



Setting up the innovation support mechanisms and increasing awareness on the potential of Food Innovation and RTD in the South-East Europe area

Project Code: SEE/B/0028/1.3/X

WORK PACKAGE 5: NETWORKING, TRAINING AND EXCHANGE OF EXPERIENCE IN FOOD INNOVATION

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Dissemination Level:
Public

D5.1- Development of Training Material

| Partner | Official name (in English) | Abbreviation | Country |
|----------|---|--------------|---------------------|
| LP | Centre for Research and Technology Hellas- Institute of Agrobiotechnology | EKETA- INA | Greece |
| ERDF PP1 | Federation of Industries of Northern Greece | SVVE | Greece |
| ERDF PP2 | National Research Council- Institute of Sciences of Food Production | CNR/ISPA | Italy |
| ERDF PP3 | Agricultural University of Plovdiv | AUP | Bulgaria |
| ERDF PP4 | Pazardzhik Regional Administration | OAP | Bulgaria |
| ERDF PP5 | National Institute of Research & Development for Food Bioresources | IBA | Romania |
| ERDF PP6 | Constanta Chamber of Commerce, Industry, Shipping And Agriculture | CCINA | Romania |
| ERDF PP7 | Development Agency of Idrija and Cerkno | ICRA | Slovenia |
| ERDF PP8 | European Food Chain Parliament-Foodlawment | EEPF | Hungary |
| 10% PP1 | Odessa National Academy of Food Technologies | ONAFIT | Ukraine |
| 10% PP2 | Chamber of Commerce and Industry of the Republic of Moldova | CCIRM | Republic of Moldova |
| 10% PP3 | Institute for Food Technology | FINS | Serbia |

Contents: D5.1- Development of Training Material

Annexes: Generic Presentations

Abstract: The current report provides guidance on the organisation of the workshops to be held in the Inno- Food SEE regions and includes the generic material to be used in the workshops.

Project Document Information

| | |
|-----------------------------------|--|
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List of Acronyms and Abbreviations

| Acronym/abbreviation | Resolution |
|----------------------|---|
| EU | European Union |
| SEE | South- East Europe |
| SMEs | Small and Medium- Sized Enterprises |
| SOR | Strategic Orientation Rounds |
| SWOT | Strenghts, Weaknesses, Opoprtunities, Threats |
| RTD | Research and Technological Development |

TABLE OF CONTENTS

| | |
|---|-----------|
| TABLE OF CONTENTS..... | 3 |
| EXECUTIVE SUMMARY..... | 4 |
| 1. AIM AND OBJECTIVES OF THE FOOD INNOVATION WORKSHOPS..... | 5 |
| 2. TARGET GROUPS AND PRESENTERS | 5 |
| 3. ORGANISATIONAL ISSUES..... | 6 |
| 4. INDICATIVE TOPICS FOR THE AGENDA..... | 6 |
| 5. REPORTING..... | 7 |
| 5. ANNEX-GENERIC PRESENTATIONS | 9 |
| 5.1 Trends and innovation needs in the European food industry..... | 9 |
| 5.2 European funding opportunities for cooperation in food research and innovation..... | 18 |
| 5.3 Food Innovation Clustering in the South- East Europe area- The Inno- Food SEE project..... | 34 |
| 5.4 SWOT Analysis for Food Innovation | 45 |

EXECUTIVE SUMMARY

The current deliverable provides methodological steps and guidance to the Inno- Food SEE partners responsible for the organisation of the food innovation workshops in the framework of “wp5- Networking, training and exchange of experience in food innovation”. It also includes the generic presentations that will form part of the workshops. These presentations encompass aspects such as “Trends and innovation needs in the European food industry”; “European funding opportunities for cooperation in food research and innovation”; “Food Innovation Clustering in the South- East Europe area- Presentation of the Inno- Food SEE project”; and “SWOT analysis for food innovation”.

1. AIM AND OBJECTIVES OF THE FOOD INNOVATION

WORKSHOPS

Activity 5.1- Development of Training Material and activity 5.2- Food Innovation Workshops are part of the “wp5- Networking, training and exchange of experience in food innovation”. The aim of the workshops is to contribute to the networking, matchmaking and training of the relevant stakeholders (industry, RTD entities, governance system, etc.) with a view to national and transnational cooperation in food innovation.

The objectives of the food innovation workshops are:

- To emphasise the importance of food innovation for the regional and national agriculture and food industry and to promote the adoption of food innovation breakthroughs;
- To highlight successful cases of food innovation cooperation and the relevant applications, products and processes;
- To effectively bring together regional stakeholders with different institutional and economic backgrounds for starting concerted activities towards regional policies supporting the economic and scientific development of the agro-food sector.
- To present the available regional, national and European research funding opportunities for the agro-food sector.
- To present some significant project results and promote participation in the future project activities.

2. TARGET GROUPS AND PRESENTERS

The target groups for the food innovation workshops are:

- Food industry representatives;
- Agricultural cooperative representatives;
- Food researchers;
- Food consumer associations;
- Regional authorities representatives;

- Press and media;
- Other groups interested in food innovation.

The presenters may come from the project partners but the organisers are encouraged to include as speakers selected members of the abovementioned groups and to allow room for discussion and interaction between the participants.

3. ORGANISATIONAL ISSUES

- The organisational costs will be covered in Greece by FING, in Bulgaria by AUP, in Romania by IBA, and in the other countries by the individual partners;
- The Workshops in Ukraine, Moldova and Serbia will be performed by CERTH- INEB, FING and CNR- ISPA respectively;
- All partners however will be involved in the development of the agenda, the invitations of speakers and the workshop material;
- The workshops will take place between November 2012 and April 2013;
- The workshops may last up to 8 hours depending on the number of issues the partners would like to address and the availability of participants;
- It is useful to look for opportunities of co-organising events with other similar projects in order to attract more participants and create synergies.

4. INDICATIVE TOPICS FOR THE AGENDA

Part of the training material for the food innovation workshops will be pre-prepared and further adapted by all project partners in order to align it with the specific regional, national as well as institutional (RTD, industry, policy) context. Indicative topics in the agenda can be:

- Presentation of the regional agro-food system and the innovation capacities (use of material from D3.1, D3.2, D3.3);
- Trends and innovation needs in the European Food and Drink Industry (*generic presentation annexed*; this can be complemented by material from the research entities in each region);

- Food industry- what are the current innovation trends and needs (presentation from a selected industry representative);
- The funding mechanisms available for supporting the R&D efforts (primarily FP7, CIP and Structural Funds) and the respective participation procedures/ Horizon 2020 and the new European funding opportunities; EU policies and initiatives in support of food innovation such as the ETP Food for Life (*generic presentation annexed*; this can be complemented by material about the available national research funding);
- Presentation of the “Food for Life” national technology platform activities (presentation from a representative from the national platform);
- How to increase the cooperation between the R&D entities and the Food industry/ Identification of cooperation possibilities for food innovation;
- Examples of research and innovation projects from the food sector (pick 2-3 good regional/ national cases);
- Presentation of the Inno- Food SEE project (*generic presentation annexed*) and other food innovation projects that may join in the co- organisation of the event or may be invited to present their cases;
- Discussion on the policies and measures in support of food innovation (open discussion to feed wp4 activities);
- Other relevant themes.

5. REPORTING

For each regional/ national workshop a report will be prepared with the following indicative structure:

1. General description of the event; Organisational issues
2. Key topics covered
3. Main outcomes and feedback
4. Annexes
 - Agenda
 - Participants list
 - Pictures

-
- Presentations
 - Press releases and press clippings

5. **ANNEX-GENERIC PRESENTATIONS**

5.1 **TRENDS AND INNOVATION NEEDS IN THE EUROPEAN FOOD INDUSTRY**

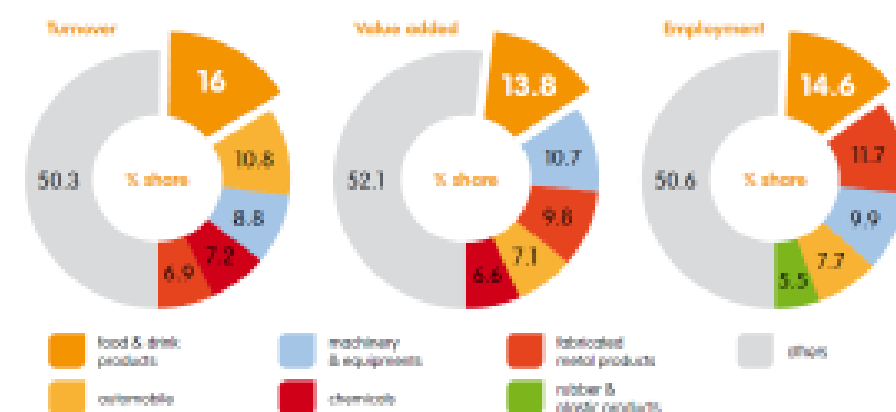


European Food and Drink Industry- Key Data



The number one manufacturing industry in the EU

The food and drink industry is the number one manufacturing industry in the EU in terms of:



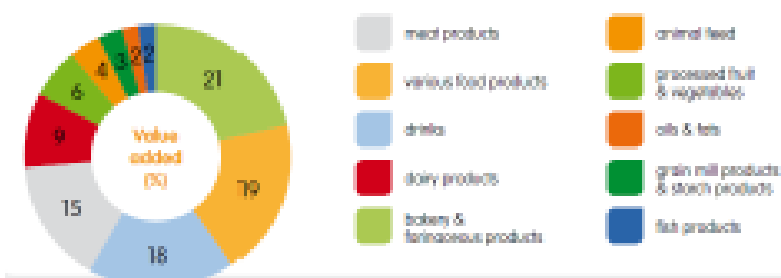
Source: Data & Trends of the European Food and Drink Industry 2011 - <http://www.fooddrinkindustry.eu/publication/data-trends-of-the-european-food-and-drink-industry-2011/>

European Food and Drink Industry- Key Data



A highly diversified industry

274,000 European food and drink companies produce a vast range of foods, satisfying the wide range of evolving needs of Europe's 500 million consumers every day.



Source: Data & Trends of the European Food and Drink Industry 2011 - <http://www.fooddrinkindustry.eu/publication/data-trends-of-the-european-food-and-drink-industry-2011/>

European Food and Drink Industry- Key Data

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Food and drink industry is less innovative compared to other manufacturing sectors...

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Patent applications to the EPO¹ by sector in the EU, 2008
(% in manufacturing)

| 10% - 8% | 7% - 4% | 3% - 2% |
|----------------------|---------------------|-----------------------------|
| Automobile | Basic chemicals | Medical equipment |
| Office machinery | Transport equipment | Fabricated metal products |
| Pharmaceuticals | | Rubber and plastic products |
| Television and radio | | Food and drink products |

¹/ European Patent Office

Source: Eurstat (Science, technology and innovation database)

...but EU food and drink companies innovate more than anywhere else in the world



World and EU patent applications by sector for top 9 sectors, 1999-2008

| | World (1000) | EU (1000) | EU share/ (%) |
|-------------------------|-----------------|--------------|------------------|
| Logistics | 10.8 | 5.8 | 55 |
| Agriculture and food | 24.3 | 10.2 | 42 |
| Water | 23.8 | 9.5 | 40 |
| Horticulture | 8.7 | 3.5 | 40 |
| Chemicals | 551.2 | 212.1 | 38 |
| Energy | 23.7 | 8.3 | 35 |
| Life sciences | 298.0 | 99.2 | 33 |
| Creative ind. | 40.0 | 8.8 | 22 |
| High technological ind. | 1,331.1 | 208.9 | 16 |

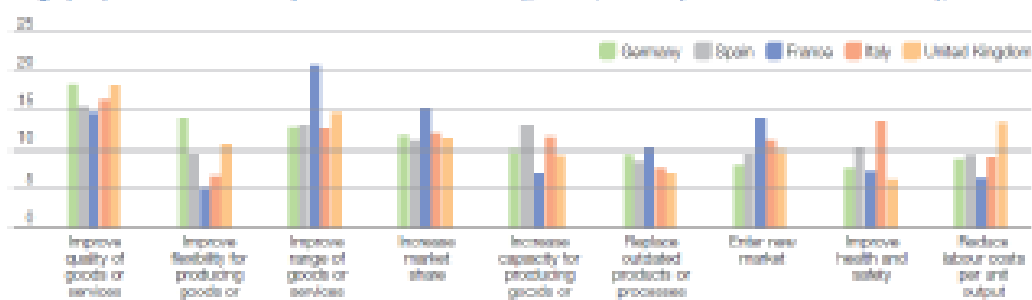
EU share of EU patent applications for a particular category is the global number of patent applications of that category

Sources: Schottlander, Targeted innovation perspectives, Ministero van Commerciale Italian, Landbouw en Innovatie, July 2011

Innovation objectives of the food industry



Highly important innovation objectives in the food industry, 2008 (% of companies with innovation activity)



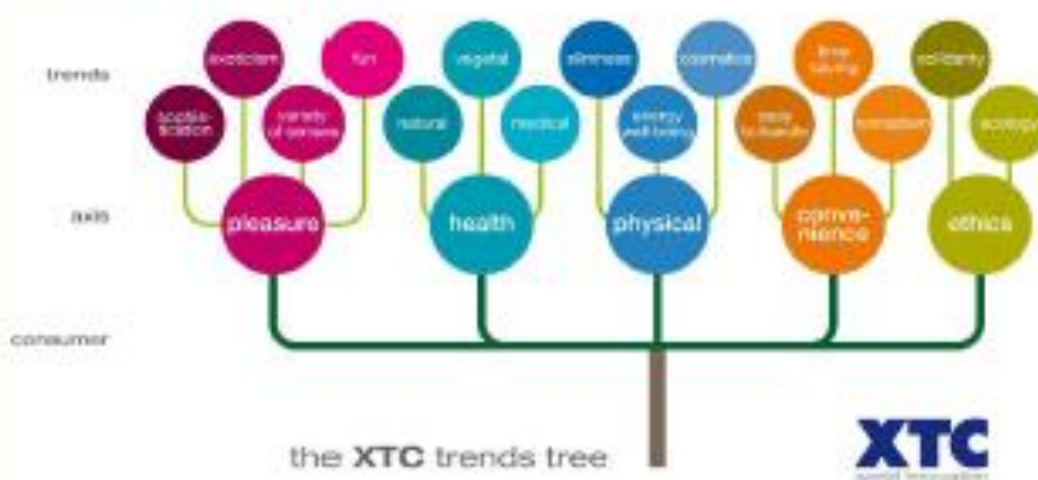
Source: Innovation, technology and innovation indicators

European Food Industry: Key Challenges

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- Increased international competition
- Increased worldwide food demand
- Concerns for food safety and quality
- Interest in added-value food
- Changing attitudes and emerging consumer trends

Consumer Trends in Food selection

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The XTC Trends Tree™ is a hierarchical structure that summarizes overall consumer expectations and categorizes them under five axes, and then breaks them down into innovation trends and subsequently into the new drivers used by the world's manufacturers to meet these expectations. <http://www.xtremefoodinnovation.com>

| Axis | Trends | Group of claims | General claims |
|--------|-----------|----------------------------|---|
| Health | "Medical" | Cardiovascular health | Provides a healthy cardiovascular system |
| | | | Fights cholesterol |
| | | | Regulates triglycerides |
| | | | Promotes healthy blood circulation/pressure |
| | | | Fights obesity |
| | | Bone health | Fights osteoporosis |
| | | | Reduces bone mass |
| | | | Promotes bone growth |
| | | Fights the signs of ageing | Fights wrinkles |
| | | | Fights the signs of aging redness |
| | | | Boosts mental alertness and concentration |
| | | Mental health | Improves memory |
| | | | Promotes development of the brain and nerve cells |
| | | | Regulates mood |
| | | Hormonal health | Fights the effects of menopause |
| | | | Regulates blood sugar levels |
| | | | Helps control diabetes |
| | | Immune health | Strengthens the immune system |

 Dominant claims
 Emerging claims
 Emerging claims

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European Technology Platform Food for Life

- An industry-led, public/private partnership encouraged by the EC to drive innovation and unite stakeholder communities (industry, academia, researchers, consumers, media, etc.) in reaching strategic research objectives for the agro- food sector
- To increase industry competitiveness and safeguard the continued well-being and welfare of consumers across Europe

<http://etp.fooddrinkeurope.eu>

European Technology Platform Food for Life



Challenges

1. Ensuring that the healthy choice is the easy choice for consumers
2. Delivering a healthy diet
3. Developing value-added food products with superior quality, convenience, availability and affordability
4. Assuring safe foods that consumers can trust,
5. Achieving sustainable food production
6. Managing the food chain
7. Communication, training and technology transfer, competitiveness and consumer interaction

Challenge 1: Ensuring that the healthy choice is the easy choice for consumers

- Goal 1: Better and agreed upon measurement in food consumer Science
- Goal 2: Developing comprehensive models of consumer food choice processes
- Goal 3: Promoting effective interaction with consumer groups and consumers directly through communication and public participation
- Goal 4: Developing strategies to induce behavioural change in order to improve consumer health and social responsibility (through healthier food choices)

Challenge 2: Delivering a healthier diet

- Goal 1: Understanding brain function in relation to diet
- Goal 2: Understanding effects of diet-gut interactions on intestinal and immune functions
- Goal 3: Understanding the link between diet and metabolic function (obesity and associated metabolic disorders)
- Goal 4: Understanding consumer behaviour and effective communication in relation to health and nutrition

Challenge 3: Developing quality food products

- Goal 1: Relevance of the research to small, medium or large enterprises
- Goal 2: Define the needs to develop specific training and/or education programs
- Goal 3: The need for ERA-Nets in areas of research defined as high priority
- Goal 4: Investments in infrastructure

Challenge 4: Assuring safe foods that consumers can trust

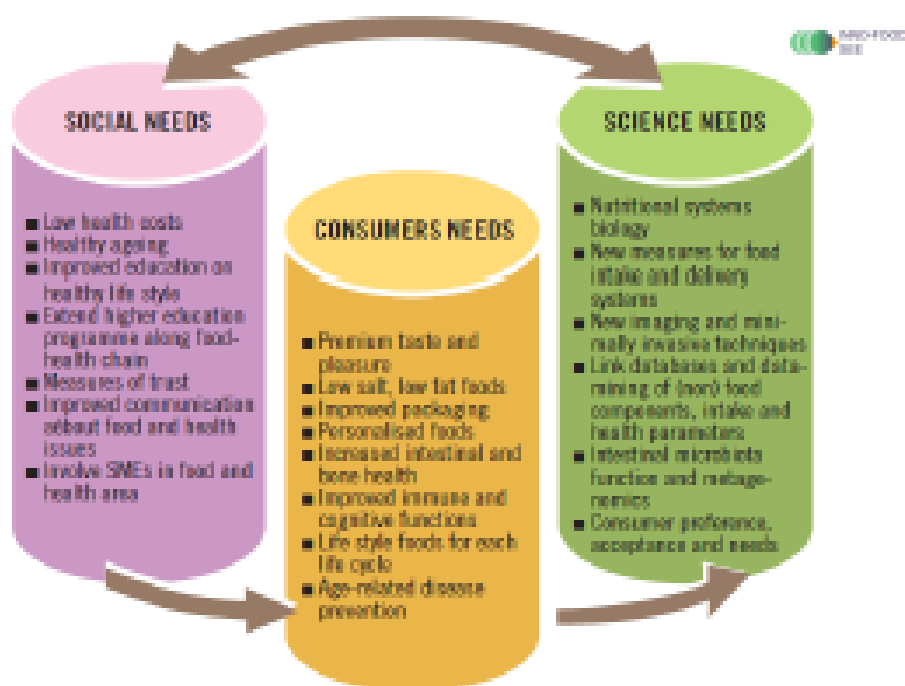
- Goal 1. Predicting and monitoring the behaviour and fate of relevant known and emerging biological hazards
- Goal 2. Predicting and monitoring the behaviour and fate of relevant known and emerging chemical hazards including toxins of biological origin
- Goal 3. Improving risk assessment and risk-benefit evaluation
- Goal 4. Developing tools to ensure security of the food chain
- Goal 5. Understanding and addressing consumer concerns with food safety issues

Challenge 5: Achieving sustainable food production

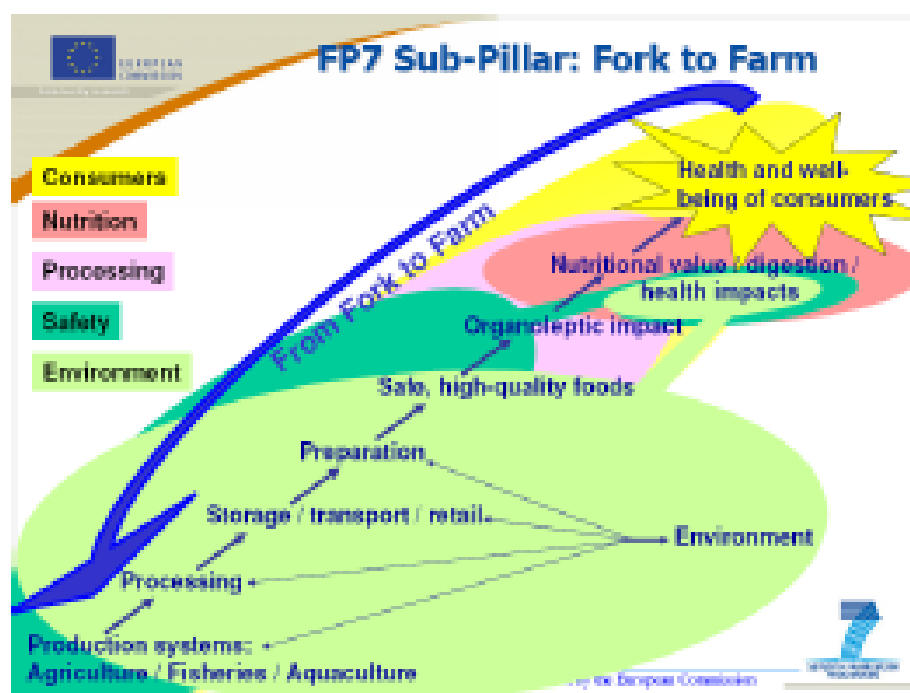
- Goal 1. Progressing the sustainability of food production and supply in Europe
- Goal 2. Developing scenarios of future European food production and supply
- Goal 3: Developing sustainable processing, preservation, packaging and logistics systems
- Goal 4. Ensuring sustainable primary food production in Europe
- Goal 5. Understanding consumers and their behaviour regarding sustainable food production

Challenge 6: Managing the food chain

- Goal 1: Serving consumer needs for affordable food of quality and diversity
- Goal 2: Serving transparency needs for advancements in chain governance, efficiency, innovation dynamics, and trust
- Goal 3: Serving SME needs for better integration into value chain relationships
- Goal 4: Serving sector needs for better understanding the dynamics in critical success factors for competitive performance and sustainability in times of globalisation and change



The integrated picture- social, consumer and science needs
 (Source: European Technology Platform "Food for Life", Strategic Research Agenda 2007-2020, http://efsa.europa.eu/documents/CMA-ETP%20Food_FR.pdf)



5.2 EUROPEAN FUNDING OPPORTUNITIES FOR COOPERATION IN FOOD RESEARCH AND INNOVATION



Possible beneficiaries



Type of involvement

RESEARCH: to engage in research activities in order to generate new knowledge and enhance research capacity

INNOVATION/TECHNOLOGY TRANSFER: to develop new or improved products and services or up-date production processes/ organisation/ marketing strategy

TECHNOLOGICAL DEVELOPMENT: enterprise development that exploits research and innovation results to set up an innovative company, expand business activities and create new business and technology partnerships



7TH RESEARCH FRAMEWORK PROGRAMME

-EU- MOLDOVA MOU, 11/10/11
-UKRAINE AS AN ICPC COUNTRY

7th Research Framework Programme (FP7)- Food, Agriculture and Fisheries and Biotechnology



Call Deadline: 05 February 2013

Food, Agriculture
and Fisheries,
and Biotechnology

€ 341.35 million

Activity 2.1- Sustainable
production and management
of biological resources from land,
forest and aquatic environment

Activity 2.2- Fork to farm:
Food (including seafood),
health and well being

End-users of new technologies (such as breeding companies,
SMEs or agricultural cooperatives involved in the production,
packaging or control of food or feed, etc);
technology providers (mainly engineering companies)
or technology-based biotechnology companies
(in the areas of agricultural or industrial biotechnology)

Activity 2.3- Life sciences,
biotechnology and biochemistry
for sustainable
non-food products and processes

| Activity 2.2 Fork to farm: Food (including seafood), health and well being | | |
|--|--|---|
| Area 2.2.1 Consumers | <p><i>KBBE 2013 2.1-01: Impact of food and nutritional behaviour, lifestyle and the socio-economic environment on depression and proposed remedial actions</i></p> <p><i>One project may be funded</i></p> | <p>- Collaborative Project (large-scale integrating project).</p> <p>- The requested European Union contribution shall not exceed EUR 9 000 000 per proposal.</p> |
| Area 2.2.2 Nutrition | <p><i>KBBE 2013 2.1-01: New technologies to study brain function in relation to eating behaviour</i></p> <p><i>One project may be funded</i></p> | <p>- Collaborative Project (large-scale integrating project).</p> <p>- The requested European Union contribution shall not exceed EUR 9 000 000 per proposal.</p> |
| | <p><i>KBBE 2013 2.1-02: Factors influencing the human gut microbiome and its effect on the development of diet-related diseases and brain development</i></p> <p><i>One project may be funded</i></p> | <p>- Collaborative Project (large-scale integrating project).</p> <p>- The requested European Union contribution shall not exceed EUR 9 000 000 per proposal.</p> |
| | <p><i>KBBE 2013 2.1-05: Food-based solutions for eradication of vitamin D deficiency and health promotion throughout the life cycle</i></p> <p><i>One project may be funded</i></p> | <p>- Collaborative Project (large-scale integrating project).</p> <p>- The requested European Union contribution shall not exceed EUR 6 000 000 per proposal.</p> |

| | | |
|--|---|--|
| Area 2.2.3 Food processing | <p><i>KBBE 2013 2.3-01: Development and industrial application of sensors for food processing operations</i></p> <p><i>Up to three projects may be funded</i></p> | <p>- Collaborative Project (a medium-scale focused research project targeted to SMEs).</p> <p>- The requested European Union contribution shall not exceed EUR 3 000 000 per proposal.</p> <p>- The extracted EU contribution going to SMEs shall be at least 30 % of the total requested EU contribution. This will be stated at the end of the negotiation, before signature of the Grant Agreement.</p> |
| | <p><i>KBBE 2013 2.3-02: Network for the transfer of knowledge on traditional foods to SMEs</i></p> <p><i>Up to two projects may be funded</i></p> | <p>- Coordination and Support Action (supporting action).</p> <p>- The requested European Union contribution shall not exceed EUR 4 000 000 per proposal.</p> |
| Area 2.2.4 Food quality and safety | <p><i>KBBE 2013 2.4-01: Assuring quality and authenticity in the food chain</i></p> <p><i>One project may be funded</i></p> | <p>- Collaborative Project (large-scale integrating project).</p> <p>- The requested European Union contribution shall not exceed EUR 9 000 000 per proposal.</p> |
| Area 2.2.5 Environmental impacts and total food chain | <p><i>KBBE 2013 2.5-01: Assessment of the impact of global drivers of change on Europe's food security</i></p> <p><i>One project may be funded</i></p> | <p>- Collaborative Project (small or medium-scale focused research project).</p> <p>- The requested European Union contribution shall not exceed EUR 4 000 000 per proposal.</p> |



| | | |
|--------------------------------------|--|--|
| | <p><i>KBBE 2013.2.5-01: Saving water and energy for resource-efficient food processing</i></p> <p><i>Up to three projects may be funded</i></p> | <ul style="list-style-type: none"> - Collaborative Project (large-scale integrating project targeted to SMEs) - The requested European Union contribution shall not exceed EUR 6 000 000 per proposal. - The estimated EU contribution going to SMEs shall be at least 20 % of the total requested EU contribution. This will be assessed at the end of the negotiation, before signature of the Grant Agreement. |
| Area 2.2.6 European Research Area | <p><i>KBBE 2013.2.6-01: Exploitation of results of Framework Programme projects in food, health and well-being by small and medium-sized enterprises</i></p> <p><i>Up to five projects may be funded</i></p> | <ul style="list-style-type: none"> - Collaborative Project (small or medium-scale focused research project targeted to SMEs) - The requested European Union contribution shall not exceed EUR 2 000 000 per proposal. - The estimated EU contribution going to SMEs shall be at least 75 % of the total requested EU contribution. This will be assessed at the end of the negotiation, before signature of |



Call eligibility conditions

| Funding scheme | Minimum conditions |
|--|---|
| Collaborative Projects | At least 3 independent legal entities, each of which is established in a MS or AC, and no 2 of which are established in the same MS or AC |
| Coordination and Support Actions (coordinating action) | At least 3 independent legal entities, each of which is established in a MS or AC, and no 2 of which are established in the same MS or AC |
| Coordination and Support Actions (supporting action) | At least 1 independent legal entity |





Evaluation>>> Negotiation>>> Grant Agreement

- Experts will carry out the individual evaluation of proposals remotely
- The evaluation criteria and scoring scheme are as follows
 - *Science and Technology Quality 3/5*
 - *Implementation 3/5*
 - *Impact 3/5*
 - *Overall threshold 10/15*
- Evaluation results 3 months after deadline
- Negotiation procedure/ Reserve List
- Grant Agreements Sep –Oct 2013



Other FP7 opportunities for Food related RTD

- **Health-** example: *"Optimising the delivery of healthcare to European citizens": cross- thematic approach with KBBE*
- **Energy-** example: *Enhancing exchange of information, synergies and cross-fertilisation between projects in the field of Biorefineries: cross- thematic approach with biotechnologies- agriculture-food, energy, environment and industrial technologies*
- **Environment-** example: *Integration of aquaculture and fisheries in the coastal zone; Importance of foraging fish in the ecosystem; Biomass from micro- and macro-algae for industrial applications*
- **Information and Communication technologies-** example: *Application-specific microsystems and smart miniaturised systems on food and beverage quality and safety*

COMPETITIVENESS AND INNOVATION PROGRAMME (MOLDOVA AND UKRAINE NON- ELIGIBLE)



Competitiveness and Innovation Programme (CIP)



- CIP aims to encourage the competitiveness of European enterprises
- **"Access to finance for SMEs through EU financial instruments"**
 - Targets companies in different phases of their lifecycle: seed, start up, expansion and business transfer; and will support investments in technological development, innovation, technology transfer, and the cross border expansion of business activities
- **"Eco-innovation"**: Innovative products, processes and services
- **"Intelligent Energy Europe"**: instruments for energy management, including auditing and benchmarking tools, especially for SMEs of the food and drink industry, dairy farming, etc.
- **"Enterprise Europe Network"**: information and networking
- **"Support for policy-making"**



€3,6 billion (2007-2013)

HORIZON 2020 (EUROPEAN NEIGHBOURHOOD POLICY COUNTRIES SUCH AS MOLDOVA AND UKRAINE WILL BE ELIGIBLE FOR ASSOCIATION)



- The new 80 billion euro research and innovation funding programme (2014-2020)
- A single programme bringing together three separate programmes/ initiatives *
- Coupling research to innovation – from research to retail, all forms of innovation
- Focus on societal challenges facing EU society, e.g. health, clean energy and transport
- Simplified access, for all companies, universities, institutes in all EU countries and beyond

*The 7th Research Framework Programme (FP7), Innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)



Three priorities:

1. Excellent science

2. Industrial leadership

3. Societal challenges



1. Excellent science, Proposed funding (million euro, 2014-2020)

| | |
|---|--------|
| European Research Council Frontier research by the best individual teams | 13 268 |
| Future and Emerging Technologies Collaborative research to open new fields of innovation | 3 100 |
| Marie Curie actions Opportunities for training and career development | 5 572 |
| Research infrastructures (including e-infrastructure) Ensuring access to world-class facilities | 2 478 |





2. Industrial leadership, Proposed funding (million euro, 2014-2020)

| | |
|---|--|
| Leadership in enabling and industrial technologies (ICT, nanotechnologies, materials, biotechnology, manufacturing, space) | 13 781 |
| Access to risk finance Leveraging private finance and venture capital for research and innovation | 3 538 |
| Innovation in SMEs Fostering all forms of innovation in all types of SMEs | 619 complemented by 6 829 (expected 15% of societal challenges + LEIT) and 'Access to risk finance' with strong SME focus |

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3. Societal challenges, Proposed funding (million euro, 2014-2020)

| | |
|--|-------|
| <i>Health, demographic change and wellbeing</i> | 8 033 |
| <i>Food security, sustainable agriculture, marine and maritime research & the bioeconomy</i> | 4 152 |
| <i>Secure, clean and efficient energy*</i> | 5 782 |
| <i>Smart, green and integrated transport</i> | 6 802 |
| <i>Climate action, resource efficiency and raw materials</i> | 3 160 |
| <i>Inclusive, innovative and secure societies</i> | 3 819 |

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Simplification: Rules for Participation



1. A single set of rules

- Adapted for the whole research and innovation cycle
- Covering all research programmes and funding bodies
- Aligned to the Financial Regulation, coherent with other new EU Programmes

2. One project – one funding rate

- Maximum of 100% of the total eligible costs (except for actions close to market, where a 70% maximum will apply)
- Indirect eligible costs: a flat rate of 20% of direct eligible costs

3. Simple evaluation criteria

- Excellence – Impact – Implementation (Excellence only, for the ERC)

4. New forms of funding aimed at innovation: pre-commercial procurement, inducement prizes, dedicated loan and equity instruments

5. International participation: facilitated but better protecting EU interests



Simplification: Rules for Participation



6. Simpler rules for grants: broader acceptance of participants accounting practices for direct costs, flat rate for indirect costs, no time-sheets for personnel working full time on a project, possibility of output-based grants


7. Fewer, better targeted controls and audits

- Lowest possible level of requirements for submission of audit certificates without undermining sound financial management
- Audit strategy focused on risk and fraud prevention

8. Improved rules on intellectual property

- Balance between legal security and flexibility
- Tailor-made IPR provisions for new forms of funding
- A new emphasis on open access to research publications





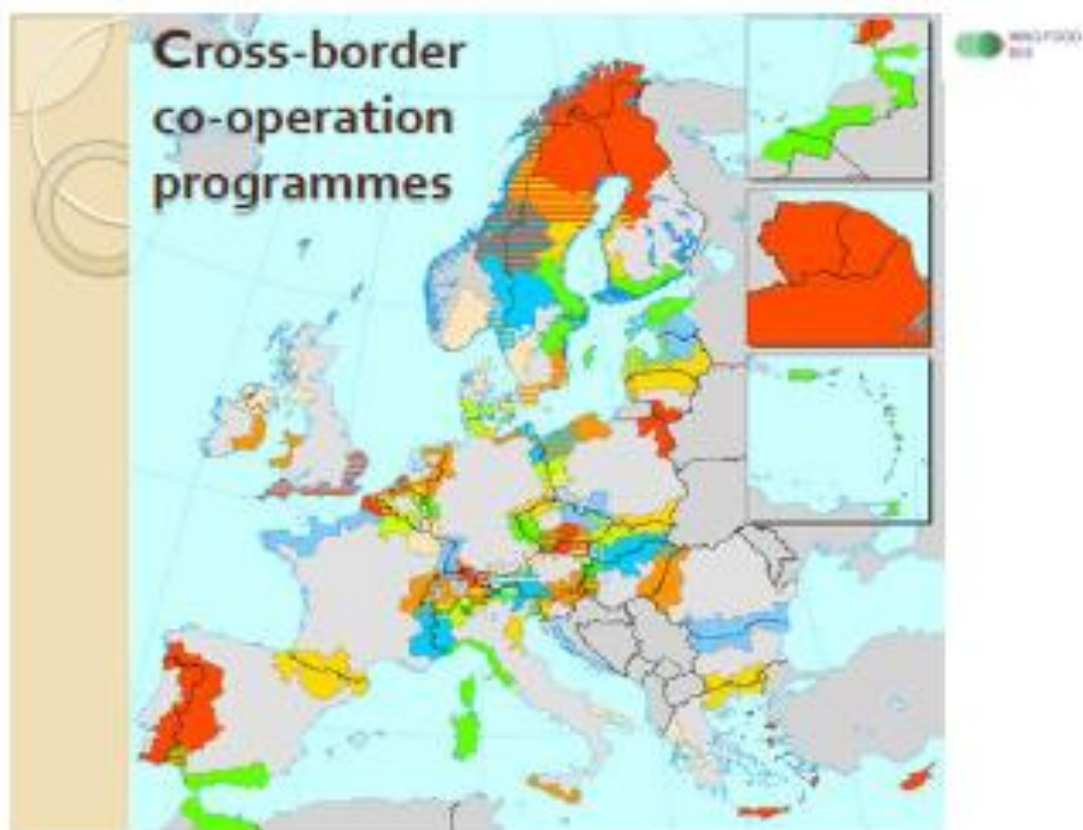
TERRITORIAL COOPERATION PROGRAMMES



Territorial Cooperation Programmes



- **Cross-border co-operation programmes:** encouraging entrepreneurship, linking universities to business
- **Transnational co-operation programmes:** Innovation, especially networks of universities, research institutions, SMEs
- **Interregional co-operation programme (INTERREG IVC):** Innovation and the Knowledge Economy. Develop good practice and facilitate the exchange and transfer of experience by successful regions



• VARIOUS EUROPEAN INITIATIVES IN SUPPORT OF FOOD INNOVATION



ETP Food for Life addresses innovation in the agri-food sector, which is the largest manufacturing sector within the EU.

- Linking industry, academia and researchers
- Prioritise the major research needs for the EU food and drink industry and secure the appropriate indicated what resources might be needed
- Ensure the European Research Area for the food sector becomes a reality.

The ETP Food for Life represents a unique opportunity for all stakeholders in the European food chain to increase their competitive strength and to safeguard the continued well-being and welfare of consumers across Europe.

<http://etp.fooddrinkseurope.eu/asp/index.asp>



Other European Technology Platforms relevant to Food

A framework for stakeholders, led by industry, to define research and development priorities, timeframes and action plans on a number of strategically important issues where achieving Europe's future growth, competitiveness and sustainability objectives is dependent upon major research and technological advances in the medium to long term.

- ✓ Global Animal Health TP
- ✓ MANUFUTURE- Agricultural Engineering and Technologies TP
 - ✓ Sustainable Farm Animal Breeding and Reproduction TP
 - ✓ European Aquaculture TP
 - ✓ Plants for the Future TP



The Food Cluster Initiative



- Inno- Food SEE participates in a European network of 10 support action project (29 regions from 17 countries)
- Objective: to create a European research cluster for Food
- Development and implementation of strategy for research in Food at a regional and national level
- Networking and exchange of experience
- Better access to funding opportunities of FP7, CIP, Structural Funds and Territorial Cooperation Programmes



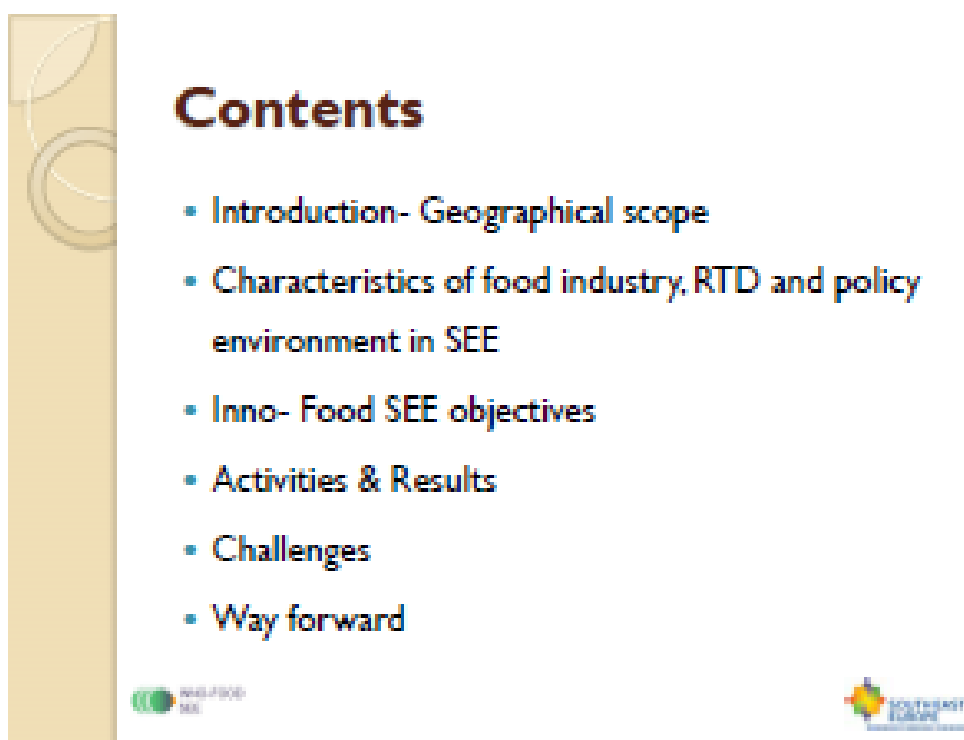
<http://www.foodclusterinitiative.eu>



Useful Links

- http://cordis.europa.eu/fp7/kbbe/home_en.html
- http://ec.europa.eu/cip/index_en.htm
- http://ec.europa.eu/regional_policy/cooperation/index_en.htm
- http://cordis.europa.eu/technology-platforms/individual_en.html

5.3 FOOD INNOVATION CLUSTERING IN THE SOUTH- EAST EUROPE AREA- THE INNO- FOOD SEE PROJECT



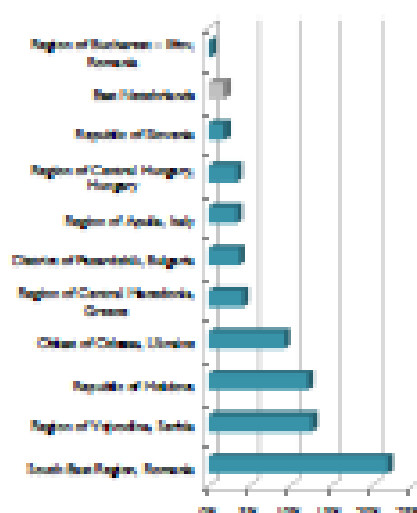


SEE regions- General Characteristics

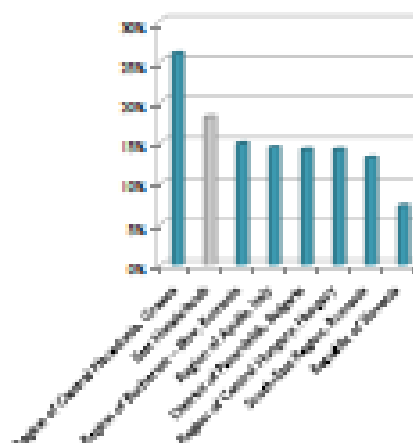
- Older EU member states/ New Member States (accession 2004- 2007)/ Associated Countries
- **Similarities and disparities** in the structure of the economy and the efficiency of RTD and business policy
- **GDP per capita** ranges from 1,500€ in Moldova to 17,900€ in C. Macedonia- Greece (EU27 average 23,500 €)
- **Unemployment** ranges from 5.4% (Bucharest- Ilfov) up to 20% in C. Macedonia-Greece and Vojvodina-Serbia

Agricultural and food industry statistics

Primary sector GDP share



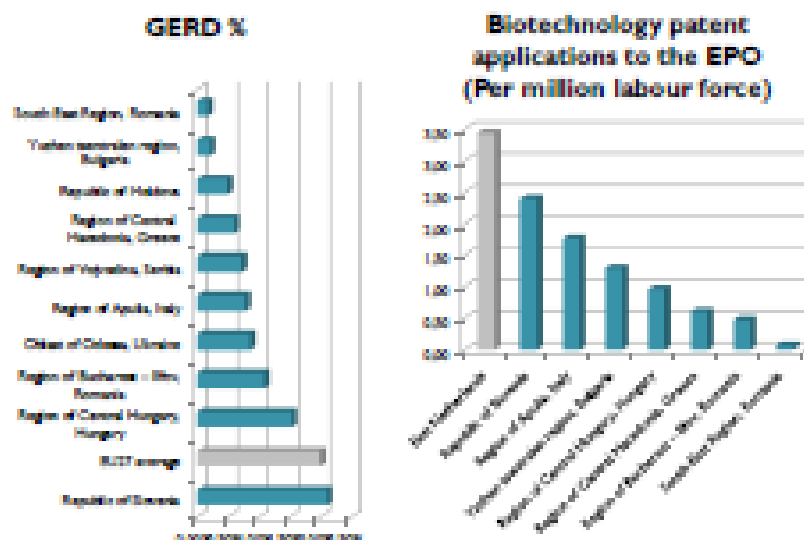
Share of employment of the food and beverages industry in manufacturing total



Agricultural and food industry

- Share of agriculture in total **employment** ranges from 1% (Bucharest- Ilfov) to 28% (Moldova)
- **Limited exports** despite the significant share in national GDP
- **Specialisation** in food products: fruits, wine, industrial crops, cereals, dairy, meat and animal products

Research statistics



Regional Innovation Performance, (RIS 2009)

Medium- High Innovators

- Slovenia

Average Innovators

- Central Hungary

Medium- Low Innovators

- Central Macedonia
- Puglia
- Bucharest - Ilfov
- Serbia (Innovation Union Scoreboard)

Low Innovators

- Pazardzhik
- South-East Region, Romania
- Ukraine (based on other comparative studies)
- Moldova (based on other comparative studies)

From RAF Regions to Inno- Food SEE



- 3 regions, 12 partners
- FP7- Regions of Knowledge project (2008-2010)
- www.raf-regions.eu



- 9 regions, 12 partners
- Enhanced scope, more focused activities
- SEE Territorial cooperation project (2011-2013)
- www.innofoodsee.eu



Inno- Food SEE Objective

To set up the appropriate mechanisms that will facilitate the exchange and coordination of innovation approaches and policies for the food sector and to increase awareness on the importance of food innovation for the wider SEE area



| Partners | |
|--|---|
|  | Lead Partner Centre For Research And Technology Hellas – Institute Of Applied Biosciences, (IGTAT/IRMA) Greece |
|  | Federation Of Industries Of Northern Greece, (GIVE) Greece |
|  | National Research Council – Institute Of Sciences Of Food Production, (ICNPISPA) Italy |
|  | Agricultural University Of Plovdiv, (AUPI) Bulgaria |
|  | Pazardzhik Regional Administration, (OAR) Bulgaria |
|  | National Institute Of Research & Development For Food Biosources, (IBAB) Romania |
|  | Constanta Chamber Of Commerce, Industry, Shipping And Agriculture, (CCIAA) Romania |
|  | The Development Agency of Istria and Centria, (OIRA) Slovenia |
|  | European Food Chain Parliament-FoodInnvent, (EFCP) Hungary |
|  | Odessa National Academy of Food Technologies, (ONAFIT) Ukraine |
|  | Chamber Of Commerce and Industry of The Republic Of Moldova, (CCRIA) Republic of Moldova |
|  | Institute For Food Technology, (IFT) Serbia |

Key Activities I

Profiling of food RTD entities and food SMEs

Mapping and assessment of policies, for food innovation in each region

SWOT analysis for food innovation development and assimilation capacity

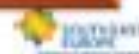
Key Activities II

Training of SMEs,
researchers and students

Feasibility studies for food
innovation support
investments

Regional plans for
AgroFood RTD

Raising public awareness
on food innovation and
benefits



Key Activities III

Dissemination of project
objectives & results

Cooperation with other EU
projects & initiatives :
participation in Food
Cluster Initiative, links
with other projects

Furthering food RTD and
innovation cooperation
(proposals submitted in
various EU programmes)



Autonomy of Regional RTD policy

- **Puglia- IT:** some autonomy in development of regional RTD policy and implementation of measures
 - *ARTI (research agency) & DARE (food cluster)*
- **C. Macedonia- GR:** transition phase to a more independent decision and implementation system
- **Bulgaria, Romania, Slovenia, Hungary:** mostly centralised system
- **Serbia, Moldova & Ukraine:** centralised system



Types of RTD policy measures

| | Grants for RTD co-operation | Tax and financial incentives for innovation | IPR support for the recruitment of researchers | Training of researchers | Development of Innovation Clusters | Development of business parks and incubators |
|--|-----------------------------|---|--|-------------------------|------------------------------------|--|
| Region of Central Macedonia, Greece | ✓ | ✓ | ✓ | | ✓ | |
| Region of Apulia, Italy | ✓ | ✓ | ✓ | ✓ | ✓ | |
| District of Pazardzhik, Bulgaria | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Region of Bucharest – Ilfov and South-East Region, Romania | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Republic of Slovenia | ✓ | ✓ | | ✓ | | ✓ |
| Region of Central Hungary, Hungary | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Region of Vojvodina, Serbia | ✓ | | ✓ | ✓ | | ✓ |
| Oblast of Odessa, Ukraine | ✓ | | | | | ✓ |
| Republic of Moldova | ✓ | | | ✓ | | ✓ |

Assessment of innovation framework conditions I

- **Public investment in knowledge** in the regions is below EU average (with the exception of Slovenia); the relevant financing mechanisms are irregular and problematic;
- The **quality of research** is of international standards in some regions (Central Macedonia, Puglia, Slovenia); however food related research is not as much developed and it is more inclined to basic than applied research;



Assessment of innovation framework conditions II

- **Private RTD investments** are low; the interaction between knowledge entities and the industry needs to be enhanced;
- **Commercialization of research results** as evident from IPR indicators and number of EPO patents is coming short of international standards;



Assessment of innovation framework conditions III

- Highly skilled **personnel in industry** is not sufficient and lifelong learning indicators are falling back;
- Significant drawbacks are evident in **Innovation Finance and Market Conditions** (subsidies and tax incentives for R&D, pre-commercial procurement procedures, competition barriers).

...develop an Action Plan to target the challenges posed by the limitations of the framework conditions...



Way forward- Critical success factors for the clusters I

A clear vision and benefit for everyone involved communicated from the start

All involved parties committed and willing to invest time and resources

Different levels of autonomy in decision making require different approach



Way forward- Critical success factors for the clusters II

Great benefit from association with mature international clusters

Pilot actions with tangible and early results give impetus and provide incentive for stakeholders

A dedicated management body should coordinate the activities in the long term



Thank you!



5.4 SWOT ANALYSIS FOR FOOD INNOVATION



SWOT analysis for food innovation



SWOT Objective

*To identify and evaluate the Strengths, Weaknesses, Opportunities and Threats that concern the **development, transfer and adoption of knowledge and research results from the Food Industry** and the possible obstacles and impediments in this process*



Definition and Focus

- A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis is a strategic planning method used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a project, an entity or in another context
- Our focus is dual and related to food innovation:
 - a) the capacity of the regional food industry to innovate and/ or to absorb research results and
 - b) the capacity of the regional food- related RTD entities to develop and adapt relevant and added- value research results for commercial use



SWOT analysis/ SOR Matrix

| SWOT analysis Matrix | | External Environment | |
|----------------------|------------|--|---|
| | | Opportunities | Threats |
| Internal Environment | Strengths | How do you leverage your strengths to the benefit of your opportunities? | How do you use your strengths to minimize the impact of threats? |
| | Weaknesses | How do you ensure your weaknesses will not stop you from opportunities? | How will you fix weaknesses that can make threats have a real impact? |



| Strengths | Weaknesses |
|---|--|
| 1. Open exchange of experience in research and technology development (18 responses) 2. Highly skilled personnel (12 responses) 3. Public-private cooperation (10 responses) 4. Strong research base (9 responses) 5. Increasing number of collaboration with firms (8 responses) | 1. Not enough start ups (10 responses) 2. Low size of budget for R&D (9 responses) 3. Poor linkage between firms and research entities (7 responses) 4. Weak understanding between researchers and industry complicates joint projects (8 responses) 5. Lack of formal collaboration between actors (5 responses) |
| Opportunities | Threats |
| 1. New R&D European and regional programmes (15 responses) 2. Networking (14 responses) 3. Availability of EU R&D funds for research (12 responses) 4. Surplus of well educated researchers (8 responses) 5. Increasing demand for more/better varieties (4 responses) | 1. Bureaucracy barriers (18 responses) 2. Funding programmes to support research with content far from current research interests (9 responses) 3. Failure to attract international researchers (9 responses) 4. Brain drain (8 responses) 5. Few incentives for university researchers to engage in collaboration with the industry (8 responses) |



Critical issues

- It is important to distinguish between the SWOTs for SMEs and SWOTs for RTD entities
- It is also important to distinguish between the
 - *Internal Environment* (Strengths and Weaknesses, i.e. things that one CAN directly influence positively or negatively) and
 - *the External Environment* (Opportunities and Threats, i.e. things that , i.e. things that one CANNOT directly influence positively or negatively)



Strategic Orientation Rounds (SOR) for policy development

- Used in order to *prioritize* the S, W, O, T items and to arrive to valid strategies for strengthening Food RTD and Innovation in the region
- 10-15 individuals from each region/ country (food SMEs, RTD entities, other types of entities such as business and innovation support entities, regional authority representatives, technology consultants, etc.)



Strategic Orientation Rounds (SOR) for policy development

- Explain the scope of the activity and its significance
- Present the 2 SWOTs (SME and RTD) and explain their meaning
- Ask them to vote the *relevance/ significance* of the interactions of S, W, O, T items. A score is attributed to the O's and T's, to the extent that they deem that this relates to the maximisation of S's and the confrontment of W's
 - 3: very important, 2 important, 1: somehow important, 0: Not important/ not relevant
- A maximum of 12 votes per O & T can be allocated



Strategic Orientation Rounds (SOR) for policy development

- Ask them to distribute votes
- Ask them to present their votes (by groups) and initiate a discussion to talk about the combinations and the rationale behind them
- Ask them to post their final votes
- Aggregate SOR results



| | | Opportunities | | | | | Threats | | | | | |
|------------|----|---------------|-----|-----|----|----|---------|-----|----|----|----|-----|
| | | O1 | O2 | O3 | O4 | O5 | T1 | T2 | T3 | T4 | T5 | |
| Strengths | S1 | 16 | 15 | 15 | 14 | 5 | 10 | 12 | 12 | 2 | 1 | 102 |
| | S2 | 16 | 9 | 12 | 9 | 7 | 3 | 7 | 11 | 7 | 13 | 94 |
| | S3 | 19 | 11 | 8 | 13 | 9 | 5 | 4 | 17 | 10 | 6 | 102 |
| | S4 | 19 | 15 | 8 | 12 | 4 | 12 | 16 | 10 | 7 | 8 | 111 |
| | S5 | 10 | 10 | 6 | 9 | 4 | 3 | 5 | 8 | 8 | 19 | 82 |
| Weaknesses | W1 | 9 | 14 | 14 | 4 | 9 | 7 | 14 | 4 | 17 | 5 | 97 |
| | W2 | 8 | 12 | 14 | 3 | 15 | 6 | 14 | 5 | 10 | 2 | 89 |
| | W3 | 4 | 12 | 14 | 7 | 10 | 13 | 12 | 4 | 16 | 10 | 102 |
| | W4 | 10 | 6 | 7 | 4 | 4 | 11 | 8 | 8 | 3 | 6 | 67 |
| | W5 | 7 | 6 | 11 | 6 | 8 | 5 | 8 | 3 | 14 | 12 | 80 |
| | | 118 | 110 | 109 | 81 | 75 | 75 | 100 | 82 | 94 | 82 | |



Interpretation of SOR matrix

| Score | What does it tell us? | What to do with it? |
|-----------------------------|---|---|
| Total scores per S, W, O, T | How important the different S's, W's, O's and T's are | Strategy is aimed towards taking maximum benefit of external factors: therefore build strategy around the 2 or 3 most important O's and T's. |
| Score per combination | How important the O or T is to deal with S or W | Develop strategic objectives which deal with the combinations with the highest scores |
| Total scores per quadrant | What the general prospects are | <p>High S-O: attach, the chances are good</p> <p>High S-T: defence, we have the power to deal with the threats</p> <p>High W-O: clean ship or reorientation, work on the weaknesses to take benefit of present opportunities</p> <p>High W-T: crisis situation, the threats are serious and we don't have the means to deal with them</p> |



Strategy

| | Opportunities | Threats |
|------------|----------------------|----------------|
| Strengths | Attack 275 | Defence 216 |
| Weaknesses | Reorientation 218 | Crisis 217 |



Policy recommendations

- *“Reinforcing the cooperation among the RTD entities at a national level as well as their cooperation with those at a European level in order to exploit existing and future RTD programmes and efficiently confront the competition from the New Member States”*
- *“Exploiting the research potential of the Region’s RTD institutes (good infrastructure and human capital) by furthering their participation in existing and future RTD programmes”*
- *“Adapting the academic curricula in order to match the current research and industry needs thus enabling the Academic institutions and research centers to continue feeding with skilled researchers”*

