

# SCIENTIFIC REPORT

## 1. Scientific content of the event (achieved objectives, papers presented, conclusions/results obtained, contribution to the development of future trends in the scientific field approached)

General objective of the workshop was: *the increasing of visibility of Romanian research and researchers and strategic partnerships setting-up.*

The specific objectives (SOs) are:

### SO1: Knowing the state of the art of Romanian research in agri-food field

During the workshop there were presented the research units, their competences and field have a very good infrastructure and there is an increasing interest for national and international collaboration.

The papers presented by the Romanian researchers were (the agenda order):

1. **Nastasia Belc, IBA, Bucharest:** Food safety and security: concerns and trends in IBA.
2. **Claudia Mosoiu, IBA, Bucharest:** Romanian participation in FP7& IBA participation in FP6 and FP7& 3 subjects within FP7 2009 call in which IBA is interested.
3. **Anca Nicolau, Faculty of Food Science and Engineering, Galati:** European and Romanian contribution to food safety improvement by Biotracer project
4. **Alexandru Stoica, Faculty of Environment Engineering and Biotechnologies, Targoviste:** Enzymes combinations for quality of bread improving and Presentation of Valahia University from Târgoviște
5. **Florentina Israel Roming, USAMV, Bucharest:** Concerns about mycotoxins in Romanian cereals.
6. **Iuliana Banu, Faculty of Food Science and Engineering, Galati:** Concerns and priorities of researchers from Faculty of Food Science and Engineering from Galati in food safety
7. **Gabriela Pop, Faculty of Food Engineering, Suceava:** Presentation of the faculty & Food allergens
8. **Ittu Mariana, INCDA Fundulea:** Research objectives in food safety and security
9. **Gavril Saplacan, SC CIA SA:** FoodTrace – Integrated System for traceability and control of food quality in food industry
10. **Ion Pirna, INMA, Bucharest:** Romanian Research Trends& Presentation of INMA research activity
11. **Enuta Iorga, IBA, Bucharest:** Research activity in IBA: collaboration opportunities
12. **Cristian Klebs, ASAS, Bucharest:** International cooperation opportunities for RD units within ASAS network
13. **Adriana Dabija, Faculty of Engineering , Bacău :** Concerns in brewery industry & Facultatea de Engineering, Bacău presentation
14. **Adriana Macri, IBA, Bucharest:** Launching of National Technology Platform “Food for Life” in 24<sup>th</sup> of October 2008
15. **Viorel Vulturescu, ANCS, Bucharest:** National programmes and structural funds
16. **Mona Popa, USAMV, Bucharest:** Funds for human resources in Romania

There is a very good collaboration between Romanian food research units because of initiation of National Technology Platform “Food for Life”, by different partnerships within National Research Program but also through different common scientific events organizing as: Symposia, workshops, seminars, working groups.



Figure 1 Examples of research unit presentations during the workshop

## SO2: Knowing the trends and priorities of research of the institutes *diaspora* participants

Researchers from *diaspora* are active in the following institutions (in the agenda order):

1. **Maria Spulber:** EC-DG Research, Direction E: Biotechnology, Food processing industry, Unit E3: Food-Health-Well-being, Brussels, **Belgium**
2. **Carmen Lapadatescu:** Armor Proteins/SOFIVO-INGREDIENTS, Group BONGRAIN, **France**
3. **Mirela Colleoni:** Limagrain Cereals Ingredients, Est. WestHove, Group Limagrain, **France**
4. **Dan Alexandru Petrovici:** Kent University, Canterbury, **England**
5. **Florin Soptica:** Reading University, **England**
6. **Daniela Crisovan:** Granada University, **Spain**
7. **Carmen Moraru:** Cornell University, Food Science Department, **USA**

Researchers from *diaspora* presented the following papers:

1. FP7 – KBBE – Theme 2 – Food, Agriculture and Fisheries and Biotechnology, Work Programme 2009, Call FP7-KBBE-2009-3
2. Quality of Dairy products and ingredients and biotechnology
3. Quality of cereal products
4. Lifestyle, eating behavior and public health: concerns and trends
5. Probiotics for autistic diseases?
6. Nutrition and health
7. Actual trends of research in food safety: antimicrobial non-conventional technologies

### **SO3: Finding the ways of collaboration through international programs, bilateral projects, experience changes and summer schools**

One of the ways of collaboration is through FP7, in which there are subjects with recommendation of third countries participation as: USA, Canada, and India.

It is also recommended in FP7 or in other programs (e.g. Eureka), participation of industry in research; there is some conditions for SMEs participation in research (budget, turnover, etc) and for big industry research is necessary to be organized in smaller groups, as legal entities..

Concerning Romanian participation in FP7, this was quite good for the activities 2 and 3, but, there is also needed that Romanian research units to be involved in valuable consortia.

Presentation of FP6 project “*Improved bio-traceability of unintended micro-organisms and their substances in food and feed chains*” (Biotracer), coordinated by the National Food Institute, Denmark, in which Faculty of Food Science and Engineering, Galati is partner, is a good example of valuable consortium in which a research unit is involved.

National research program is a framework for Romanian research units partnership and also for scientific Diaspora.

Eureka and Eurostars programs is important the role of industry that have to be coordinator of the projects.

### **SO4: List of common interesting research projects**

#### **List of common interesting projects identified during the discussions within workshop:**

1. Food supplements – analyses risks/benefits – interesting for Europe but also for SUA.
2. Food frauds;
3. Functional food regulation;
4. Traditional food – functional or not, at local, zonal or regional level;
5. Alimente noi (“Novel food”)- reglementari;
6. Abordarea holistica a comportamentului alimentar;
7. Food frauds – natural vs. synthetic; labeling, traceability (e.g. for allergenic substances);
8. Organic food vs GMOs;
9. Sensorial quality – sensorial evolution of food during shelf life;
10. Enzyme in bread - elasticity, structure, shelf life, thermostability;
11. Sinbiotic products;
12. Allergens, potential hazard in HACCP system (package, restaurant services and catering) – a necessity for food industry and risk group consumers;
13. Food hygiene: compromise curve between cleaning and disinfection;
14. Hygienic procedures validation;
15. *Fuzarium sp.* incidence in Romania;
16. Sampling in mycotoxin detection;
17. Nutritional evaluation of people in Romania.

## **Conclusions**

During the workshop the following conclusions resulted:

### **I. For Romanian public research:**

There is needed a Romanian market for research to offer:

- New food products patented;
- Laboratory services and technologic transfer;
- Nurseries and start-ups.

There is needed research to be reliable: to have a minimum price of the new products obtained.

Another request of Romanian research is its publishing in ISI journals; there are 4 principles for publication: theme choosing, comparative studies between countries, validation of methodology, originality of concept and managerial involvement.

One of the most important conclusions of these 2 days workshop was: the existence of a very good infrastructure in Romanian research units which is needed to be used in new projects in valuable consortia.

## **II. For private research and for industry:**

There is needed industry to be attracted in research, at least 2% from GIP.

Industry requests a new approach for research. The companies need research activity but with minimum risks. The risk of research activity should represent equilibrium between the innovative ideas and studies with a high risk and obtained results.

There are industry financed researches in USA but, the research proposal is made only after preliminary researches to demonstrate the economic efficiency. University Cornell is involved in the Borlang Fellows program with its nanotechnology specialized centre.

Private research representatives participated to the workshop and it was noticed the necessity of a better collaboration between public and private research.

## **III. General remarks**

### **The future approach of the research**

1. Since 2010, within R&D National Research Plan will be financed research subjects identified through different sources: national strategies, platforms, industry requests.

### **Food quality**

2. Independent of the market, when the consumer requests are satisfied, the competition and spontaneous evolution of needs lead to market segregation. The quality will exceed quantity.

To have and maintain a better food quality it is important to know the quality dimension and take into account the quality management. During the workshop the discussions were:

- the quality as holistic concept;
- leadership concept which can be obtained only through the all parties involvement, the responsibility and results monitoring and customer's satisfaction.

The food quality is based on the several principles: health and nutrition with two concepts: food safety and "natural food", savor and pleasure and environment protection.

### **3. Enzyme using in food industry: case study – cereal industry**

One of the problems in using enzymes in bakery is "*thermo-stability*". The enzyme dosing depends by their thermostability and quality of flours.

It is taking into account:

- dough elasticity;
- texture (measured at 20 hours from baking);
- bread volume at 2 hours from baking.

It is necessary a sensorial research – the taste evolution during the shelf life. It could be taken into account several descriptive criteria: exterior aspect, volume, crust, consistence, smell, taste – using experts (20-40). There are criteria for appreciation of crust, crumb profiles. The enzymes modify the starch structure that leads to taste modifying.

In Romania, low quality of flour is solved by ad-hoc technology modification (ex. dough proofing from 3 to 15 hours)

## **Food research and consumer**

4. Development of consumer sciences is necessary in Romania – psychology, eating behavior and the attitude concerning food choice. In this sense information from the labeling are addressing different to the consumers and the way of their perception depend on education and level of information.

Important is also the advertisement perception which has to have on the basis direct, indirect or comparative promotion studies.

A new product has to be trade if there is a request of the consumers or if an impact or marketing study shows that the product is accepted by the consumers before to spend money for its designing.

## **Food safety**

5. During the workshop the soft “Trace” for food safety assurance and HACCP implementation was presented. In Romania, this is the first try for traceability system assuring.

Similar concerns:

Switzerland – the labeling contains all requested information - the work team, the time of producing, product history, and processing information.

Slovenia – traceability in meat processing

The existence of the associated cod of product

These soft should approved by the authorities (logistic, the data entering involve a lot of work even if there are made electronic)

To maintain the food preservation and food safety assuring is needed new technologies, non-invasive, e.g. using Pulsed Electric Fields, High Pressure.

### **6. Mycotoxin monitoring and detecting**

In cereals, milling is not o decontamination, is only a redistribution of mycotoxins between the products resulted; there is a relation between starch and mycotoxins content.

Mycotoxin contamination is different related to processing and cooking – mycotoxins pass in boiled water, but in polenta boiling water is included into final product.

There are high stability mycotoxins (DON) and others lower stability mycotoxin (OTA);

There are big differences in mycotoxin content in the same lot of cereals or flours, which request new innovative sampling method.

The contamination with toxigenic fungi (*Fusarium*) depends on the field wastes – in 90s USA and Canada had big losses of cereals because of contamination.

In Romania, breeding research elaborated very good varieties – e.g. Dropia is cultivated on the 30% of wheat crop. Life of the variety is limited in time (e.g. Fundulea 29). After 12 years Fundulea 29 couldn't be cultivated because of some pathogenic microorganisms. This variety was registered in Canada where is still cultivated.

Concerning maize contamination, there is a higher incidence of deoxynivalenol (DON) in North of France and incidence of fumonisine (FUM) in south of Italy. When the risk of contamination is high, it is chosen maize suppliers from other area.

There are only few researches concerning mycotoxin contamination of maize ([www.euricadagri.org](http://www.euricadagri.org)).

## **Nutrition and health**

Researches concerning probiotics have as target group different consumers groups: children, elderly and food intolerance persons.

There was presented a concern of researches in England concerning effect of probiotics in persons with autisms. Depends on the disease, proteins and peptides are absorbed different in the gut (40% of the persons with autisms having a specific diet – permeable gut wall).

Researches can take into account:

- To find that probiotics will be the main part of the diet;
- To find the optimum lactic bacteria lactobacilli as *Lactobacillus plantarum* – or associated with other lactic bacteria;
- To find the exposure conditions to the probiotics and the zone influence to the metabolism and nutrients deficiency.
- To establish criteria of patients control and to do voluntary tests.

Were exemplified the differences between 2 regions from England: Glasgow, where life expectancy for men is 54 years old and London 73 years, these 20 years being related with life style: alcohol, tobacco addiction etc.

The showing the difference of diets from different regions and health status of people is an interesting topic for the main participants to the workshop (ex. Japanese diet – the highest life expectancy). In the same idea, UHT milk is not so much appreciated in USA.

## **2. Information concerning the event organization (in briefing)**

The workshop was organized by The Institute of Food Bioresources at its headquarter. The workshops' participants had the opportunity to visit IBAs' laboratories and to discuss with researchers from the institute.

7 Romanian researchers from Diaspora had participated to the workshop. They are working in: England (2 persons), Belgium (1), France (2 persons), Spain (1 person) and USA and 25 Romanian participants from 14 research units and public authorities.

The workshop participants were from:

1. Academy of Agricultural and Forestry Science, Bucharest,
2. Armor Proteines/SOFIVO-INGREDIENTS, BONGRAIN Group
3. National Authority of Scientific Research, Bucharest,
4. EC-DG Research, Direction E: Biotechnology, Food processing industry, Unit E3: Food-Health-Well-being, Brussels, Belgium
5. Institute of Food Bioresources, Bucharest,
6. National Institute of Agricultural Research, Fundulea,
7. National Institute of Agricultural Equipments, Bucharest,
8. Limagrain Cereals Ingredients, Est. WestHove, Limagrain Group, France
9. SC CIA SA Cluj Napoca
10. *Alma Mater* University, Sibiu,
11. Bacău University, Faculty of Engineering,
12. USAMV Bucharest, Faculty of Biotechnologies,
13. USAMV Cluj-Napoca, Faculty of Agriculture, TPPA,
14. Cornell University, Food Science Department, USA
15. Dunarea de Jos University, Faculty of Food Science and Engineering, Galati,
16. Granada University, Spain
17. Kent University, Canterbury, England
18. Reading University, England
19. Ștefan cel Mare University, Faculty of Food Engineering, Suceava,
20. USAMV Timisoara, Faculty of Food Technology,
21. Valahia University, Faculty of Environment Engineering and Biotechnologies, Targoviste.

During the 2 days workshop were presented 24 papers and during discussions a list of projects idea resulted.

There were Power Point presentation and are available on the web site of IBA: [www.bioresurse.ro](http://www.bioresurse.ro).

### 3. The final program of workshop was:



#### 17th of September 2008

**9.00** Participants registration

**9.30–9.50:** *Welcome, IBA Presentation* **Nastasia Belc**, Institute of Food Bioresources, Bucharest

**9.50-10.50:** IBA laboratories visit;

**10.50-11.00:** *Workshops' objectives presentation*, **Nastasia Belc**, Institute of Food Bioresources, Bucharest

**11.00-11.15** Participant's presentations

**11.15-11.30** Coffee break

#### **Session I: FP7, Theme 2: Food, Agriculture and Fisheries, and Biotechnology**

**11.30-12.10:** *FP7–KBBE–Theme 2–Food, Agriculture and Fisheries and Biotechnology, Work Programme 2009, Call FP7-KBBE-2009-3*, **Maria Alexandra Spulber**, DG research, European Commission

**12.10-12.30:** *Romanian participation in FP7, IBA participation in FP6 and*, **Claudia Mosoiu**, The Institute of Food Bioresources, Bucharest

**12.30-13.30** Lunch

**13.30-14.00:** *European and Romanian contributions to food safety improvement through Biotracer project*, **Anca Nicolau**, Faculty of Food Science and Engineering, Galati

#### **Session II: Food quality**

**14.30-15.00:** *Food and ingredients quality in milk and dairy industry*, **Carmen Lapadatescu**, Armor Proteins/SovicoiIngredients, Group Bongrain, France

**15.00-15.30:** *Cereal products quality*, **Mirela Colleoni**, Westhouse Company – Limagrain Group, France

**15.30-16:00:** Coffee break

#### **Session III: Food safety**

**16.00-16.30:** *Faculty of Food Engineering, Food allergens*, **Gabriela Pop**, Faculty of Food Engineering, Suceava

**16.30-16.50:** *Aspects of mycotoxin incidence in Romanian cereals*, **Florentina Israel Roming**, University of Agronomic Science and Veterinary Medicine, Bucharest

**16.50-17.10:** *Concerns and trends of researchers from Faculty of Food Science and Engineering, Galați in the food safety field*, **Banu Iuliana**, Faculty of Food Science and Engineering, Galati University

**17.10-17.30:** *FoodTrace – Integrated system for traceability in food industry*, **Gavrila Saplacan**, SC CIA SRL Cluj Napoca

**17.30-17.40: First day conclusions**

## 18th September 2008

**9.00-9.30:** *Valahia University, Faculty of Environment Engineering and Biotechnologies, Targoviste. Enzymes combinations for bread quality improving*, **Alexandru Stoica**, Faculty of Environment Engineering and Biotechnologies, Targoviste. Valahia University

### Session III: Trends of Romanian research

**9.30-10.30:** *Trends of Romanian research; The Institute of National R&D for Agriculture and Food Equipments*, **Ion Pirna**, INMA, Bucharest, President of Consultative College for agriculture and food industry

**10.30-11.00:** *Research objectives which are related to food safety and security*, **Ittu Mariana**, INCDA Fundulea

**11.00-11.30:** *Opportunities of international cooperation for R&D units from Academy of Agricultural and Forestry Science “Gheorghe Ionescu-Sișești”*, **Cristian Klebs**, ASAS

### Sesiunea IV: Nutrition and consumer

**11.30-12.30:** *Life style, eating behavior and public health: concerns and trends*, **Dan Petrovici**, Kent University, United Kingdom

**12.30-13.30** Lunch

**13.30-14.00:** *Research activity of IBA: opportunities of collaboration*, **Enuta Iorga**, Institute of Food Bioresources, Bucharest

**14.00-14.30:** *Probiotics for autism?* **Florin Soptica**, Reading University, United Kingdom

**14.30-15.00:** *Nutrition and health*, **Daniela Ioana Crisovan**, Granada University din, Spain

### Sesiunea V: Food Technology

**15.00-16.00:** *Actual Trends of Research in Food Safety Field & Non-conventional Antimicrobial Technologies*, **Carmen Moraru**, Cornell University, USA

**16.00-16.30:** *Actual Aspects in beer industry & Faculty of Engineering, Bacău*, **Adriana Dabija**, Faculty of Engineering, Bacău University

## Session VI: Financial opportunities

**16.30-16.40:** *Launching of National technology platform “Food for Life” in 24<sup>th</sup> of October 2008, Adriana Macri*, The Institute of Food Bioresources, Bucharest

**16.40-17.00:** *National programs and structural funds, Viorel Vulturescu*, National Authority of Scientific Research

**17.00-17.30:** *Opportunities of funding in Romania for human resources, Mona Popa*, University of Agronomic Sciences and Veterinary Medicine, Bucharest

**17.30-18.00:** *Second day conclusions and final conclusions, Maria Spulber, Dan Petrovici si Nastasia Belc*

### SO5: Networking between institutes participants

#### 4. Final list of invited lecturer (key-speakers) – scientific title, name, surname, signature, country, institution, address, phone, fax, e-mail, briefly presentation of professional experience;

Short presentation of the lecturers:

**Spulber Maria Alexandra** is European Commission National Detached Expert since 2003, DG Research Direction E: Biotechnology – Food processing industry Unit E.3: Food – Health – Well-being. She has a 13 years experience in food research, 5 years in food quality and food safety systems (ISO 9000, EN 45001, 45004, 450011, GMP, HACCP) and 3 years in research management.

**Claudia – Elena Mosoiu** is senior researcher, PhD student to the University of Agronomic Sciences and Veterinary Medicine, Bucharest, with expertise in ecology and ecologic agrifood. She has a great experience in international projects, especially in FP6. She is Bio NCP in Romania for Theme 2 Food, Agriculture and Fisheries, and Biotechnology, FP7 and also Committee Program member for the same theme. She has coordinated 5 national projects and was responsible for 7 European financed projects. She has organized at national and international level several important scientific events in order Fp7 promotion.

**Anca Nicolau** is professor to the Faculty of Food Science and Engineering within Galati University. She has a large experience in national and international projects, especially in industrial microbiology and food safety. She is responsible for her institution in Biotracer project within FP6.

**Enuta Iorga**, senior researcher, PhD and scientific director of the Institute of Food Bioresources has participated in over 60 national reserach projects. She has experience in project management, both scientific and financial point of view, in the last 8 years having in coordination the scientific activity of the institute. Also, she has a big experience in laboratory work, being directly involved in development of some very sensitive laboratory methods.

**Belc Nastasia**, CSI, General Director of IBA and Professor to the Faculty of Biotechnology within University of Agronomic Sciences and Veterinary Medicine. She is Member of Consultative College of National Authority of Scientific Research, National delegate of ICC for Romania (International Association for Cereal Science and Technology), Deputy president of Specialist Association of Milling and Baking, member in FP7Committee Program, Theme 2, member ASAS and member of Comission of Biologic Security.

**Lapadatescu Carmen** is R&D for 2 companies of Bongrain Group: Armor Proteins and Sofivo Ingredients. Bongrain Group is one of the first holding in the world concerning milk processing and milk ingredients obtaining, such us: proteins with functional value and active principles for human nutrition. Also, among the researches developed within this holding, it can be mentioned: several milk formulas for human and animal nutrition, instant powder milk, and media for cell culture for fermentations.

<p><b>Colleoni Mirela</b>, research &amp; development director within WESTHOVE Company from Limagrain group, coordinates applied research with the main aim elaboration of new ingredients formula obtained from cereals in order to improving technology, sensorial quality of cereal products and demonstration of the functionality of these ingredients to the customers' company.</p>
<p><b>Alexandru Stoica</b>, lecturer to the Environment Engineering and Biotechnology Faculty, Valahia University, Târgoviște, Food Engineering department has as expertise: bakery technologies, food biotechnologies, human nutrition, food additives, food quality control. He is member of several Romanian professional associations and member of Scientific Research center for Biotechnology and Applied Sciences - BIOTEHNING (center CNCSIS accredited, type B). He has 31 published papers in international and national volumes within international and national scientific events and 4 published books. He has participated in 3 national research projects.</p>
<p><b>Florentina Israel-Roming</b>, senior researcher and lecturer to the University of Agriculture Sciences and Veterinary Medicine, Bucharest, has expertise in biotechnology. She is involved in several projects concerning food contaminants, specifically, mycotoxins. She is member of Romanian Society of Medical Mycology and Mycotoxicology, Chemistry, Biochemistry and Molecular Biology. She is also member of International Society of Mycotoxicology.</p>
<p><b>Iuliana Banu</b>, lecturer within Biochemistry Department, in Science and Food Engineering Faculty, University of Galati, has participated in several national projects in functional food, food technology, in general and residual waters.</p>
<p><b>Mariana Ittu</b>, CSI la INCDA Fundulea are o activitate bogata de cercetare nationala si internationala fiind specialist in ameliorarea graului, in special in ameliorarea calitatilor graului privind rezistenta la ciuperci toxicogene. A pregatit multi tineri in domeniu si a asigurat pregatirea lor atat la nivel national cat si international.</p>
<p><b>Cristian Kleps</b>, dr.ing. la ASAS, Bucuresti, conduce departamentul de relatii internationale ale acestei institutii, organizand nenumarate evenimente stiintifice internationale, printre care si simpozionul anual BENA (Asociatia Balcanica de Protectia Mediului). Este reprezentantul Romaniei la Bruxelles in cadrul SCAR.</p>
<p><b>Gabriela Cristina Pop</b>, attended Science and Food Engineering Faculty, University of Galati . She is associated professor in Food Engineering Faculty, Stefan cel Mare University, Suceava. She is member of several professional european and american associations.</p>
<p><b>Soptica Florin</b>, PhD student within Reading University, UK and he is working at this moment for "Gastrointestinal microbial ecology of autistic children and the modulator effects of prebiotics". He has experience in food microbiology. In the last years, he was involved in many research projects and in laboratory techniques. Within in an European project BIOTRACER-IP FP6, he was trained in Real Time PCR for food pathogens identification. Additionally, as part of doctoral training, he was trained in molecular techniques in microbial ecology studies, e.g. FISH si PCR-DGGE.</p>
<p><b>Crîșovan Daniela Ioana</b> has attended Chemistry-Biology-Geography Faculty, Biology section within West University in Timisoara and is master student in Pharmacy Faculty and Nutrition Institute, Granada working for Nutritional status evaluation, desnutrition and oxidative stress effects in patients evolution and related factors". She was trained in different fields: methodologies for nutritional status evaluation; nutritional and fiziologic bases in different life stages: childhood, teenage, adult, pregnancy, breast feeding, anticarcinogenesis substances and health, novelties in nutrition and food, mediterranean diet and health, epidemiology in nutrition, molecular and nutritional bases of cancer.</p>
<p><b>Dan Alexandru Petrovici</b> is lecturer in marketing at Kent Business School, UK. He is also statistician, economist and sociologist with expertise in agrifood marketing, consumer behavior and consumer policies. Dan Petrovici is also associated professor at Metz University (France) and Applied Sciences University Deggendorf (Germany). He is member of many English and American professional associations.</p>
<p><b>Carmen Moraru</b>, associated professor in Food Science, Cornell University, USA has expertise in: Food Safety Engineering, antimicrobial treatments, Pulsed Light technology, membrane</p>

separation, polymeric and rheological properties of foods, Food processing. She has in coordination PhD and master students. Dr. Carmen Moraru has, among others, 19 research papers in peer review journals, 6 chapters in books, co-author for one book. She had and has ongoing 11 research projects and she has participated in other 10 consortia within Cornell and Rutgers Universities. She is member of several american and romanian professional associations.

**Adriana Dabija**, associate professor to the Engineering Faculty, Food and Chemistry Engineering Department within Bacău University has expertise in technologies, hygiene, mycobiology, biotechnology in food. She is member of Milling and Baking Romanian Specialists Association and Romanian Chemistry Society. Adriana Dabija is head of Biotechnology Laboratory within Research Center of Applied Chemistry and Engineering Process”, CNCSIS accredited. She published 4 books and 139 scientific papers, out of them 26 in peer review journals. She has also participated in 6 scientific research projects, out of them, 3 as project coordinator.

**Adriana Macri**, senior researcher, food technologist had been worked within Milling and Baking Patronage ROMPAN, being involved in: technical, technological, legislative, standards information dissemination concerning milling and baking food sector at national level; organization and coordination of national professional competitions and training of baker teams for international competitions; lecturer for professional trainings within milling and baking industry and consultant and advisor for food quality and safety systems implementation in baking industry. Concerning research activity, she was involved in milling and baking biochemistry and technology laboratory and now she is involved in organizing and structuring National Technology Platform “Food for Life” having as results platform papers elaboration: Vision 2020 and Strategic Research Agenda. She is also representative of Romania to the European Technology Platform “Food for Life” and she is the president of Euroagri Umbrella for 2007-2009.

**Viorel Vulturescu**, is working with National Authority of Scientific Research, coordinates National Contact Points for FP&. During 2003 – 2007, Viorel Vulturescu was Detached National Expert in European Commission, General Direction – Research, where he monitored FP6 contracts with a budget of over 50 mil. Euros in total.

**Mona Elena Popa**, professor to the University of Agronomic Sciences and Veterinary Medicine, Biotechnology Faculty within Industrial Biotechnology Department, is also Scientific Secretary of the faculty and Director for INDAL and SIMAGRO subprograms within National R&D Program, AGRAL and CEEEX.. She is member of several prestigious European Associations. Also, si is member of Committee Program for Theme 2 “Food, Agriculture and Fisheries, and Biotechnology”, FP7 7 and she is BIO NCP in Romania for the same theme.

## **5. Final list of participants – scientific title, name, surname, signature, country, institution, address, phone, fax, email;**

## **6. Statistic information concerning participants (age structure, geographic distribution etc);**

The following Romanian research units were participated to the workshop:

1. Academy of Agriculture and Forestry Sciences, Bucharest,
2. National Authority of Scientific Research, Bucharest,
3. Institute of Food Bioresources, Bucharest,
4. National Institute of Agricultural Research, Fundulea,
5. National Institute of Agricultural Equipments, Bucharest,
6. SC CIA SA Cluj Napoca
7. *Alma Mater* University, Sibiu,

8. Bacău University, Faculty of Engineering,
9. USAMV Bucharest, Faculty of Biotechnologies,
10. USAMV Cluj-Napoca, Faculty of Agriculture, TPPA,
11. Dunarea de Jos University, Faculty of Food Science and Engineering, Galati,
12. Ștefan cel Mare University, Faculty of Food Engineering, Suceava,
13. USAMV Timisoara, Faculty of Food Technology,
14. Valahia University, Faculty of Environment Engineering and Biotechnologies, Targoviste.

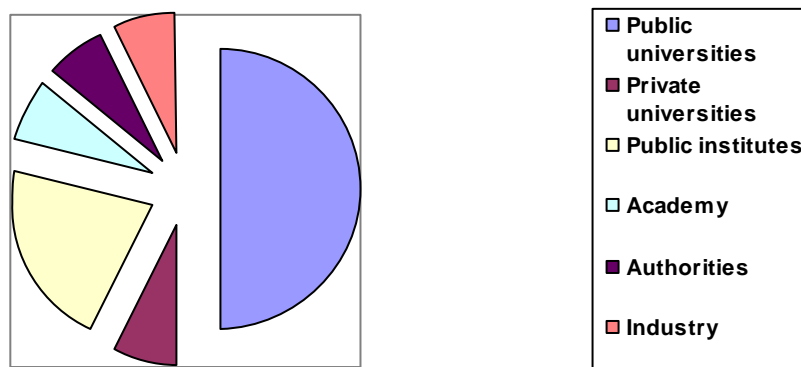


Figure 6.1. Romanian research units

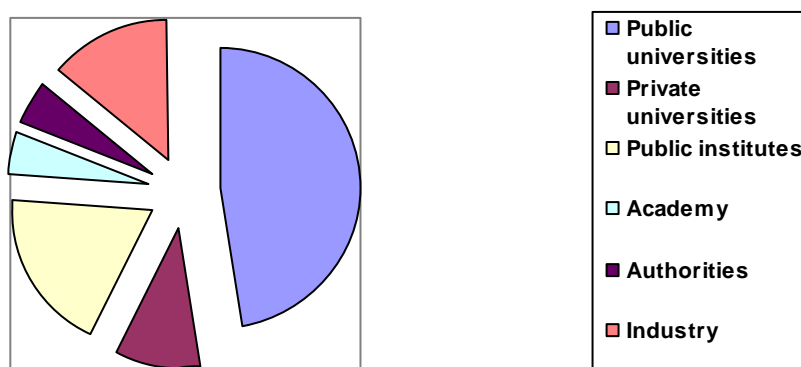


Figure 6.2. Units research

Romanian researchers from Diaspora were coming from the following countries:

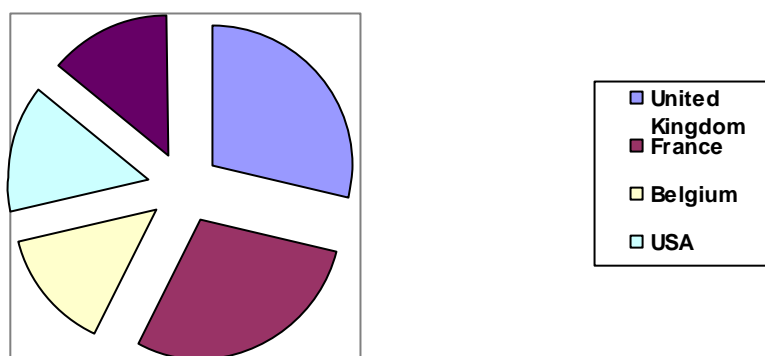


Figure 6.3 Countries represented to the workshop

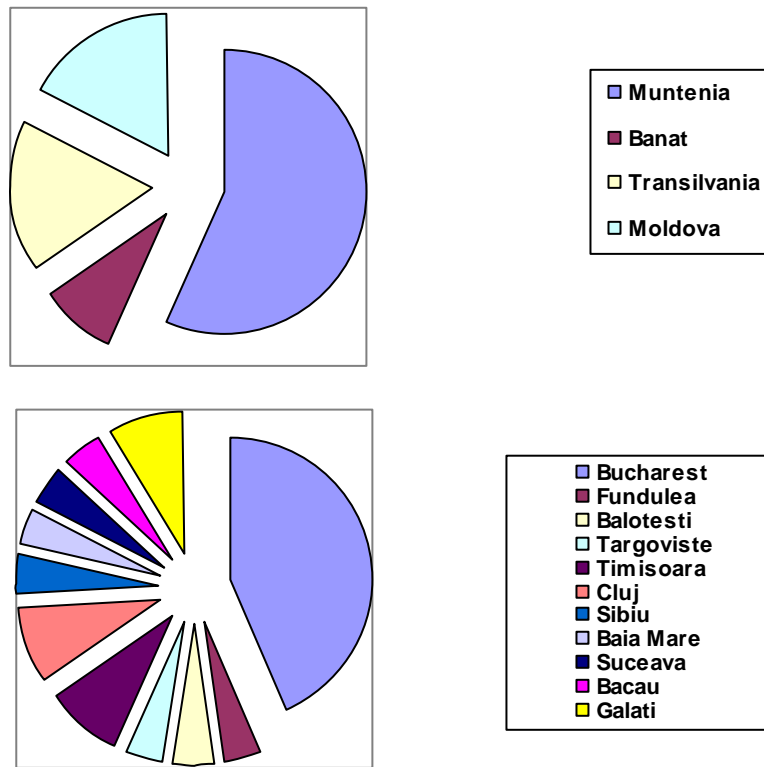


Figure 6.4. Regions and towns

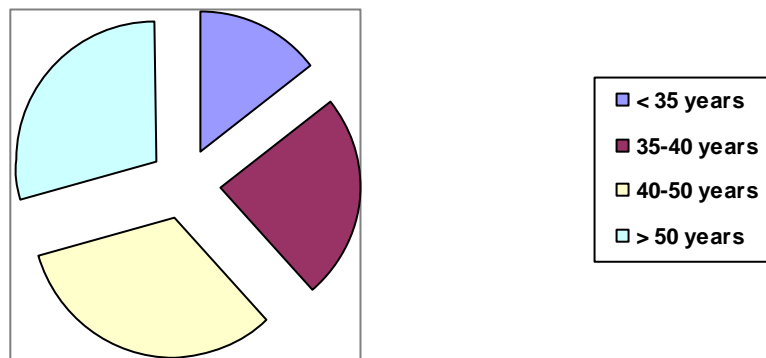


Figure 6.5 Age groups of workshop participants

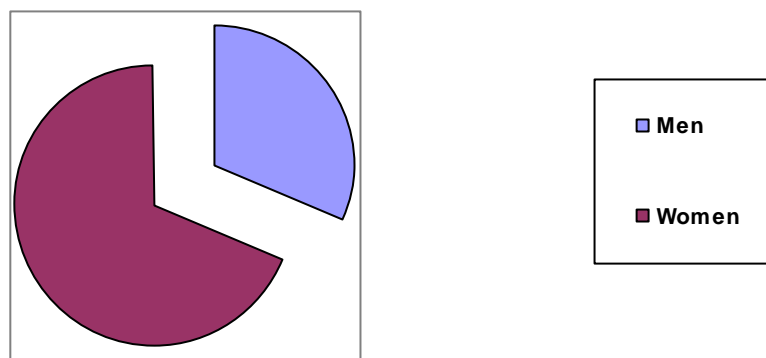


Figure 6.6 Gender groups of workshop participants