

Information meeting – BERRY+ initiative

The 29th of November 2022

10:00 - 11:30 CET

- on-line

→ Nature:

The meeting of the business and clusters representatives from Malopolska Region and representatives of Berry+ partnership.

→ Goal:

The meeting is aimed at providing information about the initiative and enabling cooperation between entities.

→ Opportunities and benefits:

Participants of the meeting will receive a package of detailed information on BERRY+, in particular, the benefits of joining the initiative will be discussed as well as the multilevel cooperation approach.

Agenda

10.00	Introduction to the meeting	Piotr Piwowarczyk
10.02	Meeting goals and expected achievements	Agnieszka Bachórz Jouni Ponnikas
10.10	BERRY+ initiative – assumptions, objectives, structure of cooperation, methodology	Nientta Chaniotou
10.20	BERRY+ VC thematic group – brief summary	Piotr Piwowarczyk
10.25	In-shoring (strengthening the economic specialization base) by exploring forest industry side streams and in parallel, constantly reinforcing the research-niche specialization (measurement technology and bio-based industries)	Jouni Ponnikas
10.35	Re-shoring and in-shoring in Uusimaa (anti-ageing cosmetics and renewable and recyclable textiles); localization/specialization and internationalization facilitation by the current Structural Funds calls. Liaising BERRY+ to other initiatives and creating added value and development continuities (BRIDGES, Caprex, Big5,...).	Ari Lainevo
10.45	Utilizing value chain approach to explore and build on R-EIS strengths as complementarity and in-shoring potential, and address development challenges; and thus improve the effectiveness of the RIS3 implementation.	Tasos Sidiropoulos

10.55	Competitive development of the specializations of the regional economic context in line with S3 priorities (bioeconomy and bio-based materials, forest-based side streams, nutraceuticals and innovation in the field of active aging and functional foods, vegetal proteins), exploitation of interregional complementary cooperations for added value projects and investments, in-shoring and re-shoring opportunities.	Friuli Venezia Giulia
11.05	Benefits of participating in the Initiative and cooperation scenarios – brief summary	Piotr Piwowarczyk
11.10	Q/A and discussion	
11.30	Summary of the meeting, next steps	Agnieszka Bachórz Piotr Piwowarczyk



BERRY + working group meeting

Organised by Malopolska Region [BP10]

29.11.2022 online





What is BERRY+?

- BERRY+ is an S3 industrial modernisation partnership [AF submitted 30.3.2020; two-round selection 21.5 and 17.11.2020; opening event: 23.1.2021].
- It is science & research based.
- It is focusing on concrete value chains and how they can benefit the participating regions.
- The benefits come in two ways: i) localised specialisation initiatives coherently with ii) interregional initiatives deriving from provable interregional complementarities.



Partnership

* Please provide the list of leading regions and the main contacts

Region	Leading	Main contacts
Regional Council of Kainuu (BP1)	Institutional responsible BERRY+ coordination	Jouni Ponnikas (jouni.ponnikas@kainuunlittto.fi) Jouni Ponnikas (jouni.ponnikas@kainuunlittto.fi) Ninetta Chanidou, (chanidou@ckloud.com) Jarkko Rihy, (jarkko.rihy@oulu.fi)
Regional Council of Helsinki - Uusmaa (BP2)	Forest industry side-streams value chain coordination Component 1 (3 calls) coordination	Ninetta Chanidou, (chanidou@ckloud.com) Juha Eskelinen, (juha.eskelinen@uudenmaanlittto.fi) Art Lainevu, (art.lainevu@uudenmaanlittto.fi)
Region of Western Macedonia (BP4)	Renewable and recyclable textiles Institutional responsible Operational coordination Dairy industry side-streams value chain coordination	Art Lainevu, (art.lainevu@uudenmaanlittto.fi) Regional Governor George Kassapidis, (jinfo@adm.gov.gr) ANKO SA Tasos Sidirooulos (tsidirooulos@anko.gr) ANKO SA Tasos Sidirooulos (tsidirooulos@anko.gr) [contractor]; specific responsible to be assigned ANKO S.A. Spyros Kellidis (skellidis@anko.gr)
Friuli Venezia Giulia (BP5)	Operational coordination Operational coordination Plant-based proteins value chain coordination	coordination Institutional responsible Friuli Venezia Giulia Region Andrea Giorgiutti (andrea.giorgiutti@regione.fvg.it) Sandra Sordini (sandra.sordini@regione.fvg.it) Pierpaolo Rovere (info@falfvg.it) Vincenzo Di Felice (vincenzo.difelice@regione.fvg.it) Pierpaolo Rovere (info@falfvg.it)
Lombardia (BP6)	Institutional responsible Operational coordination Anti-aging cosmetics value chain shared coordination (with BP10)	LOMBARDIA Region CONTACT NEEDED REINDUSTRIA contact needed REINDUSTRIA contact needed
	Institutional responsible	CONTACT NEEDED

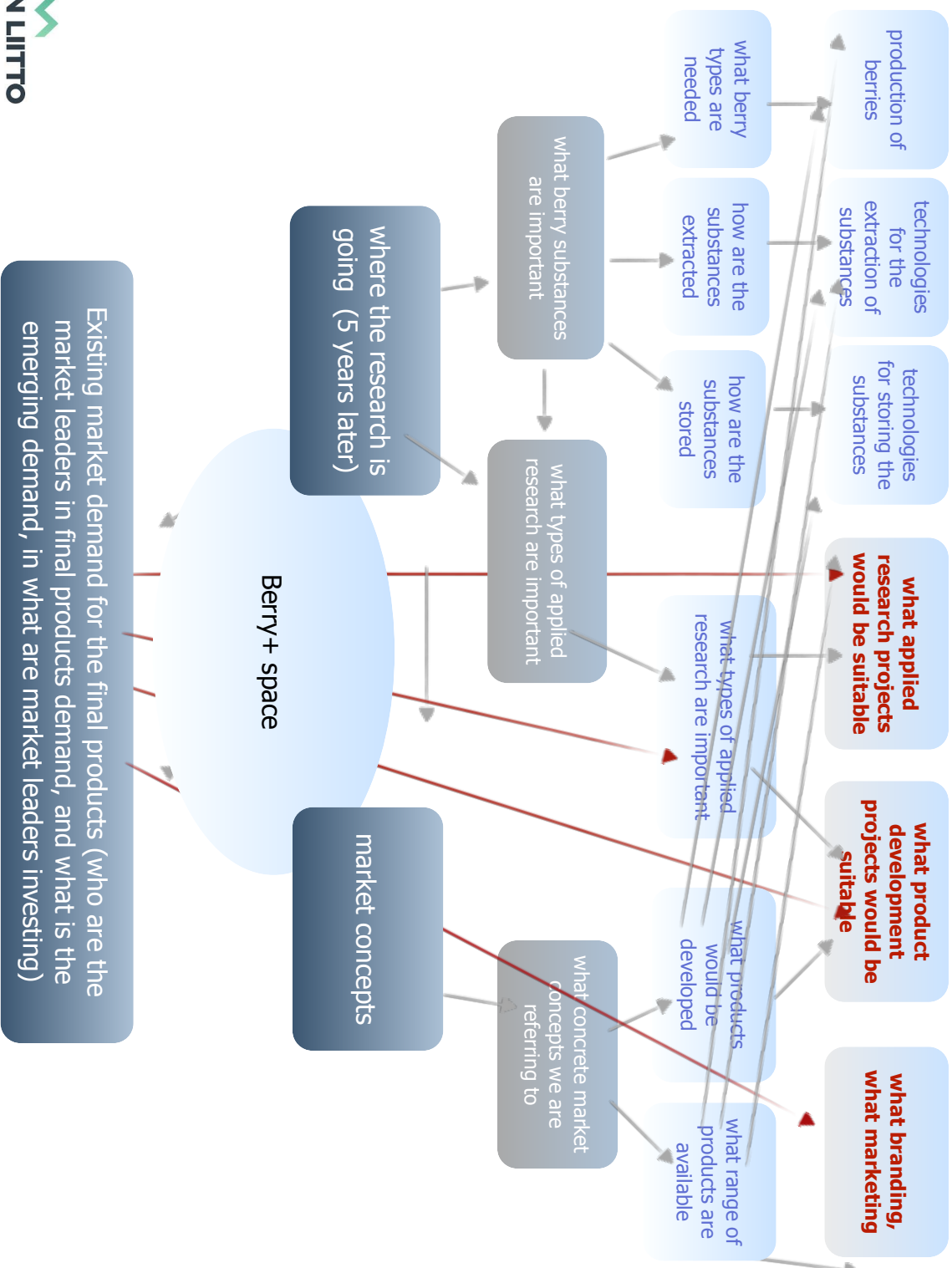
Region	Leading	Main contacts
Athens University of Agriculture (BP9)	Operational coordination Transversal partner: BP9 lead EDH-based solutions aiming at strengthening of value chains and data-management initiatives identified and promoted for the same purpose. Component 2 (new project opportunities)	Thomas Bartzanas, (tbartzanas@auwa.gr) thomas.bartzanas@gmail.com Thomas Bartzanas, (tbartzanas@auwa.gr) thomas.bartzanas@gmail.com Thomas Bartzanas, (tbartzanas@auwa.gr) thomas.bartzanas@gmail.com
Malopolska Region (BP10)	Institutional responsible Operational coordination Anti-aging cosmetics value chain; shared coordination with BP6	thomas.bartzanas@gmail.com Marshall of the Malopolska Region, Witold Kozłowski Agnieszka Bachorz (UMWM) Agnieszka.Bachorz@umwm.malopolska.pl Piotr Foundation for Innovative Initiatives (FII) Płowarczyk (FII) piotr.plowarczyk@fi.org.pl FII Piotr Płowarczyk piotr.plowarczyk@fi.org.pl
Regional Council of Lapland (BP11)	Institutional responsible Operational coordination Functional foods value chain coordination	Regional Council of Lapland, Kaarina Macklin (Kaarina.Macklin@lapinlittto.fi) Lapland University of Applied Sciences, Petri Muje, (petri.muje@lapinlittto.fi) Lapland University of Applied Sciences, Petri Muje, (petri.muje@lapinlittto.fi)

Value Chains

1. **VC1 Anti-aging cosmetics, led jointly by Lombardia BP 6 through the REIndustria cluster unit and Malopolska BP10 through FIT innovation infrastructure.** [Value chain mapping in Malopolska is on-going]
 2. **VC2 Dairy industry side-streams, led by Western Macedonia, through the ANKO, BP4 [Preliminary value chain mapping has been done].**
 3. **VC3 Forest Industry side-streams, led by Kainuu BP1, through the University of Oulu/MITTY (measurement, technology) department.**[Value chain mapping in Kainuu is in completion stage].
 4. **VC4** Functional foods, led by Lapland BP11, through the Lapland University of Applied Sciences.
 5. **VC5** Plant – based proteins, led by the Friuli Venezia Giulia region BP5; through the Agrifood & Bioeconomy Foundation of Friuli Venezia Giulia Region (FAB FVG).
 6. **VC6 Renewable and recyclable textiles, led by Helsinki-Uusimaa, Regional Council of Helsinki-Uusimaa BP2.** [Value chain mapping has been completed].
- One cross cutting action has been added: collaboration with the Agriculture EDIH, coordinated by the Athens University of Agriculture, BP9. The content of the collaboration was agreed during the most recent steering meeting to prioritise (but not exclusively) BERRY+ value chain technologies to the test-before-invest function of the EDIH. The process needs to be defined (concept note), activated, and monitored.

NOTE: Highlighted value chains indicate those that have been most active during the period 1.4.2022 – 30.9.2022.

What does science & market-based approach mean?





Today's (29.11.2022) working meeting themes

1.— CLARIFICATION OF THE OPERATIONAL CONTEXT: A medium and long term approach + less advanced regions finding positions in competitive value chains; these are the reasons we want to have value chains. In concrete terms there should be on the ground benefits as well.

2.— TYPES OF ON-THE-GROUND BENEFITS:

2.1) Localising value chain segments in terms of re-shoring (repatriating, bringing back) and in-shoring (developing new activities).

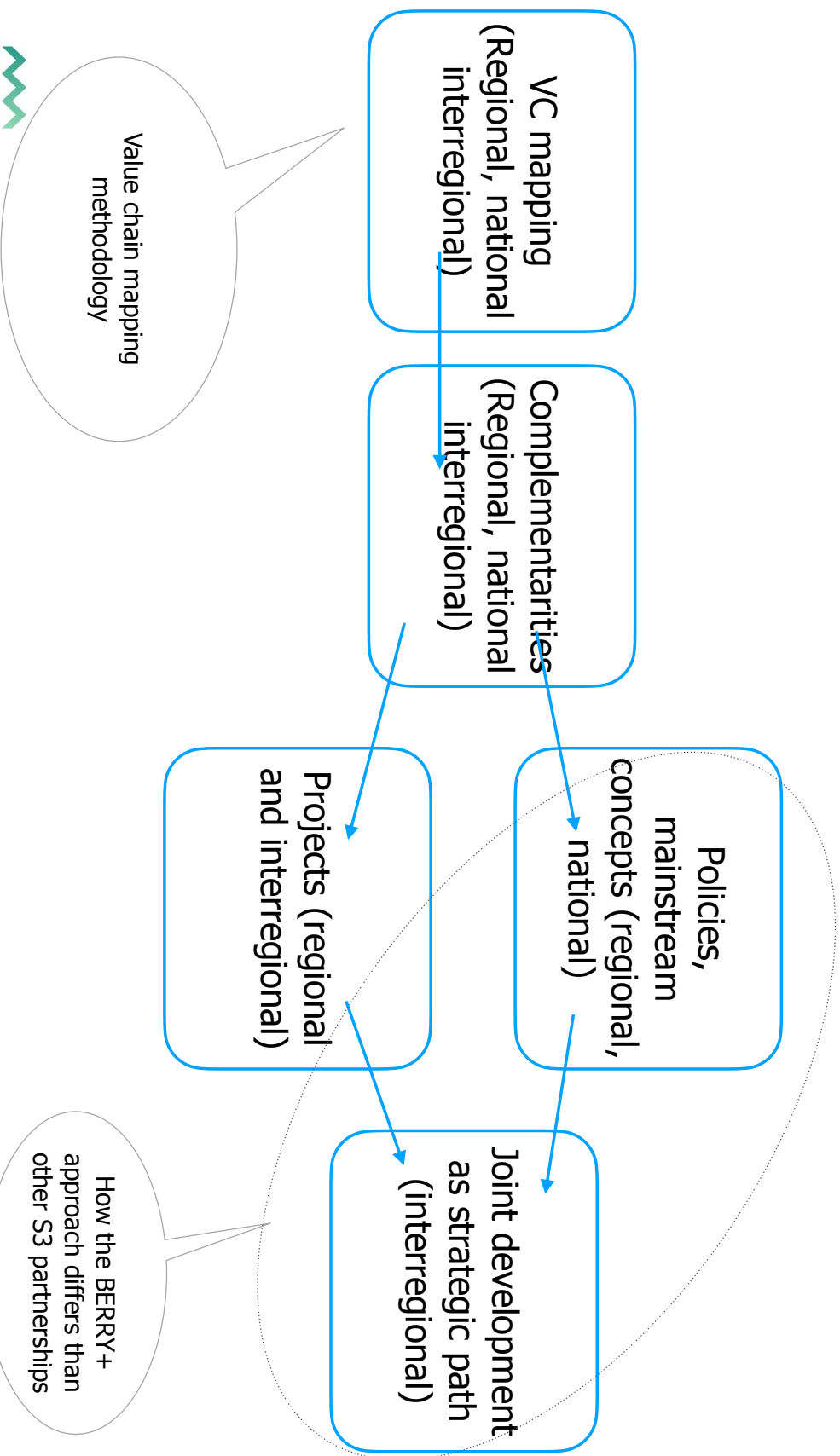
2.2) Interregional collaboration: Business-to-business, business-to-research, and research-to-research (joint product development, joint research, transfer of technology and transfer of know how).

2.3) Innovation system qualification & creating continuities with other innovation systems: Innovation intermediary-to-innovation intermediary (how to create a continuous, a natural interaction between 2.1 and 2.2).

3.— STRATEGIC BENEFITS: 3.1) Coherent initiatives in creating product & research spaces around value chain segments relevant to partner areas; 3.2) Joint learning (e.g. the value chain activation and mapping approach); 3.3) Longer term operationalised, focused cooperation between and among regional authorities, signing of targeted MoUs.

4.— WHO PAYS: 4.1) Business -to-business and business to research: for example Business Finland projects allowing international organisations to participate, maybe there are corresponding provisions in Polish organisations; 4.2) Value chain mapping: SF development funding at regional or national level. Projects can be outsourced to research & innovation public or private qualified organisations; 4.3) Joint investments: there is the I3 option, however, there might be also coordinated options among the partner regions' SF; 4.4) "Polishing" and mainstreaming the effectiveness of interregional complementarities, IE projects.

What does BERRY+ do differently than other S3 partnerships, networks and so on?





Working meeting theme and contributions

2.1— TYPES OF ON-THE-GROUND BENEFITS:

- 2.1.) Localising value chain segments in terms of re-shoring (repatriating, bringing back) and in-shoring (developing new activities).
- 2.2.) Interregional collaboration: Business-to-business, business-to-research, and research-to-research (joint product development, joint research, transfer of technology and transfer of know how)

CONTRIBUTING PARTNERS

- Regional Council of Kainuu, FI Jouni Ponnikas, BP1: In-shoring (strengthening the economic specialisation base) by exploring forest industry side streams and in parallel, constantly reinforcing the research-riche specialisation (measurement technology and bio-based industries).
- Regional Council of Helsinki-Uusimaa, FI Ari Lainevu, BP2: Re-shoring and in-shoring in Uusimaa (anti-ageing cosmetics and renewable and recyclable textiles); localisation /specialisation and internationalisation facilitation by the current Structural Funds calls. Liaising BERRY+ to other initiatives and creating added value and development continuities (BRIDGES, Caprex, Big5,...).
- ANKO SA, GR Tasos Sidiropoulos, BP4: Utilising value chain approach to explore and build on R-EIS strengths as complementarity and in-shoring potential, and address development challenges; and thus improve the effectiveness of the RIS3 implementation.
- Friuli Venezia Giulia, IT, BP5: competitive development of the specialisations of the regional economic context in line with S3 priorities (bioeconomy and bio-based materials, forest-based side streams, nutraceuticals and innovation in the field of active aging and functional foods, vegetal proteins), exploitation of interregional complementary cooperations for added value projects and investments, in-shoring and re-shoring opportunities.



 **KAINUUN LIITTO** Ninetta Chaniotou



BERRY + working group meeting

Strengthening the economic and research base
through the BERRY + cooperation

Malopolska, 29.11.2022 online



Jouni Ponnikas, Regional Development Director



Kainuu in BERRY+

- 1.- The Kainuu RIS3
 - Theme 1 Research themes
 - Theme 2 Bio based industries
 - Theme 3 Trans regional networks
 - Theme 4 Digital transformation
 - Theme 5 Green deal
- 2.- BERRY+ involvement as a region (beyond coordination tasks)
 - Co-ordination of the Forest industry side-streams value chain (VC3)
 - Participation in the anti ageing cosmetics VC (VC1) and in the renewable and recyclable textiles value chain (VC6) for the cellulose application diversification potential.



Kainuu in BERRY+, BENEFITS & APPROACH

1.) Constantly reinforcing the research niche specialisation (measurement technology and bio-based industries) (RIS3, Theme 1)

1.1 Lignin (VC3) development of a new industrial domain; from research-to-market.

- We started from glue for the wood processing industry and we are now developing paints. The research has been challenging, the water solubility of lignin has been a major issue.
- How much does it cost?
 - Support by the RCK: regional and national funds supported and support the research and prototype making. Implemented TELI project (196 000 euros)
 - Support by national innovation funds: productisation of lignin, in collaboration with businesses, and including interregional actors: possible Business Finland funding 600 - 800 000;
 - Lesson learnt: the lignin experience achieved to reach results and, at the same time, introduced a systematic, long term approach, for research-to-market new product development.

1.2) Anti ageing cosmetics (VC1).

- Raw materials and measurement technology, involvement of bigger enterprises; availability of patents.
- Potential on diversifying existing patents.
- Waiting for further activation.



Kainuu in BERRY+, BENEFITS & APPROACH

2.) Strengthening the specialisation base; renewing and expanding the economic base, focus is more on in-shoring than re-shoring.

- Business base for the forest industry side streams: supply side lingnaine; wood chips; wood park; demand side: lingnine (clues, paints, water purification chemicals); diversification potential: high value products innovated + investments for the production of these products
- Support by the RCK: regional and national funds; consideration of incentives for the development of new product lines and / or attracting businesses
- Support by national innovation funds: —
- Lesson learnt: 1) Needed: enough time & resources for base research; larger and longer research funding; more co-operation (especially R to B); 2) Need to quantify the impact of initiatives; 3) Need to build on new solutions (knowledge and technology transfer, even from / to beyond the region: Business Finland ecosystem funding leaded by big companies is promising model)
- How much does it cost? 4 – 5 million for anchor (big company) leaded ecosystem funding



Kainuu in BERRY+, BENEFITS & APPROACH

3.) Interregional collaboration: Business-to-business, business-to-research, and research-to-research (joint product development, joint research, transfer of technology and transfer of know how).

3.1 Process: through the value chain mapping and the match-making sessions of the value chains.

3.2 How much does it cost and who pays?

- How much does it cost? Regional ERDF & JTF RDI funding (1 - 4 million euros) – direct Business Finland funding (1 - 4 million euros) – Horizon projects
- Who pays?
- Direct interactions through exports
- Coordinated SF calls
- Other, project-based options



Kainuu in BERRY+, BENEFITS & APPROACH

 **KAINUUN LIITTO** Jouni Ponnikas, Regional Development Director



BERRY + working group meeting

Linking regional specialisation and interregional opportunities

Malopolska, 29.11.2022 online

Ari Lainevuo, Research Director



Helsinki-Uusimaa
Regional Council

Focus

1. Re-shoring, in-shoring and near-shoring in Uusimaa (references to renewable and recyclable textiles and to anti ageing cosmetics).

We discuss two examples: anti-ageing cosmetics (our in-shoring 'reality check') and renewable & recyclable textiles (our methodological tool and first results).

2. Localisation /specialisation and internationalisation facilitation by the current Structural Funds calls.

The current SF in NUTS2 Helsinki-Uusimaa, and how there might be a regional approach with synchronisation interest & potential with other regions.

4. Liaising BERRY+ to other initiatives and creating added value and development continuities (BRIDGES, Caprex, Big 5, others).

Creating a portfolio of initiatives, seeking to construct added-value and continuities.



Helsinki-Uusimaa
Regional Council



Uusimaa



1. Re-shoring, in-shoring and near-shoring in

The case of the renewable and recyclable textiles industry

VALUE CHAINS AS ECONOMIC & REGIONAL DEVELOPMENT INSTRUMENTS, based on

- (1) The EC's 2020 New Industrial Strategy and the 2021 Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery, {SWD(2021) 351 final} - {SWD(2021) 352 final} - {SWD(2021) 353 final}, page 10: "The Commission will work in close cooperation with the relevant stakeholders to identify measures to reinforce the EU position in global value chains, including by strengthening and diversifying external trade, creating new opportunities also for low- and middle-income countries".

- (2) A New European Innovation Agenda, {SWD(2022) 187 final}: "Help create "regional innovation valleys" that will strengthen and better connect innovation players through Europe, including in regions lagging behind."

Journal of Cleaner Production 326 (2021) 129325

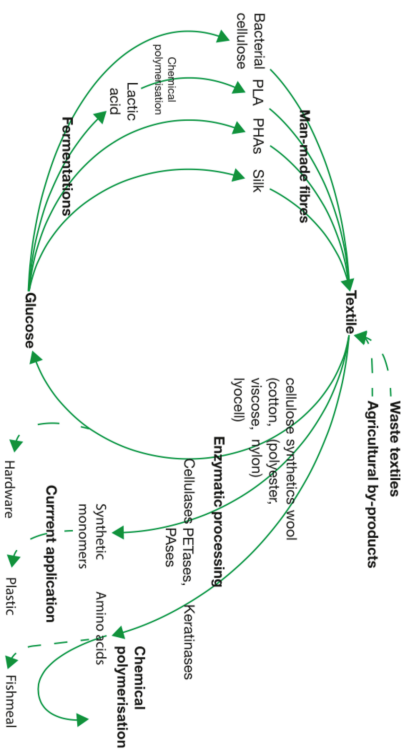


Fig. 1. Establishing a closed-loop bio-based process for cellulose-based textile recycling routes.

2.2. Mapping of case studies for textile recycling in mechanical, chemical and bio-based processes



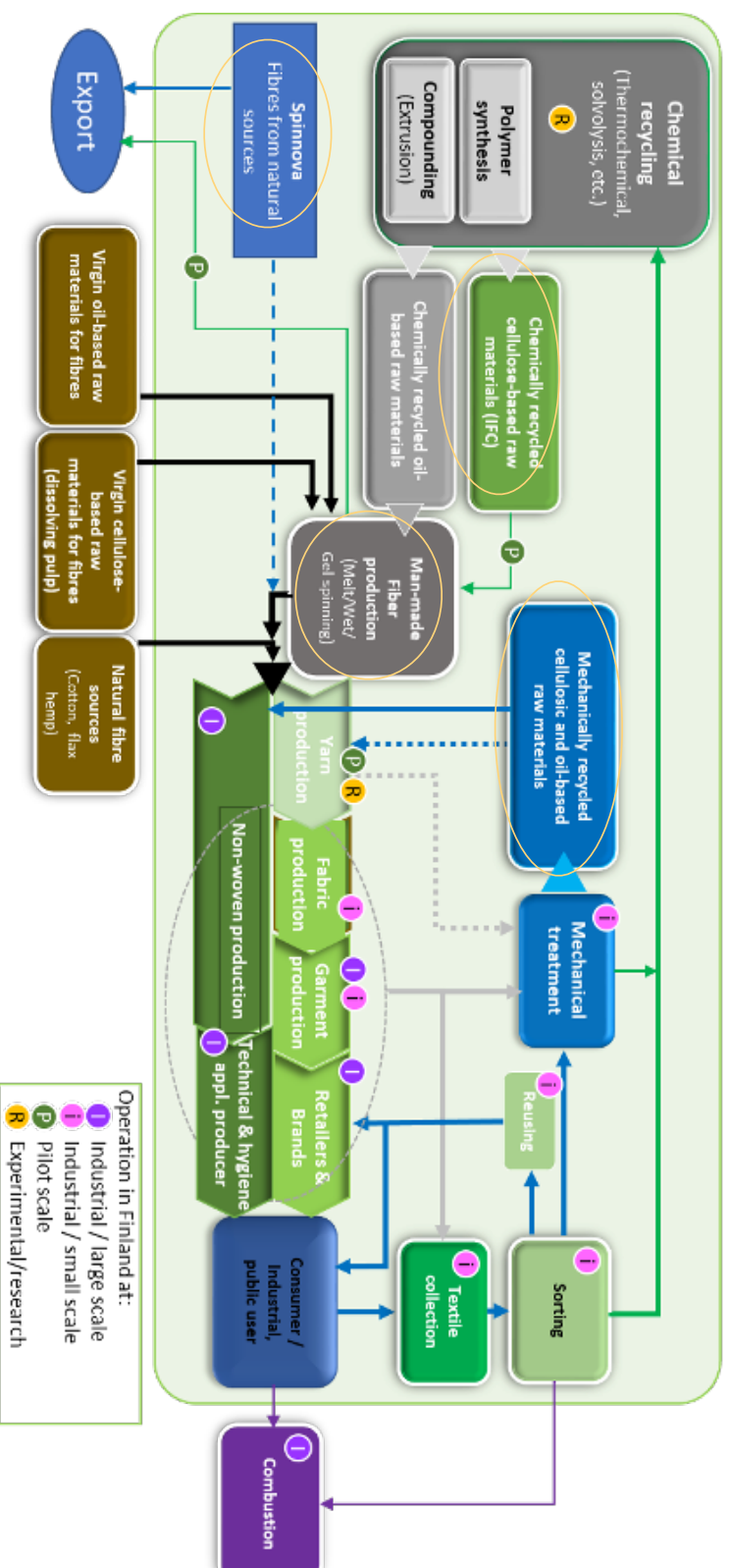
Helsinki-Uusimaa
Regional Council

1. Re-shoring, in-shoring and near-shoring in VTT Yusimaa The case of the renewable and recyclable textiles industry



- 1.- Coordinator objective: renewal of the textile industry based on e.g. 0-harm (no plastics) textiles.
- 2.- End market objective: primarily and initially fibres; secondarily clothing based on new fibres.
- 3.- Value chain mapping: in addition to textiles, associated research, dedicated higher education and innovation infrastructures
- 4.- Strengths and development interests (coordinating region):

Strategy



Source: CUSTOMER REPORT VTT-CR-00622-22; page 10



Re-shoring, in-shoring and near-shoring in Uusimaa

Helinki-Uusimaa

Regional Council

The case of anti-ageing cosmetics

1.- NEAR SHORING AND TRANSFER OF KNOW HOW AND TECHNOLOGY

- Our 'reality check' of our value chain-based approach about the possibility of localising investments (in- or re- shoring) and accordingly focusing policies.
- Research availability in relation to various raw materials, e.g. berries, grapes, etc.

2.- IN-SHORING & INTERREGIONAL COLLABORATION BASED ON INNOVATION

- Anti-ageing solution has been identified and productised. It is an extract of compost, processed to the form of powder. It impacts the immunity system and reduces inflammations; it impacts the ageing process.
- The work is done by a small start-up.
- In vivo testing available.
- Commercial contacts made to the USA, Germany and Spain.
- On going research collaboration with Spain, UK, Estonia and Sweden.
- Strengthening economies of scale: the start up is thinking of collaborating with Western Uusimaa's waste sorting and recycling unit Rosk'n Roll ltd (<https://rosknroll.fi/en/>). Rosk'nRoll will be providing the raw material.
- COLLABORATION INTEREST: the start up does not sell how the product formula; they sell the know how of how the product can be added into other products to increase anti-ageing effects.

3.- NUTRACEUTICALS

- Interest to classify the above innovation under nutraceuticals.
- A nutraceutical or bioceutical is a pharmaceutical alternative which **claims physiological benefits**. In the US, "nutraceuticals" are largely unregulated, as they exist in the same category as **dietary supplements** and **food additives** by the **FDA**, under the authority of the Federal Food, Drug, and Cosmetic Act ("Labeling & Nutrition". The Food and Drug Administration, US Department of Health and Human Services. 5 October 2016).
- In the EU it is more complicated.



Helinki-Uusimaa
Regional Council

2 Localisation / specialisation and internationalisation facilitation by the current Structural Funds calls.

Action line 1: Innovative Finland

ET 1.1 Improving research and innovation capabilities and adoption of advanced technologies

ET 1.2 Utilisation of the benefits of digitisation for the benefit of citizens, companies and public administration

Action line 2: Carbon neutral Finland

ET 2.1: Promotion of energy efficiency measures and reduction of greenhouse gas emissions

ET 2.2 Adaptation to climate change, risk prevention and disaster preparedness and
- promotion of recovery

ET 2.3: Promoting the transition to a circular economy

WHY IS THIS CALL SO IMPORTANT?

The projects are financed through the Innovative and Competent Finland programme as per regional category. In Southern Finland (NUTS2), the regional categories are: more developed NUTS3 regions (Helinki-Uusimaa) and transition NUTS3 regions (Kanta-Häme, Kymenlaakso, Päijät- Häme, Uusimaa ja Varsinais-Suomi).

Projects target the top sectors or development targets identified in the respective RIS3.

We support, for example

- joint development, development of piloting and testing environments, and better utilisation of RDI infrastructures.
- projects with regional, supra-provincial or supra-regional partnerships
- group project applications are also accepted in this call
- networks are also eligible, including beyond national and regional borders
- emphasises building on an evidence-based approach: ET 1.2 applications of qualified benefits of advanced technologies (e.g. digitisation) etc.

3.- Liaising BERRY+ to other initiatives

INTEREST

- To ensure added value among the various networks in which HURC is involved.

NETWORKS

- Two S3 industrial modernisation partnerships: 1) Safe and sustainable mobility; 2) BERRY+
- Three networks at EU level e.g. Caprex, Big Five, Science meets regions
- Uusimaa RDI, RIS3 national operators' network

AIM

- Effort made to ensure continuity across the various efforts and added value from the respective activities, i.e. a portfolio management approach.
- We find common themes & industrial domains and seek development actions; interaction and exchanges across the various networks

FUNDING

- Funding for the different initiatives bringing together regional, national, and interregional funds
- Effort for funding and feasibility continuities
- Regularly updating Structural Funds calls criteria
- Seeking interregional partners with comparable philosophies and readiness to cooperate



Ari Lainevuori, Research Director



BERRY + working group meeting

Applying the value chain approach to explore
innovation strengths and address weaknesses
through the BERRY + cooperation

Malopolska, BP10, 29.11.2022 online



HELLENIC REPUBLIC
REGION OF WEST MACEDONIA



Tasos Sidiropoulos, Transition Development Director



West Macedonia in BERRY+

1.- The RIS3 of West Macedonia

- Food production and food processing industry; it includes aromatic plants and their applications in various industrial domains including anti ageing cosmetics.
- Energy transition (RES)
- Tourism
- Fur industry (production, design of clothes and production)

2.- BERRY+ involvement as a region

- Co-ordination of the Dairy industry side-streams value chain (VC2)
- Participates in the anti ageing cosmetics VC (VC1) and in the plant-based proteins value chain (VC5).



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West Macedonia in BERRY+

3.- Innovation strengths and challenges

- The European regional innovation scoreboard [E-RIS 2021]
 - Classification: emerging innovator (innovation performance has increased over time 12,2%)
 - Strengths: non R&D innovation expenditures; tertiary education; innovative SMEs collaborating.
 - Challenges: design applications; R&D expenditures (both private & public sectors); sales of innovative products; employed ICT specialists; patent applications.



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West Macedonia in BERRY+

3 - Innovation strengths and challenges

- Positioning of innovation strengths and challenges within the RIS3 industries and especially the dairy industry side streams and the anti-ageing cosmetics

EUROPEAN REGIONAL INNOVATION SCOREBOARD 2022		RIS3 Western Macedonia		
WEST MACEDONIA		Energy transition (RES)	Tourism	Fur industry (production, design of clothes and production)
STRENGTHS				
ITEM 1 Non R&D innovation expenditures	1) Investments for the establishment of new businesses; 2) investments to increase production capacity in selected food industry domains, e.g. dairy industry; 3) increasing the production of aromatic plants (saffron, lavender and other aromatic plants); 4) participation in value chains for better access to markets and for specifying types of raw materials in demand.	Investments for establishment of new businesses or extension of productive capacity of existing ones - energy production from RES - hydrogen production is a target	Investments for establishment of new businesses or extension the capacity of hotels	Investments for extension of productive capacity of existing fur sector businesses - (breeds of fur animals, production of fur clothes)
ITEM 2 Tertiary education	University of Western Macedonia - School of Agriculture: 1) Improved courses to support scaling up and specialisation; possibility to collaborate with counterparts with joint programmes, exchange of staff and students, joint curricula, etc 2) . This initiative addresses ITEM4 weakness (design applications).	University of Western Macedonia - School of Engineering		
ITEM 3 Innovative SMEs collaborating	Strengthening the collaboration between and among innovative SMEs, e.g. mixing products from aromatic plants to honey/ products etc. This can involve interregional collaboration schemes, business-to-business, business-to-research, etc.			
ITEM 4 Design applications	See ITEM 2			The design of clothes made by fur is the comparative advantage of local industries
ITEM 5 R&D expenditures (both private & public sectors)	Linking economic strengths, for example implementation of R&D projects by food processing industries / research for the production of functional foods or anti ageing cosmetics made by aromatic plants, saffron. Identification of collaboration partners beyond the region and beyond the country when needed; exploring national innovation funds options (in addition to the SF)			
ITEM 6 Sales of innovative products	Innovative food or anti ageing products produced by food processing industries / aromatic plants, saffron, pastry			
ITEM 7 Employed ICT specialists				
ITEM 8 Patent applications	Development of pre-innovation registered products; innovation products (IPR, and eventually patents related to new technologies, for example in the energy sector.			
WEAKNESSES				



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West Macedonia in BERRY+, BENEFITS & APPROACH

4. Utilising value chain approach to explore and build on R-EIS strengths as complementarity and in-shoring potential

How much does it cost? Who pays?

Financial tools that could be used are:

- Structural funds (O.P. Western Macedonia 2021-2027, O.P. for Just Development Transition 2021-2027)
- Greek National Development Law 4887/2022 "Greece Strong Growth"
- General Secretary for Research & Innovation (GSRI) actions for 2021-2027

Lessons learnt

- There are various important development options that have not been explored.
- Value chain-based collaboration appears to be at the start. In this sense, value chain mapping is essential to apply.
- To apply VC mapping across regions in a coordinated way, funding tools are needed. In this sense, coordinated (synchronized) funding across regions is important. In this sense, the SF call introduced by BP2, proposing network collaboration options within the regions the country and the EU, could be a relevant good practice.



West Macedonia in BERRY+, BENEFITS & APPROACH

Malopolska, 29.11.2022 online



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LOCAL DEVELOPMENT

Tasos Sidiroopoulos, Transition Development Director



BERRY + working group meeting

Linking regional specialisation and interregional opportunities

Malopolska, 29.11.2022 online

Fabrizio Goffredi, Agrifood & Bioeconomy Foundation of Friuli Venezia Giulia Region



Focus of the participation of FVG to BERRY+

1. Competitive development of the specializations of the regional economic context, in line with the priorities of the RIS3 strategy (bioeconomy and bio-based materials, forest-based side streams, nutraceuticals and innovation in the field of active ageing and functional food, plant-based proteins);
2. Enhancement of interregional complementarities for added value projects and investments;
3. Exploitation of in-shoring and re-shoring opportunities;



Anti-ageing cosmetics and nutraceuticals

INTERDISCIPLINARY ACTIVE-AGEING GROUP OF THE UNIVERSITY OF UDINE

REINFORCEMENT OF THE RESEARCH BASE OF THE INTERREGIONAL BERRY+ VALUE CHAIN

Interested in interregional cooperation for joint development and technology transfer.

PRIVATE COMPANIES INVOLVED IN THE NUTRACEUTICALS WORKING GROUP OF FAB FVG

1 Bigger player, coordinating the group, producing and packaging food supplements;

1 SME performing R&D activities and developing new formulations, processing of industrial waste, new plant-based proteins – interested in interregional cooperation for joint development, technology transfer, export;



... follow

1 Laboratory (SME) working in the fields of nutraceuticals, pharmaceuticals and cosmeceutical solutions performing R&D activities (development of an innovative active ingredient – TURVAL probiotic lactic yeast), developing ingredients and formulations and final products – interested in interregional cooperation for joint developments, export and re-shoring opportunities;

1 SME, contract research organization of AIFA, working in the fields of nutraceuticals, pharmaceuticals and cosmeceutical solutions performing R&D, clinical trials, data management, market research – interested in interregional cooperation for joint development;

1 SME working in the field of nutraceuticals (nutraceutical bioproducts and supplements), performing R&D activities, development of new formulations and final products – interested in interregional cooperation for joint development, technology transfer, industrialization, export and marketing;

1 SME performing R&D and manufacturing activities to provide ingredients for food supplements (nutraceuticals) – interested in interregional cooperation for joint development and export and marketing.



Regional lines of action

INTEREST

— To enhance existing capacities in the active ageing field and promote competences and products of academia and private companies;

NETWORKS

- Regional: thematic working groups of FAB FVG, set up with a quadruple-helix approach;
- National: participation to national technological clusters, such as CLAN, SPRING, BIG;
- International: participation to EU RIS3 partnerships BERRY+ (Industrial modernization), Traceability & Big Data and High-tech farming (Agrifood);

AIM

— Support the exploitation and enhancement, by our research centres and innovative private companies, of interregional R&D cooperation and business-oriented investment opportunities, to fully develop bioeconomy and sustainable growth, in line with our smart specializations.



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ACTIVE AGEING in UNIUD



UNIUD
Active aging

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Department of Agrifood, Environmental and

Animal Sciences

University of Udine



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Active aging



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Active Ageing

8

DEPARTMENTS

100

RESEARCHER

Multidisciplinary Group
of the University of Udine
for the promotion of policies for
favouring the active and healthy
ageing of the population
STRONG INTERNATIONAL NETWORK



www.uniud.it/activeageing



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Active aging



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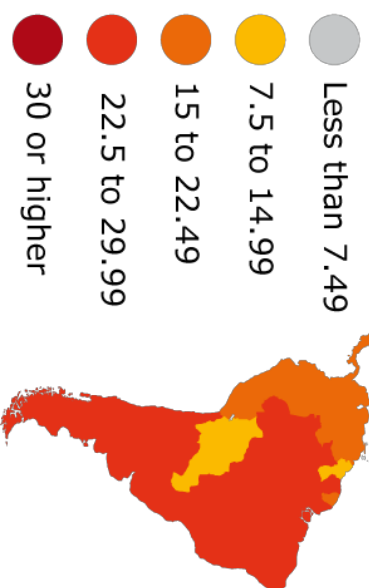
STRONG INTERNATIONAL NETWORK

University of Porto, Center for Active Ageing

National Institute of Ageing of NIH (USA)

University of Copenhagen,
Center for Healthy Aging

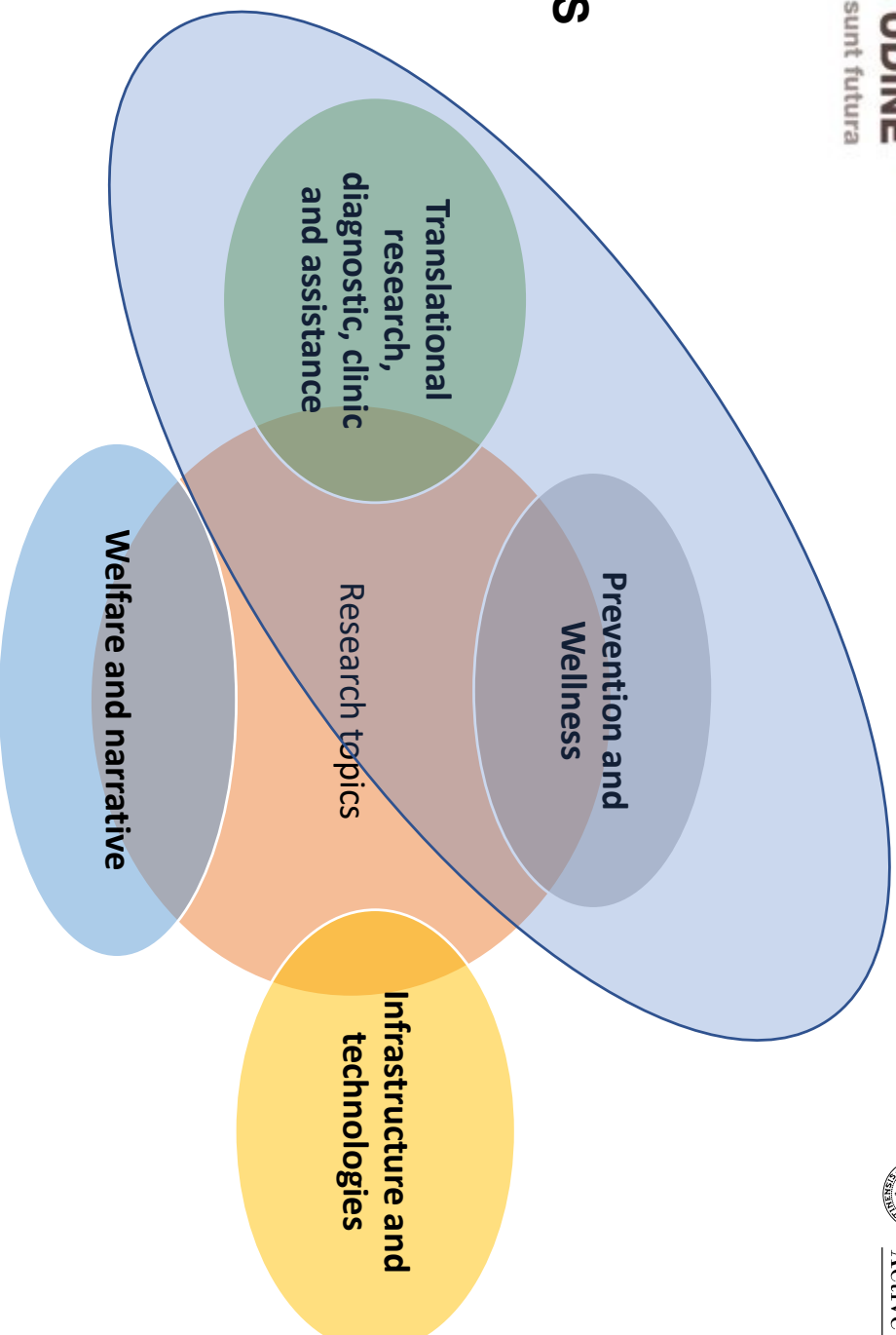
University of Medicine, Graz
Institute for applied research on
Ageing di Klagenfurt



Percent of Elderly in the World by 2050



4 TOPICS





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Food Technology UNIU Group

Department of Agrifood, Environmental and Animal Sciences



People

- 5 Professors
- 2 Senior Researchers
- 1 PostDoc Researcher
- 8 PhD Students

Facilities

- Pilot Plant area including novel technologies (HPH, PEF, US, supercritical CO₂, HPP,..)
- Kitchen for food prototyping
- Chemical analysis lab
- Physical analysis lab
- Sensory analysis lab



Main research activities

To deliver health and well-being through food

- Food and process design for the development of **novel foods with improved and tailored health functionalities**
- Application of **novel food processing technologies** to steer **food functionalities**
- Strategies for **waste reduction and up-cycling** for **bioactive molecule recovery**



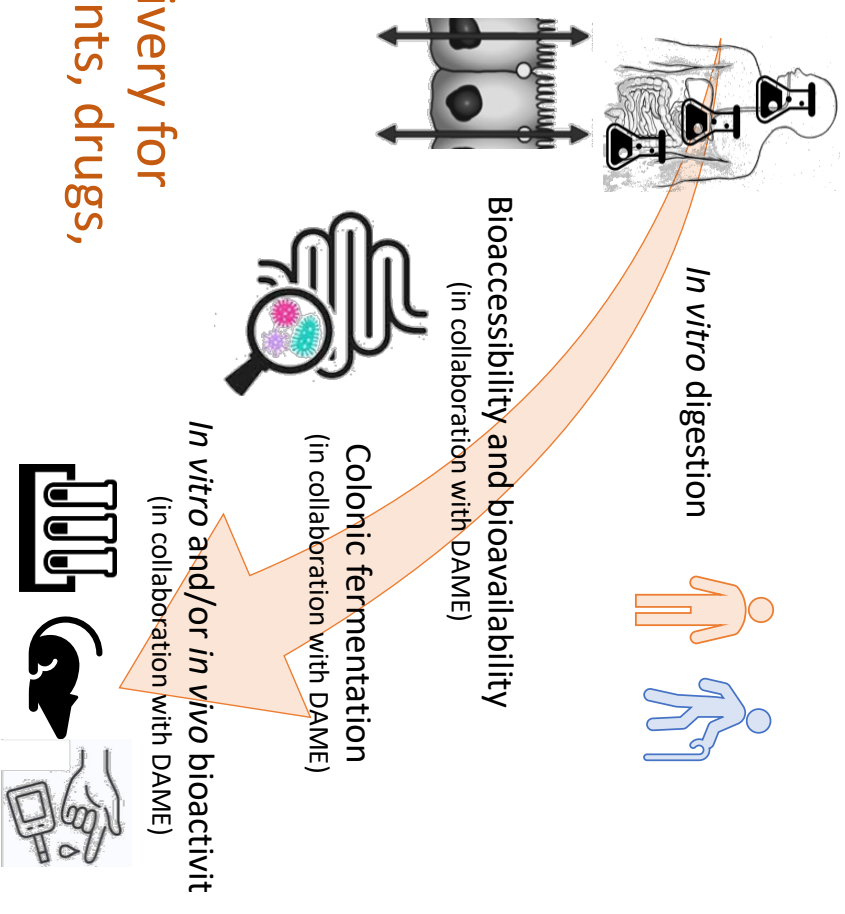


Delivery of «anti-ageing» compounds

Design of
delivery
systems for
nutrients,
bioactive
components
and probiotics

- Emulsion-based systems
- Liposomes
- Oleogel
- Aerogel
- Hydrogels
- Bigels

Antiageing components delivery for
application in food, supplements, drugs,
cosmetic (?)





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Laboratory of Molecular Biology and DNA repair, Department of Medicine

Role of DNA repair in Telomeres Maintenance and cell aging

The work addresses the **Genome repair pathways** in human cells relevant in **aging and tumor biology** and for developing new anticancer strategies.



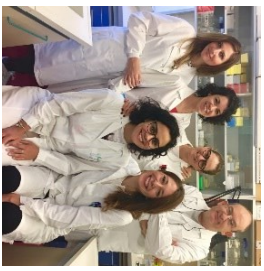
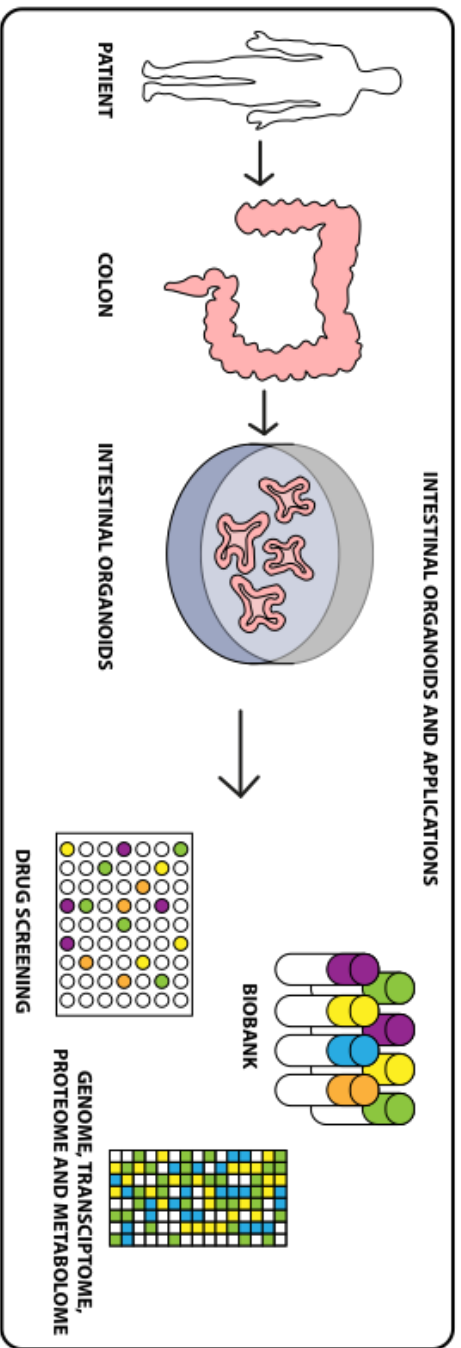
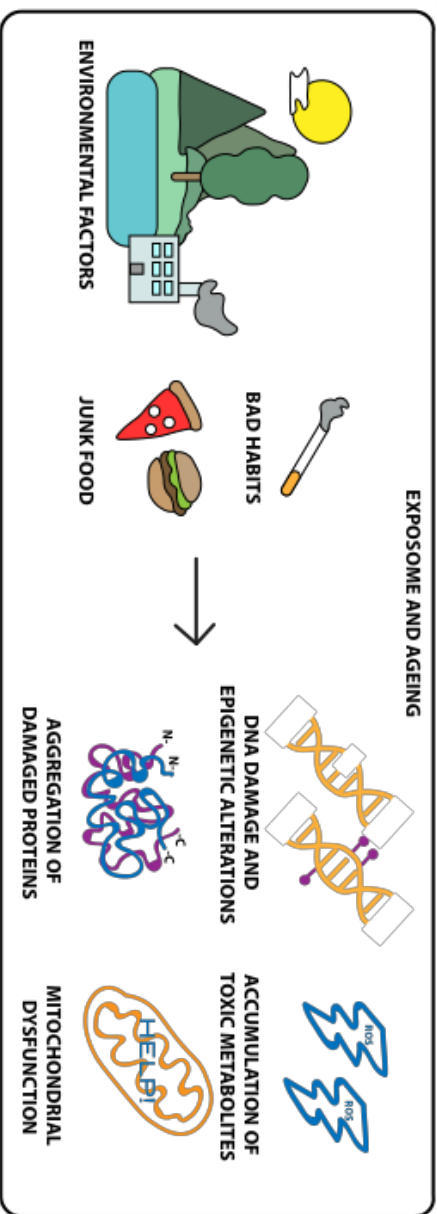
This research is supported by a grant of the US National Health Institution (NIH Project R21)



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Organoids for studying the link between exposome :



Ref.: gianluca.tell@uniud.it

**Laboratory of Molecular Biology
and DNA repair, Department of
Medicine, Uniud**



Research Topics on Healthy Ageing @ Department of Medicine

- 8 technological platforms: Genomics, Bioinformatics, Nanoscopy, Cellular analyses and 3D organoids, Biobank, Animal facility, Microbiology, advanced instrumentation
- Pathologies related to the ageing process (Cardiovascular, metabolic and neurodegenerative diseases, cancer, sarcopenia, acute and chronic inflammatory diseases)
- Molecular, cellular and physiopathological basis of the ageing process and related pathologies
- Genes and other genetic and epigenetic factors of risk for pathologies related to the ageing process
- Exercise Physiology and Healthy ageing
- Multi-omics approaches in studying the ageing process and for biomarkers discovery
- Personalised medicine and healthy ageing
- Effects of nutrition on the ageing process



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Clinical and translational research center on Ageing-



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Building "A" – Laboratory area of 2,400 m² over 3 floors

Building "B" – Auditorium with 150 seats

Building B

Building A

Building "A"

- Facility Biobank
- Facility Animal enclosure
- Facility Microbiology
- Chemical and biomolecular laboratories
- Open space studies





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Thanks for the attention

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www.uniud.it/activeageing



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