

MAZOVIA

PEER REVIEW REPORT



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Study Visit & Peer Review Workshop

16-18 October 2019

Authors

Partner: Mazowieckie Voivodeship

1. EXECUTIVE SUMMARY

The purpose of this report is to present the results of the study visit that took place in Mazovia in the framework of the AgriRenaissance project. The study visit was carried out on September 16 to 18 2019, during the visit several companies operating in the agri-food market in Mazovia were visited. The present is also a peer review carried out by partners on the project.

This peer review has allowed the evaluation of the R&I public policies in Mazovia by the rest of the project partners, obtaining their feedback with a defined methodology that can be extended to the other regions. The main objective of this study visit has been based on these three areas:

1. R&I infrastructure & capacities.
2. R&I public-private collaboration.
3. Hybridization of the agri-food sector with other sectors within and across regions.

On the first day of the visit, we invited our partners to participate in the 10 Mazovia Development Forum, this is the most important conference and workshop event in the Mazowieckie Voivodeship related to the development of the region. His main idea is to promote innovative projects and solutions that, thanks to the support of European Funds, are implemented and used in Mazovia. The 10th Mazovia Development Forum is held under the honorary patronage of the Marshal of the Mazowieckie Voivodeship. During the conference, we had a separate zone where we presented our projects and exchanged experiences with the participation of guests from Poland and abroad in the scope of project implementation.

We started the second day with a visit to three companies located in the Mazovia Voivodeship, thus introducing the functionality of companies from the agri-food market:

- Warsaw Agricultural-Food Wholesale Market - the Company's business is management and administration of the Wholesale Market in the following sectors: fruit and vegetables, flowers, food - B2B;
- Vigo System S.A - infrared sensors for agriculture;
- Bakoma production plant - producer of dairy products.

The companies presented their areas of activity as well as showed us around their plants.

On the third day of the visit to the headquarters of the Marshal of the Mazowieckie Voivodeship, a meeting summarizing the study visit was held, during which project partners conducted an analysis and giving their point of view about the current situation of the innovation in the agri-food sector in Mazovia.

As a result of these three days of study visit, valuable recommendations and opportunities for improvement have been obtained, which will be taken into account when carrying out the regional action plan.

2. PEER REVIEW METHODOLOGY & RESULTS

2.1. PHASE 1: PREPARATION - STUDY VISIT

The jubilee edition of the Mazovia Development Forum took place at a special moment. This year, 15 years have passed since Poland's accession to the European Union, and the effects of EU support visible at almost every step. The event organized at this exceptional moment is a space for exchanging experiences and sharing good practices in using international groups, as well as in the context of the region's possibilities (<https://forumrozwojumazowska.pl>).

Interesting panels of debates and exhibitors' stands full of attractions awaited the guests of the event. This year's Forum has been divided into four thematic zones - progress, man, nature and region, so that each participant can find something for themselves.



During the conference, we had a separate zone where we presented our projects and exchanged experiences with the participation of guests from Poland and abroad in the scope of project implementation.



Our discussion panel began with the presentation "Introduction to the innovation ecosystem in Mazovia" by Kamila Kuleska - Deputy Director of the Department of Regional Development and European Funds. Afterwards, presentation of the DIGI CLUSTERS project and a summary of the pioneering inter-branch hackathon program.

Then, a series of short self-presentations by zone participants:

- partners of the DIGI CLUSTERS project
- partners of the AGRIRENESSAINCE project

Network workshop focused on building synergies between projects DIGICLUSTERS i AGRIRENESSAINCE

Part I: Presentation of the La Rioja innovation system in the context of the wine industry

Part II Presentations of participants from Poland:

Clusters and business environment institutions::

- o Agro Bio Cluster
- o Mazowiecki Science and Technology Park
- o Waste Management and Recycling Cluster
- o Women & Wine

Companies:

- o Smart Berries sp z o. o.
- o My Herd

Science:

- o Institute of Agricultural and Food Biotechnology of prof. Wacław Dąbrowski – research and implementation in the field of agri-food biotechnology
- o SGGW – University of Life Sciences in Warsaw

Supporting programs:

- o EIT Food

Part III: generating interproject synergies between DIGICLUSTERS i AGRIRENESSAINCE

2.1. PHASE 2: PREPARATION - STUDY VISIT

As part of the study visits, three centers from various fields operating on the agri-food market were visited. The main goal was to know the infrastructure, equipment and innovative activities carried out in the region.

Warsaw Agricultural-Food Wholesale Market - BRONISZE



- 62.1 ha of total area;
 - 44.5 ha of building area;
 - 10.5 ha under the roof;
 - 365 permanent tenants;
 - 1300 shopping stalls at marketplaces;
 - Over 1.5 million entry tickets sold per year
-
- 29 000 polish producers deliver polish fruit and vegetables 470 wholesalers deliver imported fruit and vegetables

COMPLEX SERVICES

- State Inspections (Agricultural And Food Quality Inspection, Inspectorate Of Plant Health And Seed Inspection, • Mazovian Agricultural Advisory Center), • Waste Collecting Point, • Sewage Treatment Plant, • Laboratory, • Customs Agencies, Shipping, • Banks, • Parking, Loading / Unloading Ramps.

RECENTLY COMPLETED INVESTMENTS

- Waste collection and processing point.
- Modernization of water treatment.
- Hall with parking spaces for forklifts which run on gas.

Trade and logistics hall with accompanying infrastructure • Surface: • Hall: 1.3 ha, • Car parks: 0.5 ha, • Roads, maneuvering areas: 2.2 ha; • Two floors of the object, • Energy efficient solutions here implemented include: • Hydronic radiant panels, • Ground –coupled heat exchanger, • Light-emitting diode (LED). The hall was awarded Agricultural Crane 2019 for Modern Logistic and Commercial Solution.

FUTURE INVESTMENTS

- Implementation of new Entry and exit system,
- Modernization of Foodstuffs Hall - implementation in 2019/2020;
- Construction of a new hall - realization in the years 2023 - 2024.

PARTNER PROGRAMS

FOR SHOPS dedicated model of cooperation with distributors including: consulting and training, marketing support, approx. 120 retail outlets.

FOR PRODUCERS model of cooperation with small and medium-size agro-gardening farms, including: directional training, assistance in the implementation of quality systems, support in the labelling of goods, 50 entities (holdings).

Vigo System S.A

VIGO System S.A. is the global leader in production of high operating temperature IR detectors.



VIGO supplies unique products, manufactured with the use of internally developed technologies, competitive advantage is based on:

- › Over 30 years of experience in detector manufacturing,

- › The best quality to price ratio,
- › Ability to meet the highest quality requirements (NASA, military),
- › Main supplier for detectors for QCL,
- › Ability to provide highly customized solutions,
- › 140 employees (1 professor, 12 PhDs and >35 engineers),
- › 7500m² of production area.

TECHNOLOGY. Unique technology, established internally and continuously developed, allowing production of the most sophisticated optoelectronics sensors, outmatching rival companies. Flexibility and ability to customize every product to each client needs. Own R&D laboratory allowing development of technology and products.

PEOPLE. Highly educated and experienced personnel. Friendly atmosphere promoting creativity and innovation. Workplace allowing work-life balance.

MARKET KNOWLEDGE. Numerous group of satisfied customers. Wide network of distributors on European, American and Asian markets. Very good image on global detector market.

INNOVATION. Close co-operation with academia and R&D institutions allowing for highly advanced research. Ability to recruit highly competitive staff.

Bakoma production plant

Bakoma Sp. z o.o. was established after 1989 and is a leading Polish milk products program. Is a company with 100% Polish capital. Integrated production in a modern plant in Elżbietów. In achieving high quality products, Bakoma has implemented successively:

HACCP system from the beginning of the launch of dairy production,

ISO 9001 - "System management system" - since 1999,

ISO 14001 "Environmental management system" - since 2005,

ISO 22000 - "Food safety management system" - since 2007,

Certification for compliance with BRC and IFS standards - from 2012.

Bakoma is building the position of a strong dairy producer also abroad. We export our products to EU countries as well as Canada, Russia, Ukraine, China, Thailand, Vietnam, Indonesia, Qatar and others.



A team of specialists is constantly developing new recipes and selecting strains of yogurt bacteria so that they have a positive effect on the digestive system and the functioning of the body. We are constantly modernizing production lines, looking for better technological solutions, introducing innovative natural products.

Is a company strongly associated with nature, which is why it perfectly understands the need to care for the natural environment.

A modern wastewater treatment plant operates at the Production Plant in Elżbietów. It is a mechanical-biological sewage treatment plant with an additional sewage cleaner on a gravel-plant filter, operating in conditions close to natural.

We have the necessary permits for water collection, sewage disposal, air emissions and waste generation. All waste is segregated and stored securely to prevent it from entering the environment. Collection of waste is done only by professional companies that are authorized to run this type of business.

There are two renewable energy recovery installations at our Production Plant. These are so-called heat pumps, enabling the use of renewable heat energy accumulated in the natural environment. Energy recovery is very ecological because it reduces the use of non-renewable energy sources such as coal, heating oil and natural gas.

2.2. PHASE 2. WORKSHOP & DISCUSSION

Below is shown the methodology which will be followed by consortium members to carried out the peer review exercise. The Discussion Logic applied in the Peer Review was the following:

- *The representatives of the hosting region will deliver a presentation. This presentation will focus mainly on the key questions that the peer review exercise should answer. Participants can ask as many questions as they consider necessary for a better understanding of the situation.*
- *All the peers are asked to join one of the discussion tables (one for each question). Ideally, each table should include at least a representative of the hosting region.*
- *Participants at each table are invited to introduce themselves to other people at their table.*
- *The moderator distributes randomly the key questions among the discussion tables.*
- *Participants at each table begin the discussion. They will follow the following iteration: i) the question behind the question; ii) policy suggestions to the region under review; iii) lessons learned.*
- *Each group nominates a rapporteur that will summarize the results of the discussion.*
- *The moderator will summarize the general results obtained in the discussion. Participants can discuss the results obtained, adding additional details to the suggestions and lessons learned.*
- *All participants will fill out the assessment questionnaires and the lessons learned form.*
- *The contact person will compile all this information in order to elaborate the Peer Review Report.*

- **Find the question behind the question (yellow).** Participants must discuss the question assigned in order to better understand the problem faced by the region. The aim is to build a “new question behind the originally posed question” that allows a better understanding of the problem to solve. They will write in down on a yellow post-it note.

- **Policy suggestions (green).** Participants must propose policy suggestions based on their own experience and knowledge. Participants are encouraged to share both positive and negative experiences. They can analyze if these experiences can be applied in the hosting region.

Participants must agree on a list of the 3 most important suggestions. They will write down them on a green post-it note.

- **Lessons learned (pink).** Each participant must reflect on what they have personally learned on the peer review exercise. They can share their lessons with the group. Each group must agree on 3 most relevant lessons learned.

They wrote down them on a pink post-it note.

All the groups share the results of this discussion attaching them to a whiteboard. The moderator will foster the debate among the participants in order to identify additional aspects that they want to mention. Finally, he/she will summarize the results of the discussion tables.

2.2.1 - WORKSHOP & DISCUSSION - QUESTIONS & ANSWERS ON SITE

1. How to encourage the SME from the food agriculture sector cooperated with representatives of other sectors (e.g. photonic)? – hybridization.



YELLOW: FIND THE QUESTION BEHIND THE QUESTION

1. Necessity to disseminate the advantages of innovations;
2. Low level of knowledge on the use of KET in the agri-food sector.
3. There is a lack of strategic thinking and development in enterprises, including in particular in the area of R & D & I



GREEN: POLICY SUGGESTIONS

1. Increase funding clusters;
2. To create association/network of clusters;
3. Implementation of acceleration programs that accelerate the development of enterprises from the agri-food sector



PINK: LESSONS LEARNED

1. Encourage cross-sectoral cooperation by promoting good practices in this field.
2. Implementation of regional policy through clusters.

2. What policies and tools can be suggested to increase the collaboration among public and private players for agri-food sector in Mazovia?



YELLOW: FIND THE QUESTION BEHIND THE QUESTION

1. Universities focused only on science;
2. Lack of knowledge of the service;
3. Complex procedures in universities.
4. Lack of coordination between similar organizations.
5. Low level of technology transfer from scientific units to business



GREEN: POLICY SUGGESTIONS

1. Engagement the university managers to provide services to business;
2. Understand the business language;
3. Eliminate barriers to bring the enterprises to the universities,
4. Organization of networking meetings with entrepreneurs
5. Strengthening networking organizations, e.g. clusters, which will act as intermediaries in cooperation with entrepreneurs.



PINK: LESSONS LEARNED

1. Financing from the regional level only strong organizations: clusters, R + B centers to implement the innovation strategy.
2. Building a regional innovation system based on key players.

3. How to increase the capacity of SMEs in the agri-food sector to introduce innovations?



YELLOW: FIND THE QUESTION BEHIND THE QUESTION

1. Enterprises focused on the day to day;
2. Necessity to disseminate the advantages of innovations;
3. Time cost way difficult for enterprise innovate;
4. Large enterprises innovate SME`s are far from innovations;



GREEN: POLICY SUGGESTIONS

1. Stimulating cooperation of large enterprises with SMEs;
2. Creating instruments to promote cooperation between the public and private sectors;
3. Promoting new cooperation models in the area of innovation



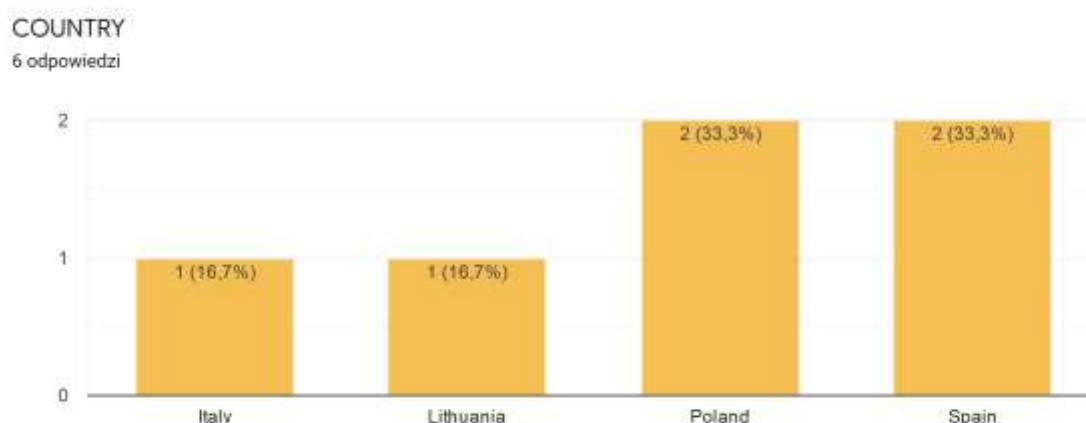
PINK: LESSONS LEARNT

1. Creating and supporting the development of DIH
2. Formal involvement of large enterprises in creating a regional innovation system.
3. Identifying key actors responsible for cooperation

2.2.2 - WORKSHOP & DISCUSSION – ON LINE SURVEY & COMMENTS

Mazovia carried out a survey among project partners who had to assess specific issues regarding the three objectives of the project in relation to the Mazovia region. As a result of the survey, answers from 4 regions were received along with commentators for each of the areas.

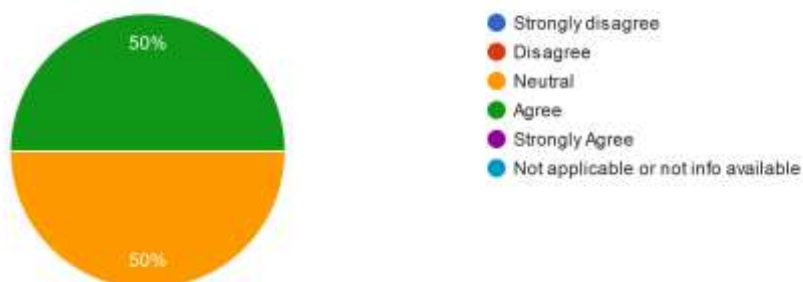
Total Answers distributed by countries



Objective 1. R&I infrastructures and capacities: questions & answers

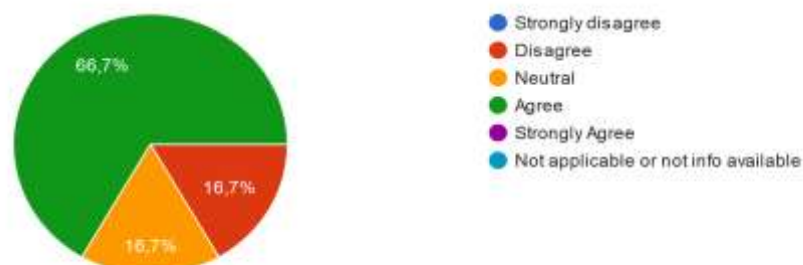
1.1 The regional R&I infrastructures and capacities are efficiently managed, obtaining the maximum available performance neutral

6 odpowiedzi



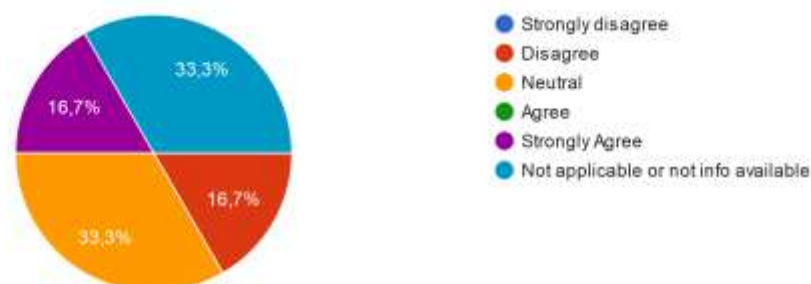
1.2 The technical and scientific resources available are enough according to the socioeconomic and scientific profile of the region

6 odpowiedzi



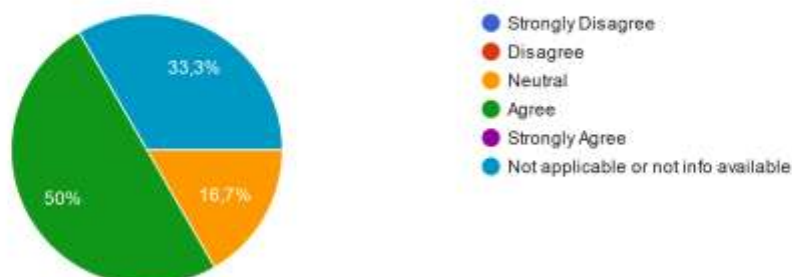
1.3 The mechanisms to incorporate investigators in the R&D&I centres are adapted to the necessities of the region

6 odpowiedzi



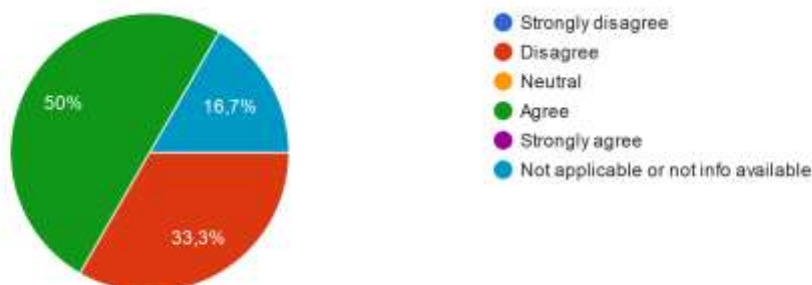
1.4 A precise formation and a solid professional career plan are available for the investigators

6 odpowiedzi



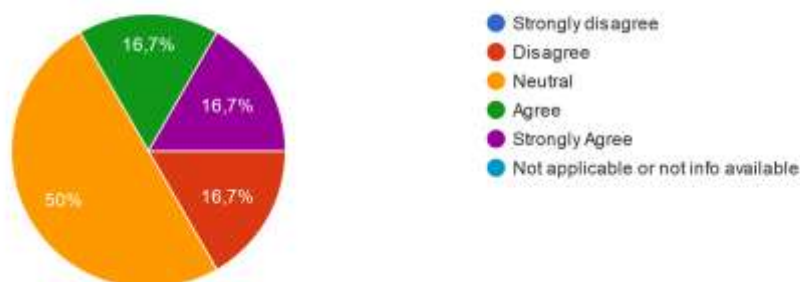
1.5 The coordination among public and private agents to use the R&I infrastructures and capacities is optimal.

6 odpowiedzi



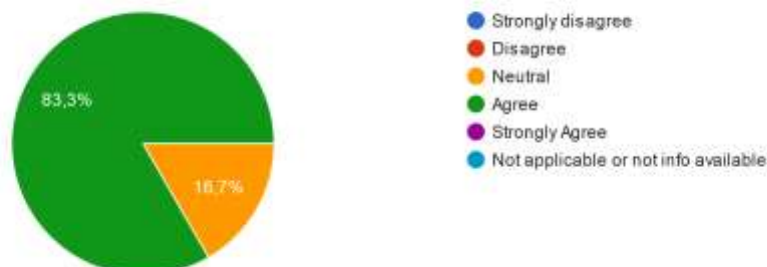
1.6 The R&I public policy mix covers satisfactory the management and dynamization of the infrastructures and capacities

6 odpowiedzi



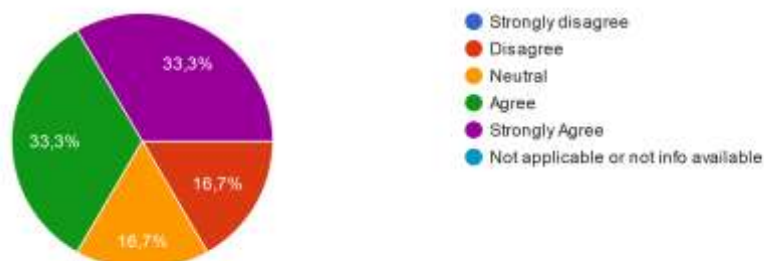
1.7 The public funding available is enough to cover the necessities of R&I infrastructures and capacities of the Food Sector

6 odpowiedzi



1.8 The capacity of SMEs in the agri-food sector is sufficient to introduce innovation

6 odpowiedzi



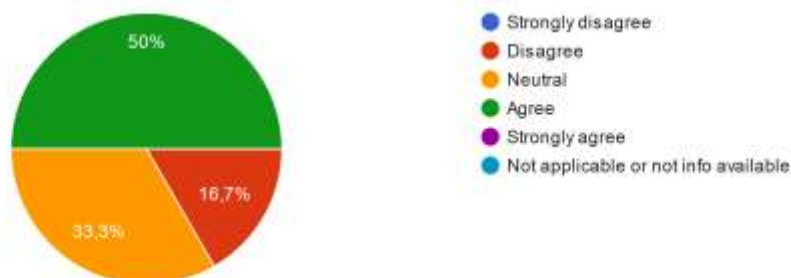
COMMENTS ON OBJECTIVE 1: R&I Infrastructures and capacities 6 answers

- I believe that, after what has been seen, in the region of Mazovia there is a lack of specialized agrifood infrastructure and scientific capabilities and a connection with the productive sector;
- In my opinion, It would have been necessary to visit Universities, research centers and other R+D+I infrastructures in the region;
- The infrastructure and capacities are enough (we were told so), but business cannot easily access;
- It is a Region in strong economic growth and with research and innovation based on new technologies, at the moment the infrastructures are concentrated in the city of Warsaw and therefore it will be necessary to work to reduce the gap with the area of the region;
- Scientific units should be encouraged to make research infrastructure available to entrepreneurs;
- Insufficient cooperation between SMEs, the public sector and research institutes.

Objective 2. R&I public-private collaboration: questions & answers

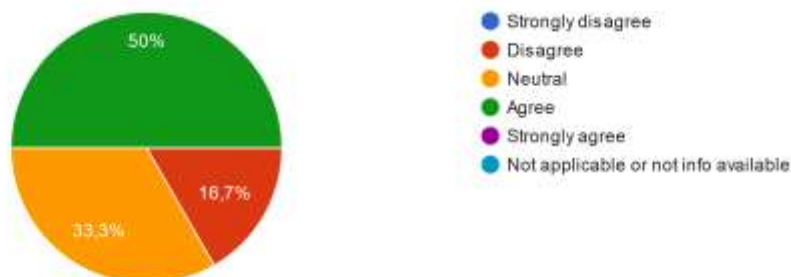
2.1 The collaboration among public and private Agro-Food Technology Centres is efficient

6 odpowiedzi



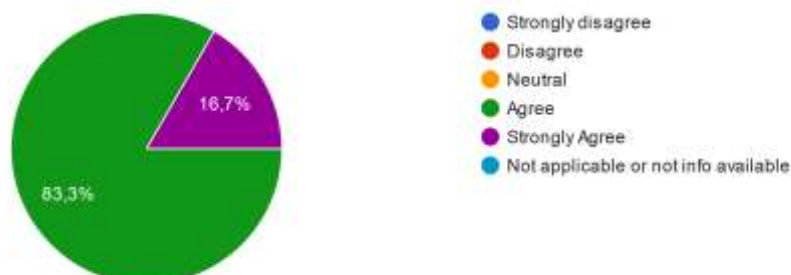
2.2 The cluster policy encourages the collaboration among public and private players in the Food Sector

6 odpowiedzi



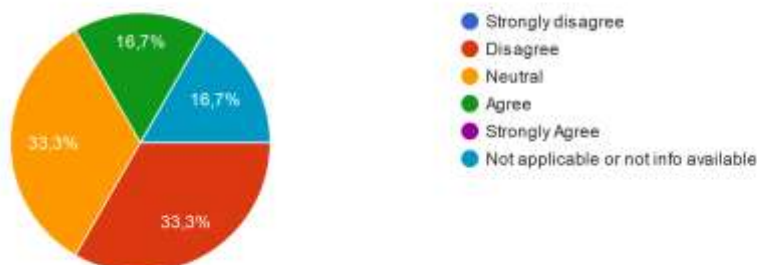
2.3 Clusters are one of the main protagonists in fostering the innovation in the enterprises

6 odpowiedzi



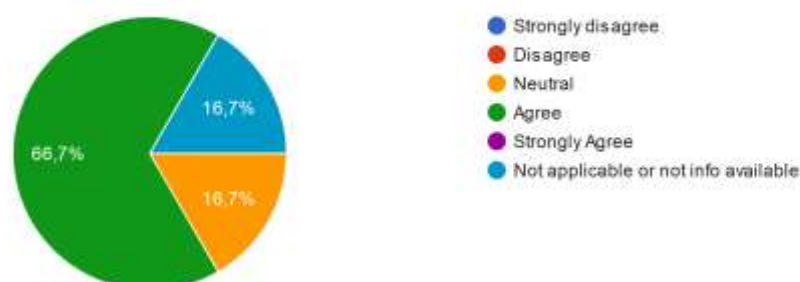
2.4 There are enough tools and mechanisms to facilitate the collaboration among Public Administration, Universities and private R&D Centres

6 odpowiedzi



2.5 The funding tools (policy instruments) are efficient in terms of fostering the collaboration between the public and private sector

6 odpowiedzi



COMMENTS ON OBJECTIVE 2. R&I public-private collaboration

- I think that agrifood R&I in the region is very deficient and therefore there is no connection;
- According to the strengths mentioned in the SWOT analysis, In Mazovia, it is still necessary to support all forms of cooperation between representatives of the scientific and business communities (For example, by using existing networking institutions such as clusters);
- We have seen large companies innovate on their own, but no examples of how companies cooperate with research institutions have been provided;
- The collaboration between public and private research centers is still a newborn child, at the moment investments focus more on public research centers, the fragmentation of clusters does not facilitate cooperation between centers and clusters, the latter should have an even more important role for the growth of peripheral areas and the collaboration with the Metropolitan City of Warsaw

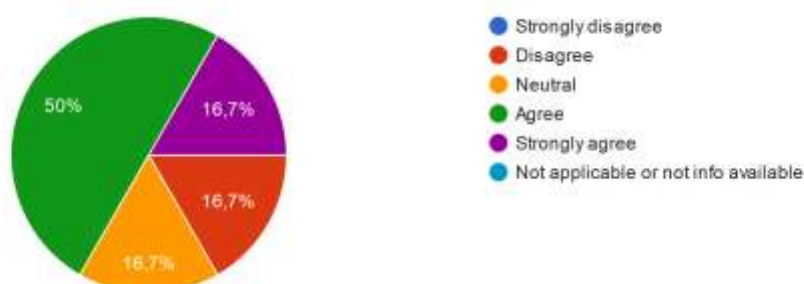
The development of public-private cooperation should be supported through strong clusters that will be able to implement innovation policies;

- Compared to the previous perspective 2007-2013, nowadays we can notice increased public-private cooperation in the field of research and innovation.

Objective 3. Hybridization of the agri-food sector with other sector within and across regions: questions & answers

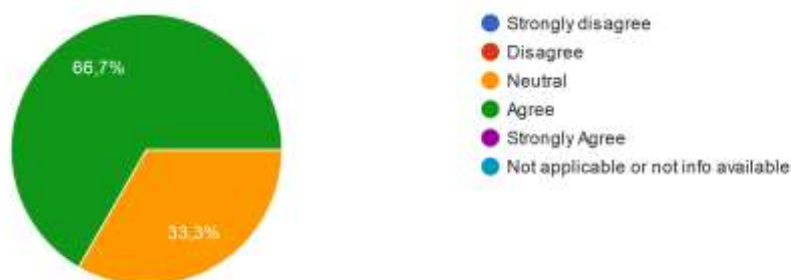
3.1 The main players are being involved in the process of technology implementation

6 odpowiedzi



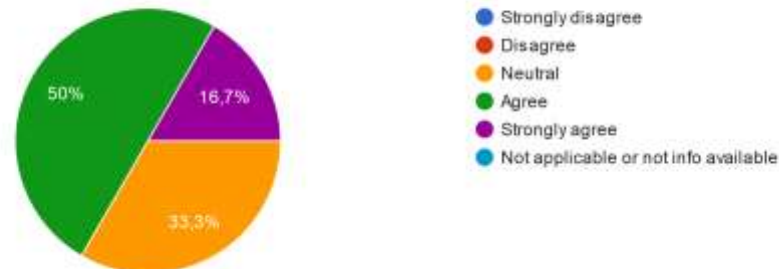
3.2 The policy mix supports the identification of innovation opportunities at the interface between different disciplines, industries and sectors

6 odpowiedzi



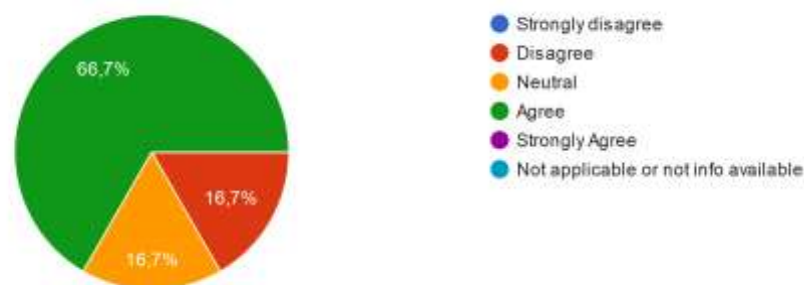
3.3 The Key Enabling Technologies (KET) identified in the S3 are adequate to foster the collaboration between the Food Sector and other regional industries

6 odpowiedzi



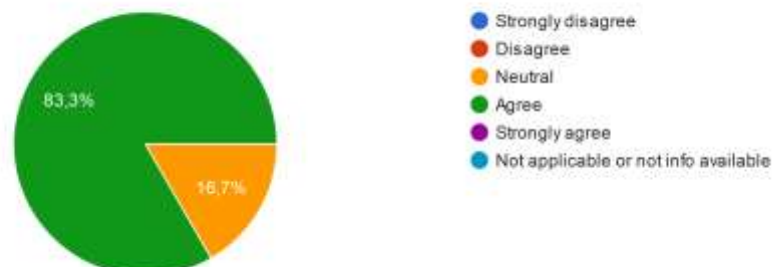
3.4 The enterprises have public funding instruments that are adequate to promote the development of solid R&D projects

6 odpowiedzi



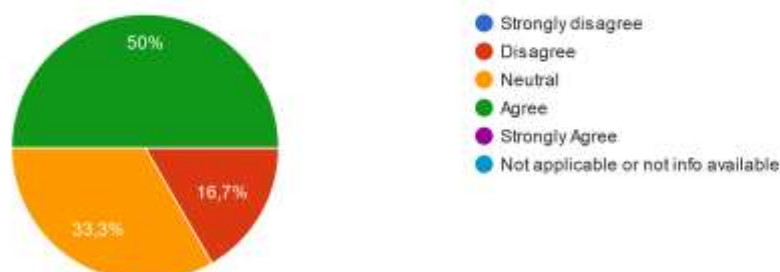
3.5 The Food Sector has enough and adequate human capital to lead the technology change

6 odpowiedzi



3.6 The policy mix and policy instruments foster the development of pilot and/or driving projects among different sectors

6 odpowiedzi



COMMENTS ON OBJECTIVE 3: Hybridization of the Agri-Food Sector with other sector within and across regions 6 answers

- I think the region has a lot of potential to boost hybridization actions;
- Once again and in accordance with the main conclusions of the SWOT analysis carried out in the region, regional support instruments should encourage cooperation with other industries (for example, metal, electromechanical, photonics) and the implementation of innovation in the agri-food sector;
- There is scope for expanding cross-sectoral cooperation;
- The hybridization of the agri-food sector with the other sectors is present in the Region while it is not yet developed with the territories of the other Regions, but it is normal in an economy in full expansion, it becomes difficult to regulate this amount of hybridization in progress while the natural process of R&I in the agri-food sector will lead to greater hybridization;
- The greater use of KET by the agri-food sector, in particular photonics, biotechnology and advanced materials, should be encouraged;
- Increased involvement of the public-private sector and research institutes in activities affecting the development of the agri-food sector in terms of verifying existing support measures and policies, regulatory framework, research needs - regarding hybridization of the agri-food sector.

2.2.3 - WORKSHOP & DISCUSSION - LESSONS LEARNED-ON LINE SURVEY & COMMENTS

A document was distributed between the beneficiaries after the meeting in Mazovia in order to identify good practices, ideas and suggestions to elaborate the future action plan.

The questionnaire invites to reflection on the lessons learned during the visit to Mazovia and the possible application in the policy instruments of each of the participating regions. The responses of the different partners are shown below.

POLICY 1

LESSON LEARNT	ACTION TO IMPLEMENT IN YOUR POLICY 1
Firstly we would like to remark the very interesting regional initiative, the 10th Mazovia Development Forum, where we could see the synergies between the administration, research institutions, clusters and companies. We also would like to highlight, the activities of the European Institute of Innovation & Technology, an institution with a large international partnership net that develop very interesting projects in circular economy, bio-economy and innovation. It is also remarkable the work developed regarding the support, incubate and accelerate of startups.	In our opinion, we could implement actions to foster the collaboration between research & tech centers, clusters and companies in real agri-food projects. It is also very important to develop coordinated actions in order to the hibridation of KETs and bio-technolgy in the agri-food sector.
Wide ecosystem of agri-food research organizations (university, public centers, platforms, etc.). For the information received (presentations and web information since they were not visited) they enjoy modern infrastructure and equipment. They participate in cooperation projects with each other although it is worth noting the poor connection with companies (low level of projects with companies)	Promotion of public policies to support the modernization of scientific-technological infrastructures and the development of collaborative methodologies for the efficient exploitation of resources.
We found very interesting the hybridization on Research and Innovation of the tenth Mazowsze development forum, between new technologies for sustainable mobility and personal well-being, from virtual simulators to the physiotherapy school, from organic foods to the Hi-tech industry and finally large experiments in social and circular economics.	Certainly the various economies of the Region could be coordinated with the support of clusters and innovation clusters in order to have more synergy between the various actors of agribusiness development and research center's.
One of the most important issues is a common interest in development of innovations between private and public sectors. The best way to the spreading of innovations is equal involvement of private and public sectors. The private sector should be interested in partnership with the researchers.	In the policy there could be established some support measures, which would foster public and private cooperation. Such measures should be properly discussed with the main stakeholders in order to construct these measures in the best way.

POLICY 2

LESSON LEARNT 2	ACTION TO IMPLEMENT IN YOUR POLICY 2
The innovation ecosystem of the region is remarkable. The Mazovia region is very specialized in the agri-food sector with the highest investment ratio in R&D&I in Poland, more than 50% of the national total. The innovation ecosystem includes business, clusters, universities, research units, entrepreneurs and startups.	To continue working on the improvement the coordination of all the agents included in the La Rioja Innovation System, establishing policies and providing funds to increase the investment in R&D in scientific infrastructures and promote actions to foster innovation in companies.
Strong public support and broad presence of Clusters entities as agents of connection with public agents (government), science (research organizations) and productive sector (companies).	Development and implementation of public policies to support sectoral clusters and inter-cluster collaboration. Establishment of outcome indicators to verify the usefulness of public funds.
The Mazovia Region is certainly the most specialized of the Polish regions, but it is also true that more than half of the innovation ecosystem is concentrated in the capital city of Warsaw, for obvious reasons of concentration of capital in the metropolitan city. The real challenge is to bridge the development gap with the research and innovation of the peripheral areas with the center of the Region and with the other Regions of Poland, the innovation poles are complete and together with the clusters could create development synergies for economic cohesion between the territories, the innovative start-ups are not very many but on the contrary the clusters are well equipped with research centers.	There is no ideal recipe to increase the development and innovation of the agri-food sector but to increase cooperation three actors and bodies this would create the right coordination for the growth of the territories
It is very important that business and researchers could find each other in the easiest and shortest way. Also it is important that business would be informed about the possibilities of researches. For a better cooperation, it would be useful to create a common R&I demand and supply platform.	Improvement of communication between researchers and business could be done through the creation of a common R&I demand and supply platform.
Agro-food sector shows a unicity of products, which could be important to conquer agricultural markets, domestic or international, thanks to big volumes guaranteed by farmers' production, that can be much more specialized than other countries which have different policies. It is important to assure a continuous supply and to meet the markets' request everywhere in the world. This can give to Polish agriculture an added value.	Probably a more diversified agriculture could be save the local biodiversity, which could be compromised by an intensive cultivation. They could orienteer Polish agriculture towards organic agriculture. During the visit of Bakoma company, we have noticed the lack of information about the milk origin and the absolute lack of information about the quality of milk.

POLICY 3

LESSON LEARNT 3	ACTION TO IMPLEMENT IN YOUR POLICY 3
<p>A very good initiative related to public and private collaboration was shown during the visit at Warsaw Agricultural-Food Wholesale Market. There we could see the participation and the public management in different wholesale markets in Poland. Different investment, innovation and promotion projects are being developed to foster the agri-food sector.</p>	<p>The Government of La Rioja has an extensive financing program to promote R&D initiatives in technological centers, research centers, and cluster, but it is vital to improve the transfer of technological advances and scientific knowledge to companies. Concrete actions and indicators should be developed to encourage innovation in companies.</p>
<p>Hybridization experiences between different sectors such as the Mazovia Science and Technology Park and AgroBioCluster. Strong presence of the bio side in the agri-food field.</p>	<p>Public promotion of support for the generation of initiatives and projects between different sectors or technologies that help the agri-food sector</p>
<p>The public administration's investment policy is a great example of support for employment growth, market demand is supported by the widespread production of small entrepreneurs who have standardized production as if they were a single company, all study visits have been important for understand public investment in these territories, the RIS 3 is conventionally used with the support of research centers and also in the industries specialized sensors and nanotechnologies are used. Impressive the dairy sector that produces smart yogurt farms!</p>	<p>The levels of specialization can increase the profitability of companies, even small innovations in the marketing of wellness can increase the contribution of added value, an example is to introduce the fight against cancer with the introduction of goat yogurt, or for example nanotechnology in processes Biological self-diagnostics, the level of telecommunications technology and innovation poles can have conspicuous exchanges both in hybridization and in territorial governance.</p>
<p>There are a lot of research centers and institutions, but the communication and sharing of the information is not sufficient. It could occur that the same research would be done in a few different centers. It would be a waste of resources. The creation of a common data exchange system would possibly improve regional and interregional cooperation between research companies and would possibly reduce the need for funding, since there would be no need to duplicate research.</p>	<p>Create one center coordinating other research centers in order to coordinate all researchers and resources (financial, technical and human).</p>

Public funds are aimed to support important and strategic agricultural and agro-business sectors with a significant presence in many research and innovation fields and probably the opening to national and international markets is made easier for the capacity to intercept what consumers demand.	An action which could be implemented is connected to introduce organic foods and bio-systems of production, which now results as a lack of Polish strategies. Consumers are now much more aware than in the past about to organic food consumptions.
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3. CONCLUSIONS

Regarding the **How to encourage the SME from the food agriculture sector cooperated with representatives of other sectors (e.g. photonic)? – hybridization:**

The Mazovia region is characterized by high scientific potential with scientific units quite well equipped with research infrastructure, which are mainly located in Warsaw. However, the coordination of links between public and private entities to use existing research infrastructure is unsatisfactory. It seems necessary to coordinate actions supporting cooperation in order to efficiently use existing resources. The methodology / selection of public policies for research in innovation should also be considered. This action should be consulted with major stakeholders.

Regarding the **R&I public-private collaboration:**

We all agree with the statement that clusters are one of the main protagonists in supporting innovation in enterprises. Most respondents also share the view that we have sufficiently effective financial tools in terms of supporting cooperation between the public and private sectors. The only negative factor is the insufficient number of tools / mechanisms facilitating cooperation and supporting various forms of cooperation between public administration, research centers and private research and development centers.

Regarding **Hybridization of the Agri-Food Sector with other sector within and across regions:**

Crucial to encourage entrepreneurial innovation. Determining the appropriate set of public policies to support innovation at the interface of various industries, sectors and disciplines as well as to support the development of solid research and development projects as well as the development of cooperation between large enterprises and SMEs in the region.

Final conclusion: The analysis above shows that, by generalizing the answers to all three questions asked to partners during the peer review, it should be concluded that the most important value is the implementation of the triple helix model as a tool for shaping economic growth and regional development, as well as tools for shaping policy.

In order to grow the agri-food sector in Mazovia, cooperation should take place at least in the field of clusters, large enterprises from SMEs and the science and business sector.

Finally, we would like to emphasize that all the suggestions and comments from partners will be taken into account when prioritizing areas of action and they will be also put into value in the different meetings with the local stakeholders, together with the rest of the results obtained from our regional diagnosis.

ANNEX I: PHOTOS

1. Study Visit (16th October 2019) The 10 Mazovia Forum



2. Study Visit (17th October 2019)

Warsaw Agricultural-Food Wholesale Market - BRONISZE



VIGO System S.A. is the global leader in production of high operating temperature IR detectors.



Bakoma production plant



3. Workshop & Discussion (18th October 2019) The headquarters of the Marshal of the Mazowieckie Voivodeship

