NATIONAL INSTITUTE OF RESEARCH-DEVELOPMENT FOR MACHINES AND INSTALLATIONS DESIGNED TO AGRICULTURE AND FOOD INDUSTRY

-EXCELLENCE CENTRE –

ACTIVITY Report - 2012 -

BUCHAREST – 2013

SUMMARY

1. IDENTIFICATION DATA

1.1.Denomination

NATIONAL INSTITUTE OF RESEARCH-DEVELOPMENT FOR MACHINES AND INSTALLATIONS DESIGNED TO AGRICULTURE AND FOOD INDUSTRY

- INMA Bucharest -

1.2. Establishing document with the subsequent modifications

- HG 1308/1996;
- HG 823/2004;

Accredited to perform research-development activities financed by public funds in compliance with Decision of ANCS no. 9634/14.04.2008

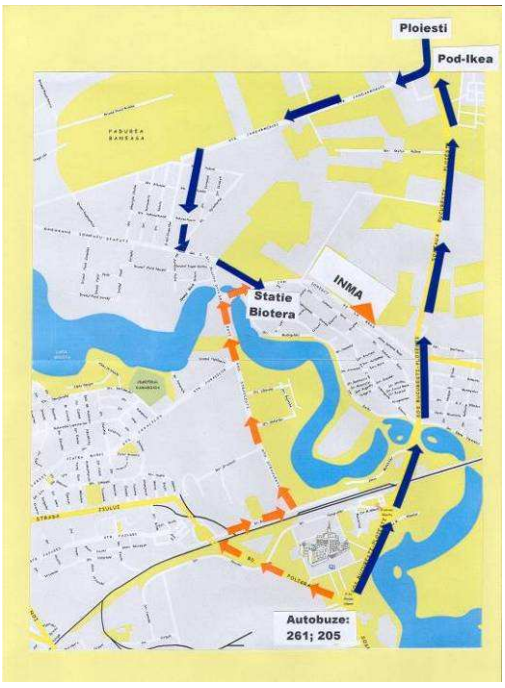
1.3. Registering number within the Register of potential contractors

2421, in compliance with annex 1 of Information Package of Programme RESEARCH OF EXCELLENCE – CEEX 2006:436

1.4. General Manager: Ph.D. Eng. Pirnă Ion

1.5. Address

Bucharest, District 1, Bd. Ion Ionescu de la Brad no. 6, PC 013813



1.6. Telephone: 021 269.32.69
Fax: 021 269.32.73
Webpage: http://www.inma.ro
E-mail: icsit@inma.ro

2. SHORT PRESENTATION OF INCD

2.1. HISTORY

ORGANIZATIONAL EVOLUTION

1927 – Setting up „**TESTING CENTRE FOR AGRICULTURAL MACHINES AND TOOLS**"-BĂNEASA within the INSTITUTE FOR FORESTRY RESEARCHES IN ROMANIA by the Establishing Law **ICAR** (M.O no. 97/05.05.1927).

1930 - Decision no. 2000/1930 of ICAR Manager - GHEORGHE IONESCU ŞIŞEŞTI related to **operating** standards **and the role of TESTING CENTRE FOR AGRICULTURAL MACHINES AND TOOLS** "

1952 – Setting up the institute of SCIENTIFIC RESEARCHES FOR AGRICULTURE MECHANIZING AND ELECTRIFYING - ICMEA by transforming the TESTING CENTRE FOR AGRICULTURAL MACHINES AND TOOLS within ICAR (HCM no.543/16.04.1952).

1982 – Joining ICMEA Băneasa to INSTITUTE FOR DESIGNING AGRICULTURAL MACHINES OTOPENI and establishing the NATIONAL INSTITUTE OF RESEARCH-DEVELOPMENT FOR MACHINES AND INSTALLATIONS DESIGNED TO AGRICULTURE AND FOOD INDUSTRY ICPITMUA Băneasa (Decree of State Council no.386/27.10.1982).

2011 – INMA has been authorized to develop activities of:
- skills training for AGRICULTURAL MACHINERY MECHANIC I, code COR new 723309, Acord to. Aut. Series B no. 0004500 from 24.03.2011
- perfectioning for SPECIALIST ÎN *AIDED-COMPUTER DESIGN* position, code COR new 251401, Accord to. Aut. Series B No. 0004501 from 28.04.2011

2012 - INMA has been authorized by the Centre of Evaluation and Professional Competences to run activities for qualification of „MILLER", code COR 816020, accord to. Aut. Series C, no. 00260 from 31.08.2012

OBJECTIVES

- Performing scientific and experimental researches on"the machines and equipment the most suitable for Romania soil and climate";
- Testing the machines recently brought in the country.

- Creating and endowing the first laboratory for testing agricultural machines;
- Establishing rules of experimental research and chosing the types of machines suitable to Romania agriculture;
- Establishing the testing methodologies and programmes;
- Publishing the results of agricultural machines testing;
- Regional demonstrations with state-of-the art agricultural machines.

- Elaborating the agro-technical requirements for machines and equipment appropriate to agricultural processes;
- Elaborating the systems and types of machines necessary to mechanizing the agricultural processes;
- Experimental researching and improving the technical and manufacturing solutions.

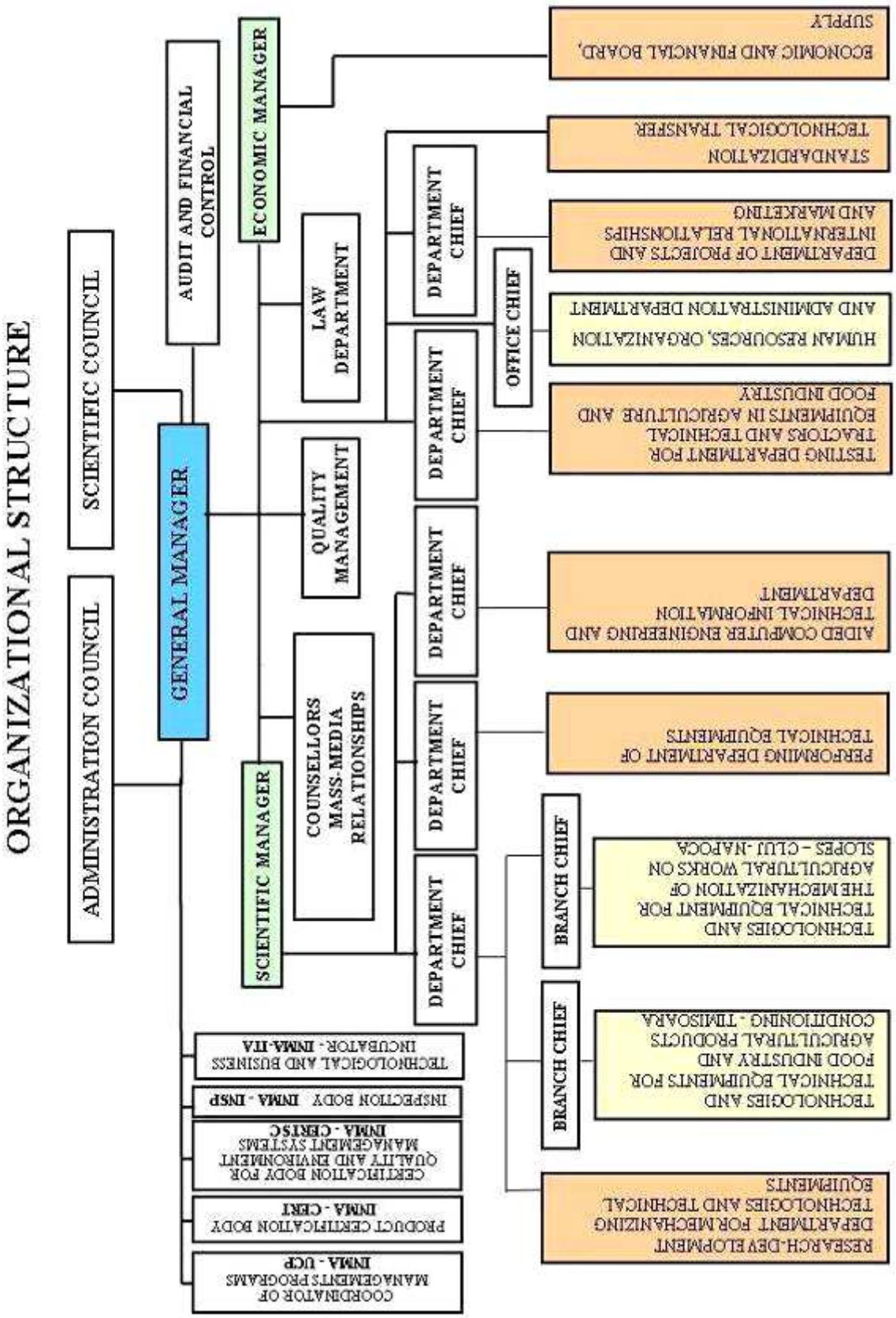
- Performing scientific research, designing and manufacturing experimental models and prototypes of agricultural machines and equipment;
- Elaborating the mechanizing technologies;
- Elaborating the machines and equipment classes designed to agricultural processes.

- Fundamental research related to resistance and structure of materials used at manufacturing the technical equipment, TE relation with plant and environment (air,water, soil);
- Applicative research aimed at substantiating and achieving the mechanizing technologies and state-of-the art technical equipment designed to agriculture and food industry;
- Technological development by manufacturing experimental models and prototypes of technical equipment;
- Standardization, typification and unification of technical agricultural equipment in terms of working parts CT 77;
- Testing and certifying the technical equipment.
- Practical demonstration, dissemination and public assistance during the implementation.;
- Incubation and technological transfer;
- Skills improvement and professional training; scientific carriers;
- Substantiation of partnerships-consortia on interest subjects for EU funded projects (PC 7, EUREKA, COST, TRANSBORDER etc.)

- Activities of skill training and professional specialization within the professional training centre.

- Activities of adults professional training.r

2.2. ORGANIZATION CHART



2.3. SPECIALTY FIELD OF INMA

a. According to UNESCO classification

3313 – Mechanical technology and engineering;
3102 – Agricultural engineering (technologies and equipment)
3309 – Tehnologies/equipment for food industry;
3328 – Technological processes;
3308 – Engineering and technology of environment.

b. According to CAEN classification

7219 – Research-development of physical and natural sciences;
7120 – Activities of testings and technical analyses;
6201 – Editing programmes;
6203 – IT data processing;
7022 – Activities of business and management consultancy.

2.4. RESEARCH-DEVELOPMENT DIRECTIONS

INMA performs activities of scientific research (fundamental and applicative), innovation and development in the field of processes, technologies and technical equipment of mechanization and automation of agricultural and food industry operations within the context of harmonizing the institute whole activity to the policies applied by the National Agency for Scientific Research in Romania.

a. main domains of research-development

- Scientifically substantiating the processes in agriculture, food industry and creating new technologies, technical devices and equipment competitive and appropriate to European research area, specific to concepts of SUSTAINABLE AGRICULTURE, FOOD SAFETY AND SECURITY;
- Renewable sources of energy (biomass, biofuels) technologies and technical equipment for using them efficiently, ensuring life, health and environment protection;
- Rural development and life quality improvement by technological transfer and outcomes demonstrations performed by the institute.;
- Strengthening the research infrastructure (human resources, logistics, researching instruments) and achieving partenerships for joining ERA, including the compliance with European technological platforms.
- Activities of training, professional specialization and personnel certification in the field of mechanizing technologies.

b. secondary research domains

Assessing and certifying the conformity of technical equipment in regulated and non-regulated field of EU.;
- Performing periodical technical controls of mechanizing technologies and TE for agriculture and food industry;
- Technological transfer and innovative business through the accredited technological icubator: INMA-ITA.

c. Services/microproduction

- testing technical equipment;
- certifying the products conformity;
- training and competences evaluation;
- performing periodical technical inspections for all types of motor vehicles;
- manufacturing plastic components.

3. MANAGING STRUCTURE

3.1. ADMINISTRATION COUNCIL

1. **Prof.Ph.D.Eng. PIRNĂ Ion - president**
2. **Ph.D.Eng. MURARU Vergil - vicepresident**
3. **Ec. CHITUC Nicoleta - member**
4. **Ec. MASARIU Mioara - member**
5. **Ec. HALALAIE Elena - member**
6. **Prof.Ph.D.Eng. NICULIȚĂ Petru - member**
7. **Ec. ŞEULEANU Dragoş - member**
8. **Legal adviser CÂRCEL Cristina - secretary**
9. **Ph. D. Eng. NEDELCU Mihail- permanent guest**

Annex 1
REPORT on INMA Administration Council activity during 2012-synthesis

3.2. SCIENTIFIC COUNCIL

1. **Ph.D. Eng. Muraru Vergil - president**
2. **Ph.D. Eng. Ciupercă Radu - vicepresident**
3. **Ph.D. Eng. Ganea Ioan - secretary**
4. **Prof. Ph.D. Eng. Pirnă Ion**
5. **Ph.D. Eng.Voicu Emil**
6. **Ph.D. Eng. Vlăduț Valentin**
7. **Eng. Ioniță Ghiță**
8. **Ph.D. Eng. Muraru Cornelia**
9. **Ph.D. Eng Găgeanu Paul**
10. **Ph.D. Eng. Pop Augustin**
11. **MS. Eng. Coța Constantin**
12. **Ph.D. Eng. Constantin Nicolae**
13. **Ph.D. Eng. Drâmbei Petronela**
14. **Ph.D. Eng Marin Eugen**
15. **Ph.D. Eng Bădănoiu Bianca**
16. **Ph.D Eng. Nedelcu Mihail**
17. **MS. Eng. Matache Mihai**
18. **Eng. Neagoe Valerica**
19. **Ph.D. Eng. Păun Anisoara**

3.3. MANAGING COMMITTEE

1. **General Manager - Prof.Ph.D.Eng. PIRNĂ ION - president**
2. **For Scientific Manager - Ph.D. Eng. Sorică Cristian - member**
3. **Economic Manager - Ec. Rusu Mircea - member**
4. **RDI Division - Ph.D. Eng. Păun Anişaora - member**
5. **Testing Division - Ph.D.Eng Vlăduț Valentin - member**
6. **Manufacturing Division - Eng. Marian Mihai - member**
7. **Informatics Division - Ph.D.Eng. Muraru Vergil - member**
8. **Division P.R.I. - Ph.D.Eng. Drâmbei Petronela - member**
9. **Division I.T.A. - Ph.D.Eng. Muraru Cornelia - member**
10. **Division SMCS - Ph.D.Eng Bădănoiu Bianca - member**
11. **Financial -Accounting Division - Ec. Gheorghe M - member**
12. **Administrative, personnel, organiz. Division - Eng.Dumitru C. - member**
13. **Legal adviser - Cârcel Cristina - member**
14. **Contracts Surveying - Eng. Neagoe Valerica - secretary**
15. **INMA Trade-union - Ph.D. Eng. Nedelcu Mihail - permanent guest**

4. INCD ECONOMIC-FINANCIAL STATEMENT

BALANCE in short Form 10 on 31.12.2012	No. of row	Stock ballance	
		01.01.2012	31.12.2012
A	B	1	2
Denomination of element			
A. ASSETS CAPITAL			
I. INTANGIBLE ASSETS (acct.201 +203+205+2071 +208+233+234-280-290-2933)	01	105,923	276,555
II. TANGIBLE ASSETS(acct.211+212+213+214+223+224+231+232-281-291-2931)	02	8,957.382	9,816.114
III. FINANCIAL INVESTMENT (acct.261 +263+265+267* - 296*)	03	5.141	
ASSETS USED - TOTAL **(row. 01 + 02 + 03)**	04	9,063.305	10,092.669
B. ACTING ASSETS			
I. STOKCS (acct.301 +321+302+322+303+323+/-308+328+331 +332+341+345+346 +/-348+351+354+356+357+358+361+326+/-368+371+327+/-378+381+/-388-391-393-394-395-396-397-398+4091-4428)	05	394,318	1,849.137
II.DEBTS (Amounts to be cashed up after more than one year period should be shown separately for each element) (acct.267*-296*+4092+411+413+418+425+4282+431 **+437**+4382+441 **+4424 +4428**+444**+445+446**+447**+4482+451**+453**+456**+4582+461+473**-491 -495-496+5187)	06	5,548.161	5,516.882
III.SHORT-TERM INVESTMENTS(acct.501+505+506+508+5113+5114-591-595-596-598)	07		
IV. BANKING HOUSE AND BANK ACCOUNTS (acct. 5112+512+531+532+541+542)	08	2,927.817	1,826.465
ACTING ASSETS - TOTAL **(row. 05 + 06 + 07 + 08)**	09	8,870.296	9,192.484
C. ADVANCED EXPENDITURES (acct. 471)	10		
D. DEBTS::AMOUNTS TO BE PAYED UP TO ONE YEAR (acct.161+162+166+167+168-169+269+401 +403+404+405+408+419+421+423+424 +426+427+4281+431 ***+437***+4381 +441 ***+4423+4428***+444***+446***+ 447***+4481 +451 ***+453*** +455+456***+457+4581 +462+473***+509+5186+519)	11	2,669.564	2,694.096
E. NET ACTING ASSETS/NET CURRENT DEBTS (row.09 +10-11-19)	12	6,200.732	2,664.710
F. TOTAL ASSETS MINUS CURRENT DEBTS (row.04 + 12)	13	15,264.037	12,757.379
G. DEBTS TO BE PAYED WITHIN A PERIOD OF OVER ONE YEAR (acct.161 +162+166+167+168-169+269+401 +403+404+405+408+419+421+423+424 +426+427+4281+431 ***+437***+4381+441***+4423+4428***+444***+446***+ 447***+4481 +451 ***+453*** +455+456***+4581 +462+473***+509+5186+519)	14		
H. COMMISSIONS (acct. 151)	15		
1. ADVANCED INCOMES OUT OF WHICH (row. 17 + 18 + 21+ 22),:	16	9,914.877	11,204.311
1.Subsidies for investment (acct. 475)	17	5,422.444	7,370.633
2.Advanced incomes (acct. 472) - total **(row.19+20)**, out of which:	18	4,492.433	3,833.678
Amounts to resume up to one year period (acct. 472*)	19		3,833.678
Amounts to resume up to more than one year (acct. 472*)	20	4,492.433	
3.Advanced incomes for assets received by transfer from clients (acct.478)	21		
Negative commercial fund (acct.2075)	22		
J. CAPITAL AND RESERVES			
I. CAPITAL **(row.24 + 25 + 26 + 27),**out of which:	23	517,868	517,868
1-Subsribed payed capital (acct. 1012)	24		
2-Subscribed unpayed capital (acct. 1011)	25		
3-Overhead patrimony (acct. 1015)	26	517,868	
Patrimony of national research – development institutes (acct.1018)	27		517,868
II. CAPITAL BONUS(acct. 104)	28		
III. RESERVES OUT OF REASSESSEMENT (acct. 105)	29	2,388.180	2,002.236
IV. RESERVES (acct. 106)	30	2,128.575	2,583.248
Own activities (acct. 109)	31		
Profits related to own capital instruments (acct. 141)	32		
Loss related to own capital instruments (acct. 149)	33		
V. REPORTED PROFIT OR LOSS STOCK BALANCE C (acct. 117)	34		25,000
BALANCE D(acct. 117)	35		
VI. PROFIT OR LOSS OF TAX YEAR STOCK BALANCE C (acct. 121)	36	85,911	29,768
BALANCE D(acct. 121)	37		0
Profit alottement (acct. 129)	38		
OWN CAPITALS - TOTAL **(row. 23+28+29+30-31+32-33+34-35+36-37-38)**	39	5,120.534	5,158.120
Public patrimony (acct. 1016)	40	228,626	228,626
CAPITALS - TOTAL (row. 39+40) (row.13-14-15-17-20-21-22)	41	2.504.732	5.302.374

ACCOUNT OF PROFIT AND LOSS on 31.12.2012			
Indexes denomination	**No. of rows**	**Fiscal year**	
		2011	**2012**
A	**B**	**1**	**2**
1. Net turnover **(row. 02+03-04+05+06)**	01	9,094.961	10,711.936
Production sold (acct.701 +702+703+704+705+706+708)	02	9,094.840	10,708.415
Revenues from goods selling (acct. 707)	03	121	3,521
Allowable commercial discount (ct. 709)	04		
Incomes from registered interests registered by entities deleted from the general registering Book and that keep having in course leasing contracts (acct.766*)	05		
Incomes from capitalizing subsidies related to net turnover (acct.7411)	06		
2.Incomes related to cost of production in course of manufacturing (acct.711 +712)			
Balance C	07	121,211	1,463.267
Balance D	08		
3. Production achieved by the entity at its own purpose and capitalized (acct.721+722)	09		
4. Other incomes coming from capitalization (acct.758+7417+7815)	10	1,172.832	1,277.806
-out of which incomes from negative trade stock	11		
INCOMES FROM EXPLOITATION TOTAL **(row. 01 + 07 - 08 + 09 + 10)**	12	10,389.004	13,453.009
5. a) Expenses of raw material and supplies (acct.601 +602-7412)	13	220,945	654,658
Other material expenses (acct.603+604+606+608)	14	197,337	864,009
b) Other external expenses (of power and water)(acct.605-7413)	15	188,758	323,439
c) Expenses related to goods (acct.607)	16		
Trading discount received (acct. 609)	17		
6. Personnel expenses **(row. 19+20),** out of which:	18	7,344.738	7,721.903
a) Wages and allowances (acct.641+642+643+644-7414)	19	5,700.000	5,944.365
b) Expenses of insurances and social protection (acct.645-7415)	20	1,644.738	1,777.538
7.a) Value adjustment regarding the tangible and untangible assets **(row. 22 - 23)**	21	1,051.023	1,851.159
a.1) Expenses (acct.6811+6813)	22	1,051.023	1,851.159
a.2) Revenues (acct.7813)	23		
b)) Value adjustment regarding the acting assets **(row. 25 - 26)**	24	31,076	
b.1) Expenses (acct.654+6814)	25	31,076	
b.2) Revenues (acct.754+7814)	26		
8. Other exploitation expenditures **(row. 28 to31)**	27	1,096.601	1,854.544
8.1. Expenses regarding the external services (acct.611+612+613+614+621+622+623+624 +625+626+627+628-7416)	28	457,372	988,332
8.2. Expenses related to other taxes and payments assimilated (acct.635)	29	401,817	625,150
8.3. Other expenses (acct.652+658)	30	237,412	241,062
Expenses related to refinancing the interests registered by the entities already erased from general registering Book and that have in course leasing contracts (acct. 666*)	31		
Adjusement related to provisions **(row. 33 - 34)**	32		
-Expenditures (acct. 6812)	33		
-Incomes (acct. 7812)	34		
EXPLOITATION EXPENDITURES - TOTAL **(row. 13 to 16 -17 +18 + 21 + 24 + 27 + 32)**	35	10,130.478	13,269.712
PROFIT OR LOSS IN EXPLOITATION:			
- Profit **(row. 12-35)**	36	258,526	183,297
- Loss **(row. 35-12)**	37	0	0
9. Revenues coming from participating intersts (acct.7611 +7613)	38		
- out of which, revenues obtained from affliated entities	39		
10. Revenues coming from other investments and loans belonging to tangible assets (acct. 763)	40		
- out of which, revenues obtained from affliated entities	41		
11. Revenues from interests (acct. 766*)	42	1,857	2,673
- out of which, revenues obtained from affliated entities	43		
Other financial revenues (acct.762+764+765+767+768)	44	4,349	44,129
FINANCIAL REVENUES - TOTAL **(row 38 + 40 + 42 + 44)**	45	6,206	46,802
12. Value adjustments regarding the financial immobilizations and financial investments detained as acting assets **(row. 47 - 48)**	46		
-Expenditures (acct.686)	47		
- Revenues (acct.786)	48		
13. Expenses related to interests (acct.666*-7418)	49	76,634	86,467
- out of which, expenses related to affiliated entities	50		
Other financial expenses (acct.663+664+665+667+668)	51	5,916	31,830
FINANCIAL EXPENSES- TOTAL **(row. 46 + 49 + 51)**	52	82,550	118,297
FINANCIAL PROFIT OR LOSS:			
- Profit **(row. 45 - 52)**	53	0	0
- Loss **(row 52-45)**	54	76,344	71,495
14. CURRENT PROFIT OR LOSS:			
- Profit **(row. 12 + 45-35-52)**	55	182,182	111,802
- Loss **(row. 35 + 52-12-45)**	56	0	0
15. Extraordinary revenues (acct.771)	57		
16. Extraordinary expenses (acct.671)	58		
17. PROFIT OR LOSS IN EXTRAORDINARY ACTIVITY:			
- Profit **(row. 57 - 58)**	59	0	0
- Loss **(row. 58-57)**	60	0	0
TOTAL REVENUES **(row. 12 + 45 + 57)**	61	10,395.210	13,499.811
TOTAL EXPENSES **(row. 35 + 52 + 58)**	62	10,213.028	13,388.009
RAW PROFIT OR LOSS:			
- Profit **(row. 61-62)**	63	182,182	111,802
- Loss **(row. 62-61)**	64	0	0
18. Profit tax (acct.691)	65	96,271	82,034
19. Other taxes unshown within the previous elements (acct.698)	66		
20. NET PROFIT OR LOSS O F FINANCIAL YEAR:			
- Profit **(row. 63 - 64 - 65 - 66)**	67	85,911	29,768
- Loss **(row. 64 + 65 + 66 - 63)**	68	0	0

TOTAL INCOMES

Out of which:

ANNEX 2

- **Incomes obtained through national /international research-development contracts funded by State Budget and European subsidies**

Annex 2.1

DENOMINATION OF PROGRAMME (projects developed in 2012)	Total value 2012 (lei)	Out of which	
		INMA	Partners
▪ Programme *4: PARTNERSHIPS IN PRIORITY DOMAINS:* *2 contracts*	417,000	304,000	113,000-
▪ *IDEAS* Programme*:* *1 contract*	650,000	650,000	
▪ *INNOVATION* programme: Subprogramme of Supporting Services for Innovation-INNOVATION CHEQUES	200,000	200,000	-
▪ *SECTORAL PLAN OF MINISTRY OF ECONOMY,COMMERCE AND BUSINNES:* *2 contracts*	139,500	139,500	
▪ *SECTORAL PLAN OF MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT* *4 contracts*	478,848	414,048	64,800
Programme *NUCLEUS:* *5 contracts*	4,604.669	4,604 669	-
▪ *OPERATIONAL SECTORAL PROGRAMME FOR HUMAN RESOURCES DEVELOPMENT 2007-2013 – POSDRU:* *2 contracts*	955,644.66	955,644.66	-
▪ *OPERATIONAL SECTORAL PROGRAMME FOR RAISING ECONOMIC COMPETITIVENESS – POS CCE:* *2 contracts*	182,500	182,500	-
▪ *CROSS-BORDER COOPERATION PROGRAMME ROMANIA – BULGARIA 2007-2013:* *3 contracts*	993,635.22	993,635.22	-
▪ *CROSS-BORDER COOPERATION PROGRAMME ROMANIA – HUNGARY 2007-2013:* *1 contract*	405,969.40	405,969.40	
▪ *LEONARDO DA VINCI PROGRAMME:TRAINING THROUGH VISUAL COMMUNICATION ON PREVENTION OF OCCUPATIONAL RISKS IN THE USE OF AGRICULTURAL MACHINERY* *1 contract*	34,371	34,371	
▪ *INTERREGIONAL COOPERATION PROGRAMME-INTEREG IV C*	178,345.97	178,345.97	
TOTAL OF RESEARCH-DEVELOPMENT CONTRACTS ***28 contracts***	***9,240,483.25***	***9,062,683.25***	***177,800***

- **Incomes achieved through research-development contracts financed by private funds**

Annex 2.2

Denomination / no. of contracts	Value 2012 (lei)
CONTRACTS OF RESEARCH-DEVELOPMENT FINANCED BY PRIVATE FUNDS: ***3***	***112,089.24***

- **Incomes achieved through economic activities**

Annex 2.3

Denomination / no. of contracts	Value 2012 (lei)
CONTRACTS REGARDING THE ASSESSEMENT AIMED AT AWARDING THE PRODUCT CONFORMITY CERTIFICATION	*97,950.25*
INCOMES ACHIEVED THROUGH SERVICES	*372,291.41*
TOTAL	***470,169.66***

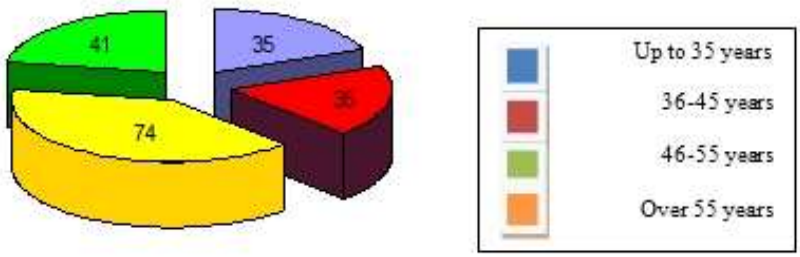
5. STRUCTURE OF HUMAN RESOURCES INVOLVED IN RESEARCH-DEVELOPMENT

TOTAL PERSONNEL			***174***
RESEARCH-DEVELOPMENT PERSONNEL			***141***
a) Higher education personnel out of which: *din care:*		***79***	
- diplomate engineers	61		
- Ph.D	28		
- Ph.D. students	18		
b) Additional high school personnel		***62***	
INDIRECTLY PRODUCTIVE PERSONNEL			***33***
out of which:			
- Manufacturing experimental models and prototypes		***15***	
- Organizational and human resources personnel: *(economic depart.-3, law depart-1, administrative depart., translation-1, human reources-1);* *(patrimony guard and protection)*	*8* *10*	***18***	

STRUCTURE OF RESEARCH-DEVELOPMENT PERSONNEL BROKEN DOWN ON PROFESSIONAL GRADES

a) Scientific research personnel:		***b) Technological development personnel***	
SR I	***11***	***TDE I***	***-***
SR II	***11***	***TDE II***	***9***
SR III	***13***	***TDE III***	***3***
SR	***13***	***TDE***	***1***
SRA	***16***	***Eng.***	***2***

PERSONNEL STRUCTURE BROKEN DOWN ON AGE GROUPS



Research-development personnel average age: 44.8 years

- Situation on 31.12.2012

● Information regarding the training activities of human resources (personnel involved in training processes-training stages-specialization courses)

Number of Ph.D engineers, members of research unit: 28

Den. No.	Name and surname	Professional degree	Ph.D. thesis year
1.	Alexandru Isabela	SR III	1999
2.	Bădănoiu Bianca	SR II	2004
3.	Bodea Codruț	SR III	2008
4.	Brăcăcescu Carmen	SR III	2011
5.	Cioica Nicolae	TDI II	2006
6.	Ciupercă Radu	SR II	1999
7.	Constantin Nicolae*	SR I	2000
8.	Cozar Onuc*	SR I	1970
9.	Drâmbei Petronela	SR I	2003
10.	Ganea Ioan	TDI II	2009
11.	Găgeanu Paul*	SR I	2002
12.	Ivan Gheorghe	TDI II	2009
13.	Koloszvary Constantina	SR III	2008
14.	Manea Dragoş	SR III	2011
15.	Mateescu Marinela	SR II	2004
16.	Marin Eugen	SR II	2004
17.	Muraru-Ionel Cornelia	SR I	1998
18.	Muraru Vergil*	SR I	2001
19.	Nedelcu Ancuta	SR II	2004
20.	Nedelcu Mihail	SR III	2010
21.	Nicolescu Mircea*	SR I	2007
22.	Păun Anişoara	SR I	2004
23.	Pirnă Ion*	SR I	1997
24.	Pop Augustin	SR I	2000
25.	Popa Lucreția	SR II	2004
26.	Sorică Cristian	SR III	2011
27	Vlăduț Valentin*	SR II	2004
28	Voicu Emil*	SR I	2007

* Membru în comisii de susținere doctorat

Candidates for a Ph.D degree: 18	Masters of science: 8
1. Coța Constantin 2. Danciu Aurel 3. Grădinaru Vasilică 4. Matache Mihai 5. Muscalu Adriana 6. Nagy Elena Mihaela 7. Sima Daniela 8. Voicea Iulian 9. Ciobanu Valeria Gabriela 10. Postelnicu Elena 11. David Alexandru Dorin 12. Radu (Cristea) Oana Diana 13. Mitu Mariana 14. Nițu Mihaela 15. Zaica Alexandru 16. Dumitraşcu Andrei 17. Pruteanu (Stanciu) Mirabela 18. Coşniță Daniel	1. Găgeanu Georgeta 2. Găgeanu Iuliana 3. Ghilvacs Mădălina 4. Ivancu Bogdan 5. Maria Mihaela Irina 6. Moraru Bianca 7. Persu Cătălin 8. Toderaşc Petruța

DIDACTIC ACTIVITY

- **Experts in doctor's degree commissions: 7**

(Pirnă Ion, Voicu Emil, Muraru Vergil, Găgenu Paul, Constantin Nicolae, Vlăduț Valentin, Cozar Onuc)

- **Associated Professor: 4**
  - UPB – Faculty of Biotechnical Systems Engineering: Pirnă Ion;
  - U Babes Bolyai, Cluj-Napoca-Faculty of Chemistry: Cozac Onuc
  - UPB - Faculty of Biotechnical Systems Engineering: Vlăduț Valentin;
  - UPB: – Faculty of Biotechnical Systems Engineering: Constantin Nicolae

- **Cycle of practical training activities for students:**
  - USAMV Bucharest, Faculty of Biotechnology
  - University Politehnica Bucharest, Faculty of Biotechnical Systems Engineering.

- **Cycle of documentation and consulting activities for faculty graduating/master degree/Ph.D. degree:**
- POLITEHNICA University, Bucharest-, Faculty of Biotechnical Systems Engineering;
- TRANSILVANIA University, Brasov-Food and Tourism Faculty;
- University of Craiova- Faculty of Agriculture.

In 2012,the activity of the **Centre of Vocational Training INMA** Bucharest has had the following results:

- **2** perfecting training programmes for TRAINERS position, code COR 241205/2011.

Series V - (25.04-03.05.2012 period) - **23 graduates;**
Series VI - (13.09-19.09.2012 period) - **16 graduates;**

- **2 skills** improving programmes for "expert in aided-computer design" position, code COR 213907/2011
  - **11** graduates from SC NHR Agropartners SRL and INOE 2000;
  - **16** graduates from Saniesti-Piatra Neamt;
- **1** skills improving programme for "operator in aided-computer design" position, code COR 312204/2011- ***4*** graduates from INOE 2000;
- **1** training programme for "agricultural machinery mechanic" position, code COR 723308/2011 - *14* graduates from Neamt county.

The trainers have received Graduating Certificates acknowledged by Ministry of Labour and National Education (MEN).

♦ Information regarding the development policy of human resources involved in research-development activity

High-performance results of institute research are made possible due to multidisciplinary research teams (engineering, technological, agricultural, management expertise) as well as to human resources high quality.

Therefore, the following strategic measures were implemented:

Attracting young people in research-development and innovation appropriate to mechanizing technologies and technical equipment manufacturing for agriculture and food industry;

Supporting young people to build scientific research careers and creating a suitable background for running information and communicatrion activities;

Motivating and enhancing the personnel concomitantly with a qualitative and responsible involvement;

Encouraging researchers specialization by Ph.D degrees, training and continous improvement;

The positions are occupied only by a competition base.

A ***Framework protocol of didactic and scientific collaboration*** with University of Agronomic Science and Veterinary Medicine, Bucharest, Faculty of Agriculture has been concluded regarding the joint co-ordination of activities developed within graduating, Ph.D and MS.degree papers, both by performing documentation stages and co-ordinating experimental researches in INMA laboratories along with compliance with employment secret regulations.

6. RESEARCH-DEVELOPMENT INFRASTRUCTURE

● Infrastructure

■ INFRASTRUCTURE OF RESEARCH FOR CONCEIVING, ELABORATING AND OPTIMIZING THE TECHNOLOGIES AND TECHNICAL EQUIPMENT FOR AGRICULTURE AND PRODUCTS PRIMARY PROCESSING;

■ RESEARCH INFRASTRUCTURE FOR TESTING IN SIMULATED AND ACCELERATED REGIME OF HYDROPULSE TYPE;

■ RESEARCH INFRASTRUCTURE FOR OBTAINING THE BIOFUELS;

■ RESEARCH INFRASTRUCTURE FOR TESTING AND ASSESSING THE MECHANIZING TECHNOLOGIES IN AGRICULTURE;

■ RESEARCH INFRASTRUCTURE REGARDING THE DETERMINATION OF NOISE AND VIBRATIONS LEVEL AT TECHNICAL EQUIPMENT;

■ RESEARCH INFRASTRUCTURE FOR TESTING AND OPTIMIZING THE MANUFACTURING OF TECHNICAL EQUIPMENT FOR AGRICULTURE AND FOOD INDUSTRY;

■ TECHNOLOGICAL BUSINESS INCUBATOR – INMA-ITA.

● Testing laboratories acccredited:

■ **Division of Testing Tractors and Technical Equipment for Agriculture and Food Industry** – **DI / No. Accrediting certificate LI 451/2010**

- **Laboratory of Testing Tractors and Technical Equipment for Agriculture and Food Industry** – **DITRMA;** domain: *constructive determinations; determinating the performances; trial of working process characterization, tests of safety and labour protection;*
- **Laboratory of Testing Spraying Machines** – **LIMS**; domain: tests of determining the performances.

● List of equipment purchased in 2012

Den. No.	Equipment name	No. of pcs.	Value [lei]	Investment financing source
1.	Digital system for processing techical documents and promoting research results	1	88,990,6	Budget invest.
2.	Testing system of phytosanitary treatment applying to agricultural crops	1	333,000	Budget invest.
3.	Testing system of irrigation in agriculture	1	249,860	Budget invest.
4.	Command and control system for accelerated and endurance tests of technical equipment	1	158,080.6	Budget invest.
5.	System of measuring the specific stress range of technical soil working equipment	1	83,080	Budget invest
6.	Measuring and control system of straw ceral sowing machines working indexes	1	82,584	Budget invest.
7.	4X4 field auto-laboratory for measuring in exploitation conditions	1	82,088	Budget invest.
8.	Self-propelled system for handling experimental models when mounting and testing on Hydropulse installation	1	82,334.76	Budget invest.
9.	Module designed to check the heating installation by capitalizing Mischantus plant	1	47,815.87.	INMA

10.	Monitoring and control system along with registering the operation parameters	1	67,600	INMA
11.	Humidometer determining the hectolitric weight	1	25,063	INMA
12.	Graphic workstation	1	12,000	INMA
13.	Image advanced analyzing software	1	67,200	INMA
14.	A0complete scanning system	1	38,560	INMA
15.	Project management software	2	8471,98	INMA
16.	Mass-speed registering system	1	32,800	INMA
17.	Programme for simulating and analyzing the biomass dehydrating process in agriculture	1	9,000	INMA
18.	Thermovision camera	1	60,700	INMA
19.	Laptop	2	12,096.74	INMA
20.	Mathematical or previsional analysis software	1	63,200	INMA
21.	Graphicwork station	1	12,000	INMA
22.	A0 plotter	1	32,000	INMA
23.	BENQ video projector	1	5582,48	INMA
24.	BENQ video projector	1	3,648	INMA
25.	HP 8270 scanner	1	3,648	INMA
26.	Flow analysis software (Solidworks Flow Simulation)	1	44,004	INMA
27.	Software of structural analysis with finite element (Simulation Premium)	1	47,424	INMA
28.	Laptop	4	6935,44	INMA
TOTAL 2012			**1,756,767.47**	

7. RESULTS OF RESEARCH-DEVELOPMENT ACTIVITY

7.1. Scientific/technical papers published in specialty magazines, ISI classified: 19

Anexa 3

Den. No.	Title of paper / publication / pg.	Authors
1	**THE ESTABLISHING OF CORN WITH THE EQUIPMENT FOR SOIL TILLAGE AND SOWING IN NARROW STRIPS** 40th International Symposium on Agricultural Engineering "Actual Tasks on Agricultural Engineering", 2012, pag 231-241, ISSN 1333-2651	**Marin E., Sorica C., Manea D.**
2	**STRAW CEREALS OPTIMUM SOWING RATE OPTIMIZING DISTRIBUTION OF CENTRALIZED METERING DRILLS** 40th International Symposium on Agricultural Engineering "Actual Tasks on Agricultural Engineering" 2012, pag. 231-241, ISSN1333-2651	**Manea D., Cărdei P., Marin E.**
3	**THE INFLUENCE OF PLASTIFIANTS' CONTENT ON RHEOLOGY, MICROSTRUCTURE AND EXPANSION INDEX OF CORN STARCH - BASED PACKING PEANUTS** 40th International Symposium on Agricultural Engineering" Actual Tasks on Agricultural Engineering", 2012, pag 395-401, ISSN 1333-2651	**Cioica N.,** Tomoaia-Cotisel M., **Coța C**., Fenesan M., Mocanu, A., **Nagy M.**
4	**RESEARCHES ON THE DEVELOPMENT OF AN EQUATION FOR THE CONTACT AREA CALCULUS FOR AGRICULTURAL TIRES** 40th International Symposium on Agricultural Engineering" Actual Tasks on Agricultural Engineering", 2012, pag 181-194, ISSN 1333-2651	Biris SS. **Vlăduț V**., Ungureanu N., **Matache M., Voicea I .**
5	**RESEARCHES REGARDING THE OPTIMIZATION OF THE SEEDS HOPPER FROM THE UNIVERSAL SEEDS DRILL,** 40th International Symposium on Agricultural Engineering" Actual Tasks on Agricultural Engineering", 2012, pag 265-274, ISSN 1333-2651	Paraschiv G., Maican E., Biris SS., Paraschiv I., **Vlăduț V.**
6	**DETERMINING THE COST MATRIX OF STRAW CEREALS COMBINE HARVESTERS, ACCORDING TO EQUIPMENT QUALITY AND ENGINE POWER** 40th International Symposium on Agricultural Engineering" Actual Tasks on Agricultural Engineering", 2012, pag 333-344, ISSN 1333-2651	**Vlăduț V.,** Moise V. Biris SS. Paraschiv G.
7	**INTEGRATION OF MANAGEMENT SYSTEMS IN THE FIELD OF WATER** 12th INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC GEOCONFERENCE SGEM, pag. 747-745, ISSN 1314-27042	**Muraru V., Pirna I., Cârdei P., Ionel-Muraru C., Sfiru R.**
8	**WEB PLATFORM FOR AGRICULTURAL MECHANIZATION TECHNOLOGIES,** 12th INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC GEOCONFERENCE SGEM **,** pag. 335-342, ISSN 1314-27042	**Muraru V., Cârdei P., Ionel-Muraru C.**
9	**ECOLOGICAL PLANNING OF AGRICULTURAL CROP TECHNOLOGIES BASED ON PRECIPITATION REGIME**	**Sfiru R., Cârdei P., Muraru V.,**

	PROGNOSIS 12th INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC GEOCONFERENCE SGEM , pag. 283-290, ISSN 1314-27042	Herea V. Pircalabu I.
10	**PROGNOSIS OF HIGH RAIN EROSIVITY PERIODS,** 12th INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC GEOCONFERENCE SGEM, pag. 283-290, ISSN 1314-27042	**Cârdei P.,** **Sfiru R.,** **Muraru V.**
11	**EXPERIMENTAL RESEARCHES ON BIODEGRADABLE LUBRICANTS WITH MULTIFUNCTIONAL PROPERTIES,** JOURNAL OF THE BALKAN TRIBOLOGICAL ASSOCIATION-JBTA**,** vol. 18, nr. 1/2012 pag. 133-141, ISSN 1310-4772 *Factor impact = 0,318*	Tudor A ., Vlase M ., Radulescu AV Bojan E ., Stepan E **Vlăduț V.**
12	**EXPERIMENTAL RESEARCHES ON BIODEGRADABLE LUBRICANTS WITH MULTIFUNCTIONAL PROPERTIES,** JOURNAL OF THE BALKAN TRIBOLOGICAL ASSOCIATION-JBTA, vol. 18, nr. 21/2012 pag. 309-318, ISSN 1310-4772 *Factor impact = 0,318*	Tudor A., Vlase M ., Radulescu AV. Bojan E., Stepan E., **Vlăduț V.**
13	**EXPERIMENTAL RESEARCHES ON TEXTILE LAMINATE MATERIALS** Revista INDUSTRIA TEXTILA, vol. 63, nr. 6/2012 pag. 315-321, ISSN 1222-5317 *Factor impact = 0,366; Scor influență = 0,023*	**Vişan Al.,** Alexandrescu N., Belforte G., Eula G., Ivanov A.,
14	**AN APPLICATION OF FINITE ELEMENT MODELING TO PNEUMATIC ARTIFICIAL MUSCLE FROM FESTO,** ADVANCED MATERIALS RESEARCH II**,** vol.463-464, pag. 818-821, ISSN 1022-6680	**Vişan Al.,** Alexandrescu N., Nița I.
15	**A SURVEY ON THE EVOLUTION OF NONCONVENTIONAL PNEUMATIC ACTUATORS,** ADVANCED MATERIALS RESEARCH II, vol.463-464, pag. 1069-1072, ISSN 1022-6680	**Visan Al.,** Alexandrescu N.
16	**OPTIMIZATION OF THE HYDRAULIC BELLOWS ENGINE PARAMETERS USED TO DRIVE IRRIGATION REEL HOSE MACHINE – IATF 300** ADVANCED MATERIALS RESEARCH II**,** vol.463-464, pag. 1137-1140, ISSN 1022-6680	Biolan I. Şovăială G. **Vişan Al.**
17	**FT-IR INVESTIGATION OF THE PLASTICIZERS EFFECTS ON THE NATIVE CORN STARCH MACROSTRUCTURE**, STUDIA UNIVERSITATIS BABES-BOLYAI CHEMIA, Vol. 57 Issue: 4, pag.23-31, ISSN: 1224-7154 *Factor impact = 0,089; Scor influență = 0,020*	**Cozar O.,** **Coța C.,** **Cioica N.,** **Nagy EM.,** Tibre L.
18	**NMR RELAXATION INVESTIGATION OF THE NATIVE CORN STARCH STRUCTURE WITH PLASTICIZERS,** 31st European Congress on Molecular Spectroscopy (EUCMOS) JOURNAL OF MOLECULAR STRUCTURE, vol.1044, pag. 128-133 *Factor impact = 4,404*	**Cioica N.,** Fechete R., **Cota C.,** **Nagy EM.,** **David L.,** **Cozar O.**
19	**THE DIMENSIONAL ANALYSIS OF THE USLE- MUSLE SOIL EROSION MODEL** PROCEEDINGS OF THE ROMANIAN ACADEMY Series A: Mathematics, Physics, Technical Sciences, Information Science, Nr. 1 / 2012 ISSN 1454-8267, pag 90-95	**Cârdei P.**

7.2. Cumulated impact factors of ISI papers: 5.177

Textile industry – 0.366
Journal of Balkan Tribological Association-JBTA - 0.318
Studia Universitatis Babeş Bolyai Chemia – 0.089
Journal of Molecular Structure - 4.404

7.3. Quotations in specialty magazines, ISI classified: 0

7.4 Patents (demanded / granted)

ANNEX 4

- **INMA registered patent demands: 24**

Annex 4.1

Den No.	Patent title	Authors	OSIM Reg.No.
1.	HELLICAL CONVEYOR WITH ADDITIONAL MIXING ELEMENTS FOR FODDERING MACHINES	Nedelcu Ancuța Ciupercă Radu Bodea Codruț-Mihai Lazăr George	A-00311 07.05.2012
2.	HIGH-PRECISION SPRAYING MACHINE	Manea Dragoş Matache Mihai Marin Eugen Tănase Bogdan	A-00336 14.05.2012
3.	DEVICE DESIGNED TO PICK UP THE FODDER FROM FURROW	Voicu Emil Sorică Cristian Marin Eugen Manea Dragoş	A-00488 03.07.2012
4.	AGRICULTURAL MULTIFUNCTIONAL COUPLING	Ciupercă Radu Popa Lucreția Nedelcu Ancuța Lazăr George	A-00841 20.11.2012
5.	ECO-HYDRO SYSTEM	Procop Miron Procop Oana-Miruna Matache Mihai	A-00855 21.11.2012
6.	CONNECTING AND SETTING SYSTEM WITH ELASTIC ELEMENTS	Sorică Cristian M Ioniță Ghiță Paraschiv Gigel Costoiu Mihnea-C	A-00951 05.12.2012
7.	INSTALLATION FOR DEHYDRATING VEGETAL PRODUCTS	Pop Agustin Stefanov C-tin Petru David Petru	A-00952 05.12.2012
8.	ENERGETICALLY INDEPENDENT AUTOMATED SYSTEM FOR A CONTROLLED MICROCLIMATE	Manea Dragoş Marin Eugen Matache Mihai Sorică Cristian M.	A-00970 07.12.2012
9.	CUTTING-DRAWING ROLLER FOR ENERGETIC WILLOW	Mircea Radu Mircea Costin Grădinaru Vasilică	A-00977 10.12.2012
10.	TECHNICAL EQUIPMENT FOR HARVESTING AND CHOPPING GREEN FODDER	Bogdanof Gabriel Voicu Emil Păun Anişoara Neagoe Valerica	A-01013 14.12.2012
11.	EQUIPMENT DESIGNED TO CHECK THE HERBICIDE APPLYING MACHINES CONSTRUCTIVE-FUNCTIONAL PARAMETERS	Coța Constantin Nagy Elena Mihaela Cioica Nicolae	A-01014 14.12.2012
12.	ROTATIVE CLEANING DEVICE WITH BLADES	Păun Anişoara Bunduchi George Zaica Alexandru	A-01021 17.12.2012
13.	DEVICE ENDOWED WITH DOUBLE BLOCKING OF AGRICULTURAL MACHINERY DOORS	Găgeanu Paul Ganea-Christu Ioan Brăcăcescu Carmen Biriş Sorin-Ştefan	A-01022 17.12.2012
14.	CENTRAL COLUMN MOULD FOR VULCANIZING SILICON RUBBER GASKETS	Muraru Cornelia Ioniță Ghiță Muraru Vergil Cârdei Petru	A-01023 17.12.2012
15.	ECOLOGICAL CONTROL AGGREGATE FIGHTING AGAINST COLORADO BEATLE AND FERTILIZING THE POTATOE CROPS	Ioniță Ghiță Ganea-Christu Ioan Muscalu Adriana Pirnă Ion	A-01027 18.12.2012
16.	EQUIPMENT FOR DEEP SOIL LOOSENING, BREAKAGE, SETTLING AND LEVELLING	Marin Eugen Constantin Nicolae Manea Dragoş Sorică Cristian M.	A-01028 18.12.2012

17.	**TECHNICAL EQUIPMENT FOR PLANTING ENERGETIC WILLOW**	**Marin Eugen Mircea Radu Manea Dragoş Găgeanu Paul**	**A-01029 18.12.2012**
18.	**APPLE GRAVIMETER SORTING EQUIPMENT**	**Popa Lucreția Ciupercă Radu Drăgan Romeo N Lazăr George**	**A-01037 19.12.2012**
19.	**FODDER HARVESTING TRAILED COMBINES COUPLING SYSTEM TO TRACTOR**	**Nedelcu Ancuta Paun Anişoara Lazăr George Neagoe Valerica**	**A-01038 19.12.2012**
20.	**MULTIFUNCTIONAL ROTATIVE CUTTING APPARATUS**	**Ivan Gheorghe Ganea-Christu Ioan Păun Anişoara Ion Alexandru**	**A-01039 19.12.2012**
21.	**OBSTACLES POSITIONING SYSTEM WHEN TESTING TRAILERS AND SEMI-TRAILERS**	**Sorică Cristian M. Vlăduț Valentin Matache Mihai G. Pirnă Ion**	**A-01054 20.12.2012**
22.	**DODDER REMOVING MACHINE WITH MAGNETIC ROLLERS**	**Pop Augustin Andrei Sorin George Baumchen Alfred F. Ganea-Christu Ioan**	**A-01055 20.12.2012**
23.	**ADAPTING TYRE FOR AGRICULTURAL TRAILERS**	Biris Sorin-Ştefan **Ganea-Christu Ioan Vlăduț Valentin**	**A-01056 20.12.2012**
24.	**STALKS PROTECTION SYSTEM FOR MOWERS IN TREE ROWS**	**Milea Dumitru Ganea-Christu Ioan Mircea Radu Bracacescu Carmen**	**A-01072 27.12.2012**

- ***Patent applications of other titular inventors along with INMA inventors: 2***

1	**AUTOMATED PRECISION SYSTEM FOR CLASSIFYING AND DIFFERENTIATING HERBICIDE APPLYING ON WEEDS IN AGRICULTURAL CROPS**	Gîdea Mihai **Manea Dragoş** Vlăduț Gabriel Cătălin Constantinescu Mircea C Mitrică Robert Gabriel **USAMV Buc**	**A-00441/ 11.06.2012**
2	**DYNAMIC SYSTEM OF AUTOMATED ADJUSTING OF ANTI-DROPPING PRESSURE FOR PRECISION HERBICIDE APPLYING**	Gîdea Mihai **Manea Dragoş** Vlăduț Gabriel Cătălin Constantinescu Mircea C Mitrică Robert Gabriel **USAMV Buc**	**A-00828 11.11.2012**

- **Patents issued by OSIM: 2**

Annex 4.2

Den. no.	Title	Authors	Patent no./year
1.	**SET OF SOIL LOOSENING PARTS**	**Constantin Nicolae,** Cojocaru Iosif, **Pirna Ion, Marin Eugen, Mateescu Marinela, Ganea Ion**	**123468/ 2012 B**
2.	**TECHNICAL EQUIPMENT FOR APPLYING MICROBIAL INOCULANTS**	**Manea Dragoş** Gangu Vergil, **Marin Eugen**, Cojocaru Iosif, Popescu Marian, Szabolocs Lanyi	**125066/2012 B**

ROMÂNIA

OFICIUL DE STAT PENTRU INVENŢII ŞI MĂRCI

Brevet de invenţie

Nr. 123468

Acordat în temeiul Legii nr.64/1991 privind brevetele de invenţie, republicată în Monitorul Oficial al României, Partea I, nr.541, din 08 august 2007.

Titular: INSTITUTUL NAŢIONAL DE CERCETARE-DEZVOLTARE PENTRU MAŞINI ŞI INSTALAŢII DESTINATE AGRICULTURII ŞI INDUSTRIEI ALIMENTARE - INMA, BUCUREŞTI, B, RO

Titlul invenţiei: SET DE ORGANE DE AFÂNARE A SOLULUI

Inventatori: CONSTANTIN NICOLAE, BUCUREŞTI, B, RO; COJOCARU IOSIF, BUCUREŞTI, B, RO; PÎRNĂ ION, BUCUREŞTI, B, RO; MARIN EUGEN, BUCUREŞTI, B, RO; MATEESCU MARINELA, BUCUREŞTI, B, RO; GANEA-CIRISTU IOAN, BUCUREŞTI, B, RO

Descrierea invenţiei, revendicările şi desenele la care se face referinţă în acestea, fac parte integrantă din prezentul brevet de invenţie.
Durata brevetului de invenţie este de 20 ani, cu începere de la data de 22.02.2007, cu condiţia plăţii taxelor anuale de menţinere în vigoare a brevetului.

Confirm cele de mai sus prin semnarea şi aplicarea sigiliului
Director General

Bucureşti, Data eliberării 30.08.2012

ROMÂNIA

OFICIUL DE STAT PENTRU INVENŢII ŞI MĂRCI

Brevet de invenţie

Nr. 125066

Acordat în temeiul Legii nr.64/1991 privind brevetele de invenţie, republicată în Monitorul Oficial al României, Partea I, nr.541, din 08 august 2007.

Titular: INSTITUTUL NAŢIONAL DE CERCETARE-DEZVOLTARE PENTRU MAŞINI ŞI INSTALAŢII DESTINATE AGRICULTURII ŞI INDUSTRIEI ALIMENTARE - INMA, BUCUREŞTI, B, RO

Titlul invenţiei: ECHIPAMENT TEHNIC PENTRU APLICAT INOCULANŢI MICROBIENI

Inventatori: MANEA DRAGOŞ, SLOBOZIA, IL, RO; GÂNGU VERGIL, BUCUREŞTI, B, RO; MARIN EUGEN, BUCUREŞTI, B, RO; COJOCARU IOSIF, BUCUREŞTI, B, RO; POPESCU MARIAN, BUCUREŞTI, B, RO; SZABOLCS LANYI, MIERCUREA-CIUC, HR, RO

Descrierea invenţiei, revendicările şi desenele la care se face referinţă în acestea, fac parte integrantă din prezentul brevet de invenţie.
Durata brevetului de invenţie este de 20 ani, cu începere de la data de 26.06.2008, cu condiţia plăţii taxelor anuale de menţinere în vigoare a brevetului.

Confirm cele de mai sus prin semnarea şi aplicarea sigiliului
Director General

Bucureşti, Data eliberării 28.02.2013

- **Patents belonging to other patent authors with INMA inventors: 1**

Den. no.	Title	Authors	OSIM reg. No.	Licenced patent
1.	**PIVOTING DRIVING MECHANISM**	Team of INCD Pastures, **Nicolae Constantin, INCD pastures, Brasov**	**A-00994/2008**	125 884/2012

- **Certificate of INMA registering mark: 1**
  No. 120126/09.02.2012

ROMÂNIA

OFICIUL DE STAT PENTRU INVENŢII ŞI MĂRCI

Certificat de înregistrare a mărcii

Nr. 120126

Acordat în temeiul Legii nr 84/1998 privind mărcile şi indicatiile geografice(republicată), pentru marca:

INMA

Durata de protecţie a mărcii este de zece ani cu începere de la data de **09.02.2012**,cu posibilitatea de reînnoire.
Marca este înregistrată pentru clasele de produse/servicii înscrise în fila din Registrul Mărcilor.
Prezentul certificat este valid numai însoţit de fila din Registrul Mărcilor corespunzătoare mărcii înregistrate.

Confirm cele de mai sus prin semnarea şi aplicarea sigiliului

DIRECTOR GENERAL

7.5. Quotations of patented researchings within ISI system: -

7.6. Products /services / technologies resulted from research activities, based on patents, homologations or own innovations.

ANNEX 5

7.6.1. HOMOLOGATED PRODUCTS: 3

Annex 5.1

Den. No.	Researching contract / Trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)	Technical data	Utilization field
1.	**Innovative technique for applying phyto-sanitary treatments in orchards for increasing food safety and security** Research contract no. 15 N / 27.02.2009/Add. Act no.1/2012 CD: 571/2012-2012 Contracting authority: ANCS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Product homologated: *Technical equipment for high precision applying ecological substances and phyto-sanitary treatments, MSL* Dossier number: 176 	Mai 2012	-Power source: 45HP; -Capacity of tank filled with solution: 1000l.; -Water tank capacity: 100l.; -Pump type: positive displacement pump with 3 membranes; -Pump rotative speed: 570 rot/min.; -Pump flow: 97l/min.; -Maximum working pressure: 20 bar; -Ventilator type: axial -Air outlet speed: 25-45m/s; -Agitating system:hydraulic -Type of system detecting the vegetal mass:with ultrasonic sensors; -Number of sensors: 6 -Total mass: 500 kg.	Technical equipment for high precision applying ecological substances and phyto-sanitary treatments, MSL is designed to perform phyto-sanitary treatments in all types of orchards, in fields with slope accessible to wheeled tractors working in aggregate with trailed machines; it applies with high precision non pollutant substances as extracts, infusions or teas, emulsions, leavens, for fighting against pathogenic agents and pests.
2.	**Thorough research on achieving a technology of Miscanthus crop high capitalization** Research contract no.15 N / 27.02.2009 / Add. Act no.2/2012 CD: 580/2012-2012 Contracting authority: ANCS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Product homologated: *Heating installation by capitalizing the energetic plant Miscanthus, IIVM* Dossier number: 177 	December 2012	-Power:75 kW; -Hot water maximum temperature:95℃; -Capacity of hot water accumulator:1500; -Collecting surface of solar pannel: 2.55m²; -Humidity sensors type:FE09/4 capacitive; -Temperature sensors type:Pt 100; -Nominal power of photovoltaic pannel: 235 W	Heating installation is designed to produce thermal energy coming from biomass, especially from a mixture of chopped Miscanthus stalks and other components such as wood wastes, fruit stones, pellets, maize and sunflower chopped stalks, in order to heat houses, stables, greenhouses or dry medicinal plants and fruits in an agricultural farm

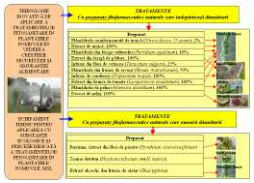
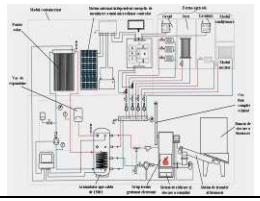
Den. No.	Researching contract / Trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)	Technical data	Utilization field
3.	**Developing a technology and an installation designed to dehydrate the medicinal and aromatic plants, for subsequently preserving, processing and exploiting them** Research contract no.15 N / 27.02.2009 / Add. Act no.2/2012 CD: 581/2012-2012 Contracting authority: ANCS Beneficiary: AGRICULTURAL TRACTORS AND MACHINES MANUFACTURERS ASSOCIATION IN ROMANIA - PACTMAR Protocol no. 1556/12.11.2007	Product homologated: **Installation of dehydrating medicinal and aromatic plants – IDPM** Dossier number: 178 	December 2012	- Productive capacity: 250÷350 kg. plants/24h; - Drying system: convective, as charges on trays; - Drying surface:approx.10m²; - Drying agent: hot air; - Admission agent temperature: 90℃; - Outlet air temperature: 40÷70℃; - Maximum quantity of water extracted: 250 kg/24 h; - Power specific consume: 10,000÷14,000 kJ evaporated water; - No. Of drying trays: 24, placed as 2 stacks; - Heat exchange surface: 30m²; - Overall dimensions: 2,870x820x2,140mm.	Dehydrating installation is designed to reduce the natural water content out of medicinal and aromatic plants of culture or sponaneous flora, so that they preserve their organoleptic qualities and pharmaceutical and aromatic compounds

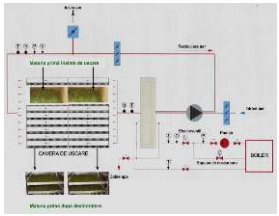
7.6.2. HOMOLOGATED SERVICES: 1

Den. No.	Researching contract / Trading contract Beneficiary	Outcome	Reporting/delivery deadline (month)	Technical data	Utilization field
1.	**Testing the motor and carrying boggie frames of prototypes at static and fatigue stress** Research contract no. 130/20.04.2012 CD: 573/2012-2013 Contracting authority: POS-CCE-AXIS II, Operation 2.33 Beneficiary: SC.SOFTRONIC S.R.L.	Product homologated: *Static and fatigue stress testing of motor and carrying boggie frames for travellers coaches* Dossier no. 46 	October 2012	Stand for test performing at static and fatigue stress is made of: -hydraulic servo-cylinders of 250kN: 4 pcs; -hydraulic servo-cylinders of 100 kN: 4 pcs; -Data acquisition system of 40 channels; System generating a command signal; -hydrailic group 200 bar: 2 pcs.; -stand of mechanical mounting: 1 pcs; -laptop: 4 pcs.	Testing boggies for travellers train coaches in order to homologate them for circulating on ralways

7.6.3 – TECHNOLOGIES HOMOLOGATED 3

Annex 5.2

Den No.	Researching contract / Trading contract Beneficiary	Outcome	Reporting/delivery deadline (month)	Technical data	Utilization field
1.	**Innovative technology for applying phytosanitary treatmnents in orchards in order to raise food safety and security** Research contract no.15N / 27.02.2009 / Act.ad.nr.1/ 2012 CD: 571/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007	Technologies homologated: *Innovative technology for applying phyto-sanitary treatments in orchards for raising food safety and security* Dossier nomber: 40 	May 2012	*Natural phyto-sanitary substances for removing the pests:* -Semi-fermented leaven of stinging nettle (Urtica doica, U.urens, 2%; -Nettle extract, 100%; fern (Pteridium aquilinum), 10%; -Extract of forest fern, 100% -Common tansy infusion (Tanacetum vulgare), 25%; -Rhubarb leaves leaven (Rheum rhabarbarum), 50%; -Indian cress infusion (Tropaelum majus), 100%; -Tomato leaves extract (Lycopersicon esculentum), 100%; -Mugwort leaven (Artemisia absinthum), 100%; -Mugwort boiled.	Innovative technology for applying phytosanitary treatments in orchards for increasing food satey is based on a technical equipment which performs treatments in all types of fields with slope accessible to wheeled tractors in aggregate with towed machines,; it applies with high precision the non-pollutant substances as extracts, infusions or teas, decoctions, leavens, emulsions and slurry for fighting against pests. The equipment working system is hydraulic jet spraying
2.	**Thorough researches on achievement of a technology ofMiscanthus energetic crop high capitalization** Research contract no.15N / 27.02.2009 / Act.ad.nr.2/2012 CD: 580 / 2012 – 2012 Contracting authority: ANCS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007	Technologies homologated: *Technology for highly exploiting Miscanthus energetic plant*. Dossier nomber: 41 	December 2012	- Type of fuel used: Miscanthus chopped stalks of 20-30 mm with humidity content up to 25% for automated regime; - Power installed: 75 kW; - Hot water maximum temperature: 95℃ - Thermal agent pressure: 1-1.5 bar - Output:85-90%..	Technology of high capitalization of Miscanthus energetic plant replaces expensive conventional energy sources, such as fossile fuels and electricity by agricultural farm biomass.

Den No.	Researching contract / Trading contract Beneficiary	Outcome	Reporting/delivery deadline (month)	Technical data	Utilization field
3.	**Promoting a technology and an installation designed to dehydrate medicinal and aromatic plants, for subsequently preserving, processing and capitalizing them** Research contract no.15N / 27.02.2009 / Act.ad.nr.2/2012 CD: 581/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ACADEMY OF AGRICULTURE AND FORESTRY SCIENCES - ASAS Protocol no. 1552 / 08.11.2007	Technologies homologated: *Technology for dehydrating medicinal and aromatic plants* Dossier nomber: 42 	December 2012	-Drying system:convective as charges on trays; - Drying surface:approx.10m²; -Drying agent: hot air; -Admission agent temperature: 90℃; -Outlet air temperature: 40÷70℃; -Maximum quantity of water extracted; 250kg/24 h; -Power specific consume: 10,000÷14,000 kJ evaporated water	Dehydrating installation is designed to reduce the natural water content out of medicinal and aromatic plants of culture or sponaneous flora, so that they preserve their organoleptic qualities and pharmaceutical and aromatic compounds

7.7. Scientific / technical papers issued in specialty journals without ISI quotation (category B and B+) 35

Annex 6

Den. No.	JOURNAL / ARTICLE / AUTHORS
	I. INMATEH – AGRICULTURAL ENGINEERING Journal, Vol. 36, Jan-Apr. 2012 **CNCSIS Acknowledged, cat. B, no. 737/11949/2009,** **Print ISSN 2068-2239; Electronic ISSN 2068-4215**
1.	**STUDIES ON STRUCTURAL ANALYSIS OF RESISTANCE STRUCTURE AS A COMPONENT OF EQUIPMENT WITH ACTIVE WORKING PARTS DRIVEN TO DEEPLY LOOSEN THE SOIL** **Marin E., Pirnă I., Sorică C., Manea D., Cârdei P.**, pg. 5-13
2.	**TESTING THE MULTIFUNCTIONAL AGGREGATE FOR SOIL TILLAGE WORKS – MATINA** **Constantin N., Irimia D., Persu C., Cociu A**, pg. 13-21
3.	**THEORETICAL STUDY OF PILE DISPLACEMENT ON THE STRAW WALKER OF CONVENTIONAL COMBINE HARVESTERS** **Ivan Gh., Nedelcu M.**, pg. 33-41
4.	**ENERGY PERFORMANCE EVALUATION OF ALTERNATIVE FUELS FOR DIESEL ENGINES** **Nicolescu M.**, pg. 41-48
5.	**CALCULATION OF DRIVE PERFORMANCE FOR U-650 TRACTOR EQUIPED WITH SUPPLEMENTARY HYDROSTATIC TRANSMISSIONS** Popa Gh., Constantinescu A., Dumitru I., **Vlăduț V.**, pg. 49-56
6.	**INCREASING THE ADDED VALUE OF PROCESSED PRODUCTS IN THE MILLING INDUSTRY BY IMPLEMENTING A COMBINED CALIBRATOR IN WHEAT PREPARATION TECHNOLOGICAL SCHEME** **Păun A., Pirnă I., Găgeanu P., Vlăduț V.**, pg. 63-68
7.	**INVESTIGATE THE EFFECT OF SOME PLASTICIZERS ON THE MACROSTRUCTURE OF CORN STARCH USED TO OBTAIN BIODEGRADABLE PACKING** **Cioica N.,** Fechete R., **Cozar O., Cota C.**, pg. 69-72
	II. INMATEH – AGRICULTURAL ENGINEERING Journal, Vol. 37, no.2/2012, May-Aug. 2011 **CNCSIS Acknowledged, cat. B+, no. 737/11949/2009,** **ISSN 2068-2239; ISSN 2068-4215**
8.	**OPTIMIZING AGRICULTURAL EQUIPMENT CHOICE BY USING DATABASES** **Sfîru R.,** Meca A., **Cârdei P., Muraru V.,** Mihailov N., Atanasov At., pg. 5-12
	SOIL FARM MACHINERY MODE OF OPERATION: FROM THE OPTIMIZATION TO THE BASIS (1), **Cârdei P.,** Meca A., Kostadinov G., pg. 13-20
10.	**SOIL FARM MACHINERY OPERATING MODE: FROM THE OPTIMIZATION TO THE BASIS (2),** **Cârdei P.,** Kostadinov G., pg. 21-28
11.	**THEORETICAL STUDY OF PILE DISPLACEMENT ON THE STRAW WALKERS OF CONVENTIONAL COMBINE HARVESTERS** **Ivan Gh.,** Vartukapteinis K., pg. 35-44

12.	**STUDIES AND RESEARCHES ON OPTIMIZATION OF ENERGETICS OF TRACTOR-TOWED FORAGE HARVESTER COMBINE AGGREGATES** Ştefănoiu M.D., **Cârdei P., Vlăduț V**., Boruz S., Lazar S., Fodor M., pg. 45-52
13.	**HOW MAKING EFFICIENT THE OPERATION OF SEEDLINGS PLANTING BY USING EQUIPMENT WITH PRISM-SHAPED SHARE** **Mircea R., Ciupercă R., Matache M.,** Drăghia D., Usenko M., pg. 53-60
14.	**COMPARATIVE STUDY ON MECHANIZED PROCESS OF PLANTING VEGETABLE SEEDLINGS** **Ciupercă R., Popa L., Lazăr G., Drăgan R.,** Aliyev Ch., 61-68
15.	**SIZE DISTRIBUTION OF THE DEGRADED INJECTION PUMPS ELEMENTS FOR THE RESTORATION OF THEIR OPERATIONAL STATE** **Danciu A.,** Brătucu G., **Vlăduț V.,** Brkic M., pg. 69-80
III. . INMATEH – AGRICULTURAL ENGINEERING Journal, vol. 38, no. 3/2012, Sept.- Dec. 2011 Acknowledged CNCSIS, cat. B, no. 737/11949/2009, ISSN 2068-2239; ISSN 2068-4215	
16.	**STUDIES AND RESEARCHES ON ENERGETIC OPTIMIZATION OF FODDER HARVESTING COMBINES - UNIDIMENSIONAL MODELS** **Cârdei P., Sfîru R.,** Ştefănoiu M.D., Bădescu M., Boruz S., Lazar S., pag. 5-14
17.	**STUDIES AND RESEARCHES ON ENERGETIC OPTIMIZATION OF FODDER HARVESTING COMBINES – TWO DIMENSIONAL MODELS** Ştefănoiu M.D., **Cârdei P., Pirnă I.,** Bădescu M., Boruz S., Atanasov At., pg. 15-22
18.	**RESEARCHES REGARDING THE OPTIMIZATION OF FODDER COMBINES CHOPPING DRUMS** **Păun A., Nedelcu A., Neagoe V.**, pg. 33-38
19.	**EVALUATION METHOD OF ENERGY POTENTIAL OF SOLID VEGETAL BIOMASS** **Nagy E.M., Coța C., Cioica N.**, pg. 45-52
20.	**SOME PHYSICAL – BIOLOGICAL CHARACTERISTICS OF MISCANTHUS ENERGETIC PLANT STALKS** Moiceanu G., Voicu Gh., Paraschiv G., Poenaru I.C., **Pirnă I.**, pg. 53-58
IV. BULETIN OF UNIVERSITY OF AGRICULTUAL SCIENCES AND VETERINARY MEDICINE Cluj – Napoca, Volume 69(1), 2012 Print ISSN 1843-5246; Electronic ISSN 1843-5386	
21.	**STUDIES REGARDING COMPARATIVE ANALYSIS OF MAIN WORKING INDICATORS AT PRIMARY SOIL TILLAGE`S**, Stanila S., Drocas I., Ranta O., Molnar A., **Nagy M.,** pag.114-119
V. FRUIT GROWING RESEARCH, Vol. XXVIII, **Scientific Papers of Research-Development Institute for Orchards** Piteşti – Mărăcineni **ISSN 2286-0304**	
22.	**TECHNICAL EQUIPMENT FOR SORTING APPLE BY SIZE**, **Popa L., Drăgan R., Lazăr G., Ştefan V.** pg. 127-133
23.	**EQUIPMENT FOR ORCHARDS MAINTENANCE** **Ivan Gh.** pg. 141-147

24	**MODERN TECHNOLOGIES FOR ORCHARDS ESABLISHING** **Grădinaru V., Păun A., Coța C., Mircea C.** pg. 148-154
VI. ANNALS OF THE UNIVERSITY OF CRAIOVA – BIOLOGY, HORTICULTURE, TECHNOLOGY OF AGRICULTURAL PRODUCTS PROCESSING, ENVIRONMENT ENGINEERING, vol. XLII/2 2012, ISSN 1841-8317	
25.	**REDUCTION OF ENVIRONMENTAL POLLUTION BY THE EQUIPMENTS OF HERBICIDES ADMINISTRATION AND SPRAYING BY INTEGRATING OF A CENTRALIZED SYSTEM FOR THEIR MONITORING AND WARNING,** **Nițu M., Matache M., Postelnicu E., Vlăduț V.** pg. 383-390
26.	**TECHNOLOGICAL LINE FOR PRIMARY PROCESSING OF MEDICINAL AND AROMATIC PLANTS** **Muscalu A., Pruteanu A., Danciu A.**, Florea C. pg. 377-383
27.	**METHODS FOR OBTAINING SEEDLING MATERIAL IN ORDER TO PROMOTE ENERGY PLANT MISCANTHUS** **Postelnicu E., Sorică C., Grigore I., Ludig M., Nițu M.** pg. 419-424
28	**SYSTEM OF EXTRACTING THE SOLUBLE CONSTITUENTS FROM MEDICINAL AND AROMATIC PLANTS** **Pruteanu A., Muscalu A., Voicea I.,** Florea C. pg. 424-429
29	**EXPERIMENTAL RESEARCHES REGARDING THE OPTIMIZATION OF WORKING PROCESSES OF GRAVITY SEPARATORS AIMED AT CEREALS IMPURITIES** **Brăcăcescu C., Pirnă I., Sorică C.,** Popescu S. pg. 292-299;
30	**INNOVATIVE TECHNOLOGY FOR ESTABLISHMENT AND MAINTENANCE OF CROP PROTECTION FORESTRY BELTS AND COMBATING OF DROUGHT AND DESERTIFICATION** **Ivan Gh.** pg. 359-366
31.	**INFLUENCE OF OPERATION ENGINE COOLING SYSTEM HEAT TO THE MAXIMUM LOAD,** **Sărăcin I., Pandia O., Chiriac Al., Bozga I., Ganea I.** pg. 436-440
32.	**EXPERIMENTALRESEARCHES ON THE OPTIMIZATION OF THE WORKING REGIME OF DRILLS FOR WIDE ROW CROPS** Stoian F., **Cârdei P., Ganea I**., Popescu N. pg. 441-447
VII. JOURNAL OF ECOAGRITOURISM, Bulletin of Agri-ecology, Agri-food, Bioengineering and Agritourism, vol. 8 (2012), no. 1 (24)) ISSN 1844-8577	
33.	**ASPECTS REGARDING PHYTOSANITARY TREATMENTS APPLICATION SPECIFIC TO THE CONCEPT OF ECOLOGICAL FARMING IN ORCHARDS** pg. 62-68 **Manea D., Pirnă I., Tănase B.** pg. 441-447
VIII. ANNALS OF FACULTY ENGINEERING HUNEDOARA - INTERNATIONAL JOURNAL OF ENGINEERING, Tome X (Year 2012, Fascicule 1, Hunedoara, Romania ISSN 1584-2673	
34.	**REDUCING ENERGY CONSUMPTION TO THE TEST OF DAMPERS BY USING A COMPACT PLATFORM FOR TESTINGS (CPTD)** pg. 145-150 **Voicea I., Matache M., Vlăduț V.** pg. 441-447

	IX. ACTA TECHNICA CORVINENSIS BULLETIN OF ENGINEERING, Tom V, Fasc. 4, 2012, Hunedoara, Romania **ISSN: 2067-3809**
35.	**SIZING THE IVF-0 INSTALLATION FOR DRYING OF GRASSY PLANTS BY AIR VENTILATION** **Nedelcu A, Lazăr G., Dragan R., Ciobanu V.**, pg. 117-120

- **List of relevant articles published:**

Den. No.	Journal name	No. articles
1.	**In the country:**	**53**
	INMATEH - AGRICULTURAL ENEGINEERING Journal, vol. 36, no. 1/2012, January-April Recognised by CNCSIS, cat. B+, no. 737/11949/2012; e: ISSN 2068-2239; p: ISSN 2068-4215	7
	INMATEH - AGRICULTURAL ENEGINEERING Journal, vol. 37, no. 2/2012, May-August Recognised by CNCSIS, cat. B+, nr. 737/11949/2012; e: ISSN 2068-2239; p: ISSN 2068-4215	8
	INMATEH - AGRICULTURAL ENEGINEERING Jornal, vol. 37, no. 2/2012, September-December Recognised by CNCSIS, cat. B+, no. 737/11949/2012; e: ISSN 2068-2239; p: ISSN 2068-4215	5
	BULETIN OF UNIVERSITY OF AGRICULTUAL SCIENCES AND VETERINARY MEDICINE, Cluj – Napoca, Volume 69(1)/2012, e: ISSN 1843-5386; p: ISSN 1843-5246	1
	FRUIT GROWING RESEARCH, Vol. XXVIII, Scientific Works of Research-Development, Piteşti – Mărăcineni, ISSN 2286-0304	3
	ANNALS OF UNIVERSITY CRAIOVA, Series - Biology, Horticulture,, Technology of Processing Agricultural Products, Environment Engineering, Vol. XLII/2 2012, ISSN 1841-8317	8
	Journal of EcoAgriTourism, vol. 8 (2012), No. 1(24) – Bulletin of Agri-ecology, Agri-food, Bioengineering and Agritourism, ISSN 1844-8557	1
	ANNALS OF FACULTY OF ENGINEERING HUNEDOARA - INTERNATIONAL JOURNAL OF ENGINEERING, Tome X (Year 2012), Fascicle 1, ISSN 1584-2673	1
	ACTA Technica CORVINENSIS BULLETIN OF ENGINEERING, Tome V, Fasc. 4, 2012, Hunedoara, Romania, ISSN: 2067-3809	1
	INTERNATIONAL SYMPOSIUM "ISB / INMA TEH 2012", Bucureşti - Romania, 1-3 November 2012, p: ISBN 978-973-0-13670-8; cd: ISBN 978-973-0-13671-5	10
	The 4th International Conference "Advanced Composite Materials Engineering" COMAT 2012, 18- 20 October 2012, Brasov, Romania, ISBN 978-973-131-162-3	4
	INTERNATIONAL CONFERENCE ON BIOMECHANICS, NEUROREHABILITATION, MECHANICAL ENGINEERING, MANUFACTURING SYSTEMS, ROBOTICS AND AEROSPACE – ICMERA 2012, 26-28 October 2012, ISBN-13:978-3-03785-554-6	1
	HERVEX 2012, Edition XX-a, ISSN 1454-8003	2
	PROCEEDINGS OF THE ROMANIAN ACADEMY, No. 1 / 2012, ISSN 1454-8267	1
2.	**Abroad:**	**10**
	PROCEEDINGS OF 5TH INTERNATIONAL MECHANICAL ENGINEERING FORUM, PRAGUE 2012, ISBN 978-80-213-2291-2	3
	11th International Scientific Conference "ENGINEERING FOR RURAL DEVELOPMENT", vol. 11, Jelgava, Latvia, ISSN 1691-5976	2
	TRACTORS AND POWER MACHINES 1, Godina 16 (vol. 16), December 2011, Novi Sad - Serbia, UDK 631.372, ISSN 0354-9496	4
	MECHANIZATION AND ELECTRIFICATION OF AGRICULTURE, vol. 96, National Scientific Center "Institute for Agricultural Engineering and Electrification", Kiev, 2012, ISSN 0202-1927	1

7.8. Scientific communications presented at international conferences: 29

Anexa 7

Den No.	Conference / article / authors	
	I. PROCEEDINGS OF 5TH INTERNATIONAL MECHANICAL ENGINEERING FORUM, PRAGUE 2012 **ISBN 978-80-213-2291-2**	
1.	**APPLICATION WITH HIGH PRECISION OF ECOLOGICAL SUBSTANCES AND PHYTOSANITARY TREATMENTS IN ORCHARDS**, pg. 591-603	**Manea D.** **Matache M.** **Marin E.** **Tănase B.**
2.	**ANALYSIS OF THE WORKING PROCESS OF INDENTED CYLINDER SEPARATORS USING HIGH SPEED VIDEO CAMERA AND SPECIALIZED SOFTWARE**, pg. 873-887	**Sorică C.** **Postelnicu E.** **Brăcăcescu C.**
3.	**RESEARCHES ON THE INFLUENCE OF FUNCTIONAL PARAMETERS OF COMBINED INSTALLATIONS OF IMPURITIES SEPARATION FROM THE CEREAL SEEDS ON THE QUALITY INDICATORS OF THE CLEANING PROCESS**, pg. 223-236	**Brăcăcescu C.** **Pirnă I.** **Sorică C.** Popescu S.
	II. 11th International Scientific Conference "ENGINEERING FOR RURAL DEVELOPMENT", vol. 11, Jelgava, Latvia **ISSN 1691-5976**	
4.	**CINEMATIC ANALYSIS OF PARTICLE OF IMPURITY IN CONDITIONING PROCESS OF GRAINS INTO INDENTED CYLINDER SEPARATORS**, pag. 60-67	**Sorică C.** **Pirnă I.** **Brăcăcescu C.** **Marin E.** **Postelnicu E.**
5.	**EXPERIMENTAL RESEARCHES ON INFLUENCE OF FUNCTIONAL PARAMETERS OF GRAVITY SEPARATOR ON QUALITY INDICATORS OF SEPARATION PROCESS WITH APPLICATION ON CLEANING OF WHEAT SEEDS**, pg. 16-22	**Brăcăcescu C.** **Pirnă I.** **Sorică C.** Popescu S., Stan O.
	III. PROCEEDINGS OF THE ROMANIAN ACADEMY, No. 1 / 2012 **ISSN 1454-8267**	
6.	**DIMENSIONAL ANALYSIS OF THE USLE - MUSLE SOIL EROSION MODEL**, pg. 90-95	**Cârdei P.**
	IV. TRACTORS AND POWER MACHINES 1, Godina 17 (vol. 17), December 2012, Novi Sad - Serbia **UDK 631.372, ISSN 0354-9496**	
7.	**UTILIZATION OF VEGETAL BIOMASS AS RENEWABLE SOURCE OF OBTAINING CLEAN ENERGY**, pg. 26-33	**Postelnicu E.** **Danciu A.** **Vlăduț V.** Chirilă C.
8.	**MONITORING ANTI-ERROR SYSTEMS AIMED AT MANUFACTURING PROCESSES-FLEXIBLE CELL MODULE-MONITORING MODULE**, pg. 41-46	**Păun A.** Sergiu D. Anghel C. **Vlăduț V.** **Zaica A.**
9.	**REDUCING THE TIME CONSUMING,,COMING BACK" IN MANUFACTURING PROCESS BY USING THE ANTI-ERROR SYSTEMS**, pg. 53-59	**Păun A.** Sergiu D. **Vlăduț V.** **Găgeanu P.**
10.	**TRENDS IN DEVELOPMENT OF GRAIN HARVESTING COMBINES ENDOWED WITH AXIAL THRESHER APPARATUS**, pg. 105-113	**Vlăduț V.** Chirilă C. Biriş S. Paraschiv G. Maican E.
	V. INTERNATIONAL SYMPOSIUM "ISB / INMA TEH 2012", Bucharest - Romania, 1-3 November 2012 **p: ISBN 978-973-0-13670-8; cd: ISBN 978-973-0-13671-5**	
11.	**STUDIES AND RESEARCHES ON ENERGETIC OPTIMIZATION OF FODDER HARVESTING COMBINES - ONE DIMENSIONAL MODELS,** pg. 7-16	**Cârdei P.** **Sfîru R.** Ştefănoiu M.D. Bădescu M. Boruz S. Lazar S.

12.	**STUDIES AND RESEARCHES ON ENERGETIC OPTIMIZATION OF FODDER HARVESTING COMBINES - TWO DIMENSIONAL MODELS**, pg. 17-24	Ştefănoiu M.D., **Cârdei P.** **Pirnă I.** Bădescu M. Boruz S. Atanasov At.
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14.	**RESEARCH ON IMPROVEMENT OF WORKING PROCESS OF FIBROUS FORAGES SHREDDING BODIES,** pg. 57-66	Caba I.L. Biriş S. Bungescu S. **Vlăduț V.** **Nițu M.**
15.	**RESEARCH ON THE USE OF FINITE ELEMENT METHOD TO OPTIMIZE THE WHEEL EXPLOITATION FOR AGRICULTURAL VEHICLES**, pg. 81-88	Biriş S.Şt,. Ungureanu N. Maican E. **Vlăduț V.** Ganea I., Caba I.L.
16.	**DETERMINATION OF THE MINIMUM SURFACE OF AN AGRICULTURAL FARM FROM WHICH A POWER RANGE OF TRACTORS BECOME PROFITABLE, FOR A CERTAIN AGRICULTURAL WORK,** pg. 89-98	Moise V. Biriş S.Şt. Ungureanu N. **Vlăduț V**. Boureci Gh. Stroe I. Caba I.L.
17.	**EVALUATION METHOD OF ENERGY POTENTIAL OF SOLID VEGETAL BIOMASS**, pg. 139-146	**Nagy E.M.** **Cota C.** **Cioica N.**
18.	**SOME PHYSICAL – BIOLOGICAL CHARACTERISTICS OF MISCANTHUS ENERGETIC PLANT STALKS**, pg. 147-152	Moiceanu G. Voicu Gh. Paraschiv G. Poenaru I.C. **Pirnă I.**
19.	**RESEARCH FOR MODAL ANALYSIS UTILIZATION AS A TOOL FOR FATIGUE AND STRUCTURAL CHANGE ASSESSMENT OF MECHANICAL STRUCTURES,** pg. 247-256	Manea I. Gîrniță I. **Matache M.** **Muscalu A.** **Persu C.** **Voicea I.**
20.	**THE ANALYSIS OF THE CUTTER PROFILE IN SLIDE CUTTING AT SELF-LODING HAY TRAILERS,** pg. 257-260	Caba I.L. Bungescu S. Boja N. **Danciu A.**
VI. The 4th International Conference "Advanced Composite Materials Engineering" COMAT 2012, 18- 20 October 2012, Brasov, Romania, ISBN 978-973-131-162-3		
21.	**PROMOTION AND IMPLEMENTATION OF INTEGRATED MECHANIZATION TECHNOLOGIES SPECIFIC TO THE CROP OF ENERGETIC WILLOW**, pg. 696-701	**Păun A.** **Milea D.** **Mircea R.** **Balasoiu B.**
22.	**RESEARCHES REGARDING THE SHREDDING, MIXING AND DISTRIBUTION PROCESSES WITHIN FODDERING TECHNOLOGY OF THE CATTLE**, pg. 838-842	**Nedelcu A.** **Ciuperca R.** **Popa L.** **Bodea C.**
23.	**CONTRIBUTIONS TO ACHIEVE THE PNEUMATIC SYSTEM FOR MEASURING INJECTION PUMP ELEMENTS**, pg. 805-819	**Danciu A.** Brătucu Gh. **Ludig M.,** **Postelnicu E.** **Grigore I.**
24.	**RESEARCHES REGARDING THE RECONDITIONING OF THE ELEMENTS FROM IN-LINE INJECTION PUMPS USING STEP REPAIR METHOD**, pg. 820-829	**Danciu A.** Brătucu Gh. **Ludig M.** **Postelnicu E.** Caba I.L.
VII. INTERNATIONAL CONFERENCE ON BIOMECHANICS, NEUROREHABILITATION, MECHANICAL ENGINEERING, MANUFACTURING SYSTEMS, ROBOTICS AND AEROSPACE – ICMERA 2012, 26-28 October 2012 ISBN-13:978-3-03785-554-6		
25.	**A MODEL ANALYSIS AND VALIDATION OF A PNEUMATIC MUSCLE MADE FROM ADVANCED MATERIALS**, pg. 241-246	**Vişan A.L.** Belforte G.

VIII. HERVEX 2012, Edition XX-a, 7-9 November 2012, Călimăneşti - Căciulata **ISSN 1454-8003**		
26.	**INCREASING THE ENERGETIC EFFICIENCY OF PET BUNDLING PRESS USING HYDROSTATIC ENERGY RECOVERING SYSTEM**, pg.235-241	Nita I. Cristescu C. **Visan A.L.**, Marinescu A.
27.	**RESEARCHES TO IMPROVE WORKING PROCESS OF ACTIVE WORKING PARTS, HYDRAULIC ACTUATED, FROM CONSTRUCTION OF THE EQUIPMENT "EXPLANT 500",** pg. 309-314	**Coța C.** **Nagy E.M.** **Cioica N.**
IX. MECHANIZATION AND ELECTRIFICATION OF AGRICULTURE, vol. 96, National Scientific Center "Institute for Agricultural Engineering and Electrification", Kiev, 2012 **ISSN 0202-1927**		
28.	**EXPERIMENTAL RESEARCHES ON THE INFLUENCE OF FUNCTIONAL PARAMETERS OF COMBINED SEPARATION INSTALLATIONS OF IMPURITIES FROM THE CEREAL SEEDS ON THE QUALITY INDICATORS OF PROCESS**, pg. 130-14	**Bracacescu C.** Popescu S. Stan O.
X. SCIENTIFIC PROFESSIONAL CONFERENCE "TEXTILE SCIENCE & ECONOMY IV" **University of Novi Sad, Technical Faculty "Mihajlo Pupin" Zrenjanin, Serbia, 06-07 November 2012** **ISBN 978-86-7672-187-0**		
29.	**RESEARCHES RELATED TO THE COLOR REMOVAL FROM WASTEWATERS USING OZONE TECHNOLOGIES**	Moga Ioana Corina **Drambei Petronela** Pricop Floarea Scarlat Razvan

7.9. Prospective and technological studies, standards, procedures, methodologies and new or improved technical plans ordered or used by the beneficiary

7.9.1 – Prospective Studies: 8

Den. No.	Project Research Contract / trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)
1.	**Fostering innovative clusters competitiveness and comparatively evaluating the competitiveness of industrial sectors/ instruments of sustainable industrial policy, adapted to globalization era** Research contract no. 6/04.10.2012 CD: 133 ITA / 2011 – 2012 Contracting Authority: Institute of Economic Prognosis / MECMA Beneficiary: Ministry of Economy, Commerce and Business Environment Partnership protocol no. 1277 / 23.08.2011	Prospective study: *Prospective study regarding the industrial machinery building sector*	June 2012
2.	**Fostering innovative clusters competitiveness and comparatively evaluating the competitiveness of industrial sectors/ instruments of sustainable industrial policy, adapted to globalization era** Research contract no. 6/04.10.2012 CD: 133 ITA / 2011 – 2012 Contracting Authority: Institute of Economic Prognosis / MECMA Beneficiary: Ministry of Economy, Commerce and Business Environment Partnership protocol no. 1277 / 23.08.2011	Prospective study: *Prospective study regarding the elaboration of an integrated system of financial and non-financial measures of supporting industrial sectors and industrial policy instruments (clusters/networks)*	November 2012
3.	**BIOFUELS - Source of common sustainable development in the cross-border cooperation area** Research contract no. 6.04.10.2011 CD: 555 / 2011 - 2013 Contracting Authority: National Institute of Research-Development for Biological Sciences / INCDSB Beneficiary: National Institute of Research-Development for Biological Sciences / INCDSB Collaborating protocol no. 1277 / 23.08.2011	Prospective study: *Prospective study regarding the technology of cultivating rape*	September 2012
4.	**BIOFUELS - Source of common sustainable development in the cross-border cooperation area** Research contract no. 6.04.10.2011 CD: 555 / 2011 - 2013 Contracting Authority: National Institute of Research-Development for Biological Sciences / INCDSB Beneficiary: National Institute of Research-Development for Biological Sciences / INCDSB Beneficiar: Institutul Național de Cercetare Dezvoltare pentru Ştiințe Biologice / INCDSB Collaborating protocol no. 1277 / 23.08.2011	Prospective study: *Prospective study regarding the technology of cultivating rape*	September 2010
5.	**BIOFUELS - Source of common sustainable development in the cross-border cooperation area** Research contract no. 6.04.10.2011 CD: 555 / 2011 - 2013 Contracting Authority: National Institute of Research-Development for Biological Sciences / INCDSB Beneficiary: National Institute of Research-Development for Biological Sciences / INCDSB Collaborating protocol no. 1277 / 23.08.2011	Prospective study: *Prospective study regarding the primary processing of seeds for extracting the vegetal oil*	May 2010

Den. No.	Project Research Contract / trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)
6.	**BIOFUELS - Source of common sustainable development in the cross-border cooperation area** Research contract no. 6.04.10.2011 CD: 555 / 2011 - 2013 Contracting Authority: National Institute of Research-Development for Biological Sciences / INCDSB Beneficiary: National Institute of Research-Development for Biological Sciences / INCDSB Collaborating protocol no. 1277 / 23.08.2011	Prospective study: *Prospective study regarding the extraction of vegetal oil from rape and its purification*	April 2012
7.	**BIOFUELS - Source of common sustainable development in the cross-border cooperation area** Research contract no. 6.04.10.2011 CD: 555 / 2011 - 2013 Contracting Authority: National Institute of Research-Development for Biological Sciences / INCDSB Beneficiary: National Institute of Research-Development for Biological Sciences / INCDSB Collaborating protocol no. 1277 / 23.08.2011	Prospective study: *Prospective study regarding the chemical treatment of oil in order to obtain the biodiesel*	October 2012
8.	**BIOFUELS - Source of common sustainable development in the cross-border cooperation area** Research contract no. 6.04.10.2011 CD: 555 / 2011 - 2013 Contracting Authority: National Institute of Research-Development for Biological Sciences / INCDSB Beneficiary: National Institute of Research-Development for Biological Sciences / INCDSB Collaborating protocol no. 1277 / 23.08.2011	Prospective study: *Prospective study regarding the utilization of biodiesel and vegetal oil for diesel engines*	December 2012

7.9.2 – Technological studies: 11

Den. No.	Project Research Contract / trade contract Beneficiary	Outcome	Reporting / delivery deadline (month)
1.	**Researches regarding the improving of physical and mechanical properties and structure of biodegradable materials designed to indigenous raw material packages** Researching contract no. 284/ 20.10.2011 Contracting authority: UEFISCDI – IDEAS PROGRAMME CD: 563 / 2011 – 2014 Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCE - ASAS Collaboration protocol no. 1552 / 08.11.2007	Technological study: *Technological study regarding the plastifying effects on structure and properties of different combinations of indigenous raw materials in distinct concentrations and on raw materials processdesigned to obtain biodegradable material packages*	December 2012

2.	**Thorough researches on mincing, mixing and distributing processes within the modern foddering and breeding technologies for cattles** Researching contract no. 15 N/ 27.02.2009 Contracting authority: ANCS CD: 570 / 2012 – 2012 Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration protocol no. 1552 / 08.11.2007	Technological study: *Technological Study regarding the processes of mincing, mixing and distributing within the modern cattle foddering technology and identifying the technical solutions*	February 2012
3.	**Innovative technology of applying phyto-sanitary treatments in orchards for increasing food safety and security** Researching contract no. 15 N/ 27.02.2009 / Add. act. no. 1/2012 Contracting authority: ANCS CD: 571 / 2012 – 2012 Beneficiary: ACADEMY OF AGRICULTURAL AND FORESTRY SCIENCES - ASAS Collaboration protocol no. 1552 / 08.11.2007	Technological study: *Technological study regarding the innovative technology of applying phyto-sanitary treatments in orchards in order to increase food safety and security*	February 2012
4.	**Development of a management system for environmental protection by enhancing the use value of animal dejections in the Teleorman-Veliko Tarnovo Crossborder Area - Manproenv** Researching contract no. 1052/30.12.2011/ MIS-ETC 132 - 2(3i)-2.1-9 Contracting authority: Cross-border cooperation programme Romania - Bulgaria CD: 572 / 2011 – 2013 Beneficiary: INCDCF (ICCF)	Technological study: *Technological study regarding identification and updating of informationon polluting sources from animal dejections*	June 2012
5.	**Development of a management system for environmental protection by enhancing the use value of animal dejections in the Teleorman-Veliko Tarnovo Crossborder Area - Manproenv** Researching contract no: 1052/30.12.2011/ MIS-ETC 132 - 2(3i)-2.1-9 Contracting authority: Cross-border cooperation programme Romania - Bulgaria CD: 572 / 2011 – 2013 Beneficiary: INCDCF (ICCF)	Technological study: *Technological study regarding the impact of raising theanimal dejections utilization value on environment*	June 2012
6.	**Thorough researches regarding the obtaining of a technology of high capitalization of Miscanthus energetic plant** Researching contract no: 15 N / 27.02.2009 / Add. act. no. 2/2012 Contracting authority: ANCS CD: 580 / 2012 – 2012 Beneficiary: ACADEMY OF AGRICULTURAL AND RORESTRY SCIENCES - ASAS Collaboration Protocole no. 1552 / 08.11.2007	Technological study: *Technological study regarding the technology of high capitalization of Miscanthus energetic plant*	August 2012

7.	**Devlopment of a technology and relevant installation for medicinal and aromatic plants dehydration in order to subsequently conserve, process and capitalize them** Researching contract no. 15 N / 27.02.2009 / Add. Act. no. 2/2012 Contracting authority: ANCS CD: 581 / 2012 – 2012 Beneficiary: ACADEMY OF AGRICULTURAL AND RORESTRY SCIENCES - ASAS Collaboration Protocole no 1552 / 08.11.2007	Technological study: *Technological study regarding the technologies and technical solutions used world wide*	August 2012
8.	**Promoting in Romania the cultivation technology of energetic willow (SALIX VIMINALIS) as alternative source of clean energy** Researching contract no. 35/ 02.07.2012 Contracting authority: UEFISCDI (PARTNERSHIPS) CD: 583 / 2012 – 2015 Beneficiary: SC MECANICA CEAHLAUL SA	Technological study: *Elaboration of a technological study on establishing and harvesting the energetic willow crops*	October 2012
9.	**Interdisciplinay researches regarding the treatment of seeds with hydrolyzed collagen for enhancing the quality indicators, reducing pesticides and ensuring a sustainable growth of agricultural production** Researching contract no. 112 / 26.07.2012 Contracting authority: UEFISCDI (PARTENERSHIPS) CD: 584 / 2012 – 2015 Beneficiary: SC PROBSTDORFER SAATZUCHT ROMANIA SRL	Technological study: *Technological study regarding equipment of seeds treating*	November 2012
10.	**Devlopment of capicity of prospecting, evaluating and capitalizing the biomass potential in Romania according to EU practices and policies** Researching contract no. 15 N / 27.02.2009 / Add. act no. 3/2012 Contracting authority: ANCS CD: 585 / 2012 – 2012 Beneficiary: ACADEMY OF AGRICULTURAL AND RORESTRY SCIENCES - ASAS Collaboration protocole nr. 1552 / 08.11.2007	Technological study: *Technological study regarding the current stage of possibilities of evaluating and capitalizing the biomass resources existing in Romania*	November 2012
11.	**Devlopment of capicity of prospecting, evaluating and capitalizing the biomass potential in Romania according to EU practices and policies** Researching contract no. 15 N / 27.02.2009 / Add. act no. 3/2012 Contracting authority: ANCS CD: 585 / 2012 – 2012 Beneficiary: ACADEMY OF AGRICULTURAL AND RORESTRY SCIENCES - ASAS Collaboration protocole nr. 1552 / 08.11.2007	Technological study: *Technological study regarding the possibilities of capitalizing the agricultural biomass resources*	December 2012

7.9.3 – Procedures: 2

Den. No.	Project Research Contract / trade contract Beneficiary	Outcome	Reporting / delivery deadline (month)
1.	**Innovative technology of applying phyto-sanitary treatments on orchards for increasing food safety and security** Researching contract no. 15 N/ 27.02.2009 / Add. act. no. 1/2012 CD: 571/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	*Procedure of testing the technical equipment of applying ecological substancesand phyto-sanitary treatments MSL*	April 2012
2.	**Thorough researches on achieving a technology of high capitalization of Miscanthus energetic crop** Researching contract no. 15 N/ 27.02.2009 / Add. act. no. 2/2012 CD: 580/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	*Procedure of testing the heating installation based on Miscanthus plant capitalization*	December 2012

7.9.4 – Methodologies: 8

Den. No.	Project Research Contract / trading contract Beneficiary	Outcome	Reporting / delivery deadline (month)
1.	**Joint hydrobiology and fish biology research center in Szarvas and Timisoara - HUROFISH** Researching contract no. HURO/0802/037 AF CD: 564/ 2011 – 2012 Contracting authority: Hungary – Romania Cross – border Co-operation Programme 2007 – 2013 Beneficiary: RESEARCH INSTITUTE FOR FISHERIES, AQUACULTURE AND IRRIGATION	*Methods of testing, conditions and apparata necessary to experiments for fish breeding systems in SAR*	April 2012
2.	**Joint hydrobiology and fish biology research center in Szarvas and Timisoara - HUROFISH** Researching contract no. HURO/0802/037 AF CD: 564/ 2011 – 2012 Contracting authority: Hungary – Romania Cross – border Co-operation Programme 2007 – 2013 Beneficiary: RESEARCH INSTITUTE FOR FISHERIES, AQUACULTURE AND IRRIGATION	*Methods of testing, conditions and apparata necessary to experiments for fish reproduction process and pre-breeding in SAR*	August 2012
3.	**Thorough researches on achieving the processes of mincing, mixing and distributing within modern technologies of cattle foddering and breeding** Researching contract no. 15 N / 27.02.2009 / Add. act. no. 1/2012 CD: 570/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	*Methods of testing for technical equipment: helical conveyor, transporting distributing cutter control and comman system mounted on foddering machine – MF 8*	April 2012

Den. No.	Project Research Contract / trading contract Beneficiary	Outcome	Reporting / delivery deadline (month)
4.	**Static test of protection structure (cabin TAF 2012) in case of overturning (ROPS), accord. ISO 8082 – 1: 2009;** **Dynamic test of protection structure (cabin TAF 2012) against falling objects (FOPS), accord. ISO 8083: 2009;** **Static test of protection structure (cabin TAF 2012) for operators (OPS), accord. ISO 8084: 2003;** **Test of anchorages (earth connection) of operator seat provided for cabinTAF 2012, accord. ISO 3776-2:2007** Researching contract no. 698/ 15.06.2012 CD: 577 / 2012 - 2012 Beneficiary: SC IRUM Reghin	*Methodology of testing the forestry jointed tractor TAF 690. OP*	July 2012
5.	**Elaborating an innovative method of testing and modernizing the technology of manufacturing the equipment of applying pesticides for ensuring a high environmental and safety protection degree "code PN-II-IN-CI-2012-1-0129"** Researching contract no 57 CI /25.06.2012 CD: 578/ 2012 – 2012 Contracting authority: UEFISCDI Beneficiary: SC SERVOPLANT SRL	*Innovative methodology of testing and modernizing the technology of manufacturing the pesticide applying equipment for ensuring a high environemental and safety degree*	December 2012
6.	**Developing a technology and a relevant installation for dehydrating medicinal and aromatic plants for their subsequent conservation, processing and capitalization** Researching contract no 15 N / 27.02.2009 / Add. act. no. 1/ 2012 CD: 581/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	*Methodology (technology) of dehydrating the medicinal and aromatic plants*	August 2012
7.	**Developing a technology and a relevant installation for dehydrating medicinal and aromatic plants for their subsequent conservation, processing and capitalization** Researching contract no 15 N / 27.02.2009 / Act. ad. nr. 2/2012 CD: 581/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	*Experimental method designed to installation of dehydrating medicinal and aromatic plants*	December 2012
8.	**Development of capacity of prospecting, evaluating and capitalizing the biomass potential in Romania in compliance with EU practices and policies** Researching contract no 15 N / 27.02.2009 / Act. ad. nr. 2/2012 CD: 581/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	*Unitary methodology for evaluating the biomass potential accordiong to EU practices*	November 2012

7.9.5 – Technical plans: 15

Den. no.	Project Research Contract / trading contract Beneficiary	Outcome	Reporting / delivery deadline (month)
1.	**Innovative technology and technical equipment with active parts driven for deeply loosening the soil and increasing soil fertility** Researching contract no 135 / 27.10.2011 Contracting authority: ASAS CD: 560 / 2011 – 2014 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan for technical equipment with active parts driven for soil deep loosening EAA*	February 2012
2.	**Mechanizing technology and technical equipment for conditioning and calibrating the apples designed to subsistence fruit farms** Researching contract no 311 / 27.10.2011 Contracting authority: ASAS CD: 561 / 2011 – 2014 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan for technical equipment of sorting and calibrating apples, ECM*	May 2012
3.	**Mechanizing technologies and technical equipment suitable for efficiently harvesting, transporting and conserving fodder plants.** Researching contract no. 736 / 27.10.2011 Contracting authority: ASAS CD: 562 / 2011 – 2014 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan for hay drying installation by cold or hot air vantilation: Var. 1 - air heating by solar collectors. Var. 2 – air heating in polyethylene or other materials tubes*	May 2012
4.	**Joint hydrobiology and fish biology research center in Szarvas and Timisoara - HUROFISH** Researching contract no. HURO/0802/037 AF CD: 564/ 2011 – 2012 Contracting authority: Hungary – Romania Cross – border Co-operation Programme 2007 – 2013 Beneficiary: RESEARCH INSTITUTE FOR FISHERIES, AQUACULTURE AND IRRIGATION	*Technical plan for fish breeding system in SAR – HUROFISH*	June 2012
5.	**Joint hydrobiology and fish biology research center in Szarvas and Timisoara - HUROFISH** Researching contract no. HURO/0802/037 AF CD: 564/ 2011 – 2012 Contracting authority: Hungary – Romania Cross – border Co-operation Programme 2007 – 2013 Beneficiary: RESEARCH INSTITUTE FOR FISHERIES, AQUACULTURE AND IRRIGATION	*Technical plan for fish reproduction and pre-developing system in SAR – HUROFISH*	July 2012
6.	**Thorough researches on mincing, mixing and distributing processes within the modern foddering and breeding technologies for cattles** Researching contract no.15 N / 27.02.2009 / Add. act. 1/2012 Contracting authority: ANCS CD: 570 / 2012 – 2012 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan for technical equipment:mixing worm - var. 1; mixing worm - var. 2*	February 2012

Den. no.	Project Research Contract / trading contract Beneficiary	Outcome	Reporting / delivery deadline (month)
7.	**Thorough researches on mincing, mixing and distributing processes within the modern foddering and breeding technologies for cattles** Researching contract no.15 N / 27.02.2009 / Add. act. 1/2012 Contracting authority: ANCS CD: 570 / 2012 – 2012 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan for technical equipment: distributing conveyor with belt T-1.0 V1; distributing conveyor with chain and scrapers T-1.0 V2*	February 2012
8.	**Thorough researches on mincing, mixing and distributing processes within the modern foddering and breeding technologies for cattles** Researching contract no.15 N / 27.02.2009 / Add. act. 1/2012 Contracting authority: ANCS CD: 570 / 2012 – 2012 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan for technical equipment: Cutter for displacing and loading the material ensilaged variant 1; Cutter for displacing and loading the material ensilaged – variant 2*	February 2012
9.	**Innovative technology of applying phyto-sanitary treatments in orchards for increasing food safety and security** Researching contract no.15 N / 27.02.2009 / Add. act. 1/2012 Contracting authority: ANCS CD: 571 / 2012 – 2012 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan of experimental model of applying with high precision the ecological substances and phyto-sanitary substances - MSL*	March 2012
10.	**Manufacturing documents of emptying equipment endowed with dejections spreading system on soil surface "code PN-II-IN-CI-2012-1-0062"** Researching contract no 50 CI /15.06.2012 Contracting authority: UEFISCDI CD: 574 / 2012 – 2012 Beneficiary: SC PROFILAM EXIM SRL	*Technical plan for emptying equipment V- O*	December 2012
11.	**Manufacturing documents of automated machine for sorting living fishes" "code PN-II-IN-CI-2012-1-0124"** Researching contract no 76 CI /29.06.2012 Contracting authority:: UEFISCDI CD: 579 / 2012 – 2012 Beneficiary: SC EUROCAR SRL	*Technical plan for sorting living fishes*	December 2012
12.	**Thorough researches on achieving a technology of high capitalization of energetic crop Miscanthus** Researching contract no.15 N / 27.02.2009 / Add. act. no. 2/2012 Contracting authority: ANCS CD: 580 / 2012 – 2012 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan designed to heating installation based on Miscanthus plant use IIVM*	August 2012

Den. no.	Project Research Contract / trading contract Beneficiary	Outcome	Reporting / delivery deadline (month)
13.	**Development of a technology and installation for dehydrating medicinal and aromatic plants in order to subsequenntly conserve, process and capitalize them** Researching contract no.15 N / 27.02.2009 / Add. act. no. 2/2012 Contracting authority: ANCS CD: 581 / 2012 – 2012 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan of installation for dehydrating medicinal and aromatic plants – IDPM*	December 2012
14.	**Promoting in Romania the technology of cultivating the energetic willow SALIX VIMINALIS) as an alternative source of clean energy (TCSE)** Researching contract no.35/ 02.07.2012 Contracting authority: UEFISCDI (PARTNERSHIPS) CD: 583 / 2012 – 2015 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan of cutting-chopping energetic willow ETSE*	December 2012
15.	**Promoting in Romania the technology of cultivating the energetic willow(SALIX VIMINALIS) as an alternative source of clean energy (TCSE)** Researching contract no.35/ 02.07.2012 Contracting authority: UEFISCDI (PARTNERSHIPS) CD: 583 / 2012 – 2015 Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007	*Technical plan for technical equipment designed to establish energetic willow crop EIS*	December 2012

7.9.6 – Experimental models: 9

Den. no.	Project Research Contract / trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)
1.	**Innovative technology and technical equipment with active parts driven for soil deep loosening and increased fertility** Researching contract no. 135 / 27.10.2011 CD: 560/ 2011 – 2014 Contracting authority: ASAS – SECTORAL PLAN MADR Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1552 / 08.11.2007 Protocole no. 1556 / 12.11.2007	Experimental model *Technical equipment with working parts driven for soil deep loosening*	May 2012

Den. no.	Project Research Contract / trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)
2.	**Technology of mechanization and technical equipment for conditioning and calibrating apples designed to subsistence orchard farms** Researching contract no. 311 / 27.10.2011 CD: 561/ 2011 – 2014 Contracting authority: ASAS – SECTORAL PLAN MADR Beneficiary: PATRONATE OF AGRICULTURAL MACHINERY AND TRACTORS MANUFACTURERS IN ROMANIA - PACTMAR Protocole no. 1556 / 12.11.2007 Protocole no. 1552 / 08.11.2007	Experimental model: *Technical equipment of sorting-calibrating apples by sizesECM*	September 2012
3.	**Thorough researches regarding the processes of mincing, mixing and distributing fodder within the modern foddering and breeding technologies for cattle** Researching contract no. 15 N / 27.02.2009 / Add. act. 1/ 2012 CD: 570/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	Experimental model: *Mixing worm in two variants (M-O V1 şi M-O V2)*	March 2012
4.	**Thorough researches regarding the processes of mincing, mixing and distributing fodder within the modern foddering and breeding technologies for cattle** Researching contract no. 15 N / 27.02.2009 / Add. act. 1/ 2012 CD: 570/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	Experimental model: *Cutter designed to displace and load the ensilaged material in two variants (F-O V1 şi M-O V2)*	March 2012
5.	**Thorough researches regarding the processes of mincing, mixing and distributing fodder within the modern foddering and breeding technologies for cattle** Researching contract no. 15 N / 27.02.2009 / Add. act. 1/ 2012 CD: 570/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	Experimental model: *Distributing conveyor in two variants (T- 1.0 V1 şi T- 1.0 V2)*	March 2012
6.	**Thorough researches regarding the processes of mincing, mixing and distributing fodder within the modern foddering and breeding technologies for cattle** Researching contract no. 15 N / 27.02.2009 / Add. act. 1/ 2012 CD: 570/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	Experimental model: *Command and control system SA - O*	March 2012
7.	**Innovative technology of applying phytosanitary treatments in orchards for increasing food safety and security** Researching contract no. 15 N / 27.02.2009 / Add. act. 1/ 2012 CD: 571/ 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	Experimental model: *Experimental model of high precision applying of ecological substances and phyto-sanitary treatments*	April 2012

Den. no.	Project Research Contract / trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)
8.	**Thorough researches regarding the achievement of a high capitalization technology of Miscanthus energetic crop** Researching contract no. 15 N / 27.02.2009 / Add. act. 1/ 2012 CD: 580 / 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	Experimental model: *Experimental model of installation*	Octomber 2012
9.	**Developement of a technology and installation designed to medicinal and aromatic plants dehydration for subsequently conserve, process and capitalize them** Researching contract no. 15 N / 27.02.2009 / Add. act. 1/ 2012 CD: 581 / 2012 – 2012 Contracting authority: ANCS Beneficiary: ANCS	Experimental model: *Installation of dehydrating medicinal and aromatic plants- IDPM*	September 2012

7.9.7 – Norms: 22

Den. no.	Project Researching contract/Trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)
1.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/02.11.2011 Subcontract no.17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 789-11:2012** *Agricultural tractors. Testing methods. Part 11: Performances of steering device of wheeled tractors*	September 2012
2.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/02.11.2011 Subcontract no.17.3/30.11.2011 Contracting authority:MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 789-12:2012** *Agricultural tractors. Testing methods Part 12: Starting at low temperature*	September 2012
3.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 5692-3-:2012** *Agricultural vehicles Mechanical connections on trailed vehicles Part 3: Rotative draw-bar eye*	September 2012
4.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 6489-2:2012** *Agricultural vehicles. Mechanical connections between towing vehicles and trailed vehicles. Part 2: Dimensions requirements of towing devices of yoke type*	September 2012

Den. no.	Project Researching contract/Trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)
5.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 6489-4:2012** *Agricultural vehicles. Mechanical connections between towing vehicles and trailed vehicles. Part 4: Dimensions requirements of towing devices of connecting bolt type*	September 2012
6.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 21244:2012** *Agricultural machinery. Mechanical connections between towing vehicles and trailed vehicles. Towing devices with draw-bar eye for equipment and mounting the towing bar*	September 2012
7.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 500-3:2012** *Agricultural Tractors. PTO mounted at tractor rear part for types 1, 2 and 3. Part3: PTO's main dimensions and notches dimensions, PTO mounting*	September 2012
8.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority:MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norms: **SR ISO 789-8:2012** *Agricultural Tractors. Testing methods. Part 8: Engine air filter*	September 2012
9.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norms: **SR ISO 789-7:2012** *Agricultural Tractors. Testing methods. Part 7: Determination of power of motor wheels*	September 2012

Den. no.	Project Researching contract/Trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)
10.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norms: **SR ISO 6489-3:2012** *Agricultural vehicles. Mechanical connections between towing vehicles and trailed vehicles. Part 3 Tractor drawing bar*	September 2012
11.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norms: **SR ISO/OECD 789-10:2012** *Agricultural tractors. Testing methods. Part12: Hydraulic power available at tractor-equipment interface*	September 2012
12.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norms: **SR ISO 6489-5:2012** *Agricultural vehicles. Mechanical connections between towing vehicles and trailed vehicles. Part 5: Requirements regarding non-rotative yoke-type couplings*	September 2012
13.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norms: **SR ISO 15886-1:2012** *Agricultural vehicles for irrigation. Sprinklers. Part 1: Definition of terms and classification*	September 2012
14.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norms: **SR ISO 15886-3/2012** *Agricultural vehicles for irrigation. Sprinklers. Part 3: Characterization of distributing and testing methods*	September 2012
15.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norms: **SR ISO 7072:/2012** *Agricultural and forestry machinery and tractors.Self-clamping pins and elastic fuses. Dimensions and requirements*	September 2012

Den. no.	Project Researching contract/Trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)
16.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norms: **SR ISO 11001-1:/2012** *Wheeled agricultural tractors and equipment. Rapid three-point couples. Part 1:U-shaped frame couple*	September 2012
17.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norms: **SR ISO 11001-2:/2012** *Wheeled agricultural tractors and equipment. Rapid three-point couples. Part 2: A-shaped frame couple*	September 2012
18.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 11001-3:/2012** *Wheeled agricultural tractors and equipment. Rapid three-point couples. Part 3: Spherical joint couple*	September 2012
19.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority:MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 11001-4:/2012** *Wheeled agricultural tractors and equipment. Rapid three-point couples. Part 4:Coupling bar*	September 2012
20.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 730/2012** *Wheeled agricultural tractors. Three point suspension mechanism mounted at tractor's rear part. Categories 1N, 2N,2 3N, 3, 4N and 4*	November 2012
21.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority: MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 23205: 2012** *Agricultural tractors. Attendant seat*	November 2012

Den. no.	Project Researching contract/Trading contract Beneficiary	Outcome	Reporting/ delivery deadline (month)
22.	**Analysis of current original standard fund for complying to state-of-the art and current requirements** Researching contract no. 17/.02.11.2011 Subcontract no. 17.3/30.11.2011 Contracting authority:MECMA CD: 556/2011-2012 Beneficiary: ASRO	Norm: **SR ISO 4252: 2012** *Agricultural tractors Operator working place, enter and exit. Dimensions*	November 2012

7.10. Copyright protected by ORDA or by legal similar systems: -

7.11. Members in editorial boards of ISI acknowledged journals (or included in international data base) and international editorial boards: 2

Den. no.	NAME	JOURNAL
1.	Vlăduț Valentin	**TRAKTORI I POGONSKE MASINE** ***JOURNAL OF SCIENTIFIC SOCIETY OF POWER MACHINES, TRACTORS AND MAINTENANCE*** ***Novi Sad, Serbia;*** **ISSN 0354-9496**
2.	Vlăduț Valentin	**ECOLOGICA** ***Belgrad - Serbia*****, ISSN 0354 - 3285**

7.12. Members in editorial boards of nationally acknowledged journals (B+ category in CNCSIS classification): 12

Den. no	Name	Journal/publishing house title
1.	Pirnă Ion	**INMATEH - AGRICULTURAL ENGINEERING** **ISSN: 2068 – 2239; ISSN: 2068 – 4215** **Acknowledged by CNCSIS, B category, position 737/11949/2009**
2.	Voicu Emil	
3.	Ganea Ioan	
4.	Vlăduț Valentin	
5.	Drâmbei Petronela	
6.	Muraru Vergil	
7.	Nedelcu Mihail	
8.	Barbu Mihaela	
9.	Țicu Tania	
10.	Vlădut Valentin	**ACTA TECHNICA CORVINIESIS - BULLETIN OF ENGINEERING** ***Hunedoara, Romania,*** **ISSN: 2067-3809**
11.	Vlădut Valentin	**ANNALS OF FACULTY ENGINEERING HUNEDOARA - INTERNATIONAL JOURNAL OF ENGINEERING** ***Hunedoara, Romania,*** **ISSN 1584-2673**

7.13. International prizes obtained by selection process: 20

Table 7.13

Den. No.	Denomination of Salon / Fair / Contest	Prizes
1	**International Salon of Inventions Proinvent, Cluj-Napoca, 27-30 March 2012**	**Excellence Diploma and Gold Medal** **EQUIPMENT FOR PLANTING FORESTRY SEEDLINGS IN WORKED FIELD** Mircea Radu, Pirnă Ion, Cristea Mircea, Dumitrescu Corneliu **Excellence Diploma PROINVENT** **DEVICE OF CONTROL AND HYDRAULIC COMMAND BY SHOCKS** Coța Constantin, Nagy Elena Mihaela, Cioica Nicolae **1 special prize** **AGEPI Diploma and Medal, Moldova** **EQUIPMENT FOR PLANTING FORESTRY SEEDLINGS IN WORKED FIELD** Mircea Radu, Pirnă Ion, Cristea Mircea, Dumitrescu Corneliu
2	**International Salon of Inventions –Geneve, Switzerland, 19 – 23April 2012**	**Diploma and Gold Medal** **TECHNICAL EQUIPMENT FOR MOWING AND CRUSHING GREEN FODDERI** Voicu Emil, Pirnă Ion, Vicol Florin, Ciurel Gica, Cânpeanu Ana **Diploma and Silver Medal** **TECHNICAL EQUIPMENT FOR SOIL WORKS IN STRIPES** Marin Eugen, Cojocaru Iosif, Constantin Nicolae, Sorică Cristian
3	**INVEST-INVENT SIR 22 Bucharest 23-26 May 2012**	**Excellence Diploma and Prize INVEST-INVENT** **MACHINE FOR CONDITIONING BULB PLANTS AND VEGETABLES** Ioan Ganea **Excellence Diploma and Medal of Fair INVEST-INVENT** **CILINDER AND CONE-SHAPED SEPARATOR ASPIRATOR** Paul Găgeanu, Ion Pirnă, Ioan Ganea, George Bunduchi
4	**The IV-th National Congress of researchers and inventors in Romania** with international participation **Bucharest, 23-26 mMay 2012**	**EXCELLENCE DIPLOMA** **- INMA Bucharest -**
5	**INVENTICA International Salon** **Iaşi 13-15 June 2012**	**Diploma and Medal** **TECHNICAL EQUIPMENT FOR WORKING THE SOIL IN STRIPES, SOWING HOEING PLANTS, FERTILIZING AND APPLYING GRANULATED INSECTICIDES** **DEVICE OF CONTROL AND HYDRAULIC COMMAND BY SHOCKS** **ADDITIONAL SYSTEM OF HYDROSTATICALLY DRIVING THE 45 H.P. TRACTOR** **Special prize OSIM** **Machine for extracting trees– EXPLANT 500**
6	**Prizes AGIR 2011 Bucharest, 14 Sept. 2012**	**1. Multifunctional aggregate of working the soil in agricultural exploitations - MATINA** N. Constantin, I. Pirnă, D. Irimia, Al. David **2. Technical equipment for sowing hoeing plants, fertilizing and applying microgranulated insecticides – SPF 6** I. Pirnă, E. Marin, C. Sorică, D. Manea

7	**NEW TIME International Salon Sevastopol, Ukrain 27 - 29 Sept. 2012**	**Diploma and Silver Medal** **RECIRCULATING MODULATED SYSTEM FOR FISH INTENSIVE BREEDING** Pop Augustin, David Petru, Despa Gheorghe, Popovici Valentin
8	**i-ENA International Salon Nurenberg, Germany 1 - 4 Nov. 2012**	**Diploma and Bronze Medal** **Special Prize of Iran** **ANCS Diploma** **HARROW WITH DISCS AND ADDITIONAL LEVELLING PARTS** Constantin Nicolae, Jercăleanu Chiriac, Gângu Vergil, Cojocaru Iosif, Petrescu Vily, Savoia Neculai
9.	**INNOVA nternational salon 2012 - Bruxelles, Belgium, 15 – 17 Nov. 2012**	**Diploma and Silver Medal** **RECIRCULATING MODULATED SYSTEM FOR FISH INTENSIVE BREEDING** Pop Augustin, David Petru, Despa Gheorghe, Popovici Valentin **Diploma and Gold Medal** **TECHNICAL EQUIPMENT FOR WORKING THE SOIL IN STRIPES, SOWING HOEING PLANTS, FERTILIZING AND APPLYING GRANULATED INSECTICIDES** Marin E., Cojocaru I., Constantin N., Sorică C. **Special Prize Poland** **RECIRCULATING MODULATED SYSTEM FOR FISH INTENSIVE BREEDING** Pop Augustin, David Petru, Despa Gheorghe, Popovici Valentin

7.14. National Prizes (prizes of Romanian Academy,CNCSIS, others)

- **AGIR prizes 2011-** domain **„Machinery manufacturing engineering"**:

Within the Symposium « EDUCATION AND ENGINEERING » 13-14 September 2012 at which INMA has got 2 AGIR prizes foroutstanding products in 2011:


ASOCIAȚIA GENERALĂ A INGINERILOR DIN ROMÂNIA

PREMIUL AGIR
2011

În domeniul "Ingineria construcțiilor de mașini"

Se acordă realizatorului: **INMA - Institutul Național de Cercetare - Dezvoltare pentru Mașini și Instalații destinate Agriculturii și Industriei Alimentare**

pentru lucrarea: ***Agregat multifuncțional de lucrat solul în exploatațiile agricole - MATINA***

Autori: dr.ing.dipl. Nicolae Constantin, prof.dr.ing.dipl. Ion Pirnă, ing.dipl. Diana Irimia, ing.dipl. Alexandru David

14.09.2012

Președinte,
Mihai MIHĂIȚĂ


ASOCIAȚIA GENERALĂ A INGINERILOR DIN ROMÂNIA

PREMIUL AGIR
2011

În domeniul "Ingineria construcțiilor de mașini"

Se acordă realizatorului: **INMA - Institutul Național de Cercetare - Dezvoltare pentru Mașini și Instalații destinate Agriculturii și Industriei Alimentare**

pentru lucrarea: ***Echipament tehnic pentru semănat plante prășitoare, fertilizat și distribuit insecticide sub formă de microgranule SPF6***

Autori: prof.dr.ing.dipl. Ion Pirnă, dr.ing.dipl. Eugen Marin, dr.ing.dipl. Cristian Sorică, dr.ing.dipl. Dragoș Manea

14.09.2012

Președinte,
Mihai MIHĂIȚĂ

7.15. Number of doctor degree coordinators, members of the research unit: -

7.16. Number of doctors, members of the research unit: 28

(according to chapter 5.)

7.17. Published Books/Chapters: 15

1) **Manea D.** – *Optimization of distribution system of hoeing plants sowing machines with centralized dosage*, Editura Terra Nostra Publishing, ISBN-978-606-623-004-9,Iaşi, 2012;
2) **Sorică C.** – *Conditioning of cerals based on mechanicle principles*, Editura „Terra Nostra" Publishing, ISBN 978-606-623-005-6, Iaşi 2012;
3) **Brăcăcescu C.** – *Optimization of primary processing of ceral crops seeds*, "Terra Nostra" Publishing, ISBN 978-606-623-003-2, Iaşi, 2012;
4) **Vlăduț V., Danciu A., Nicolescu M., Postelnicu E.** – *Technologies for obtaining and using biomass,* Editura "Terra Nova"Publishing, Iaşi, 2012, ISBN 978-973-1888-96-5;
5) **Vlăduț V., Voicea I., Marin E.** – *Cultivation of oil plants in Romania,* Editura "Terra Nova"Publishing, ISBN 978-973-1888-92-7, Iaşi, 2012,;
6) **Vlăduț V., Pirnă I.,** Buțu A. – *Saccharate sorghum,* Editura "Terra Nova"Publishing, ISBN 978-973-1888-95-8, Iaşi, 2012,;
7) **Vlăduț V., Matache M., Voicea I., Nicolescu M.,** Biris S., Paraschiv G., Voicu Gh., **Danciu A., Persu C.** – *Aided-computer testing of biotechnical system,* Editura "Terra Nova"Publishing, ISBN 978-606-623-011-7, Iaşi, 2012;
8) **Ivan Gh., Vlăduț V.** – *Oil plants harvesting in Romania***,** Editura "TERRA NOVA"Publishing, ISBN 978-973-1888-93-4, Iaşi, 2012;
9) **Găgeanu P., Vlăduț V., Găgeanu G.** – *Vegetal oils – current and future biofuel*, Editura "TERRA NOVA"Publishing, ISBN 978-973-1888-94-1, Iaşi, 2012;
10) **Muscalu A., Vlăduț V., Persu C., Ludig M.** – *Technologies of drying medicinal and aropmatic plants,* Editura "TERRA NOVA"Publishing, ISBN 978-973-1888-97-2, Iaşi, 2012;
11) **Muscalu A., Vlăduț V., Pop A., Burtea R.** – *Technology of drying vegetables and fruits,* Editura "TERRA NOVA"Publishing, ISBN 978-973-1888-98-9, Iaşi, 2012;
12) **Muscalu A., Vlăduț V., Pruteanu A., Nițu M.** – *Harvesting and primary processing of medicinal and aromatic plants,* Editura "TERRA NOVA", ISBN 978-606-623-012-4, Iaşi, 2012;
13) **Cârdei P., Constantin N., Grădinaru V., Marin E., Manea D., Matache M., Muraru V., Muraru C., Pirnă I., Sfîru R., Sorică C., Stanciu L., Vlăduț V. –** *Structural analysis and new materials focused on mechanics, mecaronics, maintenance and exploitation of technical equipment for agriculture and food industry,* Editura "TERRA NOVA"Publishing, ISBN 978-606-623-017-9, Iaşi, 2012;
14) **Pirnă I., Alexandru I., Bodea C., Brăcăcescu C., Cristea O., Ioniță Gh., Muraru C., Neagoe V., Nițu M., Vlăduțoiu L.** – *Management of innovating activities and transfer of good practices in the field of technical equipment designed to agriculture and food industry,* Editura "TERRA NOVA" Publishing, ISBN ISBN 978-973-1888-99-6, Iaşi, 2012;
15) Biris S.Ş., **Vlăduț V**. - **WATER STRESS -** Chap. 9_*Use of Finite Element Method to Determine the Influence of Land Vehicles Traffic on Artificial Soil Compaction* (pag. 179÷198)**,** Editura INTECH (www.intechopen.com) - OPEN ACCESS (Croația), ISBN 978-953-307-963-9.

8. Measures for increasing the prestige and visibility of INCD

8.1. Presentation of collaboration activity and partnerships

- **Developing of partnerships at the national and international level (with personalities/ institutions)**

- **Registering INCD in international data bases for promoting partnerships**

- **Registering INCD as a member in research networks/ member in prestigious professional associations on national / international level:**

- **PACTMAR – Manufacturers Employers Association of Tractors and Agricultural Machines in Romania;**
- **SIMAR – Society of Romanian agricultural mechanics engineers;**
- **ReNITT – National Network for Innovation and Technological Transfer;**
- **ASRO – Standardization Association in Romania;**
- **RENAR – Romanian Accrediting Association;**
- **RAR – Romanian Auto Register;**
- **CNCPIR – National Chamber of Counsellors in Intelectual Property in Romania**
- **ASAS – Academy of Agricultural and Forestry Sciences "Gheorghe Ionescu-Sisesti"**
- **SIR – Society of Inventors in Romania**
- **BIOCARO – Romanian Biofuels Platform;**
- **ARoTT – Romanian Association of Technological Transfer;**
- **ROCASCO – Committee for Conformity Assesment;**
- **CT 77 – Technical Committee – Machines and Agricultural Equipment;**
- **FOOD for LIVE Platform;**
- **MANUFUTURE Platform;**
- **EHEDG-THE EUROPEAN HYGIENIC ENGINEERING&DESIGN GROUP-Frankfurt, Germany**

8.2 Scientific events organised by the institute

- On **17 August** INMA has organized a "**MEETING BETWEEN GENERATIONS"**

With the occasion of **85 years of celebration** since the institute establishing, event at which over 200 specialists with rich contribution to institute results, participated.

Aspects during the event

- During **1-3 November 2012**, in the Hall AN 010 of POLITEHNICA University in Bucharest, INMA organized together with Faculty of Biotechnical Systems Engineering National Symposium with international participation:

AGRICULTURE AND ENGINEERING.
Soil – plant – technical equipment in the context of ecological agriculture and economic efficiency
- INMATEH 2012 -

Aspecs during the symposium:

Engineers who graduated Agricultural Mechanics Faculty and presented scientific papers was given **Jubilee Diploma:**

Within the Symposium have been presented 37 scientific papers broken down on 4 sections, which were printed in the volume by no. ISBN 978-973-0-13670-8 and CD registered, personalized by no. ISBN 978-973-0-13671-5:

- On **19 November 2012,** INMA co-organized and hosted Symposium on topic:

„ RESEARCH, DEVLOPMENT AND INNOVATION – SUPPORT FOR ECONOMIC AND SOCIAL SUSTAINABLE GROWTH ”

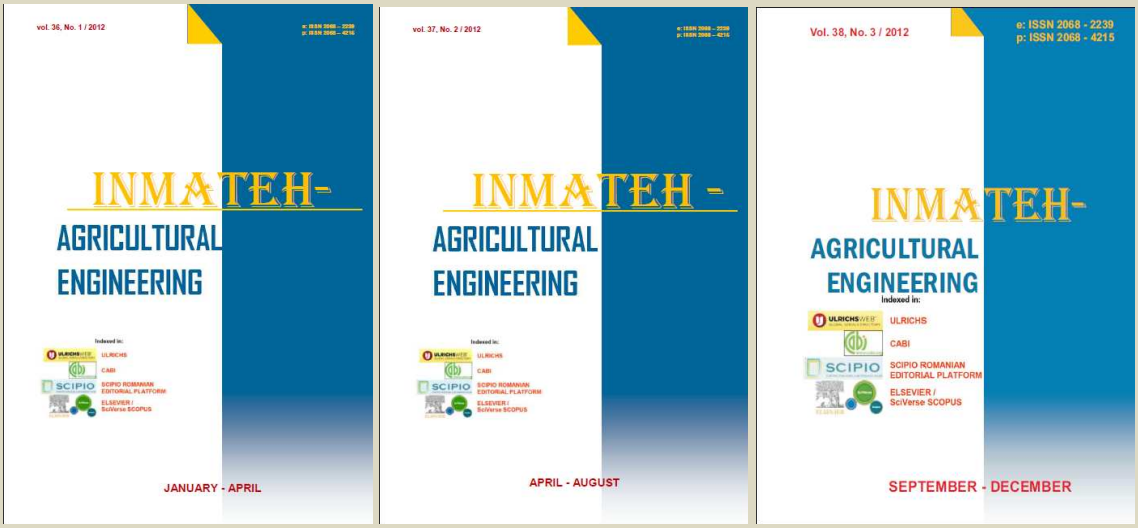
Organized by PRCP with the occasion of **Day of researcher and designer in Romania:**

Aspecs during the Symposium

With this occasion, INMA organized an exhibition of representative technical equipment.

Institute journal, «**INMATEH – Agricultural Engineering**»

recognized CNCSIS category **B**$^{+}$ with number 737/11949/2009, having
***on line codes*: ISSN 2068-2239 and *print*: ISSN 2068-4215,**
has continued to be issued with numbers **36, 37** and **38 / 2012.**



Journal has been indexed in the following international databases:

ULRICHS

CABI

SCIPIO ROMANIAN EDITORIAL PLATFORM

ELSEVIER / SciVerse SCOPUS

And can be accessed on line at the addresses:
http://www.inma.ro/inmateh-agricultural%20engineering
http://www.inmateh.eu

8.3. Participation of INMA in national and international fairs and exhibitions

• National fairs and exhibitions

Den. no.	Period	Name of the event	City Region	Partners	Salon's name
1.	April 2012	Regional Salon of Research and AGROMEXPO Fair	Bacău R 1	Chamber of Commerce and Industry Bacău	
2.	July 2012	Regional Salon of Research and EXPOTEHNICA Fair	Bacău R 1	Chamber of Commerce and Industry Bacău	Regional Salon of Research Bacău, the IV th edition
3.	23-26 May	IV National Congress of researchers and inventors of Romania with international participation	Bucharest Tehnical Museum	Inventors Society of România	
4.	17–19 Oct.	POLIFEST	Bucharest UPB	UPB / ISB	
5.	17-19 Oct.	INNOVATION FORUM	Bucharest ROMEXPO	ANCS	
6.	7 – 9 Nov.	National Conference of Research and Innovation – CNCI EXPO awarded products and inventions	Bucharest National Library	ANCS	
7	9 – 11 Nov.	HERVEX –the XIII th edition International Technical Exhibition in hydraulics and pneumatics	Călimăneşti R 4	CCI Vâlcea INOE 2000 - IHP	Regional Salon of Research Călimăneşti, the V th edition

• Participation at the Regional Salon of Research and AGROMEXPO Fair, April 2012

• Participation at Regional Salon of Research and EXPOTEHNICA Fair, July 2012

- **Participation at IV-th National Congress of researchers and inventors of Romania with international participation –CNCIR**
- **Bucharest, 23-26 May 2012 Technical Museum " Gh. Leonida"**
- **EXCELLENCE DIPLOMA**

- **Participation at Symposium «EDUCATION AND ENGINEERING» 13 to 14 September 2012 where INMA Bucharest won two AGIR awards for outstanding products achievements in 2011:**


ASOCIAȚIA GENERALĂ A INGINERILOR DIN ROMÂNIA
PREMIUL AGIR
2011
În domeniul "Ingineria construcțiilor de mașini"
Se acordă realizatorului: **INMA - Institutul Național de Cercetare - Dezvoltare pentru Mașini și Instalații destinate Agriculturii și Industriei Alimentare**
pentru lucrarea: ***Agregat multifuncțional de lucrat solul în exploatațiile agricole - MATINA***
Autori: dr.ing.dipl. Nicolae Constantin, prof.dr.ing.dipl. Ion Pirnă, ing.dipl. Diana Irimia, ing.dipl. Alexandru David
14.09.2012
Președinte,
Mihai MIHĂITĂ

Premiul AGIR 2011

ASOCIAȚIA GENERALĂ A INGINERILOR DIN ROMÂNIA
PREMIUL AGIR
2011
În domeniul "Ingineria construcțiilor de mașini"
Se acordă realizatorului: **INMA - Institutul Național de Cercetare - Dezvoltare pentru Mașini și Instalații destinate Agriculturii și Industriei Alimentare**
pentru lucrarea: ***Echipament tehnic pentru semănat plante prășitoare, fertilizat și distribuit insecticide sub formă de microgranule SPF6***
Autori: prof.dr.ing.dipl. Ion Pirnă, dr.ing.dipl. Eugen Marin, dr.ing.dipl. Cristian Soricâ, dr.ing.dipl. Dragoș Manea
14.09.2012
Președinte,
Mihai MIHĂITĂ

- **Participation to the conference: INDUSTRY, where to? AGIR, April 2012**

- **Visit of the Bundestag delegation - Agricultural Committee - March 2012**




- **Participation at HERVEX the XIII th edition International Technical Exhibition in hydraulics, pneumatics – Regional Research Salon Calimanesti 9-11 Nov. 2012**

• RESEARCHES TO IMPROVE WORKING PROCESS OF ACTIVE WORKING PARTS, HYDRAULICALLY ACTUATED, FROM CONSTRUCTION OF THE EQUIPMENT "EXPLANT 500"

Constantin Cota, Elena Nagy, Nicolae Cioica - INMA – Bucharest- ROMANIA 309 – 314

- **Participation to the INNOVATION FORUM – Bucharest ROMEXPO 17-19 Oct. 2012**

Panel - Food safety and security of Romania

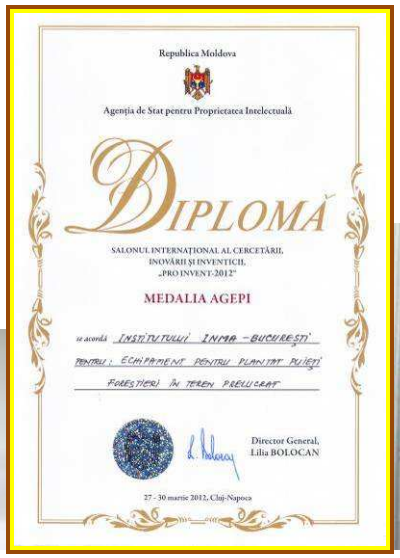
Technology and technical equipment adapted to organic farming in accordance with European safety and security requirements

Panel - Innovation and Technology Transfer for the benefit of the business environment

Innovation and technology transfer for the benefit of the business environment within Pole of Competitiveness IND-AGRO-POL

* International Fairs and Exhibitions

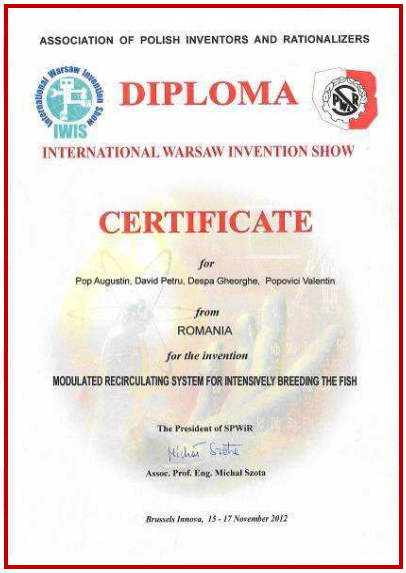
- International Inventions Exhibition - **PROINVENT, Cluj-Napoca**



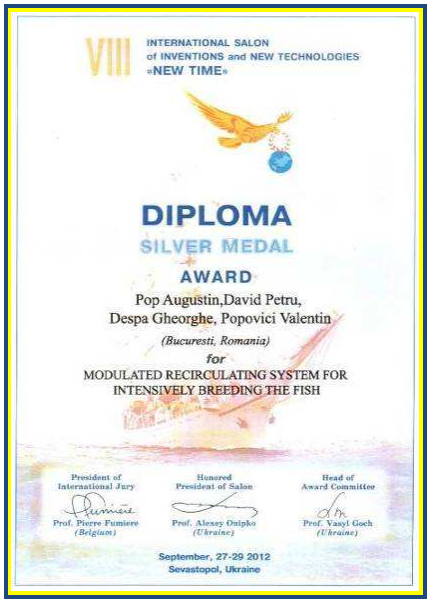
- The XVI th International Exhibition of research, innovation and technology transfer - **INVENTICA Iaşi**

International Inventions Exhibition – Geneve

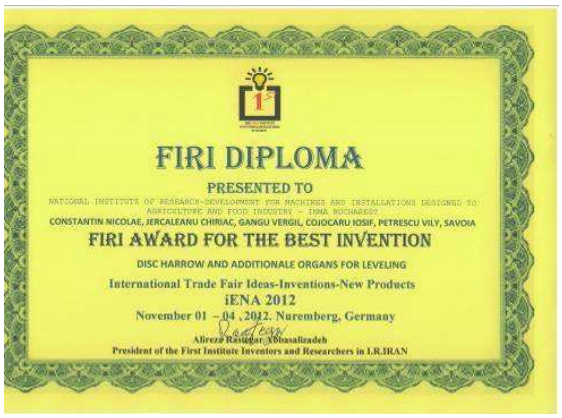
International Inventions Exhibition – INNOVA Bruxelles



- **The VII th International Salon of inventions and new technologies„NEW TIME” Sevastopol - Ukraine**



International Inventions Exhibition i-ENNA Nurenberg


FIRI DIPLOMA

PRESENTED TO

NATIONAL INSTITUTE OF RESEARCH-DEVELOPMENT FOR MACHINES AND INSTALLATIONS DESIGNED TO AGRICULTURE AND FOOD INDUSTRY - INMA BUCHAREST

CONSTANTIN NICOLAE, JERCALEANU CHIRIAC, GANGU VERGIL, COJOCARU IOSIF, PETRESCU VILY, SAVOIA

FIRI AWARD FOR THE BEST INVENTION

DISC HARROW AND ADDITIONALE ORGANS FOR LEVELING

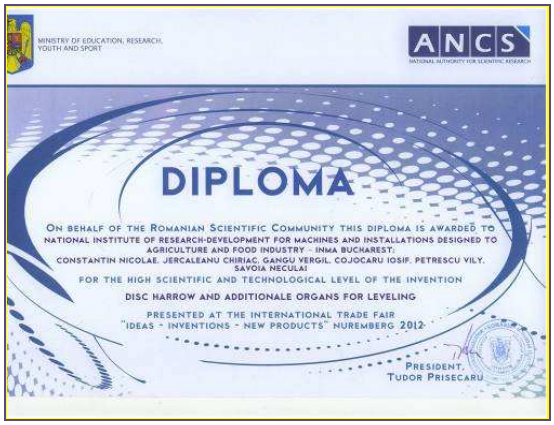
International Trade Fair Ideas-Inventions-New Products

iENA 2012

November 01 – 04 , 2012. Nuremberg, Germany

Alireza Rastegar Abbasalizadeh

President of the First Institute Inventors and Researchers in I.R.IRAN



8.4. INTERNAL AND INTERNATIONAL SCIENTIFIC EVENTS ORGANIZED BY INMA

18.4.1. Conferences, Seminars, congresses

- **ISB / INMA TEH 2012 - International Simposiun**, 1 - 3 November 2012, Bucharest, Pg: ISBN 978-973-0-13670-8; cd: ISBN 978-973-0-13671-5;

- **International Conference "InovCluster-Innovative clusters key to success in international business and R&D cooperation"**, 30.11.2012, Bucharest:
  - ✓ *Cross linking cooperation: IND-AGRO Competitiveness Pole.*

- **International conference „BIOFUELS -** common source of sustainable development of the cross-border cooperation area **",** 16 – 17.10. 2012, Ruse (co-organizer):
  - ✓ *BioFuels – present and future* – Gageanu P.;
  - ✓ *Harvesting oilseeds in Romania* - Ivan Gh.;
  - ✓ *Extracting oil from oil plants using cold pressing technology* - Vlăduț V.;
  - ✓ *Affordable options for alternative supply of diesel engines with first generation biofuels* – Nicolescu M.;
  - ✓ *Fuels from vegetable oils* - Voicea I.;
  - ✓ *Obtaining biofuels from rapeseed oil*- Găgeanu G.;
  - ✓ *Technical aspects regarding allternative powering of diesel engines with crude vegetable oils*- Nicolescu M.

- **Seminar organized within "*BIOFUELS - Source of common sustainable development in the cross-border cooperation area*", Ruse-Bulgaria,** 18.05.2012 (co-organiser):
  - ✓ *The primary prepare of rape seed for oil extraction* – Găgeanu P.;
  - ✓ *Rape harvesting* - Ivan Gh.;
  - ✓ *Extracting oil from rape seed and purification of oil for Biodiesel* - Vlăduț V.;
  - ✓ *Growing rape technologies* - Marin E.

- **Seminar organized within "*BIOFUELS - Source of common sustainable development in the cross-border cooperation area*", Ruse-Bulgaria,** 26.09.2012 (co-organiser):
  - ✓ *Primary preparation of seeds for vegetable oil extraction - News and applicability in the RO-BG border* – Gageanu P.;
  - ✓ *Harvesting of oleaginous plants - News and applicability in the RO-BG border* - Ivan Gh.;
  - ✓ *Extracting oil from oleaginous seeds* - News and applicability in the RO-BG border - *Vlăduț V.*

- **Seminar ManProEnv „Benefits of using animal dejections for Biogas production",** Teleorman county, 28.11.2012 (co-organiser):
  - ✓ *Short history and general information regarding the obtaining and use of biogas* - Muscalu A.;
  - ✓ *Techincal aspects of biogas production* - Nicolescu M.;
  - ✓ *The current aspects of approaching issues of biogas* - Muscalu A.;
  - ✓ *Sustainable agriculture and biogas: necessity of revewing EU's legislation* - Voicea I.;
  - ✓ *General socio-economic benefits of biogas obtaining technologies* - Nicolescu M.;
  - ✓ *Benefts for farmers* - Vlăduț V.

8.4.2. Round- tables

- **Public debate "Common agricultural policy and rural development" - Agro Fair Bacau 2012**, 22.11.2012, Bacau
  - ✓ *Pole of Competitiveness IND-AGRO-POL: techologies and technical equipment adapted to sustainable agriculture in accordance with the requirements of security and food safety;*

- **Innovation Forum 2012**, Round-table - Pavilion C3, Bucharest, 19.10.2012, TIB - ROMEXPO:
  - ✓ *Innovation and technology transfer for the benefit of the business environment of the Pole of competititveness IND-AGRO-POL*;
  - ✓ *Technologies and technical equipment adapted to organic farming in accordance with European safety and security requirements.*

8.4.3. Workshops for international Projects

- **Study visit organized in Romania within CLUSTERIX project**, 31.10.2012, Bucharest:
  - ✓ *Presentation of the services offered by the Technological and Business Incubator to the members of IND-AGRO-POL competitiveness Pole*.

- **Peer Group meeting organized in Romania within CLUSTERIX project**, 29.10.2012, Bucharest:
  - ✓ *Inter cluster cooperation tools*
  - ✓ *Cross linking cooperation: IND-AGRO Competitiveness Pole.*

- **Study visit - KTForce - Knowledge Transfer joint forces for efficient innovation policies**, 12.07.2012, Bucharest (co-organiser):
  - ✓ *Technological and Business Incubator INMA-ITA*.

- **Workshop "Generating innovative clusters",** 29.05.2012, Sinaia (co-organiser)
  - ✓ *How to generate an innovative cluster in Romania?*

- **Workshop "Cooperation in clusters",** 30.05.2012, Sinaia (co-organiser)
  - ✓ *European projects – The gateway to international cooperation.*

- **Workshop "Clusters evaluation"**, 31.05.2012, Sinaia (co-organiser)
  - ✓ *Cluster Benchmarking*
  - ✓ *Funding.*

- **Workshop "Clusters strategy",** 01.06.2012, Sinaia (co-organiser)
  - ✓ *Ideal cluster in Romania – Best practice examples.*

- **Workshop "Biofuels source of common sustainable development in the cross-border cooperation area",** Roata de Jos, Giurgiu, 06-07.12.2012:
  - ✓ *The technology for obtaining oil from oilseeds* - Voicea I.;
  - ✓ *Sorghum harvesting technology* - Vlăduț V.;
  - ✓ *Posibilities of using biodiesel and vegetable oil by farmers* – Nicolescu M.

- **Workshop Biogas – Cross-border "ManProEnv",** Alexandria - Teleorman, 13-14.09.2012 (co-organiser):
  - ✓ *Practices and technologies existing at European level concerning storage and spreading of manure* – Muscalu A.;
  - ✓ *Identification and pointing out technological gap* – Vlăduț V.;
  - ✓ *Recommendations regarding modern technologies suited for use in the area* – Voicea I;
  - ✓ *Modern technologies for biogas obtaining* – Nicolescu M.;

- ✓ *Suited technologies for biogas obtainment and fertilizers depending on the type and quantity of animal dejections specific for the area* – Nicolescu M.;
- ✓ *Benefits that come from the use of animal waste as renewable energy source in the studied area* – Muscalu A.

8.5. THE PARTICIPATION OF INMA IN CONFERENCES, SEMINARS, CONGRESSES

8.5.1. Participation at meetings under international projects

- **Forum international de l'innovation dans le secteur agroalimentaire et les agro-ressources**, 17.07.2012, Kinshasa, Congo:
  - ✓ *Technologies de mécanisation et équipements techniques pour l'agriculture et l'industrie alimentaire*.
- **Conference organised under the Romania-Bulgaria cross-border programme,** 29 - 30.03.2012, Călăraşi:
  - ✓ *Results obtained in the MedPlaNet programme*.
- **Clusters, engine development for innovative industries,** 26.06.2012, Bucharest:
  - ✓ *Clusters for European Innovation Cross-Linking-CLUSTER IX*

- **The IV th National congress of researchers and inventors from Romania, with international participation– CNCIR, Bucharest 23 – 26.05.2012**
  -

8.5.2. Participations at workshops in working groups or any other international organisms

- **Workshop: Biofuels source of common sustainable development in the cross-border cooperation area,** Ruse, Bulgaria, 05.09.2012:
  - ✓ *Common borders – Common solutions* - Vlăduț V.

8.5.3. Participation in organizational and international working meetings

- **Meeting organized within MANPROEV project**, 01 - 02.03.2012, Svishtov, Bulgaria:
  - ✓ *Drawing up a study on the impact of enhancing the use value of animal dejection on the environment*.
- **Meeting organized within MANPROEV project**, 14 - 15.06.2012, Sofia, Bulgaria:
  - ✓ *Evaluating possibilities and solutions for the controlled gathering up of animal dejections*.
- **PG meeting organized in Sweden within CLUSTERIX project**, 27 - 28.06.2012, Malmo, Sweden:
  - ✓ *Presentation of the Romanian best practices in the innovative clusters field*.
- **Study visit organized in Sweden within CLUSTERIX project**, 29.06.2012, Malmo, Lund - Sweden;
- **Expert consultation meeting for "Green Industry Innovation Programme" (part of EEA and Norway Grants 2009 – 2014),** 4.07.2012, Bucharest:

- ✓ *Project proposals of IND-AGRO-POL Competitiveness Pole – Romania for of EEA and Norway Grants 2009 – 2014, "Green Industry Innovation Programme"*.

- **Meeting organized within MANPROEV project**, 04 - 05.09.2012, Svishtov, Bulgaria:
  - ✓ *Evaluating possibilities and solutions for the controlled gathering up of animal dejections*.
- **Scientific research in Diaspora and higher education in Romania „Seeds for the future"**, 25 – 28.09.2012, Bucharest:
  - ✓ *Noise pollution caused by powered outdoor equipment.*
  - ✓ *Measures for reducing noise pollution* – Vlăduț V.
- **Study visit organized in Bulgaria within MedPlaNet project**, 9 - 10.04.2012, Silistra, Bulgaria;
- **Bilateral meeting Francisco Josephinum - Bundeslehranstalt und Forschungsanstalt für Landwirtschaft, Landtechnik und Lebensmitteltechnologie Wieselburg**, 14.11.2012, Wieselburg, Austria:
  - ✓ *The technologies of setting up and exploiting the Miscanthus energy crops - type biomass. INMA researches and results*.
- **Study visit and staff exchange between clusters and public organizations responsable with cluster policy,organized within InovCluster II project**, 11-18.11.2012, Viena, St. Poelten, Graz, Salzburg – Austria; Budapesta, Szeged - Hungary:
  - ✓ *Presentation of INMA and IND-AGRO-POL Competitiveness Pole*.
- **The second staff exchange - CLUSTERIX**, 28.11.2012 - 1.12.2012, Bolzano, Italia:
  - ✓ *Romania competences in innovative clusters field*.

8.5.4. Participation in international training programs

- TRAINING THROUGH VISUAL COMMUNICATION ON PREVENTION OF OCCUPATIONAL RISKS IN THE USE OF AGRICULTURAL MACHINERY, 28 – 30.03.2012, Hotel Barcelo Saray, Yeniceriler Cad. 77, Istambul - Turkey;
- TRAINING THROUGH VISUAL COMMUNICATION ON PREVENTION OF OCCUPATIONAL RISKS IN THE USE OF AGRICULTURAL MACHINERY, 17 – 18.09.2012, Perugia, *Italian Confederation of Farmers (Cia) of Umbria*, via M. Angeloni 1, 06125, Umbria – Italy;
- TRAINING THROUGH VISUAL COMMUNICATION ON PREVENTION OF OCCUPATIONAL RISKS IN THE USE OF AGRICULTURAL MACHINERY, 1 – 2.12.2012, *Fundacion FIDTA*, C/Marques de la Ensenada, 14-16, 1ª Planta Oficina 10, 28004, Madrid – Spain;
- "CLUSTER MANAGERS TRAINING", 29.05 - 01.06.2012, *France Clusters – Training Institution on Cluster Management, France*, Sinaia (graduates: 1);
- "HIGH GROWTH COACH" - Leonardo da Vinci, January-March 2012, *Exponential Training & Assessment Limited, Great Britain,* Center for innovation and Business development – Cidaf, Oltenitei road no. 103, (graduates: 3).

8.6. Presentation of media activity

The institute's visibility was achieved by:

- **Participation in TV show VIAȚA SATULUI, TVR1, 27 May 2012**

- **Three interview's at „Money Factory" TV show**

9. INFORMATION AND DOCUMENTARY SOURCES FROM SCIENTIFIC AND TECHNICAL PATRIMONY OF INCD

Technical archive – 1000 projects
Library – 11.000 books and speciality tehnical journals
Data bases
Web page: inma.ro

MINISTRY OF NATIONAL EDUCATION
NATIONAL INSTITUTE OF RESEARCH - DEVELOPMENT FOR MACHINES AND INSTALLATIONS DESIGNED TO AGRICULTURE AND FOOD INDUSTRY - INMA

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The mission of the institute is to conduct scientific research (fundamental and applied) and innovation in the field of processes, technologies and mechanizing and automating technical equipment of the agricultural and food industry works in the context of harmonization of entire activities to the ANCS and European Union activities.

Main Research Directions

- Fundamental research of interaction phenomena of biological, pedoclimatic and technological factors on the technical equipment in the processes of mechanization and automation of works in agriculture;
- Scientific substantiation of the processes in agriculture, food industry and creating of a new technology of mechanization, instruments and technical equipment compatible and competitive with the European area of the research specific to the concepts of SUSTAINABLE AGRICULTURE and FOOD SAFETY;
- Renewable power sources (biomass, biofuels),technologies and technical equipment for their use in conditions of efficiency, life, health and environment protection;
- Rural development and raising of life quality by technological transfer and demonstrations of the research results performed by the Institute;
- Strengthening the research basis (human resources, logistics, research equipment) and performing some partnerships for connecting to ERA, including the integration into the technological platforms at the European level.

General Manager
Prof. Dr. Eng.
Ion Pirna
Member of Academy of Agricultural and Forestry Sciences "Gheorghe Ionescu-Sisesti"

INMA BUCHAREST
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Fax: 004021-269.32.73
E-mail: icsit@inma.ro
http: www.inma.ro

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10. CONCLUSIONS
Technical and scientific results obtained by INMA - SYNTHESIS

Den. no.	Indicator name	Achieved
1.	Scientific/technical papers published in specialty ISI journals	**18**
2.	Published books / chapters INMATEH – Agricultural Engineering Journal	**15** **No. 36; 37; 38**
3.	- **INMA patent applications registered** - **Patents issued by OSIM**	**26** **3**
4.	Homologated products Homologated services Homologated Technologies Prospective Studies Technlogical Studies Procedures Methodologies Technical Plans Experimental Models Norms	**3** **1** **3** **8** **11** **2** **8** **15** **9** **22**
5.	Scientific/technical papers published in other speciality journals, without ISI quotation (B and B+ cathegory)	**35**
6.	Scientific/technical papers without quotation presented in conferences	**18**
7.	Scientific communications presented in international conferences with programme committee	**29**
8.	- INMA participation to national and international fairs and exhibitions - Prizes	**16** **20**

11. PERSPECTIVES/ PRIORITIES FOR THE CURRENT YEAR

The 2013 priorities related to RDI activities are focused on:

- achieving the tests of specific equipment for a high exploitation of crop biomass (Miscanthus, castor-oil plant, etc) and the biomass resulted as a by-product of main agricultural cultures;
- continuing the researches of integrated mechanizing and automating of systems designed to process medicinal or endemic plants;
- continuing the researches for achieving the specific methodologies/procedures for assessing the mechanizing technologies used in agriculture (medium and long term impact);
- technical substantiation of technological mechanizing and automating technologies of agricultural processes related to biomass crops, horticulture, primary processing of agricultural products;
- technological transfer of researches results to economic agents interested, which have been selected in 2010 (SC MAT SA Craiova, SC Mecanica CEAHLAU SA Piatra-Neamț, SC PROMECANICA SA Otelul Roşu, SC RURIS Craiova);
- developing the contractual projects within the national, cross-border programs (Bulgaria, Hungary);
- disseminating the results by: organizing symposia, promoting the institute magazine „INMATEH „Agricultural Engineering”and notifying certain original technical solutions to OSIM and extending them at EU level;
- supporting the on-going training of personnel in agro-food sector, at employers request through the institute centres of professional training and assessing;
- continuing and strengthening the connections with universities in the country for supporting them by assuring short and long term practice stages in the institute;
- investments designed to modernize the research base: testing benches, pilot systems and stations.

ANNEXES

Annex.1

REPORT
On activity of the INMA Board of Administration developed in 2012
- synthesis-

The activity of INMA Administratin Board in 2012 was carried out in accordance with tasks established by H.G. 823/2004 on Regulation of Organization and Functioning of National Institute of Reserch-Development for Machines and Installations Designed to Agriculture and Food Industry-INMA.

At the meetings of the Administration Board where have been debated more efficient solutions for research-development-innovation on approaching areas, and the managers of departments of RDI, Scientific Director and Economic Director have been invited.

Under the decision of the Administrations Board, Legal Advisor and employees of the institute's representative attended all meetings.

In the discussion of Administration Board meetings, the 7 members appointed by Order

6365/19.12.2008 of Ministry of Education and Research have had an active participation, resulting in concrete proposals and solutions to achieve current and future objectives of:

a) <u>Approval, suggested by the Scientific Council, of strategy and specific development programs, which introduce high-tech and modernize the existing technologies, consistent with the overall strategy of their own area of activity of INMA Bucharest:</u>

- Analysis of level of meeting the performance criteria and reporting quarterly on INMA activities;
- Information on the portfolio of projects, and partnerships offers;
- Analysis of the results of participation of INMA in various competitions;
- Analysis of the prospects of forming partnerships and substantiation of calls of proposals so that INMA participates in various competitions / programs.
- Patent Information on notification, patents, articles and scientific events.
- Preparing INMA participation at the International Salon of Inventions–Bucharest 2012.
- Information on the scientific-technical, advertising and marketing resuts of INMA during the I-st, II-nd and III-rd three months-2012.

b) <u>Modifying the organizational and functional structure of INMA, the establishment, abolition and merging of subunits in the structure</u>:

Analysis and approval of modifications brought to Collective Employment Contract applied to institute

- Analysis of INMA personnel performances-the first six months of 2012;
- Analysis of the institute general director in managerial terms.

c) Review and approval of budget revenues and expenses is submitted to Ministry of Education and Research, namely the analysis and advice of the annual financial statements, which it submits to approval to the coordinating ministry, and approving the management report on activities of INMA in 2012:

- Review and approval of accounting balance concluded on 31.12.2011.
- Review and approval of corrected income and expenditure budget for the year 2012, rectified.
- Analysis of economic and financial situation of INMA for 2013.
- Analysis of the performance of investments in 2012.

d) Approval of the mandate for negotiating INMA collective employment contract:

- Review and approval for extending the collective employment contract applicable at the institute in 2012:

e) Approval of criteria and competition committee to fill vacancies in INMA

- Approval of the contest rules for the position of Scientific Director.

Involvement of Steering Committee, Scientific Council and the Administrative Council has led to the achievement of planned targets for 2012, and in financially terms, activity ended with a gross profit of 111,802 lei

President of Administrations Council,
Prof.Ph.D.eng. Pirnă Ion

ANNEX 2

2.1. Incomes made from national research development contracts financed from state budget

2.2. Incomes made from research contracts – development financed from private funds

2.3. Incomes made from economic activities

Annex **2.1**

2.1. Revenues from national research and developement contracts financed from state budget

Den No.	No. of contract	Project name (projects in 2012)	Total value 2012 (lei)	Out of which		INMA status within project
				INMA	Partners	
PROGRAM 4: PARTNERSHIPS IN PRIORITARY DOMAINS = 2 contracts			***417,000***	***304,000***	***113,000-***	
1.	35	Promoting in Romania the technology of cultivating the energetic willow (SALIX VIMINALIS) as an alternative sorce of clean energy	407,000	294,000	113,000	Titular
2	112	Interdisciplinary researches regarding seeds treatment with hydrolyzed collagen for increasing quality indicators, reducing pesticides and developing agricultural production sustainable growth	10,000	10,000	-	Partner
IDEA PROGRAMME = 1 contract			***650,000***	***650,000***		
1	284	Researches regarding the improving of physical and mechanical properties and biodegradable materials structure for packaging indigenous raw materials		70,000		Titular contractor
SECTORAL PLAN OF MINISTRY OF AFRICULTURE AND RURAL DEVELOPMENT= 2 contracts			**139,500**	**139,500**		
1	17	Analysis of current original stadards in order to comply to current state-of-the art and requirements	4,000	4,000		Partner
2.	6	Strengthening the innovative clusters competitiveness and comarative evaluation of industrial sectors competitiveness / instruments of sustainable industry policy, adapted to globalization area	135,500	135,500		Partner
SECTORAL PLAN OF MINISTRY OF AFRICULTURE AND RURAL DEVELOPMENT= 4 contracts			478,848	414,048	54,800	
1	135	Innovative technology and technical equipment with working parts driven for achieving soil deep loosening and increasing fertility	97,920	97,920		Titular contractor
2.	311	Mechanizing technology and technical equipment for conditioning and calibrating the apples designed to subsistence orchard farms	188,928	143,328	45,600	Titular contractor
3.	736	Mechanizing technology and technical equipment suitable for harvesting, transport and efficiently preserve the fodder plants	172,800	153,600	19,200-	Partner
4.	211	Determination of technical and-economic indicators of production technologies for vegetal and animal products applied for raising environmental performances (costs, productivity, rate of profit, gross profit margin)	19,200	19,200	-	Partner
NUCLEUS PROGRAMME= 5 projects			**4,604.669**	**4,604.669**	-	
1.	15N	**PN 09 - 15 01 07** Thorough researches on processes of mincing, mixing and distributing within the modern foddering and breeding technologies for cattle	982,050	982,050	-	Partner
2.	15N	**PN 09 - 15 02 02** Thorough researches on achieving a technology of high capitalization of Miscanthus energetic plant	94,633	51,591	43.042	Titular contractor
3..	15N	**PN 09 - 15 02 04** Developing the capacity of prospecting, evaluating and capitalizing the biomass potential in Romania in accordance with EU practices and policies	620,843	620,843	-	Titular contractor

Den No.	No. of contract	Project name (projects in 2012)	Total value 2012 (lei)	Out of which		INMA status within project
				INMA	Partners	
4.	15N	**PN 09 - 15 03 01** Developing a technology and an installation designed to dehydrate medicinal and aromatic plants for subsequently preserving, processing and capitalization	720,000	720,000		Titular contractor
5.	15N	**PN 09 - 15 05 03** Innovative technology of applying phytosanitary treatments in orchards in order to increase food safety and security	980,000	980,000		Titular contractor
OPERATIONAL SECTORAL PLAN OF DEVELOPING THE HUMAN RESOURCES 2007-2013 POSDRU= 2 contracts			**955,644.66**	**955,644.66**	-	
1.	POSDRU / 83/ 5.2 / S/ 53508	Valorisation of human potntial in rural areas in Romania, by acquiring high added value skills and knowledge	467,898.27	467,898.27		Partner
2.	POSDRU / 81/ 3.2 / S/ 58103	Professional training in the field of new materials applied to mechaqnics and mecatronics	27,561	27,561	-	Partner
SECTORAL OPERATIONAL PROGRAM OF INCREASING THE ECONOMIC COMPETITIVENESS-POS CCE= 2 contracts			**182,500**	**182,500**	-	
1.	219	Increasing MAT Craiova competitiveness by assimilating a multifunctional aggregate for soil works in agricultural exploitations	35,000	35,000		Partner
2.	130	Testing the satatic stress and fatigue of prototypes subject to distructive trials: motor and carried boggies frames	15,000	15,000	-	Partner
CROSS –BORDER COOPERATION PROGRAMME ROMANIA-BULGARIA 2007-2013= 3 contracts			**993,635.22**	**993,635.22**	-	
1.	69921	MedPlanet – medical plant network for enhancement ofthe comparative advantage of Calarasi-Silistra cross-border area for sustainable development	28,394.31	28,394.31		Partner
2.	54121	BIOFUELS - Source of common sustainable development în the cross-border cooperation area	446,043.91	446,043.91	-	Partner
3.	1052	Development of a management system for environmental protection by enhancing the use value of animal dejections in the Teleorman-Veliko Tarnovo crossborder area	519,197	519,197	-	
CROSS –BORDER COOPERATION PROGRAMME ROMANIA-HUNGARY 2007-2013= 1 contract			**405,996.40**	**405,996.40**	**135,296-**	
1.	HURO 0802/037AF	Joint hydrobiology and fish biology research center în Szarvas and Timisoara – HUROFISH	405,969.40	405,969.40		Partner
LEONARDO DA VINCI PROGRAMME = 1 contract			**34,371**	**34,371**	-	
1.	2011-1-ES1-LEO05 - 35863/ 01.12.2011	Agricultural Code / Leonardo Da Vinci ,,Training through visual communication on prevention of occupational risks in the use of agricultural machinery“	34, 371	34, 371		Partner
INTERREGIONAL COOPERATION PROGRAMME INTEREG IV =1 contract			**178,345.97**	**178,345.97**	-	
1.	2011-1-ES1-LEO05 - 35863/ 01.12.2011	Agricultural Code / Leonardo Da Vinci,,Training through visual communication on prevention of occupational risks in the use of agricultural machinery“	34, 371	34,371		Partner
TOTAL CONTRACTS OF RESEARCH-DEVELOPMENT FINANCED BY STATE BUDGET = 28 contracts			**9240,483.25**	**9062,683.25**	**177,800**	

Annex 2.2

- **Revenues from research contracts - funded by private development**

Den. no	No. contract	Contract Name	Value 2012 (lei)
RESEARCH – DEVELOPMENT GRANTS FROM PRIVATE FUNDS = 3 constracts			**112,089.24**
1.	734	Researches regarding the testing of the satatic stress and fatigue of prototypes subject to distructive trials:motor and carried boggies frames	85,182
2.	698	Static test of cabin protection structure (cabin TAF 2012) in case of overturning (ROPS), accord to. ISO 8082 – 1: 2009; Dynamic test of protection structure (cabin TAF 2012) against falling objects (FOPS), accord. ISO 8083: 2009; Static test of cabin protection structure (cabin TAF 2012) for operators (OPS), accord.to ISO 8084: 2003; Anchorages tests (earth connections) of operator seat endowed in cabin TAF 2012, accord to ISO 3776-2:2007	26,657.00
3.	1390	Determination of level of acoustic pressure, acoustic power and vibrations at the following equipment: motor mower 309 c, motor mower 400 c, motor mower 509 SP and atomizer 203	150,00

Annex 2.3

Income from economic activities in 2012

Den No.	No.of contract	Contract Name	Value 2012 (lei)
CONTRACTS REGARDING THE EVALUATION IN ORDER TO PROVIDE PRODUCTS CONFORMITY CERTIFICATION			**97,950.25**
1.	448(P)	Irrigating installation by sprinkler with hose and drum IUA 110.400	1,204.17
2	446 (P)	Sprinkling installation with hose and drum (300m, 400m), ST symbol	1,254.09
3.	449(P)	Mechanized irrigating installation with linear displacement or pivot, OTECH symbol	1,371.25
4	449	Motopumps (Flow motopumps: IVECO – CAPRARI Q=600m^3/h, H=21 m; IVECO - VARISCO Q=600m^3/h, H = 21 m; IVECO – ROVATTI; Pressure motopumps: VOLVO – VARISCO Q=1200 m^3/h, H=28 m; IVECO – CAPRARI Q=216 m^3/h, Pn=10 bari; IVECO – CAPRARI Q=144m^3/h, Pn-10 bari; IVECO-CAPRARI Q=72 m^3/h, Pn=10,6 bari	655.25
5	451(P)	Dosing machine class of “NORMA-S, NORMA-TB-03, NORMA-TB-04, NORMA-TL, NORMA-TN, NORMA-T, NORMA-TS” type	1,384.64
6	453(P)	Class of seed processing installations of “IM-1,5, IM-3, IM-	1,745.85

		5, IM-7, IM-10, IM-15, IM-20, IM-50 type	
7	454(P)	Irrigation irrigation by sprinkler IIA;IIP	655.25
8	002(Z)	Electric generators GEBAS-A40PW-C; GEBAS-A90PW-C; GEBAS-A250DW-C	1,573.97
9	003(Z)	Portable current generators LT3900S; LT6500S; LT8000S	1,708.42
10	343	Irrigating installation by sprinkler: IIA-50, IIA-75, IIA-100, IIA-150	4,997.20
11	341	Irrigation installation with hose and drum: IITF-MINI, IITF-MIDI, IITF-MAXI,	7,902.11
12	427	Centrifugal pump with thermal engine model WTH40	656.00
13	005(MA)	Cabin for forestry tractor TAF 2012	1,428.24
14	4328(P)	Centrifugal pump with thermal engine WTH 60	656.00
15	444	Class of seeds treating machines MTS/PC (MTS-3; MTS-5; PC-20)	1,116.59
16	445	Forestry articulated tractor TAF 690.OP; TAF 901.OP	13,176.69
17	455	Sorting, transfer and composting station, respectively: metal hopper with screw conveyors BM1-0; reception band TB1-0; bag opener DS-0; waste reception band TB 2-0; supplying band TB3-0; sorting band 8 stations TB4-0; band with magnetic separator TB5-0; bunker metal screw BM2-0; supplying band of press-container TB 6-0; stationary press (prescontainer pressing)CPP-0; Rollo container 32mc CR-0; embedded metal screw hopper BM 3-0; supplying band of punching device TB7-0; punching device PET PP-0; press supplying band TB 8-0; semiautomated press PS-0; shredder of wastes TD-0; aeration equipment UA-0	1,518.03
18	458(P)	Electrocompressor with bolt code: ECS 2,5/16; ECS 2,5/10; ECS25/10; ECS25/30	1,411.73
19	461(P)	Plow 1L220, 1L225, 1L320, 1L325	477.33
20	462(P)	Disc harrow 1BQX-1,3; 1BQX-1,5; 1BQX-1,7; 1BQX-1,9; 1BQX-2,0	477.33
21	463(P)	Corn sowing machine BYF-3; 2BYF-4	911.27
22	464 (P)	Rotary soil cutter RS-1000, RS-1100, RS-1200, RS-1300, RS-1400, RS-1500, RS-1600, RS-1700	1, 596.90
23	465(P)	Clean water motopump GP 40	433.94
24	466(P)	Group of motopumps for clean water, GP 50,GP 80	477.33
25	467(P)	Horizontal feed mixer AO-300; AO-500; AO-1000; AO-2000	949 53
26	468(P)	Towed applying herbicides machine: MET-1500; MET-2000; MET-2500; MET-3000	1,610.26
27	469(P)	Universal hammer mill: MCU-1,8; MCU-7,5; MCU-11; MCU-22; MCU-30	888.27
28	471(P)	MotocultorKDT 610CCarried plows P1-16; P1-20; PR1-16; PR1-20; P2-20; P2-25; P2-L75; P2-L82; PR2-20; PRH2-25; P3-20; P3-25; P3-L75; P3-L82; P4-L82	787.00
29	470(P)	Refrigerating winged doors: HINDER 70, HINDER GV, HINDOR 90, HINDOR 120; sliding doors: SLIDER 70, SLIDER 90, SLIDER GV, SLIDOR 120; technical doors HINDON, WINDON	802.21
30	472(P)	Carried plows P1-16; P1-20; PR1-16; PR1-20; P2-20; P2-	861.08

		25; P2-L75; P2-L82; PR2-20; PRH2-25; P3-20; P3-25; P3-L75; P3-L82; P4-L82	
31	473(P)	Motocultor KDT 410C without accessories	801.14
32	474(P)	Centrifugal air compressor CCAE 9-125	1,713.55
33	475(P)	Electrocompressor with bolt code: ECS 20/25	6,865.24
34	476(P)	Motocultor KDT 910E (without accessories)	5,541.69
35	477 (P)	Articulated forestry tractor TAF 2012	11,768.53
36	478(P)	Snowplow FCS 125, FCS 150, FCS 170, FCS 180, FCS 200, FCS 230, FCS 250 models	8712.83
37	479(P)	Electrocompressor ECS 60/10	7,667.00
38	480(P)	Aerodinamic selectors SAD: 1; 2; 4; 5; 7; 10; 10-01; 12; 15; 20; 30; 40; 50; 70; 100; 150	1,549.24
39	481P	Electrocompressor with bolt 75/10	2, 334.90
REVENUES FROM SERVICE RENDING			**372,219.41**
TOTAL			**470,169.66**

ANNEX 5

5.1 –HOMOLOGATED PRODUCTS: 3

5.2 – HOMOLOGATED SERVICES: 1

5.3- HOMOLOGATED TECHNOLOGIES: 3

5.1. HOMOLOGATED PRODUCTS

1. Product name: ***Technical equipment for applying with high precision ecological substances and phytosanitary treatments, MSL***

No.homologation dossier:176

2. Product name:: ***Heating installation by capitalization of energetic plant Miscanthus, IIVM***

No.homologation dossier: 177

3. Product name:

Installation designed to dehydrate medicinal and aromatic plants – IDPM

No.homologation dossier: 168

5.2. SERVICES HOMOLOGATED

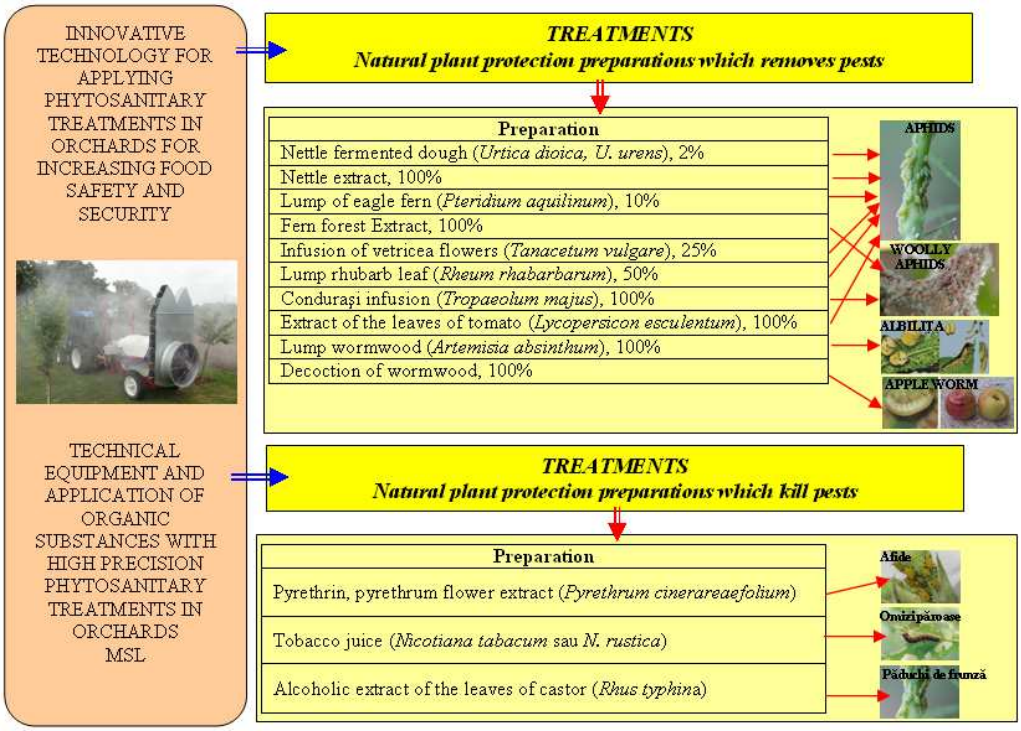
1. Service type: ***Static stress and fatigue tests of motor and carried boggie frames for travellers wagons***

No.homologation dossier: 46

5.3. TECHNOLOGIES APPROVED

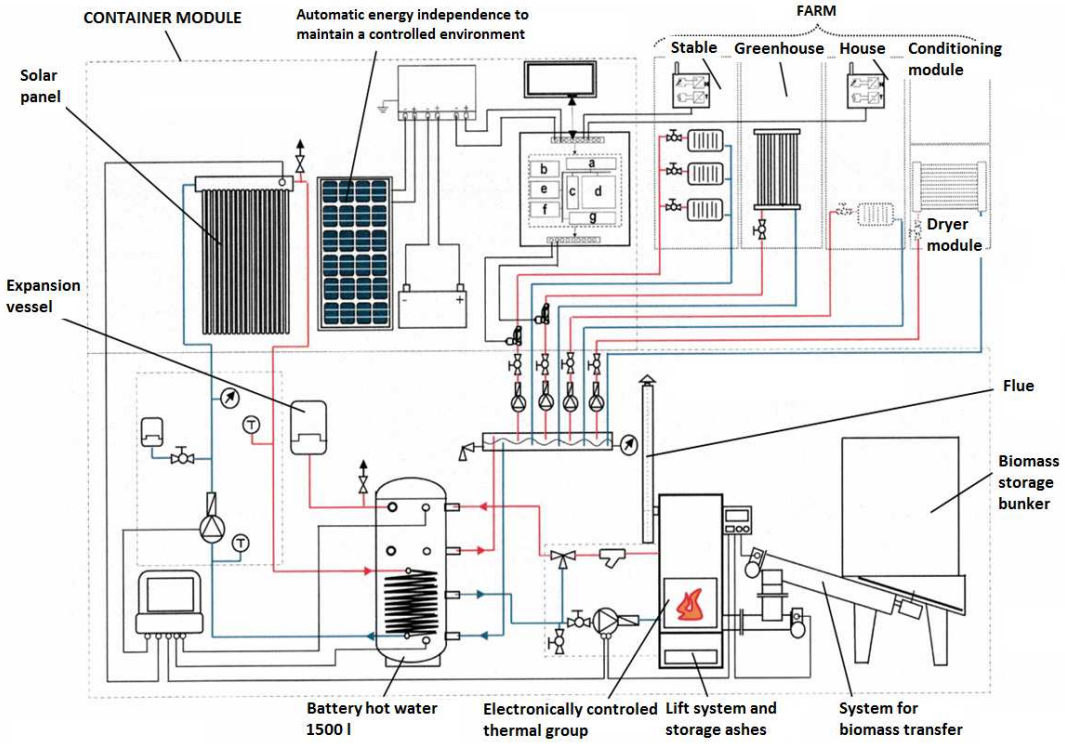
1. Technology name: *Innovative technology for applying phytosanitary treatments in orchards for increasing food safety and security*

No homologation dossier: 40



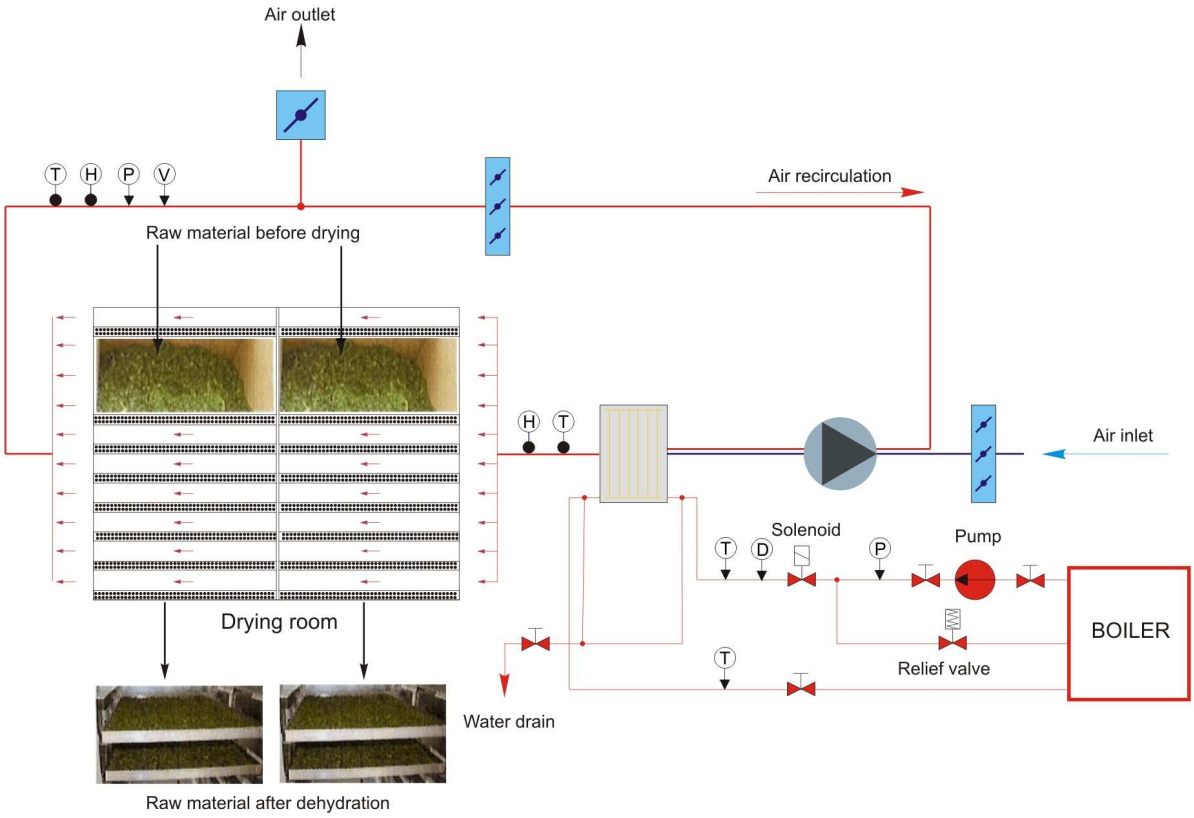
2. Technology name: *Technology of high capitalization of Miscanthus energetic crops*

No homologation dossier: 41



3. Technology name: *Technology for dehydrating medicinal and aromatic plants*

No homologation dossier: 42



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