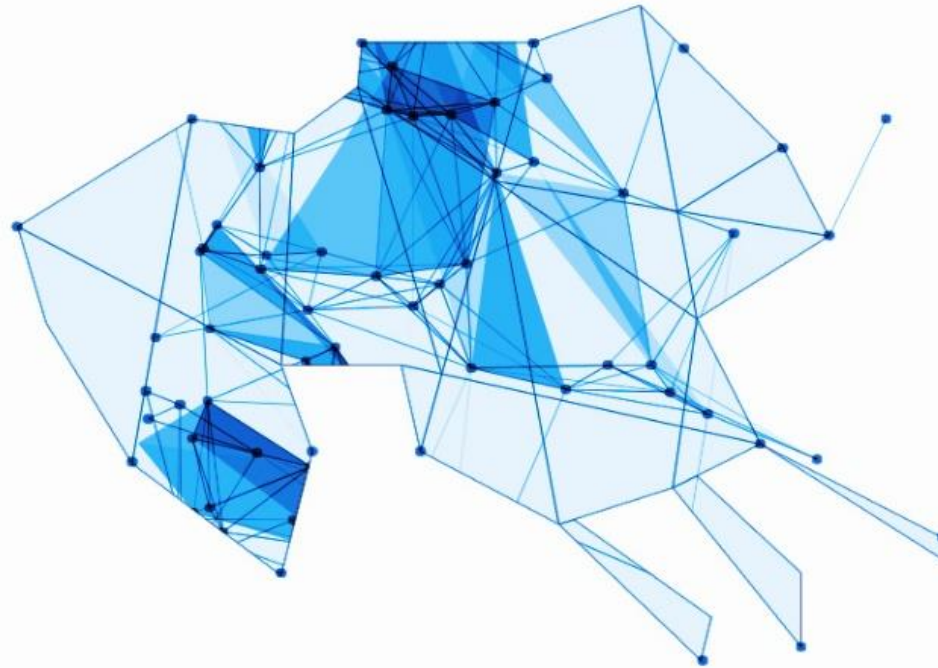


ERIAFF CONFERENCE

June 13th 2018 | Seinäjoki, Finland

FOOD, GASTRONOMY AND NEW TECHNOLOGIES



REGION OF
**CENTRAL
MACEDONIA**
GREECE

ERIAFF (EUROPEAN REGIONS FOR INNOVATION IN AGRICULTURE, FOOD AND FORESTRY)

- The Region of Central Macedonia is a full member of ERIAFF.
- On the 23rd of January 2018, RCM has signed an Expression of Interest with the ERIAFF leader (Region of Tuscany). One of the basic thematic areas of this EOI is the full support of ERIAFF.
- RCM together with the Province of North Brabant (NL) are ERIAFF thematic leaders (gastronomy and culture in Agri-Food).
- In the context of the above ERIAFF thematic area (gastronomy and culture in Agri-Food), the Region of Central Macedonia in collaboration with the Province of North Brabant are working on an interregional partnership concerning the topic of “Food, Gastronomy and new Technologies”.

“FOOD, GASTRONOMY AND NEW TECHNOLOGIES” INTERREGIONAL PARTNERSHIP.



Partnership:

- Region of Central Macedonia, Greece
- Province of North Brabant, Netherlands
 - Agri-Food Capital, Netherlands
 - Region of Tuscany, Italy
 - Region of Friuli Venezia Giulia, Italy
- Parco Agroalimentare di San Daniele, Friuli Venezia Giulia, Italy
 - Abruzzo Region, Italy
 - Regional Council of Lapland, Finland
- Maribor Development Agency, Podravje Region, Slovenia
- Alfred Nobel Science Park AB, Orebro Region, Sweden

Many other Regions have expressed their interest to participate in the proposed mapping.

“FOOD, GASTRONOMY AND NEW TECHNOLOGIES” INTERREGIONAL PARTNERSHIP. OBJECTIVES:



- To map and analyze the current situation of the participating Regions concerning the local, traditional and gastronomic products, the technologies and innovations.
- The mapping analysis will be exploited under the platform to promote synergies and cooperation, particularly for Technology Readiness Level (TRL) around and over 4 in order to boost interregional innovation, cooperation and economic impact based on local, traditional and gastronomic food products in the concept of healthier food offer for the satisfaction of targeted consumer groups' needs.

“FOOD, GASTRONOMY AND NEW TECHNOLOGIES” INTERREGIONAL PARTNERSHIP. REGION OF CENTRAL MACEDONIA AND PROVINCE OF NORTH BRABANT.

Mapping Methodology

The mapping methodology is organized in two distinct steps:

- The 1st one will collect the traditional-gastronomic products each region has and wants to improve and the technology offers that regions have to facilitate those improvements.
- The picture that will emerge from the 1 st mapping (product and technology mapping questionnaires), will be used to finalize a 2nd detailed interregional mapping analysis that will identify areas of interregional cooperation, the potential for new products and services and finally investment projects with dynamic value.

"FOOD, GASTRONOMY AND NEW TECHNOLOGIES"

MAPPING 1A:



| | | | | | | | | | | | | | | | | | | | | | |
|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| REGION: | | | | | | | | | | | | | | | | | | | | | |
| CONTACT PERSON: | | | | | | | | | | | | | | | | | | | | | |
| POSITION: | | | | | | | | | | | | | | | | | | | | | |
| EMAIL: | | | | | | | | | | | | | | | | | | | | | |
| TEL: | | | | | | | | | | | | | | | | | | | | | |
| SKYPE ID: | | | | | | | | | | | | | | | | | | | | | |

Mapping 1A : To be filled by each REGION

| Local/Traditional/Unique/Different/Specialty Food and Gastronomy Product (name the food and gastronomical products that you have) | | | | | | | | | | | | | |
|---|------------------------|---------------------------------|---------------|--|--|---------------------------|-----------------------------|---|---------------|------------------------|---------------|--|---|
| Indicative categories (FAO) | Meat and Meat Products | Dairy Products (including eggs) | Fats and oils | Cereals and cereal products & Bakery wares | Fruits/Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds | Beverages and edible ices | Sweeteners, including honey | Fisheries, aquaculture and marine products, including mollusks, crustaceans , echinoderms algae | Prepared food | Ready-to-eat savouries | Confectionery | Salts, spices, soups, sauces, salads, protein products | Foodstuffs intended for particular nutritional uses |
| | | | | | | | | | | | | | |
| Name and product description: | Product 1: | | | | | | | | | | | | |
| | Product 2: | | | | | | | | | | | | |
| | Product 3: | | | | | | | | | | | | |
| | Product 4: | | | | | | | | | | | | |
| | Product 5: | | | | | | | | | | | | |

“FOOD, GASTRONOMY AND NEW TECHNOLOGIES”

MAPPING 1B:

| Mapping exercise | | Food, Gastronomy and New Technologies | | | |
|--|---|---|--|---|--|
| Mapping 1B: To be filled by each REGION and the REGION's STAKEHOLDERS | | | | | |
| | | Food technology | Multi-omics technology | ICT/Digital technology | Consumer technology |
| | | Nano technologies, mircoencapsulation, optical - spectroscopy, chromatography, food texture technologies, packaging - sterilization, processing i.e. 3D printing, starter culture and fermentation technologies (*), (**) | Genomics, Metabolomics, Metagenomics applied on both Food Systems and Human Nutrition and HealthPhenomics to select, produce genetic material, characterize the proprieties of food products (*)(**) | Bioinformatics, GIS, apps, big data analytics, databases, blockchain technologies,digital technologies for enhacement of preception, , Digital footprints collection, Augmented reality & Proximity, Digital Sensorial profiles, User generated contents as a new vision, Data standardization, Sense able spaces for food-gastronomical destinations (*)(**) | Studies, monitoring tools, promotion tools, elearning, masterclasses, apps, social media, customers and marketing tools, customers and marketing (*)(**) |
| Life stage | Babies, toddlers, teenagers, elderly | | | | |
| Activity based | Sport, work, leisure | | | | |
| Nutrition related morbidities | Obesity, diabetes, cardiovascular etc. | | | | |
| Social and Lifestyle | Religion (Kosher, Halal etc), Foodies, Vegan etc. | | | | |
| (*) Please provide in the field 1) A short description of the technology and area of application 2) the TRL level (pref. more or equal to TRL4) 3) The provider name (academic/research entity, company etc.) 4) List of other possible applications | | | | | |
| (**) In the case you have more than one technology per technology area (Food technology,Multi-omics technology, ICT/Digital technology, Consumer technology) please add more fields. | | | | | |

“FOOD, GASTRONOMY AND NEW TECHNOLOGIES” MAPPING 1A, EXAMPLE

Mapping 1A : To be filled by each REGION

| Local/Traditional/Unique/Different/Specialty Food and Gastronomy Product (name the food and gastronomical products that you have) | | | | | | | | | | | | | |
|---|------------------------|---|---|--|--|---|------------------------------|--|--|---|---------------|--|---|
| Indicative categories (FAO) | Meat and Meat Products | Dairy Products (including eggs) | Fats and oils | Cereals and cereal products & Bakery wares | Fruits/Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds | Beverages and edibles | Sweeteners, including honey | Fisheries, aquaculture and marine products, including mollusks, crustaceans, echinoderms algae | Prepared food | Ready-to-eat savouries | Confectionery | Salts, spices, soups, sauces, salads, protein products | Foodstuffs intended for particular nutritional uses |
| | | | | | | | | | | | | | |
| Name and product description: | Product 1: | SALUMI FRESCHI e STAGIONATI (fresh and seasoned salami) | FORMAGGIO (traditional raw and pasteurized milk cheese) | | PANE (bread) | CONSERVE ACIDE O ACIDIFICATE PASTORIZZATE (acid/acidified canned foods pasteurized) | SUCCHI (fruit juices) | MIELE (honey) | FILETTO DI TROTA FRESCO (fresh soft water trout) | PREPARATO PER MINESTRONE (mix of vegetables for soup) | | ERBE ALIMURGICHE SECCHE O SALATE (dried or salt spontaneous herbs) | |
| | Product 2: | ROTOLO DI AVI/CUNICOLI (roll of chicken/rabbit) | BURRO (butter) | | TORTA NON FARCITA DOPO COTTURA (cake without filling after cooking) | VEGETALI FERMENTATI (fermented vegetables) | SCIROPPI (syrups) | IDROMELE (honey wine) | | POLENTA (polenta) | | | |
| | Product 3: | BUSTO DI POLLO e CONIGLIO INTERO (whole chicken and whole rabbit) | RICOTTA (ricotta cheese) | | TORTE SALATE (salaty pie) | FRUTTA SECCA (nuts) | NETTARI (nectars) | ACETO DI MIELE (honey vinegar) | | FRICO (cheese and potatoes pie) | | | |
| | Product 4: | LUMACHE (snails) | | | PIZZA (pizza) | | | MIELE CON FRUTTA SECCA (honey with dry nuts) | | | | | |
| | Product 5: | | | | FOCACCE (flat bread) | | Vino e birra (wine and beer) | | | | | | |

“FOOD, GASTRONOMY AND NEW TECHNOLOGIES” MAPPING 1B, EXAMPLE

| | | Food technology | Multi-omics technology | ICT/Digital technology | Consumer technology |
|----------------|--------------------------------------|--|--|--|--|
| | | Nano technologies, mircoencapsulation, optical - spectroscopy, chromatography, food texture technologies, packaging - sterilization, processing i.e. 3D printing, starter culture and fermentation technologies (*), (**) | Genomics, Metabolomics, Metagenomics applied on both Food Systems and Human Nutrition and Health Phenomics to select, produce genetic material, characterize the proprieties of food products (*)(**) | Bioinformatics, GIS, apps, big data analytics, databases, blockchain technologies, digital technologies for enhancement of preception, Digital footprints collection, Augmented reality & Proximity, Digital Sensorial profiles, User generated contents as a new vision, Data standardization, Sense able spaces for food-gastronomical destinations (*)(**) | Studies, monitoring tools, promotion tools, elearning, masterclasses, apps, social media, customers and marketing tools, customers and marketing (*)(**) |
| Life stage | Babies, toddlers, teenagers, elderly | Description: 1. Development of functional foods with tailored nutritional properties and delivering bioactives/probiotics. Area of application: Meat and Meat Products + Dairy Products + Cereals and cereal products & Bakery wares + Fruits/Vegetables + Beverages + Aquaculture products. TRL: TRL of bioactive and probiotic functional food is between 5 and 6, depending on the target molecule/food. Provider: FVG Region + Regional University + companies | Description: 1. Study of nutrigenomics of functional compounds in Teenagers and Elderly; 2. Membrane lipidomics (mass spectrometry based lipid analysis) for personalized health; 3. SNPs genotyping for genetic of taste perception. Area of application: Meat and Meat Products + Dairy Products + Cereals and cereal products & Bakery wares + Fruits/Vegetables + Beverages + Aquaculture products + Sweeteners, including honey + Prepared food + Salts and spices. TRL: TRL of nutrigenomics, membrane lipidomics and SNPs genotyping is between 2 and 3. Provider: FVG Region + Regional University + companies | Description: 1. Development of technologies to digitalise food processing data, food analytical and sensory data, food label data to identify possible correlations allowing the improvement of quality and stability control. Area of application: Meat and Meat Products + Dairy Products + Cereals and cereal products & Bakery wares + Fruits/Vegetables + Beverages + Aquaculture products + Sweeteners, including honey + Prepared food + Salts and spices. TRL: TRL of development of technologies to digitalise is between 6 and 7. Provider: FVG Region + Regional University + companies | Description: 1. Evaluation of the attitude of consumers towards food/process innovation. Area of application: Meat and Meat Products + Dairy Products + Cereals and cereal products & Bakery wares + Fruits/Vegetables + Beverages + Aquaculture products + Sweeteners, including honey + Prepared food + Salts and spices. TRL: TRL of evaluation of the attitude of consumers is between 6 and 7. Provider: FVG Region + Regional University + companies |
| Activity based | Sport, work, leisure | Description: 1. Development of functional foods with high content in proteins and minerals. Area of application: Meat and Meat Products + Dairy Products + Cereals and cereal products & Bakery wares + Fruits/Vegetables + Beverages + Aquaculture products + Prepared food + Salts and spices. TRL: TRL of high content in proteins and minerals in food is between 5 and 6. Provider: FVG Region + Regional University + companies | Description: 1. Study of nutrigenomics of functional compounds for sport and leisure; 2. Membrane lipidomics (mass spectrometry based lipid analysis) for personalized health; 3. SNPs genotyping for genetic of taste perception. Area of application: Meat and Meat Products + Dairy Products + Cereals and cereal products & Bakery wares + Fruits/Vegetables + Beverages + Aquaculture products + Sweeteners, including honey + Prepared food + Salts and spices. TRL: TRL of nutrigenomics, membrane lipidomics and SNPs genotyping is between 2 and 3. Provider: FVG Region + Regional University + companies | Description: 1. Development of technologies to digitalise food processing data, food analytical and sensory data, food label data to identify possible correlations allowing the improvement of quality and stability control. Area of application: Meat and Meat Products + Dairy Products + Cereals and cereal products & Bakery wares + Fruits/Vegetables + Beverages + Aquaculture products + Sweeteners, including honey + Prepared food + Salts and spices. TRL: TRL of development of technologies to digitalise is between 6 and 7. Provider: FVG Region + Regional University + companies | Description: 1. Evaluation of the attitude of consumers towards food/process innovation. Area of application: Meat and Meat Products + Dairy Products + Cereals and cereal products & Bakery wares + Fruits/Vegetables + Beverages + Aquaculture products + Sweeteners, including honey + Prepared food + Salts and spices. TRL: TRL of evaluation of the attitude of consumers is between 6 and 7. Provider: FVG Region + Regional University + companies |

NEXT STEPS OF THE INTERREGIONAL PARTNERSHIP (FOOD, GASTRONOMY AND NEW TECHNOLOGIES):

- Analysis and Synthesis of the mapping feedback.
- Organization of a stakeholders meeting. The most likely date of this meeting is in the autumn of 2018.
- Proposals for an effective B2B cooperation.
- Establishment of potential pilot projects through interregional cooperation on “Food, Gastronomy and new Technologies”.

RCM's PARTICIPATION IN OTHER AGRI-FOOD INTERREGIONAL PARTNERSHIPS



- RCM is participating in the “HIGH TECH FARMING” partnership under the European S3 Agri-Food Platform. The leader of this partnership is the Region of Tuscany from Italy.
- RCM is participating in the “NUTRITIONAL INGREDIENTS” partnership under the European S3 Agri-Food Platform. The leader of this partnership is Wallonia from Belgium.
- RCM is participating in the “TRACEABILITY & BIG DATA” partnership under the European S3 Agri-Food Platform. The leader of this partnership is Andalusia from Spain.
- The Region of Central Macedonia and the Province of North Brabant (NL) have submitted the “Food, Gastronomy and new Technologies” concept and partnership as a proposal to the European S3 Agri-Food Platform.
- RCM is participating in an INTERREG EUROPE project which is dealing with “Rural – urban partnerships motivating regional economies” (RUMORE). This project enhances the delivery of innovation by improving innovation chains between rural and urban stakeholders and by supporting the better use of synergies between urban and rural areas.

THANK YOU!

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Region of Central Macedonia

Regional Development Fund

Greece



Region of Central Macedonia
European Entrepreneurial Region 2018