

GOOD PRACTICES
AFFECTING

THE RURAL DEVELOPMENT

*– examples of operations
implemented under
the operational plan
of the National Rural Network
in 2019*



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LADIES AND GENTLEMEN,

I would like to present you with the second publication containing the examples of operations implemented under the operational plan of the National Rural Network and affecting the rural development. This time, these are the examples of operations implemented in 2019.

The objective of the NRN's activity is, among others, to increase interest with regard to implementing initiatives and to activate rural residents for taking projects on rural development as well as to support innovation in agriculture and rural areas.

As a result of the operations implemented under the NRN, the knowledge is disseminated, among others, with respect to innovative solutions in agriculture, production of food and in rural areas, creation of short supply chains and direct sales, organic agricultural production, limitation of environmental degradation, development of enterprise in rural areas and promotion of the countryside as a place to live and develop in professional terms.

The NRN's operations also actively support the achievement of objectives and intervention types of the 'Strategy for the sustainable development of rural areas, agriculture and fisheries 2030' which determines the key directions of rural, agricultural and fisheries development by 2030. The areas resulting in the achievement of the strategy's objectives are: efficient management of development, stable financing of development and permanent ability to create and learn.

The implementation of the NRN projects is part of the above-mentioned objectives, and the examples of operations presented in this publication are the best evidence that the NRN contributes to implementing all the objectives laid down in the Strategy, i.e. to dissemination and promotion of actions for rural development with regard to the profitability of agricultural production, improvement in the quality of life, infrastructure and state of environment, development of enterprise, non-agricultural jobs and active society as well as to the implementation of the vast majority of intervention types specified for these objectives.

By presenting you the examples of operations implemented under the National Rural Network in 2019, I hope that they will inspire you to work further for rural development as well as to take actions in your own farms and local societies.

I encourage all of you to become familiar with the examples of operations implemented under the RDP 2014–2020 (including the NRN) placed on the website www.ksow.pl, hoping that you will find inspiration to implement your own project there.

Ryszard Kamiński
Undersecretary of State
at the Ministry of Agriculture and Rural Development



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▶ PRODUCTION OF FOOD SAFE IN HEALTH TERMS ON FARMS IN THE ASPECT OF DEVELOPMENT OF AGRICULTURAL RETAIL TRADE

- ▶ The operation implemented by the NRR partner:
Prof. Waclaw Dąbrowski
Institute of Agriculture and Food Biotechnology

The objective of the operation was to support initiatives aimed at creating potential operational groups, increasing interest in the production of food on farms by launching the local production and distributing food under short supply chains.

The operation has been implemented in the form of training (lectures and workshops).

Training including a series of lectures and workshops conducted by the Institute's research workers was attended by forty persons, including: agricultural advisors, employees of agricultural advisory units and farmers involved in or planning to get involved in the production of food on farms. Training was attended by persons pursuing agricultural activity and by agricultural advisors.

During training, the participants were presented with the issues of food safety in terms of its production on farms, new food processing technologies and food distribution problems under short supply chains. The knowledge conveyed to the employees of agricultural advisory centres will enable the further popularisation of good practices among farmers involved in the production of food, will be an important factor determining the development of their activity and the development of the whole market.

The knowledge gained will be used directly with regard to planning the local development, taking into account the economic, social and environmental potential of a given area. This will contribute to immediate effects through the enhanced knowledge and awareness with regard to broadly understood food safety and processing and will make it possible to create local plants producing low-processed and healthy food all over the country. The group attending training, thanks to the knowledge gained will activate, first of all, individual farmers to start producing food, including new regional products, by providing them with necessary consultations in this regard.

The outcome of the measures taken under the project will be the increased volume of this food range and its improved quality which, in the mid- and long-term, will boost the competitiveness of products in the food market and will contribute to improving the economic performance of farms, through the fairer distribution of value added in the food supply chain. It should be stressed that positive effects of implementing the projects will be visible, first and foremost, with respect to small farms of particular social and cultural importance in Polish agriculture.



The objective of the operation was to enhance the knowledge and competence of participants in a study trip with regard to the production, promotion and distribution of local products and to create conditions for searching and establishing partnerships among market entities. The operation has been implemented in the form of a study trip. The participants of the trip were farmers/rural residents from four voivodeships – representatives of local agricultural producers operating in the market under ART (agricultural retail trade), direct supplies, direct sales, MRL (marginal, restricted and localised activity) as well as farmers planning to start up the above-mentioned activity. In addition, the trip was participated by the representatives of the University of Science and Technology in Bydgoszcz and agricultural advisors, all involved in the issue of rural development, food processing and sale at the farm level.

During the trip, the participants could see farms with various profiles of activity, which are involved in direct sales. The closeness of Berlin has been used by the Ökodorf Brodowin farm in Germany. Following the times of transformation, the former state-owned agricultural enterprise developed the production and sale of organic products, cooperating with other farmers delivering food to nearby Berlin. The Bavarian farmer sells cold meat based on his own raw material in this backyard store, which is open once a week. In view of the growing number of customers, he does not see a need to sell products outside his farm. The visited farms mostly had backyard stores. A cheesemaker from Austria sells his products on the farm and has his 'Store on wheels' at the marketplace in Salzburg, which was visited by the participants on the following day. Apart from the farmers operating on their own, the participants could learn the examples of joint sale. A family from Thaur, in addition to vegetables from their own farm, also sell food from local farmers. On this farm, the so-called 'sale in boxes' works perfectly and food is delivered to a customer. Boxes are delivered also to Prague where its residents pay an annual subscription and in exchange for it they receive a box full of seasonal vegetables and fruit every week. In this case, this takes place on an initiative of consumers, supported by the AMP organisation from Prague. An interesting experience was a visit to the 'Farmer's store' which is developing very quickly and is situated just next to a supermarket and offers food from local farmers. The trip was crowned by a cheesemaking workshop in 'Wańczykówka', during which the participants could learn how the technology of cheesemaking using the farmer method and the special nature of operation of such a farm in the market.

GOOD EXAMPLES OF COOPERATION AMONG PRODUCERS OF LOCAL FOOD ON AN EXAMPLE OF FOREIGN AND POLISH EXPERIENCE

The operation implemented by the NRN Partner:
Kujawsko-Pomorski Agricultural Advisory Centre in Minikowo

More information about the operation can be found on the website:
<https://tinyurl.com/wyjazdKPODR>



▶ DEVELOPMENT OF A SHORT SUPPLY CHAIN FOR THE DISTRIBUTION OF MILICZ CARP

▶ The operation implemented by the NRN Partner:

Wrocław University of Environmental and Life Sciences

▶ More information about the operation can be found on the website:

<https://tinyurl.com/karpMilicki>



The objective of the operation was to develop an optimal model of efficient cooperation between producers and final customers, based on short supply chains in the market of Milicz carp.

As part of the operation, surveys were carried out among producers of carp and consumers, restaurant owners from the Valley of Barycz and from Wrocław and agritourism farms operating in the area of the Valley of Barycz. The collected data has been analysed and complemented with interviews with representatives of fishing communities and local leaders functioning as part of a Local Action Group. Then, a scientific monograph has been developed and published, which presented the results of surveys and proposed the directions of further actions aimed at developing short supply chains in the market of Milicz carp. Finally, a conference was organised, presenting the results of surveys and a new model of carp sale based on a short supply chain. The recipients of the operation were: carp breeders, restaurant owners, agritourism farms' owners, local and regional government authorities, representatives of institutions supporting the rural, fisheries and agricultural development as well as consumers.

It has been diagnosed that the current situation in the market of Milicz carp results from a number of factors, which include, first of all:

- ▶ seasonality of consumption – concentration of consumption during Christmas;
- ▶ short period of profit generation – problems with selling carp out of season;
- ▶ relatively poor developed own processing;
- ▶ low demand for carp generated by restaurants, particularly in Wrocław;
- ▶ gradual disappearance and negative image of fish stores;
- ▶ relatively poor developed direct sales channel.

The fundamental objective of the operation was to develop a new model of cooperation between producers and final customers in the market of Milicz carp based on short supply chains. In the new model, carp will be sold, primarily, locally and regionally and the key role in generating the demand will be played by mass catering facilities. The importance of direct sales will grow, among other things, as a result of associating carp breeders with consumers as part of new cooperation models e.g. community-supported agriculture or community-supported fisheries. The shift from long to short supply chains in the market of Milicz carp requires taking multifaceted actions which should be participated by: producers, consumers, restaurant owners, local government units, government sector institutions, non-government institutions supporting the functioning of agriculture, fisheries and rural development.

The objective of the operation was to develop foundations for introducing innovation in rural areas regarding breeding of meat cattle in the Lower Silesian Voivodeship.

The operation has been implemented in the form of a study trip to France. The study trip was participated by: farmers, breeders, entrepreneurs, representatives of the scientific community and AAC.

In Lower Silesia and also across Poland, the level of breeding meat cattle is low and there is no system of organisation of this breeding. There is also no organisation which is comprehensively involved in breeding meat cattle while such organisations have been present in France for a very long time.

During the study visit, the participants became familiar with the issues regarding the Limousine and Charolais breeds and also with innovations with regard to breeding meat cattle – the programme of using markers for the practical evaluation of the breeding value of Limousine males and females which allows to evaluate the breeding value (BV) after the birth for twelve traits of interest to the selection of the Limousine breed and the 'IBOVAL' programme to manage meat herds.

The participants visited the farm producing beef using the 'calves with mother' system. This is a specific system for the Limousine breed. Calves are fed on mother's milk only. After this period, they are sent for slaughter. This kind of meat is very expensive and is called 'white meat'. As part of the visit, the participants became familiar with the animal breeding system, feeding, method to select bulls (semen) and conduct breeding as well as methods to value and sell animals. On the farm breeding Charolais cattle, they learnt the method to run the farm, to select and feed Charolais animals kept mainly under the intensive system for fattening. The farm ownership system is an agricultural company based on cooperation and specialisation of farmers in various types (breeding, rearing, production of feed) and making joint purchases and contracting loans.

At the in vivo and in vitro embryo production centre belonging to the Evolution Cooperative, the issues related to the transfer of embryos, objective, methods and results of this procedure were discussed. The second visit was paid to the Charolais Univers organisation and to the bull semen production centre of the Charolais Univers Programme in Blain.

The trip enabled the exchange of knowledge and experience among Polish breeders and scientists and also among the participants in the operation and French breeders and persons involved in the production of meat cattle. During the trip, an initiative was established to create an operational group for innovation (EPI) which would deal with the development of the meat cattle industry in Lower Silesia.

BEEF FROM THE GREEN VALLEY – CREATING NETWORKS FOR COOPERATION REGARDING BREEDING OF MEAT CATTLE IN LOWER SILESIA [DOLNY ŚLĄSK]

The operation implemented by the NRN Partner:
Wrocław University of Environmental and Life Sciences

More information about the operation can be found on the website:
<http://www.cku.upwr.edu.pl/projekty/>



▶ POPULARISATION OF PROCESSING AS AN ADDITIONAL SOURCE OF INCOME ON FARMS

▶ The operation implemented by:
**Marshal's Office
of the Podlaskie Voivodeship**

The objective of the operation was to popularise processing and trade activity (ART, MLR) as an additional source of income as well as to exchange the knowledge on producing products using raw materials available on the farm.

The operation has been implemented in the form of a workshop attended by persons associating their future with rural areas and interested in enhancing their competence in the above-mentioned regard, in particular, members of Farmers' Wives' Associations.

The workshop was aimed at making the participants familiar with methods to produce food products at home and at encouraging rural residents to start up activity related to rural tourism or small processing. In view of interest in the subject-matter raised during the workshop, four editions were carried out, attended by two hundred-twenty persons in total.

During the cheesemaking workshop, in addition to practical skills of making such types of cheese as farmer's gouda, mozzarella or paneer, the participants received directly from the persons conducting the workshop practical advice on advantages of pursuing activity, either as the marginal, localised and restricted activity (MLR) or agricultural retail trade (ART). An invaluable element supporting the project was the presentation of a cheesemaking manual published by the Marshal's Office of the Podlaskie Voivodeship, from which the participants could obtain a compendium of information about creating a professional cheesemaking plant while meeting all formal and sanitary requirements (<http://www.sery.wrotapodlasia.pl/>).

As a result of the cosmetic workshop, the participants, not only the ladies, could learn the advantages of using plants from the nearest neighbourhood, e.g. mint, lavender, sunflower, hemp, sage, rockrose, camomile, rosemary, marigold and many more. The person conducting the workshop explained the subject-matter of advantages of natural cosmetics over drugstore cosmetics and what should be taken into account when we read labels. An interesting fact was the use of plants and products from our kitchen for making chemicals for housework. An element summarising the series of workshop was the individual preparation by the participants of cosmetics used in everyday life such as, e.g. glycerin soap, bath salt or fizzy bath bombs.



The objective of the operation was to disseminate the knowledge regarding innovative technologies and techniques of production, processing and organising sale of organic products.

The operation has been implemented in the form of a seminar and a study trip and addressed to organic farmers and farmers wishing to start organic farming, farmers running agritourism farms, research workers and agricultural advisors.

The theoretical part of the seminar was held in Suchedniów. The first lecture concerned modern production techniques of selected vegetables by means of organic methods. What was discussed in detail during the lecture was the issue of soil fertility and how to maintain it, as well as what actions should be taken to protect soils against chemical degradation. The further part of the lecture discussed the reasons for the occurrence of diseases in vegetable crops and the eradication by means of organic methods.

Another address related to the issue of microorganisms in the organic cultivation of fruit trees and shrubs, attention was paid to mycorrhiza, i.e. co-existence of fungi with thin roots of seed plants, prothalli of pteridophytes, rhizoids of hepatics. Another issue raised at the seminar were modern production techniques of selected fruit by means of organic methods on an example of grapevine. In connection with changes taking place in the nature and climate warming, which entails the increased number of sun hours from April to October, all those factors created good conditions for the cultivation of grapevine and production of wine. On the second day of the seminar, a lecture was delivered on sale of organic products on the farm and in particular on Agricultural Retail Trade. Also the issues of processing on the organic farm were raised.

As part of the study trip, the participants visited the Fruit-Growing Experimental Plant in Brzezna which has been active interruptedly since 1953. Its basic task is to support the development of fruit-growing in the sub-mountainous area by conducting research, disseminating the knowledge on fruit-growing and producing basic nursery material. Raspberries from Brzezna are famous all over the world.

Another element of the study trip was the Maurer juice bar located in Zabrzeż near Łącko, where the participants learnt how to produce juices. Juices are cold pressed thus not losing valuable vitamins. In addition, they are naturally turbid, contain no preservatives and contain only sugars naturally present in vegetables and fruit.

Participation in the organised seminar and study trip allowed to establish contacts among farmers from the Świętokrzyskie Voivodeship who, as those operating with regard to organic production, will be able to establish mutual cooperation, among others, in business and trading terms.

INNOVATIVE TECHNOLOGIES AND TECHNIQUES OF PRODUCTION, PROCESSING AND SALE OF ORGANIC PRODUCTS

The operation implemented by the NRN Partner: **Świętokrzyskie Agricultural Advisory Centre in Modliszewice**

More information about the operation can be found on the website: <https://www.sodr.pl/main/aktualnosci/idn:1210>



▶ SHORT SUPPLY CHAIN AND AGRICULTURAL RETAIL TRADE AS DETERMINANTS OF DEVELOPMENT OF LOCAL AGRICULTURE

- ▶ The operation implemented by: **Podlaskie Agricultural Advisory Centre in Szepietowo**
- ▶ More information about the operation can be found on the website: <https://tinyurl.com/lancuchRHD>



The objective of the operation was to support organisation of the food supply chain and to encourage rural residents to process agricultural products.

The operation has been implemented in the form of workshops and a summary conference of which footage was made. The operation was addressed to farmers from four voivodeships, i.e. Podlaskie, Mazowieckie, Kujawsko-Pomorskie and Warmińsko-Mazurskie.

At the Agri-Food Processing Technology Centre of the Podlaski Agricultural Advisory Centre in Szepietowo (PODR) a series of workshops on processing milk, meat and fruit has been conducted. The workshops were held as part of the project entitled 'Short supply chain and ART as determinants of development of local agriculture'. In total, one hundred-fifty persons from the above-mentioned voivodeships were trained.

In the milk processing block, the participants became familiar with the technology of producing cheese, covering all stages of making rennet cheese. The instructors discussed the processes taking place during the formation of curd, the pressing, salting and ripening. The workshop part on processing meat into cold meat enjoyed the great interest and involvement of the participants. The participants had an opportunity to become familiar with equipment necessary for the professional production of cold meat and also to use it in practice.

The participants in the last workshop learnt the technologies of processing fruit (apples) into juices. The most substantial element of those classes was to become familiar with the technological line for this kind of processing. It was possible to observe what processes are the most important in producing juice so as to have a fresh and durable product.

During the summary of the workshop, the importance of agricultural retail trade (ART) and MLR – marginal, localised and restricted activity in diversifying farm income was highlighted. The summary of the project was held on 25 September 2019 at a conference organised in Wysokie Mazowieckie. The thematic scope of the conference included the legal issues related to agri-food processing and food safety. The part of the conference was dedicated to the traceability and authenticity of raw materials and ethics in food processing. Processing of products harvested in forests, meadows and gardens enjoyed the large interest on the part of the participants. As part of the conference, also the issues related to selling the product, distribution channels and using the marketing opportunities based on social media were presented.

The objective of the operation was to have the participants interested in creating and developing activities of agricultural producer groups and in shortening the food product supply chain.

The operation has been implemented in the form of training and an outdoor event and addressed to farmers interested in pursuing activity as part of an agricultural producer group and to members of agricultural producer groups.

How to shorten the supply chain? The answer to this question was sought by the authors of the project entitled 'From producer to consumer'. With this end in view, they organised training for farmers interested in creating and developing activities of agricultural producer groups and in shortening the food product supply chain. The operation was also aimed at the promotion of producer groups which was held at the outdoor event.

The major objective of the project was to train farmers as regards creating and functioning of producer groups as well as showing them opportunities to obtain funds; to promote activities of producer groups as one of elements allowing to increase the production profitability and; to create a room for cooperation with regard to creating agricultural producer groups and creating short food product supply chains.

In July 2019, in Michalcza in the Gniezno district, there was a training course for farmers interested in pursuing activity as part of producer groups and a fair of local products. During the meeting, the process of registering producer groups and the rules and conditions of financial support to be applied by a group were discussed in detail. The training course also included the issues related to small processing and promotional measures. They talked about preparing a good marketing strategy of a product itself, taking into account its price and the forms of promotion and publicity. The part summarising the training course was attended by the farmers – members of the 'Chrobry' Vegetable Producer Group who pointed to practical solutions working well in their activity. The Chrobry Group was established in 2006. The group is a recognised producer of field cucumbers, onion, beet and pumpkin. Under its activity, it implements tasks related to processing vegetables, their storage, preparation for sale and distribution.

Following training, an outdoor event was organised aimed at promoting the offer by local producers and processors. The highlight of the fair were cost-free tastings of products made of local products as well as cooking shows and competitions including the competition for a dish based on seasonal vegetables and fruit.

FROM PRODUCER TO CONSUMER

The operation implemented
by the NRN Partner:
**Wielkopolska
Chamber of Agriculture**

More information about
the operation can be found
on the website:
[http://www.wir.org.pl/
ksow/2019/od-producenta/](http://www.wir.org.pl/ksow/2019/od-producenta/)



▶ **HYGIENE OF PRODUCING BEE PRODUCTS – DEVELOPMENT OF A MANUAL CONTAINING THEMATIC KNOWLEDGE FOSTERING THE DEVELOPMENT OF LOCAL APIARIES AFFECTING THE RURAL DEVELOPMENT**

▶ The operation implemented by: **Marshal's Office of the Podlaskie Voivodeship**

▶ The manual is made available on the website: <https://pcpl.wrotapodlasia.pl/pl/konsultacje-poradnika-dla-pszczelarzy---pozyskiwanie-miodu-w-sprzedazy-bezposredniej.html>



The objective of the operation was to support the development of local apiaries by developing a manual (shared in an electronic version) containing the basic rules of conduct in producing honey, including the rules of hygiene and food safety.

The manual is addressed mainly to beekeepers running family apiaries.

Beekeepers do not always know how to organise a room where they will produce honey in a manner which would fully correspond to the applicable hygiene regulations. As a result of the operation being implemented, the manual has been developed which, in a comprehensible and practical manner, introduces the issues of good hygiene practice and a method to arrange space to produce bee products. The project included field inspections so that the results could correspond to the actual situations and problems of beekeepers. The manual was enriched with a graphical part with photorealistic visualisations of exemplary designs of a workroom to obtain honey.

The outcome of the project was the preparation of four virtual models – from a mobile apiary organised in a delivery van, to a workroom in an adjusted utility room as well as workrooms in stand-alone buildings. Each beekeeper who has not been involved in direct sales or agricultural retail trade so far could find something for themselves. The proposed solutions are simple and their implementation should not exceed the producer's financial possibilities. On the other hand, the proposals from the manual guarantee a possibility of keeping the appropriate hygiene level. It turned out that the production conditions and hygiene procedures in producing honey in a local apiary are not excessively complicated and many concerns in this regard result from the lack of appropriate knowledge. In extreme cases, a workroom may be organised even in a former garage or in a van.

Ultimately, the manual, after passing the procedure laid down in the European legislation (taking into account, among others, consultations with competent institutions and organisations representing consumer interests) has a chance to be granted the status of National guidelines and be a source of legal interpretation. Consultations are carried out through the websites of the Podlaskie Local Product Centre and on the websites of the National Rural Network.



The objective of the operation was to improve among the participants in a study trip the awareness on the importance of regional and local products and food certification.

The operation has been implemented in the form of a study trip attended by the representatives of local government units, recreation and cultural centres, entrepreneurs from the tourism industry, restaurant owners, local producers, fishermen and processors, representatives of non-governmental organisations. The participants became familiar with the offer and methods to use local and traditional products in the rural development in the southern regions of Poland.

One of the more interesting points of the trip was a meeting with the representatives of the 'Cebularz Lubelski Producer Partnership' Association, a part of which the workshop of baking cebularz was held. In 2014, cebularz (sort of pancake with onion and poppyseed) was granted the EU certificate 'Protected Geographical Indication' – a unique product in the Lublin Region [Lubelszczyzna]. Since that time, its name and recipe have been protected by EU law. The workshop was an excellent occasion to exchange knowledge and discuss on the certification of local products as well as benefits for producers and consumers. Other meetings were held in Manufaktura Różana in Stara Wieś specialising in the production of various rose-based products and in Pszczela Wola where the participants in the trip took part in the workshop of baking traditional honey cookies so-called 'pszczelowskie całuski'. Both places are fantastic examples of brand creation and promotion of the area based on local and traditional products. The meeting with the owners of a family Leda-Ser cheese dairy in Wólka Krowicka producing top-quality cheese enjoyed the great interest of the participants. The participants in the trip could take part in the cheesemaking process and taste delicious products. Companies and farms visited as part of the trip are also beneficiaries of aid from the LEADER funds under the Rural Development Programme for 2014–2020. Therefore, the meetings were also a good opportunity to exchange knowledge and experience on managing and settling projects implemented by the RDP beneficiaries and to establish contacts among LAGs at the national level.

The last stage of implementing the operation was a meeting summarising the trip. The participants stressed that the meetings and conversations with the representatives of the visited facilities had inspired them to register local products and to start up similar activities in their area. As part of the meeting, there was also training on the procedure of applying for being entered in the National List of Traditional Products kept by the Ministry of Agriculture and Rural Development and on pursuing marginal, restricted and localised activity. After the return, based on an initiative of the participants a workshop entitled 'Production of local products according to participants' recipes' was held. The measurable effect of implementing the operation are two applications for registration of products which have been selected for implementing under the call for grants announced by the Północnokaszubska Local Fishery Group.

LOCAL AND TRADITIONAL PRODUCT – FOLLOWING THE EXAMPLES FROM THE SOUTH OF POLAND

The operation implemented by the NRN Partner:
Północnokaszubska Local Fishery Group

More information about the operation can be found on the website:
<http://plgr.pl/plgr/projekt-wspolpracy/>



▶ **STUDY TRIP FOR MEMBERS OF THE ŚWIĘTOKRZYSKIE CULINARY HERITAGE NETWORK TO THE PODLASKIE VOIVODESHIP**

▶ The operation implemented by:
Self-Government of the Świętokrzyskie Voivodeship

▶ More information about the operation can be found on the website:
<https://tinyurl.com/DziedzictwoSwietokrzyskie>



The operation has been implemented in the form of a study trip attended by the members of the Świętokrzyskie Culinary Heritage Network.

In 2010, the Świętokrzyskie Voivodeship joined the European Network of Regional Culinary Heritage (ENRCH). The objective of the operation of the Network is, among others, the development and promotion of the market of high quality food based on local and regional resources of raw materials and cooperation and exchange of knowledge and experience among the Network members, including the regions acting under the ENRCH.

The voivodeship undertook to support them by a possibility of free participation in events promoting natural food and in training and study visits.

In June 2019, the Network members participated in a study trip to Podlasie. The participants visited the Dary Natury company specialising in the production of organic products: spices, tea-like drinks, herbal mixtures used in cosmetics, oils; the farm producing Korycin cheese, the Biebrzańskie Smaki butcher's shop and the Doktor Miodek bee farm. The owners of those companies shared their knowledge on products manufactured.

The trip was an occasion to become familiar with the region of Podlasie through its rich culinary tradition, to gain and exchange valuable experience and to observe good investment practices of local farmers, restaurants and companies. The trip was also aimed at integrating the Culinary Heritage Network members and at exchanging practical knowledge on producing food by means of traditional methods. The issues discussed also referred to the promotion of sales, exchange of experience and discussions in this regard among producers and representatives of institutions popularising knowledge on regional and natural food, culinary heritage, tourism and the role of this food in dietetics.

The implementation of the above-mentioned objectives will contribute to the economic development of the region. It will empower these entities, in particular small ones, which are the major part of the Network, in the market. The objective is their development and increased employment which will result in the reduced poverty and social exclusion. The objective of the trip was also to seek inspiration which will give rise to new initiatives with regard to the development of own companies and broadly understood rural development.

The objective of the operation was to gain knowledge, good practices and experience with regard to innovative solutions functioning on agricultural, agricultural and forest and forest farms in the mountainous and sub-mountainous areas of the Alps and to transfer these solutions to the Carpathians as well as to establish cooperation among the participants in the operation. The operation has been implemented in the form of a study trip to Austria. The study trip was attended by: farmers, agricultural entrepreneurs, research workers, workers of forest inspectorates and agricultural advisors.

The basic possibility of increasing the profitability of farms in mountainous areas may be the development of short food supply chains, i.e. from farmer to consumer. This entails a need to introduce innovative solutions on farms, i.e. implementing food processing technologies and modern methods to organise and manage farms. This form of cooperation among the individual cells could be observed during the study trip to Austria. Therefore, the project participants were, among others, representatives of science, farmers and advisors (cells able to create a working group and apply as part of the 'Cooperation' measure).

The region of Tyrol is a very good example how in the difficult environmental conditions it is possible to develop professionally and live an interesting life in these areas. During the study trip, the participants had an opportunity to visit companies and farms which in their activity use innovative crop cultivation and animal breeding technologies, management and organisational methods and state-of-the-art food processing technologies. The participants visited, among others, the largest Austrian dairy – Tirol Milch, which stresses the regional origin of products produced in the Alps, also highlighting that this is food which is not genetically modified. During the visit to the winery – a family company where wines of the Tyrolian region are produced – it was possible to learn, among others, how grapes deal with the severe Alpine climate.

The great impression was made by the visit to Mayrhofen where there is the modern wood processing plant FeuerWerk, being an example of how the plant uses resources of the Tyrolian forest, starting from wood processing based on the most modern technologies. The important share in the study visit was that of agricultural advisors who – thanks to experience gained – may influence the dissemination of knowledge with regard to innovative solutions in agriculture, production of food, forestry and in rural areas.

TRANSFER OF INNOVATIVE SOLUTIONS IN THE AGRICULTURAL AND FORESTRY SECTORS FROM THE MOUNTAINOUS AND SUB-MOUNTAINOUS AREAS OF THE ALPS TO CARPATHIANS

The operation implemented by the NRN Partner:
Jan Grodek State Vocational Academy in Sanok

More information about the operation can be found on the website:
<https://tinyurl.com/tyrolSanok>



▶ VERTICAL FARMS AS THE FUTURE OF SUSTAINABLE PRODUCTION OF FOOD

- ▶ The operation implemented by the NRR Partner:
Częstochowa Small Business Development Association

The objective of the operation was to enhance the participants' knowledge with regard to implementing innovative technologies used for the purposes of the agricultural production, specifically, vertical farms. The operation has been implemented in the form of a study trip to the Netherlands. The visit was organised in cooperation with the Embassy of the Kingdom of the Netherlands in Warsaw. The study trip was attended by: farmers, entrepreneurs, representatives of non-governmental organisations and persons or representatives of entities interested in the subject-matter of the operation.

Vertical farms i.e. the vertical cultivation of plants under cover is a new type of production of food in urbanised areas. Such type of farming is fully controllable, safe, predictable and resilient to atmospheric events or pests and does not have a negative environmental impact. In the near future, the humanity will struggle with the problem of providing food. At the same time, increasingly informed customers expect high quality food which stays fresh for a long time. The answer to these needs may be vertical farms.

During the study trip, the participants learnt what was the Innovation Network in Agriculture and Rural Areas, what were opportunities given by the 'Cooperation' measures, they also learnt the basics of vertical farming and the role played by science in the development of this farming. They were presented with the advantages of vertical farming with respect to climate change, reduction of greenhouse gas emissions and the studies on the impact of light on the quality of products. The examples put into production practice in Japan, the Netherlands and United States were presented.

The participants visited experimental crops where studies are conducted in introducing new plants, vegetables and fruit and on improving the quality and durability of already produced vegetables by adequate dosing of light and nutrients. Another element were the visits to two start-ups located within the university. The first one, Vegeler, is involved in the production of vertical farming equipment in the form of racks and desk stands, the second, Sigrow, is involved in the production of sensors monitoring parameters of vertical farming – the data is transmitted online to controlling computers and they set proper doses of lighting, irrigation or nutrients.

The operation may have a positive impact of the development of this type of farming in Poland. The participants were greatly interested in its subject-matter, including also the creation of a working group which would start vertical farming.



The objective of the operation was to train breeders of dairy cattle from the Podlaskie Voivodeship with regard to using insemination of dairy cattle on the farm.

The operation has been implemented in the form of a study trip. This form of implementing the operation was a perfect way to show the breeders the real effects of introducing the breeding technique which insemination is, on an example of farms in Wielkopolska. The participants had an opportunity not only to see the procedure itself (artificial insemination) and the centre (insemination centre) where the top breeding bulls are kept but also to gain practical knowledge on the procedure itself which they would be able to successfully implement on their own farms, which, as a consequence, would translate into the improved profitability of the farm through, e.g. increased milk yield, lower number of culling. The implementation of insemination into daily breeding practice will result in the increased genetic potential of the whole herd. The breeders, thanks to their participation in a series of lectures, conducted by specialists for breeding and reproduction, had an opportunity to learn the proper rules of carrying out the insemination procedure as well as of improving the herd in genetic terms, applying sexed and conventional semen on the farm and to learn innovative breeding biotechniques applied all over the world, e.g. ET, OPU/IVF, which will undoubtedly contribute to improving the level of knowledge and skills among farmers involved in the production of milk.

This operation creates a sort of bridge enabling the transfer of knowledge between the company having the most modern technologies of animal breeding and breeders of dairy cattle. The breeders are provided with direct access to up-to-date knowledge as part of implemented innovative technologies with regard to cattle reproduction and organisation of breeding work. In addition, up-to-date knowledge on research work and services (among others, herd evaluation, selection of bulls for mating, insemination courses) is to convince the breeders of cattle to use innovative solutions (among others, insemination with sexed semen, use of embryos, embryo transfer procedures) and, as a consequence, to improve the genetic potential of the herd. The bridge between the Partner and farmers from Podlasie will be a foundation for initiating and implementing further innovative solutions in the future, and thus for increasing the competitiveness of breeders from Podlasie on a national and international arena.

The effect of the implemented operation will be improved awareness among the breeders of dairy cattle on available techniques supporting reproduction and genetic improvement of dairy cattle herds and thus the possibilities of their use on their own farms and improving the profitability of farms. The NRN Partner, as a result of implementing the operation in the long term, expects to create e.g. an association, working group of breeders (e.g. a producer group), who, in cooperation with the Wielkopolska Animal Breeding and Reproduction Centre in Poznań will introduce the insemination procedure into the standard breeding practice on their own farms.

INSEMINATION OF DAIRY CATTLE AS A METHOD TO INCREASE THE PROFITABILITY OF FARMS

The operation implemented by the NRN Partner: **Wielkopolska Animal Breeding and Reproduction Centre in Poznań situated in Tulce Sp. z o.o.**



▶ ORGANISING A SERIES OF WORKSHOPS ON HERBAL MEDICINE, NATURAL COSMETICS AND LAVENDER

- ▶ The operation implemented by the NRN Partner:
Kaszuby Tourism Association

The main objective of the operation was to improve the level of knowledge in the area of using resources of natural environment.

The operation has been implemented in the form of workshops attended by the residents of Szwejcaria Kaszubska, interested in manufacturing products of herbal medicine, natural cosmetics and lavender.

The art of harvesting, preparing and consuming herbs is slowly falling into oblivion. Therefore, the Kaszuby Tourism Association took an initiative to organise a series of training courses on herbal medicine for the residents of Szwejcaria Kaszubska, which is abundant in plants and herbs.

The classes covered three types of workshops – herbal, production of natural cosmetics and processing of lavender.

During the herbal workshop, practical advice on picking and processing herbs and making herbal preparations was provided. In the practical part, each participant prepared individual herbal preparations on their own, e.g. anti-inflammatory, antibacterial and anti-fungal acetic extract which can be added to therapeutic baths or half-baths; herbal gummies to combat cold – for children and as a so-called healthy snack; herbal capsules to remove dyspepsia, antitussive syrup, analgesic ointment or aromatic bath salts.

During the workshop of making natural cosmetics, the participants were made convinced that it was possible to make own cosmetic using simple, natural ingredients, without preservatives and artificial flavouring substances. During the classes, the participants prepared three, four basic cosmetics for themselves.

The training course on processing lavender was held on the agri-tourism farm 'Lawendowa Osada' which is involved in cultivating and processing several tens varieties of lavender. The owners provided the information about exceptional qualities and a number of applications of this plant – in cuisine, cosmetics and herbal medicine. They showed how to make a lavender hydrolate and oil using a special distiller. Based on this oil and hydrolates, the participants tried to make natural lavender soaps, peelings and macerates on their own.

As a result of the workshops, the participants not only gained knowledge on possibilities of using natural resources of their region but also convinced themselves and the local production based on natural components may become a form of developing paid activity.



The objective of the operation was to analyse possibilities of using IoT sensors in the pig sector. The digital revolution which has been lasting and gathering momentum will undoubtedly cover agriculture soon. In particular, the livestock production which is accused of enormous greenhouse gas emissions and thus of the negative environmental impact. The only method to describe and measure this phenomenon in a reliable manner and then to counteract it efficiently is the use of the most modern technologies.

As part of the operation it was analysed and examined if there is an economically reasonable possibility of using IoT sensors monitoring the life parameters and condition of animals in the production of pigs. The market of pork is characterised by setting increasing requirements by customers. In analysing the scope of data which may be collected from an IoT sensor connected to a fattening animal and the potential impact of this data on the quality of meat and reproducibility of a product batch, data from a group of twenty animals and from their direct environment in a pigpen was collected and analysed. The results of this analysis allow to state unanimously that the use of IoT sensors may provide reliable data on live animals (such as, among others, identification, welfare, feeding, breeding conditions, treatment and procedures, transport conditions) and, therefore, this technology may become a crucial factor allowing producers to meet the requirements of modern customers. In addition, the use of IoT sensors in the pig sector may help in monitoring the health of herds, prevention of diseases and biosecurity, which is currently particularly important during the problem with the ASF virus.

The use of new solutions should definitely accelerate the process of integration, at first horizontal and then vertical, in Polish agriculture. This is particularly important in the production of pigs which has been drastically decreasing in Poland in recent years and without any need we became importers of enormous quantities of weaners, half-carcasses and pork. If only we overcome the existing barriers and implement innovative technologies, we will be able to reverse unfavourable trends, significantly deny false information about the livestock production and impact of meat on human health and introduce the production of pigs into the right path. And this right path is the increased production, provision of proper quantities of raw material covering both the internal demand and the export of food of well-established brand, sold to the most demanding global markets at a proper price guaranteeing the proper profitability. Technologies will enable the communication with the market which should be fully aware that Polish food is of top quality and comes from small and medium-sized family farms using traditional production methods. Currently, this is not an industrial product which is common all over the world. Therefore, it will be possible to turn the problem i.e. current fragmentation, into a great advantage and something which makes us outstanding. Consumer awareness and willingness to pay an appropriately higher price for a good product are growing. A final effect will be a combination of tradition and modernity which should guarantee huge success of Polish producers, including farmers, in global markets of food.

ANALYSIS OF POSSIBILITIES OF USE AND ECONOMIC JUSTIFICATION OF IOT SENSORS IN THE PRODUCTION OF PIGS

The operation implemented
by the NRN Partner:
AGREGO (IDFS Sp. z o.o.)

Analyses are available
on the websites:
<https://tinyurl.com/agrego>



▶ SEMINAR 'AGRICULTURAL USE OF SEWAGE SLUDGE AND POSSIBILITIES OF MANAGING ASHES'

▶ The operation implemented by:
**Self-Government of the
Świętokrzyskie Voivodeship**

▶ More information
about the operation
can be found on the website:
[https://tinyurl.com/
wykorzystanieOsadow](https://tinyurl.com/wykorzystanieOsadow)

The objective of the operation was to disseminate knowledge about the use of waste and sewage sludge in agriculture.

The operation has been implemented in the form of a seminar attended by the representatives of the district and municipal self-governments from the Świętokrzyskie Voivodeship.

The issue of managing sludge is a great problem for rural and urban-rural municipalities, particularly in the context of further development of sewage systems and construction of new or development of existing waste treatment plants. To solve the problem, the Self-Government of the Świętokrzyskie Voivodeship organised, in October 2019, a seminar on the issue of using sludge and managing ashes in rural areas. The seminar was addressed to municipal and district self-governments of the Świętokrzyskie Voivodeship. The major objective was to make municipalities realise that as owners of sludge they may and should support cooperation in the agricultural sector, implementation of joint projects of farmers from their area aimed at investing, among others, in biogas plants. The purpose of sewage sludge in the process of production of alternative energy sources and in the process of soil fertilisation has been discussed. The issue of using sludge to reclaim areas for agricultural purposes, e.g. for the cultivation plants to produce compost, plants not fit for consumption, plants to produce feed, has been raised. Sludge may also be used to adapt soils to the needs resulting from waste management plans, zoning plans or decision on the conditions of building and site development – which is to allow, among others, farmers to make investments on their own farms with their modernisation or expansion.

The issues were discussed by the representatives of science, administration and control authorities, which contributed to taking another view on this issue and provided practical tips on the use of sewage sludge and management of ashes and slags. The subject-matter of papers was an important element of increasing awareness and challenges related to this complex issue of using sewage sludge and managing slags and ashes.



The objective of the 'My SMART Village' competition was to identify social and digital innovations appearing in rural space, to identify villages that could be defined as smart village as well as to promote the concept of smart villages among rural residents.

The competition was addressed to people and entities across Poland who are familiar with the problems of rural areas. What was expected, the proposals of solutions using modern technologies, among others, with regard to education, social services, health, transport, energy, trade or waste management were presented. On a basis of existing examples, it was attempted to identify if the promoted concept has a chance of success in the Polish countryside and whether it is doable to build support for it on this basis.

Sixty-five entries to the 'My SMART Village' competition were sent from whole Poland, including more than forty entries regarding initiatives run by women. Those entries covered a wide thematic range:

- ▶ smart energy and energy security management,
- ▶ environmental measures,
- ▶ elements improving the quality and standard of life,
- ▶ measures to improve technical and social infrastructure,
- ▶ ideas of civil society,
- ▶ measures improving the level of education and developing competencies,
- ▶ improvements in contact among residents of the municipality,
- ▶ promotion of culture and material and intangible heritage,
- ▶ smart solutions with regard to agriculture and food economy.

In October 2019, a gala to present the awards was held at the Ministry of Agriculture and Rural Development. The partners of the operation were: Association of Rural Municipalities of Poland, Rural Development Foundation, RURBAN Countryside-City-Region. The jury of the competition presented three main awards and seven equivalent accolades.

As part of the operation, the Polish Smart Villages Centre has been established, whose objective is to search, together with residents, for smart solutions supporting the comprehensive rural development and to promote initiatives creating the innovative and sustainable countryside. 'My SMART Village' competition gala was complemented by an international workshop on smart villages organised by the Agricultural Advisory Centre in Brwinów, branch in Warsaw. The workshop allowed to embed the competition results in the context of similar initiatives in other European countries. The objectives of the workshop was to make the European partners aware of the existence of smart village initiatives in Poland and to develop guidance for the inclusion of smart village in the future strategic plan for the Common Agricultural Policy.

MY SMART VILLAGE

The operation implemented by the NRN Partner:
Institute of Rural and Agricultural Development of the Polish Academy of Sciences (IRAD PAS)

More information about the projects given the awards and accolades can be found on the website:
<http://smart.irwirpan.waw.pl/>



▶ **STUDY TRIP AIMED AT SUPPORTING THE ECONOMIC DEVELOPMENT OF THE COUNTRYSIDE AND DISSEMINATING KNOWLEDGE ON OPTIMISING THE USE OF ENVIRONMENTAL RESOURCES**

▶ The operation implemented by the NRN Partner: **Partnership for Rural Development Economics-Science-Tradition 'PROWENT' Local Action Group**

The objective of the operation was to involve the residents of Subcarpathia [Podkarpacie] in planning and implementing local initiatives to activate and promote the development of enterprise based on local resources.

The operation has been implemented in the form of a study trip. The target group of the operation were animators of social life, local leaders, non-governmental organisations acting for the rural development and activation, agritourism farms, representatives of rural tourism facilities and local action groups.

During the visit, the following tourist facilities along the 'Małopolska Honeyland' and 'Małopolska Herbal Village' trail were presented: Villa Akiko (owner: Akiko Miwa from Japan); Villa Jasna in Czorsztyn (Educational Farm, agritourism services, small processing of herbs), 'Sądecki Bartnik' (Stróże) – certified regional inn, Educational Farm.

The major subjects of lectures and workshops during the study trip concerned the local development, taking into account the economic, social and environmental potential of the area on an example of the 'Małopolska Herbal Village' and 'Małopolska Honeyland', direct sales of products of plant origin, medicinal plants, i.e. their recognition, cultivation, harvesting and processing (workshops on the recognition and use of herbs in herbal medicine and at home), small local processing as an opportunity to create new jobs based on the local resources of the region on an example of the 'Sądecki Bartnik' Beekeeping Farm, a tourist product based on local natural resources as a tool for the development of enterprise and promotion of rural areas.

The results of the operation implemented is the introduction of products prepared based on local natural resources from organic ingredients and herbs, into agritourism farms from the area of the PROWENT LAG; motivating people who have not yet demonstrated such activity to work for rural areas; expanding the holiday offer in the LAG area and increasing significantly the chances of creating new jobs. In addition, the study trip contributed to building a stronger sector of non-governmental organisations, local leaders, entrepreneurs, will strengthen their competencies and potential, allowing them to implement new initiatives geared towards activation, support for the development of local communities in rural areas.



The operation was aimed at raising awareness among the residents of the Beskid region on the impact of society on biodiversity and protection of biodiversity by maintaining a high population of hymenoptera which honey bees are.

As part of the operation, in September 2019, a beekeeping conference was organised for beekeepers from various regions of the Beskid region.

During the conference, the following lectures were presented: forms of direct sales in beekeeping management, innovative methods of combating honey bee diseases and parasites, dissemination of knowledge on optimising honeybee breeding – the selection of queen bees in the mountainous areas and improvement in the product range honeys – Traditional Honeys of the Żywiec Land.

Thanks to the conference, there was an increase in the awareness of the role of hymenoptera (bees, ants, wasps) in human life and health, in maintaining balance throughout the ecosystem of the surrounding nature and of benefits of bee breeding. This knowledge will be used in the daily work of beekeepers, which will translate into the increased number and health of bee families in the region, which is essential for the environmental protection and biodiversity. In turn, the knowledge gained at the conference about new sales channels and expansion of the product range of bee products will have an influence on the rural development.

The knowledge in this regard gained by the young generation of beekeepers will increase the interest in running and developing apiaries, which, as a consequence, translates into the development of enterprise (direct sales), while the increased number of pollinators in the environment results in the sustainable development of the ecosystem. The gained knowledge contributed to the informed and responsible pursuit of the rural development based on the biological balance of ecosystems.

The added value of the conference is the integration of beekeepers from various Beskid regions. The conference also served as an example and encouraged others to take their own initiatives for the development of beekeeping and the environment. Some participants in the conference declared their willingness to cooperate on further initiatives.

PROTECTION OF NATURAL RESOURCES AND RECONSTRUCTION OF THE ECOSYSTEM

The operation implemented
by the NRN Partner:
**‘Beskidzkie Trutnie’
Beekeepers’ Association**



▶ RENEWABLE ENERGY SOURCES – RES AS AN OPPORTUNITY TO IMPROVE THE AIR QUALITY

- ▶ The operation implemented by the NRN Partner:
Agricultural Advisory Centre in Brwinów, Branch in Poznań



The objective of the operation was to enhance knowledge of rural residents about the possibilities of improving the air quality, using RES technologies and their application in enterprise and municipal projects.

The operation has been addressed to the representatives of Local Action Groups from Wielkopolska, representatives of Wielkopolska agricultural advisory units, Wielkopolska local governments, teachers and students of agricultural and forestry schools as well as entrepreneurs.

The project, consisting in training, a study trip and a competition, was implemented in cooperation with the EUROPEA Poland Agricultural and Forestry Education Association and the Lubelski Agricultural Advisory Centre in Końskowola and was multifaceted.

During training, the subject-matter of energy-efficient construction, i.e. the use of Renewable Energy Sources (RES) to optimise energy costs has been discussed. The air protection measures and programmes implemented in Greater Poland [Wielkopolska] have been presented and the advantages of using photovoltaic installations mounted on roofs of buildings have been indicated. The organisers also took care of the practical value of training. The participants were trained to operate a pyrometer, a device used for non-contact temperature measurement. Each participant in training received such a device. The pyrometer can be used in the work of advisors, as it facilitates making a quick decision on a need to start thermal efficiency improvement works in buildings, as well as verifying the constructed thermal insulation once the investment has been completed.

A continuation of and complement to training was a study trip to the Lubelskie Voivodeship. The Lublin Region [Lubelszczyzna] is one of the national leaders in the fight against the poor air quality and a region that efficiently uses EU funds to improve its quality. The participants in the trip visited, among others, the agricultural biogas plant in Zaścianek and the innovative tower biogas plant adjusted to the disposal of food products in Piaski/Siedliszki.

As part of the project, a competition of knowledge about renewable energy sources has been organised, entitled 'RES for clean air'. It was addressed to the students of agricultural and forestry schools from the Greater Poland Voivodeship. The publication 'Guidebook on RES', intended for farmers in Greater Poland, has also been published.

The main objective of the operation was to raise awareness and develop the right attitudes of farmers aimed at reducing emissions of pollutants of agricultural origin, by promoting the principles of sustainable agriculture. The reduction in ammonia is a voluntary but extremely necessary measure in terms of improving the quality of the aquatic environment and air and for the implementation of national commitments resulting from the so-called NEC Directive, BAT conclusions and Polish environmental policy.

The project has been addressed to agricultural advisors, farmers themselves and environmental services and concerned the issue of practical reduction in ammonia emissions from the livestock and crop production.

The operation had a form of a seminar, complemented by two publications – available on www.fdpa.org.pl – a monograph entitled ‘Implementation of the NEC Directive and BAT conclusions on reducing ammonia emissions from agriculture’ and a brochure of the same title. Both are addressed to agricultural advisory centres and farmers all over Poland.

During the seminar, addresses were delivered by the representatives of the Minister of Environment and of the Minister of Agriculture and Rural Development, as well as the University of Life Sciences in Lublin, National Research Institute of Animal Production in Balice, Institute of Technology and Life Sciences in Falenty, Institute of Soil Science and Plant Cultivation National Research Institute in Puławy. They pointed out, among others, to a link between the guidelines of the enacted UN conventions and the EU legislation, to air pollution (e.g. acid anhydrides, responsible for the formation of acid rain, dust, VOC or ammonia), which spread to long distances from places where they are formed and to the selection of recommended methods of voluntary reduction in emissions, which are characterised by easy implementation and the absence of additional costs.

The importance of the protection of resources (water, soil and air) is essential in both the existing and future EU agricultural policy. It was concluded that processes of nitrification and ammonification taking place in soils could expose farmers to losses of yield-forming nitrogen. What was also indicated were biofilters and scrubbers to purify air ventilated from livestock buildings and that one of the cheapest and most effective methods in relation to urea is to blend it with soil.

In the long term, the project is to improve the state of the natural environment: air quality and soil and water resources in Poland, reduction in pollution with ammonia and other harmful substances from agriculture.

IMPLEMENTATION OF THE NEC DIRECTIVE AND BAT CONCLUSIONS WITH REGARD TO THE REDUCTION IN AMMONIA EMISSIONS FROM AGRICULTURE

The operation implemented by the NRN Partner:
Foundation for the Development of Polish Agriculture (FDPA)

More information about the operation can be found on the website:
<https://tinyurl.com/amoniak>

Wdrażanie dyrektywy NEC oraz konkluzji BAT w zakresie redukcji emisji amoniaku z rolnictwa








Europejski Fundusz Rolny na rzecz Rozwoju Obszarów Wiejskich - Europejski Instrument w obszarze wiejskiej
 Inicjatywa Zrównoważonego Rozwoju Obszarów Wiejskich na lata 2014-2020 - Minister Rolnictwa i Rozwoju Wsi
 Centrum współfinansowania ze środków Unii Europejskiej w ramach Schematu 3 (Pomoc Techniczna)
 Akcja Sieć Obszarów Wiejskich? Programu Rozwoju Obszarów Wiejskich na lata 2014-2020
 Poddziałalność w ramach subdotacji. Fundusze na rzecz Rozwoju Północnego Regionu

▶ **STUDY VISIT TO THE EU COUNTRY ON IMPROVING THE COMPETITIVENESS OF AGRITOURISM FARMS AND RURAL TOURISM OFFER**

▶ The operation implemented by: **Kuyavian-Pomeranian Voivodeship [Kujawsko-Pomorskie]**



The objective of the operation was to make the owners of agritourism farms and representatives of organisations and institutions supporting the development of tourism in rural areas of the Kuyavian-Pomeranian Voivodeship with good practices in the field of agritourism and local processing identified in Czechia.

As part of enriching international experience, a study trip has been organised to the Hana Region in Czechia, in the valley of the Morava and Hana rivers. The largest city in the region is Olomouc, where regional articles and products associated with the name of Hana are promoted. The programme of the visit included making the participants familiar with, among others, the process of building strategies for the development of bicycle routes and cross-border cooperation and using the values of the Moravian countryside in the development of active tourism. There was a meeting with the representatives of the Central Moravia Tourism Association, whose activities focus on the promotion of the Hana Region Brand. The participants learnt the forms of economic activity in the Moravian countryside. Meetings were organised with:

- ▶ Snail Farma company, processing meat of snails which at the first stage of the development of the company were bred by the producer on his own farm and now he purchases them from local suppliers;
- ▶ The Mezice Bakery, where the family has been baking traditional Hanakian bread and cakes for fifty years.
- ▶ Nova Dvur Dairy Farm – the farm of 160 hectares, specialising in obtaining milk of cows, goats and sheep. It also conducts interesting educational programmes for children: ‘Milky Way – from calves to yoghurt’;
- ▶ Lavender Farm – biocertified cultivation, processing as well as a café and a small store with local products. The owner regained the nationalised family farm and started cultivating lavender, which he packs, processes and sells in the form of teas, liqueurs, dessert ingredients. On the farm, he organises special events and the Lavender Festival, which gathers several thousand spectators;
- ▶ The village of Lostice – famous for the production of the most recognisable Czech Olomouc Cheese in Europe. The female residents of this small village developed the ‘Tvaruzkova Cukrarna’ manufacture, which produces unsweet bakery products with the addition of this cheese;
- ▶ Stetovice Vrbatky Golden Farm – the large production and agritourism farm, where there are horses, fish ponds, cows of the Czech breed Cestr, milk processing plant to produce cheese, cottage cheese and yoghurt. The farm has its own store and café;
- ▶ Nikada Goat Farm – the family farm in the village of Kovalovice near Tištin, where 20 hectares are cultivated in organic farming. Since 2011, the owner has been breeding white and short-haired goats, and the whole of milk is processed directly on the farm into goat cheese, cottage cheese and yoghurt and products are sold to local stores.

The participants in the visit became familiar with the practice of building tourism development strategies, the model of promotion of regional brands and the practice of developing and advertising own products by local producers, which can bring inspiration in their own activity, translate into the activities of local organisations supporting the development of rural tourism or intensify the marketing activities of regional organisations.

The objective of the operation was to improve the economic development of the municipality and to activate the unemployed by promoting the profession of florist.

The project was participated by rural residents, of various age and level of education. Among adults, these were persons who were unemployed, registered as unemployed or being often in so-called 'hidden unemployment', with the high untapped potential, having various skills, looking for new opportunities for professional development.

The operation has been aimed at reducing the problem of the low economic development in the Piotrkowski district. These are agricultural areas where running farms is a dominant source of income for residents. Here, there is no differentiation with regard to non-agricultural activities, no belief, especially in the case of young people, in opportunities of professional development in a direction other than agriculture. The operation has been implemented in the form of a two-day workshop.

On the first day of the workshop, in the morning, the participants were two groups of lower secondary school students, forty persons in total, in the afternoon there was a group of twenty adults. On the first day of the workshop, the motto was 'preparation of ikebana'. Each group had its own guardian – a florist. The work was preceded by short lectures and a slideshow about the basics and principles of floristic work. After a short study, the classes began under the watchful eye of the florist ladies. The participants, both adolescents and adults, were very engaged and extremely creative. They transferred their ideas to their small 'works'. On the second day of the workshop, the leading motive was 'bouquet'. After completing the work, a short lecture was presented on the basics of enterprise and establishing own business. Finally, the jury, composed of the invited guests, florist ladies and lecturers of floristics, chose the most beautiful works. The choice was very difficult, they evaluated the idea, preparation according to the floristic rules, the choice of plant materials, colours and aesthetics. The three chosen works were awarded with books on floristics.

The participants described the workshop as colourful, creative and mobilising. During the work, they began to think aloud about the cultivation of such plants with the possibility of selling and treating them as an additional source of income. This is a great added value of the project, an indication of another path leading to the development of enterprise in rural areas. The operation fit perfectly the needs of the local community, its objective has been achieved, and the effects will appear soon.

FLORISTICS – A CHANCE FOR DEVELOPMENT AND WORK

The operation implemented by the NRN Partner:
Piotrkowski district



▶ CREATIVE COUNTRYSIDE

- ▶ The operation implemented by the NRN Partner: **the Municipality of Ochotnica Dolna**

The objective of the operation was to improve cooperation between farmers and entities operating in rural areas. The operation has been implemented in the form of a study trip and a summary meeting.

The participants were the residents of the municipality of Ochotnica Dolna, entities from the social, economic and public sectors implementing initiatives for the sustainable rural development, among others, the Agency for Restructuring and Modernisation of Agriculture, the Małopolska Chamber of Agriculture, the Małopolska Agricultural Advisory Centre, the Veterinary Inspection and the Sanitary and Epidemiological Station in Nowy Targ.

The exchange of knowledge between the entities engaged in the rural development and cooperation between farmers is nothing new and it could seem that it should take place quite naturally. Unfortunately, in practice, the implementation of these interactions does not always proceed as it should. In order to break down stereotypes and meet the expectations of the local community, the NRN partner organised a study trip to south-eastern Poland in search of good practices with regard to the exchange of knowledge among the above-mentioned entities, as well as a summary seminar.

The measures taken under the project were to be an answer to the problem that is widespread in the Podhale area, and in particular in the Municipality of Ochotnica Dolna, i.e. the insufficient level of cooperation and use of the potential of the area. This problem applied to farmers, entrepreneurs and institutions. Podhale and the Municipality of Ochotnica Dolna are areas with the high potential in the field of eco-museums, local brand, local products (their processing and sale), agritourism and rural tourism. However, there was still no system or tools which would allow for the effective use of local resources to promote the development of enterprise and tourism in rural areas.

The participants in the trip had an opportunity to exchange knowledge among the experienced agricultural producers from the village in Subcarpathia [Podkarpacie]. They found out why it is not only worth producing goods together with neighbours, but also how to effectively sell these jointly produced products. In this regard, the help of professionals, market experts turned out to be very valuable. Similarly, a conversation with the experienced producers and traders was invaluable.

The implementation of the operation is to foster the increased interest of farmers and rural residents in new forms of activity in the field of the agricultural and rural development. Thanks to the summary seminar, the participants in the study trip and rural residents became familiar with the legal regulations, and farmers gained the courage to take joint measures. The objective of the seminar was to disseminate the outcomes of the rural development measures.

The participants had an opportunity to see that joint action and being brought together in one organisation, would empower them in the market and would allow to develop the production in the right direction.



The objective of the operation was to exchange experience with regard to alternative sources of income in the countryside and to become familiar with the solutions already functioning in this area.

In September 2019, a study trip to Germany and Luxembourg was organised as part of the operation entitled 'Innovative, alternative sources of income for small and medium-sized farms in Lesser Poland [Małopolska]'.

The trip was participated by farmers, representatives of the NRN partner and additional partners, non-governmental organisations, representatives of scientific units, local government units, representatives of small entrepreneurs from the agricultural sector and the representative of the farmers' trade union.

The first stop on the route was Erfurt. On the way, the first meeting was organised on the farm 'Vorwerk Podemus' specialising in organic farming, whose owners reach customers directly with their products, using direct marketing in a wide range. The main type of production is dairy cattle and fattening pigs. The farm has a small dairy and its products are based on old recipes. The owner is a young farmer with a surprising approach to many issues. He also believes that on-farm machinery should be used after their technological death. The farm has a well-established network of customers, is involved in mobile trade, delivers products to surrounding market squares and markets. The owner also has a store. On the second day, the participants visited a vineyard in Mehring/Mosel. The vineyard has been in the family for many generations, the plantations are traditional, but the winemakers are trying to modernise them. They reduce the production costs by mechanising the cultivation and harvest wherever possible. They broaden the rows for machines, more and more often conduct aerial spraying, consolidate the plots and use specialised companies for bottling. After visiting the plantation and the basement followed by a long conversation, the group headed over to the town of Saarburg in the Rheinland-Pfalz (Rhineland Palatinate) Land.

In the capital of the Duchy of Luxembourg, the group visited several interesting places including the large market square, where the residents purchase fresh products directly from farmers.

Another meeting with farmers was held in Hofgut Serrig. The farm has a very wide range of production, and its specific feature is that it is a state-owned farm and acts as a supported employment enterprise for persons with disabilities (mainly intellectual). The green workshop, handicraft, life skills training, occupational therapy workshops are just some of therapeutic, rehabilitation and adaptation methods implemented on this farm.

The farm in Bautzen implements state-of-the-art technologies in the field of cultivation, equipment and organisation. Despite the mass production, attention to environment-friendly agriculture is paid there. Also, they produce machinery to fill silage sleeve bags. It is a large-scale farm, however, in the mass production it maintains the standards of ecological and environmental requirements. Many solutions can be adapted for small and medium-sized farms.

INNOVATIVE, ALTERNATIVE SOURCES OF INCOME FOR SMALL AND MEDIUM- SIZED FARMS IN LESSER POLAND [MAŁOPOLSKA]

The operation implemented
by the NRN Partner:
**Małopolskie Agricultural
Advisory Centre in Kraków**



▶ ORGANISATION OF MEETINGS FOR AGRICULTURAL ADVISORS AT RESEARCH INSTITUTES AND MODEL FARMS

▶ The operation implemented by:
Ministry of Agriculture and Rural Development

The objective of the operation was to exchange knowledge and to develop a network of links among the scientific community, agricultural practice and agricultural advisory units.

The series entitled Science for agricultural advice is an initiative implemented under the Ministry's package of measures for the transfer of knowledge and innovation. The series, started as a pilot project under the NRN Operational Plan for 2016–2017 and continued in the years 2018–2019, included the visits of advisors to all ten research institutes, supervised by the Minister of Agriculture and Rural Development.

The training and discussion formula of meetings, work in small groups, possibility of observing and exchanging knowledge on the practical application of various solutions in demonstration facilities – these are the greatest advantages of the meetings. In 2019, three meetings at institutes were implemented as part of the series. Under the first meeting, the agricultural advisors were invited to the Experimental Unit of the National Research Institute of Animal Production in Pawłowice near Leszno, which accommodates a modern barn for dairy cattle equipped with systems and devices allowing for full herd management.

During the visit, there were the lectures on feeding dairy cattle, animal health, production profitability and proper control of herd breeding. The advisors also visited a modern dairy farm at the Niechtód Agricultural Plant owned by the State Treasury, which keeps almost 400 cows and obtains the average annual production of more than 12,000 litres of milk per cow, milking is fully automated and carried out by several milking robots. They also visited the farm, which has a 32-cow milking carousel, self-propelled mixer wagon and automatic manure scrapers.

During the meeting at the Institute of Soil Science and Plant Cultivation National Research Institute in Puławy, the advisors became familiar with the main types of study which precision farming deals with and with the achievements and new solutions of the Institute in this area. They also visited the Osina farm, which is part of the Institute's Agricultural Experimental Unit Kępa-Puławy, where they had an opportunity to learn the technical conditions of precision farming and the machinery park used by the Institute. The following two days were devoted to the practical learning of the approach to precision farming used on two farms which have been implementing this type of technology for several years.

During the meeting at the Institute of Agricultural and Food Biotechnology, a wide range of information was presented on food preservation, processing of various types of plant and animal products and fermentation. A workshop was held on the technological lines at the 'Prosto z pieca' bakery, the demonstration lines for processing meat, milk, fruit and vegetables at the AAC branch in Radom were presented. There was also a study visit to the fruit-growing and processing farm and to the meat processing farm.

All meetings were assessed by the participants as particularly valuable, due to the in-depth possibility of exchanging knowledge among the world of science, agricultural practice and advice. This form enables better cooperation and actions for agriculture and rural development, in particular in the area of innovation.



The objective of the conference and workshop was to train the participants and inspire them to establish their own activity related to the production of cheese and braided products, and to present the examples and opportunities to improve women's economic conditions and to integrate women in the rural community.

As part of the operation, in July 2019 a conference entitled 'Presenting alternative sources of income for rural women' was held, so were the cheese-making and braiding workshops.

The participants in the operation were fifty women of various age, living in rural areas of the Silesian Voivodeship [Śląskie], women being farmers or members of agricultural households and women acting in Local Action Groups, Farmers 'Wives' Associations, Silesian Chamber of Agriculture, women being members of associations of educational farms, etc., as well as women being agricultural advisors. At the conference, the following were presented: possibilities of alternative sources of income and development of own – new or existing – activity, gaining knowledge and new experiences, establishing new contacts, or starting cooperation and further activities in the Silesian Voivodeship. An important result of the operation is the desire to help, cooperate, develop and support new colleagues in their professional and social initiation on the part of women running their own rural businesses. The operation provided the women with a tool i.e. knowledge, whose appropriate use offers opportunities and chances for self-development, building local social relations with other women and social groups. This prevents exclusion, gives hope of creating an alternative job or developing an existing job, and allows to come out of economic and social stagnation. The target group of the operation came from areas where access to services, goods and public utility facilities is limited, so the implementation of the operation for those women gave them opportunity to open up to new possibilities. The undoubted success of the operation was determined by the great knowledge and professional experience of the lecturers, as well as the understandable message of the presentation's content. A definite advantage of the operation was the chosen workshop form. Thanks to it, the women were able to learn in practice how to make cheese and useful straw items. This form also fostered the exchange of experience, establishment of contacts, strengthening of relations among the participants, and the pleasant, friendly atmosphere.

PRESENTATION OF ALTERNATIVE SOURCES OF INCOME FOR RURAL WOMEN

The operation implemented
by the NRN Partner:
**Silesian Agricultural Advisory
Centre in Częstochowa**

More information to be found
on the website:
[https://tinyurl.com/
alternatywnezrodla](https://tinyurl.com/alternatywnezrodla)



▶ (CO)OPERATIVENESS IN THE COUNTRYSIDE

- ▶ The operation implemented by the NRN Partner:

**Turkowska Development
Union T.U.R.**

- ▶ The videos are available on the website:

**[http://www.lgd-tur.org.pl/
aktualnosci/pasja-zvcia/](http://www.lgd-tur.org.pl/aktualnosci/pasja-zvcia/)**

The objective of the project, called ‘(CO)operativeness in the countryside’, was to support the rural development and to promote a partnership approach to enterprise.

The project was addressed to a wide group of recipients: both young persons and seniors, rural residents, who acquired new skills through participation in the operation and learned the legal aspects of establishing and developing their own business. The participants in the project became familiar with good practices used in agricultural processing. Noteworthy is the use of many forms to implement the operation: training, workshop, seminar, study trip, exhibition stand, competition and video.

The organisers prepared the off-site workshop for fifteen persons at the Lawendowe Pole agritourism farm in Nowe Kawkowo near Olsztyn. Its subject was processing of agricultural products with vision and imagination. As part of the ‘(CO)operativeness in the countryside’ project, the owners of the ‘Rupieciarnia’ studio were invited to the ‘Wozownia’ Municipal Community Centre in Kolnica (the municipality of Brudzew), where they conducted a seminar entitled ‘Various knick-knacks – a passion as a way of life’ dedicated to handicraft created using scrapbooking and decoupage techniques.

Residents of the Turecki district also had an opportunity to participate in a study trip to the first Polish kitchen incubator in Zakrzów in the Lesser Poland Voivodeship. Thanks to its gastronomic equipment, the incubator allows the local community to process their own products while meeting all sanitary requirements. As part of the visit, the activity of the ‘Smaki Gościńca’ Social Cooperative were presented, which uses the incubator’s infrastructure on a daily basis. The participants in the project also took part in the popular Poznań exhibition event entitled ‘Jarmark Dobrego Smaku’. Seven exhibitors – farmers, manufacturers, craftsmen and entrepreneurs – presented their products there.

In addition, a competition was organised for the residents of the area where the T.U.R. LAG operates. The objective of the competition was to select the most interesting ‘Passion of life’ described by a participant which currently is or may be a source of income in the future. The competition was conducted in two categories: handicraft and processing of agricultural products. The award for the first-place winners in both categories was a production of a professional video promoting the previously described passion.



The objective of the operation was to promote the development of rural areas covered by the scope of activity of the 'Płaskowyż Dobrej Ziemi' LAG. Due to the form of implementing the operation – a video available on the Internet – it is addressed to the general public.

In the area of the LAG's activity, innovative, site-specific projects are being implemented. The way it changes the area is noticeable, but only by the residents. Successful projects, changing the image of the countryside, resulting in the activation of the local community, inspiring to further projects are the best example for others, proving that it is worth taking risk and achieving success. The LAG lacked common, coherent measures to demonstrate how broad is the scope of the LDS being implemented, how effective are the beneficiaries of the area and how this area has changed in recent years.

Twenty projects carried out under the RDP 2014–2020 were presented, among others:

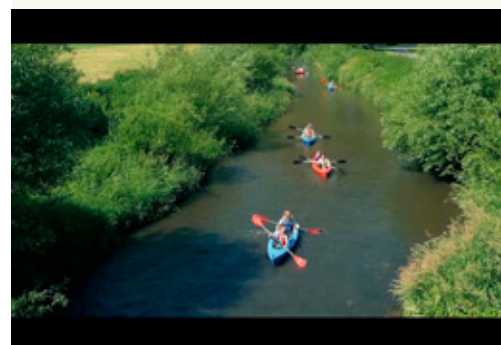
- ▶ rural community gallery in Biedrzychowice – a kind of rural museum, where, thanks to the residents of the village and the local leader, furniture, dishes, household items, clothes, paintings, photos, fragments of the Silesian architecture have been preserved and exhibited – cultural heritage has been saved for other generations and the identity with the place of residence has been strengthened;
- ▶ starting up activity in the field of artistic blacksmithing in Szybowice – so far, the LAG has supported twenty new companies and twelve already developing enterprises – the video presented an example of a passion based on a forgotten profession, which can become a source of income;
- ▶ conference entitled 'About women who never have time' – a meeting of leaders of social organisations, initiators of cultural activities, promoters of cultural heritage, which has been a crowning of a series of workshops. The project presenting the role of a woman in the development of socio-economic life in rural areas, on an example of persons who reconcile the roles of wives, mothers, employees and community workers on a daily basis;
- ▶ the construction of a kayak harbour in Dzierżysławice, on the Osobłoga River, equipped with changing rooms and a grilling area, which activated the area in tourist terms and initiated the economic development;
- ▶ and other projects, including the construction of playgrounds, the revitalisation of the sports field, the modernisation and provision of additional equipment to rural community rooms.

The video promoted the projects and their implementers, inspired others to act – the LAG receives questions about the possibility of co-financing, and the high quality of the photos increased the interest in the area of the 'Płaskowyż Dobrej Ziemi' LAG in terms of tourism.

'LEADER WAS HERE' – THE PRODUCTION OF A VIDEO PRESENTING THE ACHIEVEMENTS OF ORGANISATIONS, INSTITUTIONS AND ENTREPRENEURS OF THE AREA OF THE 'PŁASKOWYŻ DOBREJ ZIEMI' LAG

The operation implemented by the NRN Partner: **'Płaskowyż Dobrej Ziemi' Local Action Group**

The video is available on the website: <https://tinyurl.com/filmleader>



▶ PARTNERSHIP AND DIALOGUE IN THE DEVELOPMENT OF COOPERATION AMONG LOCAL ACTION GROUPS

- ▶ The operation implemented by the NRN Partner:
'Nasze Bieszczady' Local Action Group

The objective of the operation was to build a platform for cooperation – partnership in the area of activity of Local Action Groups.

As part of the operation, the representatives from seven Local Action Groups from the Podkarpackie Voivodeship i.e.: the partner implementing the operation – Nasze Bieszczady LAG and additional partners: 'Zielone Bieszczady' LAG, Nowa Galicja LAG, 'Rozwój Ziemi Lubaczowskiej' LAG, 'Region Sanu i Trzebośnicy' LAG, 'Siedlisko' LAG, 'Lasowiacka Action Group', participated in a study visit to the area of operation of the 'Zielony Pierścień' LAG and 'Krainy wokół Lublina' LAG. The Lubelskie Voivodeship is the leader in the tourism industry in Poland – natural, cultural and historical heritage represents the potential of the economic development of rural areas in this area.

The participants in the study trip visited tourist facilities in Kazimierz and Nałęczów. In addition, they became familiar with local products from local entrepreneurs and manufacturers of traditional culinary delicacies – Kazimierz butter cocks, cebularze made already before the war by the Jews from Kazimierz, coulibiacs, bagels, cooked or fried pierogi with various fillings, regional honeys. They also participated in a meeting with the owner of the Stary Młyn restaurant, who started her business thanks to aid obtained from the funds of the 'Kraina wokół Lublina' Local Action Group under the RDP 2007–2013.

During the study visit, the following workshop was conducted: 'Local development taking into account the natural, cultural and historical heritage of the areas of the Partner LAGs'. The representatives of each LAG presented the economic, social and environmental potential of the area they came from and the values that need intervention due to their poor use.

During the workshop, the participants talked about good practices in their areas, exchanged knowledge and experience related to the implementation of the LDS and changes in internal documents. The essence of the workshop was the creation of a platform for cooperation, which in the future will lead to the implementation of cooperation projects, joint training and study visits. The workshop was used for the identification of Partners, good practices, exchange and gaining of knowledge and experience.



The objective of the operation was to promote the values and achievements of agriculture, local and traditional food products of Pomerania. The Festival of Traditional Product in Pomerania is one of the largest open-air events organised periodically by the Local Government of the Pomeranian Voivodeship.

The direct target group of the operation were exhibitors – producers of local food products, including traditional products, representatives of catering companies, local entrepreneurs related to the agri-food sector, Farmers 'Wives' Associations. The indirect target group were visitors – residents of the Tri-city and the surrounding areas, tourists.

Since 2009, the event has been co-financed by the funds of the National Rural Network as one of the most important events promoting regional dishes and products of the Pomeranian Voivodeship. Every year, the event attracts to Gdańsk crowds of enthusiasts of regional cuisine from all the whole Tri-city and the surrounding areas. For producers of traditional food, farmers 'wives' associations and agritourism farms, this is a unique opportunity to promote and sell their own products. And there is much to boast about! About one hundred seventy-eight dishes and products from the Pomeranian Voivodeship have already been registered in the List of Traditional Products kept by the Ministry of Agriculture and Rural Development.

The Festival of Traditional Product is a unique opportunity for the residents of Gdańsk and tourists visiting the Tri-city to try and buy specialties of centuries-old cuisine of Pomerania, dishes and traditional products from Kaszuby, Kociewie, Żuławy and Powiśle. Farmers and producers of traditional food from Pomerania revealed the secrets of the delicious taste of their products. The ladies from the Farmers ' Wives' Associations from across Pomerania prepared regional dishes – plince (potato pancakes) from Kaszuby, szandar (potato cake) from Kociewie, lard with greaves served on homemade rye bread and famous in the region ruchanki, i.e. small pancakes made of bread dough or yeast dough. There was also a variety of jarred products: preserves, jams, syrups, juices from their farms.

On the stands, we could also find fish, very popular in the region, both freshwater, among others, vendace, called morynka or morenka, as well as marine – cod and popular herring which has dominated cuisine of Pomerania for many centuries. The Festival of Traditional Product is also an occasion to learn therapeutic qualities of products based on herbs, fruit and vegetables. The visitors to the fair could buy dandelion syrup, pine shoot syrup, ground raw cranberries or elderberry flower juice. We could also choose from among many types of honey straight from the beehives of Pomerania, including traditional ones: Pszczółkowski honey and forest honey from Biernatka.

During the Festival of Traditional Product, a competition is organised, whose objective is to cultivate the culinary traditions of the Pomeranian Voivodeship, to promote dishes typical of Pomerania region and to preserve the unique tastes of food products. Twenty-nine chefs, restaurant owners and producers of regional products participated in the competition for the Amber Laurel of the Marshal.

FESTIVAL OF TRADITIONAL PRODUCT IN POMERANIA [POMORZE]

The operation implemented by:
**Marshal's Office of the
Pomeranian Voivodeship
[Pomorskie]**



▶ ORGANISATION OF AN INTERNATIONAL CONFERENCE ON AGRICULTURAL ADVISORY SERVICES ENTITLED 'CHALLENGES FOR AGRICULTURAL ADVISORY SERVICES AFTER 2020'.

▶ The operation implemented by: **Ministry of Agriculture and Rural Development**

The objective of the conference was to discuss and exchange views on the new challenges facing agricultural advisory services under the Common Agricultural Policy after 2020.

The conference was attended by the representatives of advisory services from Poland, Estonia, Lithuania, Latvia, Moldova, Slovakia, Ukraine, Hungary, the representatives of science, agricultural schools, farmers, the representative of the European Commission, the Sejm of the Republic of Poland, agricultural self-government, trade unions and administration.

The conference presented a number of information, proposals and examples of good solutions in advisory services and their role in the AKIS Agricultural Knowledge and Innovation System in various European countries. Participation of the representative of the European Commission and the Chair of the Working Party on AKIS at the SCAR Committee (Standing Committee on Agricultural Research), the Deputy Minister of Agriculture of Hungary guaranteed that the most up-to-date information would be provided on the desired directions of development from the EC's point of view. According to the definition provided, 'AKIS is the organisation and interaction of persons, organisations and institutions who use and produce knowledge and innovation for agriculture and interrelated fields'. The discussion at the conference clearly indicated that farmers and their needs should be at the heart of each AKIS system, and that participation of farmers in creating and implementing new solutions is essential to adapting these solutions to the real needs of farmers.

The conference was also an opportunity to evaluate and summarise the measures carried out in recent years in Poland in the field of agricultural advisory services. The solution for the creation of the Innovation Network in Agriculture and Rural Areas (INA), adopted several years ago in Poland, was considered as a very good step towards the development of the Agricultural Knowledge and Innovation System. Numerous initiatives, taken recently by the Ministry of Agriculture (among others, NRN operations), which have contributed to strengthening cooperation between science and agricultural advisory services, were also appreciated. The conference also included participation of the participants in visits to farms with which the Pomeranian Agricultural Advisory Centre cooperates. The visits took place in four thematic groups: precision farming, agricultural biogas plants, vegetable production and packaging and rural enterprise.

The conference allowed to present future expectations towards the agricultural advisory system, to exchange experience with the representatives of other countries and to assess our preparation for new challenges. In order to meet future challenges, it is necessary, in particular, to continuously improve and develop agricultural advisory services, which play the role of a liaison among all partners in the AKIS system. The objective of the measures which will involve not only advisory units but also research institutes, agricultural universities, trade unions, schools and a number of other entities should be to develop cooperation and to improve the flow of knowledge and innovation between science and agricultural practice so as to support farmers in their activities.



- ▶ **AAC** – Agricultural Advisory Centre
- ▶ **AKIS** – Agricultural Knowledge and Information System
- ▶ **ART** – agricultural retail trade
- ▶ **ASF** – a disease, African swine fever
- ▶ **BAT** – Best Available Technology, a standard for determining the amount of pollutant emissions for larger industrial plants
- ▶ **BV** – breeding value
- ▶ **ENRCH** – European Network of Regional Culinary Heritage
- ▶ **ET, OPU/IVF** – assisted cattle breeding techniques
- ▶ **EU** – European Union
- ▶ **IAFB** – Institute of Agricultural and Food Biotechnology
- ▶ **INA** – Innovation Network in Agriculture and Rural Areas
- ▶ **IoT** – Internet of Things, the concept of devices that can connect to the Internet or to other devices, using wireless networks directly
- ▶ **ISSPC** – Institute of Soil Science and Plant Cultivation
- ▶ **LAG** – Local Action Group
- ▶ **MARD** – Minister/Ministry of Agriculture and Rural Development
- ▶ **MRL, MLR** – marginal, localised, restricted activity
- ▶ **NEC** – Directive of the European Parliament on the reduction in national emissions of certain types of atmospheric pollutants
- ▶ **NRI** – National Research Institute
- ▶ **NRN** – National Rural Network
- ▶ **RDP** – Rural Development Programme
- ▶ **RES** – renewable energy sources
- ▶ **SCAR** – Standing Committee on Agricultural Research
- ▶ **VOC** – volatile organic compounds

GLOSSARY OF ABBREVIATIONS:



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