials of international conference, Chisinau, Agrarian University of Moldova, 2011-p. 112÷117); - Cerempei V. Mechanical features of chemical deposition and electroplating metals and alloys. M., 1986 p.77-81. (reasoning operations and equipment necessary for reconditioning cylinder by blacksmith. Materials of international conference, Chisinau, Agrarian University of Moldova, 2011-p. 112÷117);

V. Innovation outputs

Total number of patents	Registered in the country 30	Registered abroad 0	Implemented 30
Total number of new developed methods and technologies	Registered 5	Non-registered 3	Implemented 8
Total number of new scientific products	Registered 0	Non-registered	Implemented
Total number of scientific outputs for central and local authorities (draft of law, strategies etc.)	The development conception of technology processes mechanization in the food sector; Program of activities of Government; Action plan for realization of Program “Moldovan Village”; National Strategy for development in 2008-2011; Government Priority of activities		
Total number of scientific outputs for educational institutions	Handbooks For high education 0	Handbooks for Pre-university 0	Delivered university courses 0
List of 5 representative innovation outputs (per accredited field)	<ol style="list-style-type: none"> 1. Complex of machines for the protection of plants: SLV 2000D, SLV 2000F, DRU12, DEU 5-6, SPR 21-500+500, MAS 4000, ASV 6-4000; 2. Complex of equipments for the sector of zootechnics: aggregate for the preparation of the combined feed ANC 600, ANC 1200, extruder EC 160, ES 100; aggregate of dosing and packing ADA 50; 3. Technologies and technical means for the production and using of liquid fuels form the vegetable oil, monatomic alcohols (ethanol, butanol); 4. Technologies and technical means for the production of solid fuels from the vegetable mass; 5. Integrated informational system for the agro-alimentary sector. 		

V. Major scientific and innovation achievements

Short description of main scientific results and its confirmation (by awards, citations, development of international projects etc)	<ul style="list-style-type: none"> - The processes and technical means for obtaining biofuel form vegetable oils. Gold medal at International Exhibition, Infoinvent 2007, Chisinau; Creativity and Innovation 2010, Romania, Salon of Inventions and Technologies 2010, Sevastopol, Russia, I. Hăbășescu, Gh. Duca and others. - The machine for the plants protection. Gold medal at International Exhibition, Infoinvent 2007, 2011, Moldagroteh 2008, Chisinau; bronze medal at international Salon, Infoinvent 2007, Bucharest, Romania. I. Hăbășescu, V. Schibițchi, G. Lungu and others. - The equipments for the livestock sector, Gold medal at
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	International exhibition, Infoinvent 2011, Moldagroteh 2007, Chisinau; bronze medal at Proinvent Salon 2007, Cluj Napoca, Romania. I. Hăbășescu, V. cerempei, N. Balaban and others.				
Number of organization invited speakers at international conferences	2007 1	2008 1	2009 1	2010 3	2011 8
Short description of technological transfer and innovational results and its certification by implementation	<ol style="list-style-type: none"> 1. Contract 07.407.38 T the development of technical means for preparing, transporting and supplying the liquid of work in the agro-technical and veterinary purposes. Act of delivery-reception. 2. Contract 09.166.86 T the equipment of biofuel production for mounting with compression of ignition. Act of delivery-reception. 3. Contract 10824-04 .105 T the implementation of equipment for producing and distributing feed to pig farms. Act of delivery-reception. 4. Contract 10.824 -04.123 T the implementation of equipment for feed preparation and distribution of the fish farm. Act of delivery-reception 5. Contract 10-824.111T the implementation of innovative technology for production in the Republic of Moldova of tractor universal Belarus 921 AF. Act of delivery-reception. 6. Contract 10.824.130 T the implementation of technological line for manufacture of grain of food production and competitive feed. Act of delivery-reception. 7. Contract 10.824.135 T the implementation of technical for production of sprayer with energy intensity increased. 				
Number of defended dr. hab. And dr. theses per year	2007 0	2008 0	2009 0	2010 0	2011 0

VII. Present/further involvement in the Seventh Framework Programme (FP 7): specific programmed (Cooperation, Ideas, People, Capacities) of interest and its sub – divisions.

Cooperation: Food, Agriculture and Biotechnology (Developing technologies for the production and use of renewable energy sources in the raw materials and agricultural waste; recommendation concerning of r educing the negative impact of plant protection technologies and processes of burning of fossil fuel on the surrounding environment;

Ideas: The international scientific projects in the environmental protection, production and use of renewable energy from biomass;

People: Areas of knowledge; Science in the society (the impact assessment of plant protection means and processes by burning of fossil fuels on the environment, development and technical means for ecological and socio-economic situation)

VIII. Accredited research field and its evaluation by the National Council for Accreditation and Attestation of the Republic of Moldova (very good/good/satisfactory)

Technologies and technical means for the agriculture sector- **good**

IX. Category (A/B/C) attributed by the National Council for Accreditation and Attestation of the Republic of Moldova to the organization

Category B

X. Institutional development actions planned for the next 5 years (maximum ½ page)

- Increasing attention to staff training process by doctorates and post-doctorates.
- Active participation in international forums (congresses, conferences, symposia) with scientific reports, published articles in foreign editions.
- Organizing or participating as co-organizer of conferences, national and international symposia.
- Institute research training in research related activities (committees of experts, specialized scientific councils, scientific seminars, theses etc. reviewers.).
- Active employment research of Institute in the transfer of knowledge and teaching in educational institutions in the field (UASM UTM) as the leaders and masters degree theses.
- Active participation of the Institute subdivisions in competitions announced projects for financing from international grants.