



Reports on agriculture
Journal for Agricultural Policy and Farming

Special issue 234
August 2022

Working towards agriculture of the future

EIP-Agri in Germany



Federal Ministry
of Food
and Agriculture



European Agricultural
Fund for Rural
Development:
Where Europe invests
in rural areas

Contents

Foreword	3
Brilliant ideas for the agriculture of the future	4
Do what you can and speak about it: EIP-Agri as a network of competence and knowledge	7
What is an innovation?	10
Results that resonate	13
Success stories	18
Collaboration at eye level	24
In the service of innovation	28
EIP-Agri – and then?	31
Jointly driving forward agriculture	34
EIP-Agri in the agricultural knowledge and innovation system	37
Contact details of the innovation support services	41
Legal notice	42

Foreword

By Inge van Oost (DG Agri, European Commission)

The European Innovation Partnership for Agricultural productivity and Sustainability (EIP-Agri) promotes innovation and transition in agriculture, forestry and rural areas in the EU. It brings together people with diverse experiences and knowledge in operational groups projects (OGs) focused on the needs of agriculture. They jointly develop and test innovative, practical solutions and open up new opportunities. EIP-Agri was launched in 2014 and more than 3,200 OGs have since worked together across the EU, one-tenth of which are in Germany. The OGs are accompanied by a diversity of innovation service providers (IDL) in Germany. This strengthens mutual learning from each other.

With over 60% of OGs working on innovative solutions for pressing environmental and climate challenges, the EIP-Agri is already helping to make the Common Agricultural Policy (CAP) a key instrument for achieving the goals of the Green Deal. However, to meet these challenges, an overarching approach is required: the necessary knowledge must be disseminated broadly, must reach those who need it, and it must be used effectively. Supporting and promoting training, advisors, knowledge hubs and dedicated innovation services and networks are equally important tools, that are now brought together with EIP-Agri in order to build effective knowledge and innovations systems for agriculture (AKIS).

Over 6,500 OGs are planned across the EU for the upcoming funding period 2023–2027. This represents almost a tripling of the number of OGs compared to the current seven-year period.

It is important that the scope of application of the EIP-Agri is now expanded to include all nine specific CAP goals: from ensuring viable income and supply chain actions, to climate, environmental or biodiversity focus, as well as generational renewal, rural and social innovation, and reaching out until the consumer. Moreover, OGs can now also be active across borders and receive up-front financing, which will help weaker players such as farmers and advisors to launch innovative projects.

We are sure that this broader range of EIP projects, co-created by actors with complementary knowledge and appreciated by many, will bring even more benefits in terms of developing innovative solutions ready for practice, as they will be profiting from the range of knowledge flows within the restructured AKIS. Innovations will be easier to apply and will respond better to the needs of the field. They will spread more quickly as actors with practical knowledge jointly develop the solution from the very beginning. In particular, end users will be more motivated to use project results because they feel co-ownership. In the words of Thomas Alva Edison, inventor of the light bulb: “The value of an idea lies in the using of it.”



Brilliant ideas for the agriculture of the future

EIP-Agri – this stands for European Innovation Partnership for Agricultural productivity and Sustainability. The funding programme was launched in 2014 with the goal of increasing agricultural production while minimising the consumption of resources and thus making it more sustainable.

By Leonie Göbel (Deutsche Vernetzungsstelle Ländliche Räume (German Networking Unit for Rural Areas)) and Carola Ketelhodt (Innovationsbüro EIP Agrar Schleswig-Holstein (EIP Agrar Innovation Office for Schleswig-Holstein))

Implementing the findings from research usually takes years, if not decades. In EIP-Agri, this should take much less time – thanks to direct involvement of those in practice. Through the continuous exchange between scientific research and practice, project results are available more quickly. At the same time, Europe is being established as a hotbed of science, making it possible for a new culture of innovation to come about for the agricultural sector.

In 2015, Schleswig-Holstein became the first region in Europe to implement the EIP-Agri. “Back then, there was a specific need for action in the area of grassland, in organic farming and in animal welfare”, says Carola Ketelhodt, innovation support service provider in Schleswig-Holstein since 2014. “The idea and the financial means came just at the right time.” As an innovation support service provider she supports the Operational Groups (OGs) in the planning, implementation and management of their projects. She also organises the transfer of knowledge and networks the project partners with each other, with OGs outside the region and with partners from other EU Member States.

There are innovation support services in most federal states (more on this on page 28). They take on an interface function in the respective state between administration, associations, research institutes, agricultural businesses in the broadest sense and the Deutsche

Vernetzungsstelle Ländliche Räume (German Networking Unit for Rural Areas, DVS).

How Germany implements EIP-Agri

EIP-Agri is financed through the European Agricultural Fund for Rural Development (EAFRD). The federal states determine the funding criteria in their respective directives. Those wanting to undertake an innovation

Number of OGs in the federal states



Source: EIP database DVS, as of July 2022

Total funds for EIP-Agri in Germany from 2014 to 2022

State	Mio Euro
Baden-Wuerttemberg	33.0
Bavaria	7.0
Brandenburg	30.6
Hesse	12.0
Mecklenburg-West Pomerania	11.6
Lower Saxony	19.9
North Rhine- Westphalia	10.0
Rhineland Palatinate	17.8
Saxony	7.0
Saxony-Anhalt	8.7
Schleswig-Holstein	12.8
Thuringia	12.2
Total (rounded)	183.0

Planned funds for EIP-Agri in Germany from 2023 to 2027

State	Mio Euro
Baden-Wuerttemberg	19.8
Bavaria	10.0
Brandenburg	25.0
Hesse	21.2
Mecklenburg-West Pomerania	11.0
Lower Saxony	14.6
North Rhine- Westphalia	15.0
Rhineland Palatinate	14.6
Saxony	5,0
Saxony-Anhalt	7.5
Schleswig-Holstein	12.5
Thuringia	7.5
Total (rounded)	163.7

Source: Federal state survey DVS, as of July 2022

project must first apply with an idea. To this end, most states put out a call for applications through an “expression of interest” procedure.

The states examine the innovative content of the planned projects and it is only then that the actual application process takes place. In principle, they also fund further project-related expenses in addition to the personnel costs (see table on overall EIP-Agri funds).

The federal states implement EIP-Agri in quite different ways. This is seen, for example, in the funding volume and the number of OGs (see graphic on number of OGs). The focus of the calls for funding in turn focus on the development programmes of the respective states. In Baden-Wuerttemberg, these fall, for instance, under the thematic areas of sustainable bio-economy and special crops. Lower Saxony strengthens the integration of start-ups in OGs. In other states, the calls for

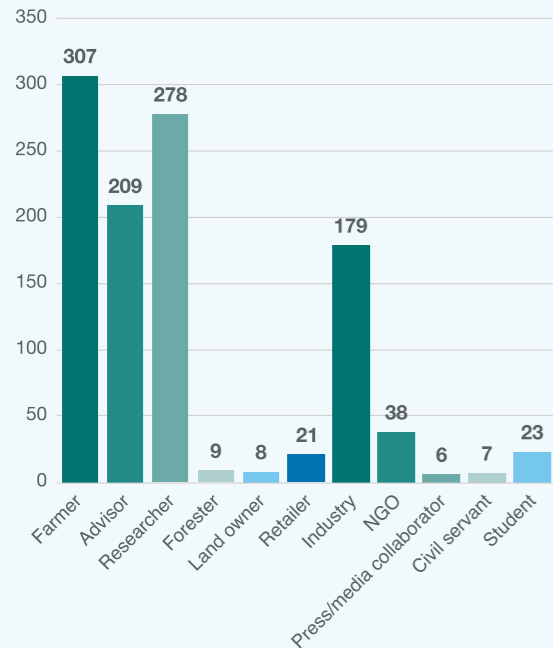
funding are not tied to a particular thematic area.

The OG as the nucleus of innovation

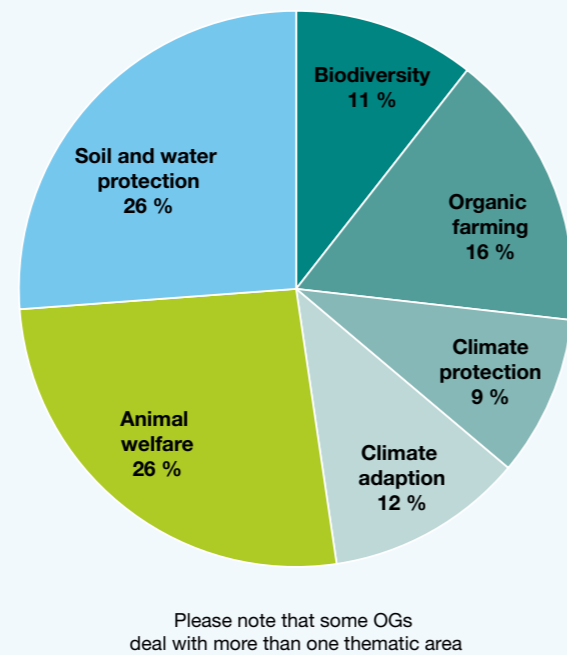
Agricultural practice and research should be better interwoven within EIP-Agri to accelerate the transfer of innovation. The bottom-up principle is in action here: partners from advisory services, industry, associations and organisations as well as science and research work together in OGs on the problems faced by practical agriculture. In most federal states, the participation of at least one agricultural practitioner in the OG is mandatory. Generally, agricultural holdings themselves are also represented (see graphic on OG-member type).

Through this networking, also beyond state borders, the participating actors learn to broaden their horizons and interact on an equal footing.

Member composition of an OG



Thematic areas of the OGs



Source: EIP database DVS, as of July 2022

Since the launch of EIP-Agri in 2014, more than 300 EIP projects have been implemented in Germany. These dealt and still deal with current issues from numerous thematic areas (see graphic on thematic areas).

The projects generally run for three years, but it is possible for some cases to last for five years. The project must both be processed and the transfer of the findings to agricultural practice initiated within this time-frame. The goal is to develop and disseminate practical solutions. The EIP database provides an overview of the EIP projects in Germany. As well as the contact persons available, the final reports of past projects are also published there.

With EIP-Agri, economic actors – for example from the field of technology – can network with agriculture to establish innovations faster and better into practice. Thus, both regional and cross-regional networks are steadily established, offering specifically tailored solutions and continuously disseminate knowledge.

Interlinked across borders

Networking plays an important role in EIP-Agri – and is the task of the Deutsche Vernetzungsstelle Ländliche Räume (German Rural Network, DVS) on a national level. The unit supports the OGs and other network partners, informs them about EIP-Agri and other relevant topics and accompanies EIP-Agri-related activities on a federal level and beyond national borders. It also maintains close contact with those bodies responsible in the federal states, with the Directorate General of Agriculture of the European Commission or with the Support Facility for Innovation and Knowledge exchange including EIP-Agri (more on this on page 7).

Moreover, in the coming funding period EIP-Agri will be continued and constantly improved. The mandatory accompaniment by innovation support services is new. EIP-Agri is also expected to take on a central role in the Agricultural Knowledge and Innovation System (AKIS) (more on this on page 34 and page 37): as a systematic approach, AKIS intends to push forward the exchange of knowledge between practice and research in Europe even further in the future.

Do what you can and speak about it: EIP-Agri as a network of competence and knowledge

One core element of EIP-Agri is the interlinking of and exchange between practice, scientific research, advisory services and industry. Various contact points support the Operational Groups in this.

By Leonie Göbel (Deutsche Vernetzungsstelle Ländliche Räume (German Networking Unit for Rural Areas)), Silke Neu (Sächsisches Landesamt für Umwelt, Landwirtschaft und Geologie (Saxony State Office for the Environment, Agriculture and Geology)) and Gunilla Lissek-Wolf (Humboldt-Innovation GmbH)

The OGs have to describe in their project proposals how they intend to guarantee the transfer of new findings. In other words, it is expressly expected that they pass on their knowledge. In Saxony, for example, an utilisation plan in the project proposal records how expected results are to be disseminated and used in practice. The findings from the regions are also intended to have a leverage effect across the EU, and to be applied in agriculture, forestry and the food industry.

Knowledge transfer in the federal states

At the level of the federal states, the innovation support services support the OGs. They impart useful contacts, write articles for agricultural magazines, and provide support in the creation of practice abstracts or organising events. In Brandenburg, for example, specialist workshops take place regularly on the topics of the OGs – in the past on ground sensor technology or dairy farming, for instance. This allows the actors not only to exchange knowledge but also to network with each other. Through their network, the innovation support services also contribute to anchoring EIP-Agri in the fields of advisory and education. Thanks to the innovation support services, EIP-Agri is also a regular presence at regional events such as agricultural shows or field days.



Project presentation MoPlaSa at the EIP-Agri experience exchange in Brandenburg, June 2022

Working together across Germany

The Deutsche Vernetzungsstelle Ländliche Räume (Networking Agency for Rural Areas, DVS) brings the OGs together at a national level. Should at least four OGs from at least two federal states wish to share experiences on a particular topic, the DVS organises workshops and excursions together with the OGs – fully in the spirit of the EIP-Agri bottom-up approach. In doing so, participants consequently involve suitable project teams from “Horizon Europe” and further relevant actors.



Exchange as part of the “Ground sensor technology” workshop at Reinshof, Goettingen



Tour at the German Institute of Food Technologies (DIL) at the “Regional added value and biotechnology” workshop

Thematic DVS workshops in past years

<ul style="list-style-type: none"> → Pig farming → Poultry farming → Sustainable irrigation → Precision Farming 	2018
<ul style="list-style-type: none"> → Poultry farming → Protein crops → Sustainable baking wheat 	2019
<ul style="list-style-type: none"> → Ground sensory technology 	2021
<ul style="list-style-type: none"> → Social agriculture → Regional added value and biotechnology 	2022

Be it news on pig farming, sustainable irrigation or social agriculture: the findings from the OGs thus find their way to those who can benefit from them – across Germany or even internationally. Once a year, all OGs come together for joint, interdisciplinary training and development.

Here, the members learn, for example, how to make a film, write good texts or what they

need to know about procurement law. The DVS also offers further support – and, for example, has produced short films on 25 EIP projects.

The DVS is also associated with the innovation support services and regularly organises meet-ups and training sessions for them. At the administration level, it also participates in the federal/state exchange with the EIP presenters

from the states. The DVS is established within the Federal Office for Agriculture and Food (BLE) and is affiliated institutionally with the Federal Information Centre Agriculture (BZL). This allows findings from EIP-Agri to be used for the websites, brochures or social-media channels of the BZL and made available to even more people.

Exchange at the EU level

For the purposes of networking and information exchange, all OGs, the corresponding contact data and final reports are listed in databases. The German database is managed by the DVS, the European database by the EIP-Agri Support Facility “Innovation & Knowledge exchange” (formally EIP-Agri Service Point). It is competent for the approximately 3,200 OGs in Europe, mediates within the EIP-Agri network and improves the communication between all those interested in knowledge exchange and innovations in agriculture and forestry and in rural areas.

Especially important for this are the EIP-Agri focus groups. They form a bridge between scientific research, advisory services and practice, bring together knowledge on a certain topic and work out solutions or recommendations for action: for example, for reducing the use of antibiotics in pig farming, for combating diseases and pests in viticulture or regarding nature-based solutions for water management in global warming. Each EIP-Agri focus group meets twice and subsequently publishes a recommendation and findings report. So far, there have been 46 focus groups, many of these with German participation.

The EIP Support Facility also regularly organises seminars or workshops. These enable the international exchange of collected knowledge and create new inspiration and contacts. Information on invitations for funding, formats or events of the EU is spread through the EIP-Agri Support Facility’s regularly published newsletter.

Collaboration that crosses borders

The multi-actor approach that is fostered in EIP-Agri is becoming ever more significant

at an EU level. For example, calls for funding now exist in the area of “Horizon Europe” that are explicitly directed at OGs from several Member States. This means that EIP-Agri can act as a gateway to EU research funding and create important contacts for further projects. According to the wishes of the EU, it should be possible for transnational OGs to also be included in the funding period from 2023 onwards. How the implementation will be shaped is still an open question in the German federal states. EIP-Agri also plays a vital role in the context of the AKIS: The systematic approach of the EU for the funding period from 2023 should drive forward the exchange of knowledge between practice and research in Europe. Within this system, EIP-Agri can serve as a blueprint for the successful transfer of knowledge between practice and research. The existing EIP-Agri networks offer excellent points of reference for this.

Service

The German EIP-Agri Database (available in English):

<https://www.netzwerk-laendlicher-raum.de/en/agriculture/european-innovation-partnerships-eip/eip-project-database/>

The European EIP-Agri Database:

<https://ec.europa.eu/eip/agriculture/en/eip-agri-projects>

All EIP-Agri short films (with English subtitles):

www.youtube.com/c/DVSLändlicheRäume

What is an innovation?

EIP-Agri works with a comprehensive description of the term “innovation”. Various project examples demonstrate the breadth of the innovative developments.

By Claudia Leibrock (Ministerium für Landwirtschaft und Verbraucherschutz, Nordrhein-Westfalen (Ministry of Agriculture and Consumer Protection, North Rhine-Westphalia)), Svea Thietje (Institut für Ländliche Strukturforchung (Institute for Rural Development Research (IfLS))) and Julia Bader (Thüringer Landesamt für Landwirtschaft und Ländlichen Raum (Thuringia State Office for Agriculture and Rural Areas))

Renew and change: derived from the Latin roots of the word, these two aspects form the core of innovation. EIP-Agri's goal in this regard is interactive system innovation, in which the entire system of scientific research, advisory services, associations and practice participate. It comprises existing knowledge which may originate in research or practical experience and which, in interactive collaboration, leads to solutions that are adapted to meet the challenges of the respective sector. Ideally, the practical implementation is already integrated into the innovation process, since all participants are involved from the outset. Innovations can be subdivided into various types – selected projects demonstrate these.

Product innovations

The development and introduction of a new or improved, marketable product or service is at the core of this type of innovation.

Sustainable poinsettias – the “HessenStern” OG

The OG came together in 2019 to develop an innovative cultivation process for the environmentally friendly production of poinsettias. The “HessenStern” poinsettias are grown sustainably in peat-free substrates and cultivated to be as long-lived as possible. The OG tested various marketing strategies and investigated which care instructions consumers found most clear and useful.

The result was the poinsettia “Frieda Freude”, for which the students of the Hochschule Geisenheim University applied for the trademark and created a corresponding marketing concept. “Frieda Freude” was sold for the first time in December 2021.



Production of HessenStern “Friede Freude” poinsettias

Process or procedure innovation

Here, the cycles of a production process, a work method or of organisational structures are improved or amended to save costs, for example, to increase quality or to achieve more productivity and sustainability. The innovation can relate to a technological process, a new software or new methods, work steps and organisational structures in a procedure or manufacturing process, for instance.

New technologies in apple cultivation for optimal fruiting – “PRIMEFRUIT” OG

Thinning out superfluous flowers or fruit is considered to be especially important in the cultivation of apples, pears and stone fruits to ensure high-quality fruits every year. However, until now, there were no target values for the optimal thinning out of the fruit trees. The project team from “Primefruit” therefore developed a model to determine the optimal fruiting for each specific tree with the help of LiDAR sensors (short for “Light Detection and Ranging”).

New methods in animal husbandry – the “MeTiWoLT” OG

Keeping laying hens with untrimmed beaks: The “MeToWoLT – Mehr Tierwohl für Legehennen in Thüringen” (more animal welfare for laying hens in Thuringia) OG looked at how this would be possible. Feather pecking and cannibalism can often occur when laying hens are kept with intact beaks. The reasons for this cannot be traced back to just one cause, however. As part of the project, the OG therefore recorded the risk factors in practice and developed a control scheme that allowed early detection with relatively little effort and which was designed to aid laying-hen farmers by means of targeted measures.

Existing working methods, new geographical context

In agriculture and forestry, the processes are influenced by environmental factors that differ from region to region. This means: test and adapt good ideas from other regions in your own.

Irish pasture management meets northern Germany – the “Weide-manager-Schleswig-Holstein” OG

Ireland is seen as a model of successful pasture management. The OG team therefore looked at the Irish model to increase the efficiency of the Schleswig-Holstein grazing farms. To this end and together with Irish



Training for the “Weidemanager Schleswig-Holstein” OG

colleagues, it translated two innovations from Ireland to (northern) German conditions: the “Grashopper” rising plate meter, which measures the growth of the grass via laser and GPS, and the “PastureBaselreland” decision support system.

Existing work methods, new sector

Innovations in other sectors can be carried over into agriculture and used in an adapted form. The transfer of existing work methods from one agricultural sector to another can also be innovative.

From plasma research to the cowshed – the “PlaWaKiRi” OG

The most commonly occurring infectious hoof disease in dairy farming is digital dermatitis (mortellaro). The “PlaWaKiRi” wants to combat this using plasma water: to this end, it is using technology from cold atmospheric-pressure plasma to develop an alternative, antibiotic-free therapy against the pathogens and is testing this under practice conditions. If the project is successful, the use of antibiotics in conventional and organic dairy farms could be reduced or even avoided completely.



Thematic workshop on social agriculture at Hof Fleckenbühl, May 2022

Social innovation

This type of innovation comprises changes and new concepts for social interaction.

Farms offer good conditions for this but experience in the implementation has been scarce thus far. Four EIP projects have therefore set themselves the goal of, among other things, developing and testing various concepts – and, with their know-how, supporting other operations in social innovations. This ranges from economic budgeting and personnel planning to tips for the structure of everyday life.

- **Much potential for farms – the “Mehrwert durch soziale Landwirtschaft” (added value through social agriculture) OG**
- **Agricultural businesses as providers of social services – the “InnoLAWI” OG**
- **Good workplaces for persons with disabilities – the “Biogemüse” (organic vegetables) OG**
- **Diversifying farms – the “Innovationspartnerschaft Soziale Landwirtschaft Bayern e. V.” (Innovation partnership for social agriculture Bavaria) OG**

Innovations that solve problems

With EIP-Agri, agricultural research becomes more closely associated with practice – agriculture can input its questions directly into the research. And even if only a part of the projects lead to new approaches, products or a further development of the production process, it is still a huge achievement. After all, new ideas and a lot of trying and testing are the basis on which the current challenges faced by agriculture can be overcome.

Service

Further information on the OGs can be found in the DVS project database (also available in English):

<https://www.netzwerk-laendlicher-raum.de/en/agriculture/european-innovation-partnerships-eip/eip-project-database/>

Results that resonate

What effect has EIP-Agri had on agricultural practice in the last seven years? This can be seen in the broad spectrum of the projects from the federal states.

By Svea Thietje (Institut für Ländliche Strukturforchung (Institute for Rural Development Research (IfLS))), Silke Neu (Sächsisches Landesamt für Umwelt, Landwirtschaft und Geologie (Saxon State Office for the Environment, Agriculture and Geology)) and Fabian Storm (Netzwerk EIP Agrar & Innovation Niedersachsen (EIP Agrar & Innovation Network for Lower Saxony))

Agriculture and forestry in Germany and Europe continue to face huge challenges and the need for sustainable farming practices is becoming ever more urgent. In this respect, EIP-Agri has established vital foundations for the future in the past seven years. The evaluation reports of measures in the various federal states show that EIP projects stand out for their great practical relevance – especially since the needs in practice are at the heart of the innovation. The effects of EIP-Agri are wide-ranging: it can improve the competitiveness of agriculture and forestry, drive diversification, boost knowledge transfer and support the collaboration between various actors on an equal footing.

Good ideas for global challenges

With EIP-Agri, innovative solutions are developed for practical agricultural and forestry problems – solutions that are global in their approach. Be it the funding of an agriculture and forestry adapted to climate change, the protection of limited resources such as water and soil, or measures against agricultural structural change: the actors in the EIP projects address the major challenges of our times at a regional level.

In doing so, they take account of current trends, concepts and instruments. The project teams develop digital technologies, adapt these and use them to drive forward sustainable and resource-saving production and to facilitate work processes or design these in a more efficient way.

The federal states have already funded several EIP projects in the area of precision farming. Approaches in the area of artificial intelligence (AI) are also taken into consideration more and more often. The “KI-Rebschnitt” (AI grapevine pruning) OG from Rhineland-Palatinate, for example, aims at managing vineyards more efficiently and cost-effectively using AI. The Lower Saxony “SmartTail” project uses an AI approach to detect the tail-biting of pigs at an early stage on the basis of sensor technology.

Current developments are also taken into consideration in the design of the funding programme in the various federal states. In Hesse, one particular focus of EIP-Agri is on the funding of organic cultivation; more than the half of EIP projects in Hesse are currently contributing to this area.

Tailored solutions for practice

In comparison to many other funding programmes, EIP-Agri is directly focused on addressing problems in practice and to improving the situation of the farmers. To this end, EIP projects orientate their content towards the needs of practice and disseminate their findings as widely as possible. Thus, the transfer of knowledge is a central component of EIP-Agri: The findings from all projects are published – even when the projects fail. This means that many practice guides and tools are generated, which are developed together with practice and made available free of charge.



Project meet-up of the “Weidemanager Schleswig-Holstein” OG

The EIP projects thus meet the urgent needs of practice – for example for animal-welfare-oriented husbandry: The “Kuhgebundene Kälberhaltung” (cow-bound calf husbandry) OG from Schleswig-Holstein, for example, developed a best practice guide for the farming of dairy cattle. It has been very well received even in other regions, and aids farmers in rearing calves in contact with the mother or suckler cows. The “TierwohlCheck” (animal welfare check) OG, also based in Schleswig-Holstein, and the “Tierwohl-Milchvieh Hessen” (Dairy cattle welfare Hesse) OG use new instruments to allow the assessment of the welfare of dairy cattle. The “Alternative Sauenhaltung” (Alternative sow husbandry) OG pioneered the testing in practice of a new procedure in the area of insemination and farrowing. In 2019 it was awarded the Thuringia Animal Protection Prize 2019 for this work.

The EIP projects also develop solutions for the adapting to new framework conditions, such as the fertiliser ordinance (DüV): When is the right time to fertilise cereals and winter rapeseed with nitrogen? And how much fertiliser is necessary in each case? The Saxony project “N-Düngungsberatungssystem” (N-fertiliser

advisory system) dedicated itself to answering these questions. The team developed a system from which field, operational and region-specific parameters could be derived for qualified, adjusted nitrogen fertilising.

Forming new networks

Networking is essential for an agriculture in Germany and Europe that is fit for the future. That EIP-Agri would promote networking and form new networks was thus already clear in the design of the funding programme. This aspiration is also reflected in the directives of the federal states: after all, networks facilitate the exchange of experiences and thus accelerate the dissemination of innovations in practice – the primary goal of EIP-Agri.

The OGs themselves are innovation networks. Ultimately, their members supplement each other in terms of their knowledge and findings. In the “EIP-Schwein” (EIP-Pigs) project in Baden-Wuerttemberg a total of 60 actors have been working together since 2016 – from farms, advisory services, research and from upstream and downstream areas of agriculture. With innovative structural sty concepts, they improve animal welfare and environmental protection in pig husbandry.



Cultivation of hemp in the Werra-Meißner district

Some of the EIP pig farms also function as “Impulsbetriebe Schwein” (stimulus pig farms) as part of the Netzwerk Fokus-Tierwohl (focus on animal welfare network). In this role, they act as forerunners of the trade and carry knowledge and innovation into agricultural practice throughout Germany in the context of regular network meet-ups and events.

Also in Schleswig-Holstein, EIP-Agri projects were the starting point for a large network, which, thanks to the “Grünlandportal Schleswig-Holstein” (grassland portal Schleswig-Holstein) app, had an effect far beyond the original OG itself. The OGs “Optimiertes Weidemanagement – Smart Grazing” (optimised pasture management), “Weidemanager Schleswig-Holstein” (pasture management Schleswig-Holstein) and “Gemeine Risppe” (rough-stalked meadow grass) laid important foundations for the development of the Weideplattform Schleswig-Holstein: Agricultural practitioners, advisors and related research bodies exchange knowledge and experience at lecture events and field trips – also across national borders. The Weideplattform is run by the Schleswig-Holstein State Chamber of Agriculture and Kiel University.

Developing regional value-added chains

Many EIP projects are dedicated to regional value creation and look at both established and new products.

Be it protein plants and vegetables, classic animal products or snails, insects and secondary plant substances: the spectrum is broad and includes aspects of social agriculture and the circular economy. Often, all relevant elements of the value-added chain are involved in the OG. In the “Legu Sachsen” OG (Legu Saxony), for example, representatives from agriculture and utilisation, product development, specialist wholesale and the bakery industry cooperate to develop novel mini-meals from legumes.

Harvest of hemp seeds





Mobile abattoir of the "Extrawurst" OG

In several federal states, new value-added chains are currently being established for one of the oldest agricultural crops on earth – hemp. Here, the focus is on dairy products, fibres, oils, seeds and nuts. The "Hanfanbauer Werra-Meißner" (Werra-Meißner hemp farmers) OG has set itself the goal of making the cultivation of hemp in the Werra-Meißner district as integral as possible: from cultivation to processing to marketing. When all of these segments are already working together in the pilot phase, potential obstacles can be better overcome. In this way, they together enable sustainable value creation with agricultural products in the region.

Contributing to new legal framework conditions

Various pilot projects show that EIP-Agri can contribute to amendments in national or even European law, which means substantial improvements to the situation of farmers. One outstanding example of this is the "Extrawurst" ("extra sausage") OG. In this Hessian project, the actors dealt between 2017 and 2019 with the slaughtering process for cattle – in compliance with all regulations for commercial slaughter. In doing so, they laid vital foundations for the new EU regulation on "on-farm slaughter using mobile abattoirs". This regulates the slaughtering of cattle, pigs

and solipeds across Europe through the use of a mobile abattoir. The OG developed a semi-mobile abattoir for the avoidance of live-animal transport and to reduce the animals' stress by having the abattoir come directly to the cow. Another central result is the creation of guidelines for the semi-mobile slaughtering of cattle that include various check and control lists. These are freely available and applied throughout Germany.

Further examples of EIP projects that have contributed to the amendment of legal framework conditions: the "Öko-P" OG from North Rhine-Westphalia and the "Getreidepopulationen" (cereal populations) from Hessen. The team from "Öko-P" tested five different phosphorus-recycling products, referred to as "P-recyclates", to use in organic cultivation as fertilisers. The most effective fertilisers are to be included in an overall concept appropriate to organic crop rotation. If testing proves positive, the OG wants to support the approval of P-recyclate fertilisers in organic farming (fertiliser legislation, EU organic production regulation). The "Getreidepopulationen" OG examines the practicability, the performance and the acceptance of cereal populations. In doing so, it also analyses and optimises methods for development and cultivation improvements. The project team makes its

data available for a substantiated evaluation of the legal provisions of the EU experiment on populations, thus contributing to the new EU regulation on organic production. With this, the EU created the legal framework conditions for the marketing of populations as an organic, heterogenous material. The expertise and findings of the "Getreidepopulationen" OG provided solid information throughout the entire consultation process – in particular in relation to the cultivation methods approved in accordance with the new regulations.

Bringing together start-ups and agricultural practice

EIP-Agri and start-ups have many ideas and approaches in common: Just like EIP projects, innovations are the core concern of young companies, with solution ideas often coming about from the needs of the start-ups themselves. It is especially interesting that start-ups often use new technologies that have not yet established themselves on the market. Instead of making use of a conventional business model, they create something completely new.

Another parallel can be seen in their similar thought patterns: Like the innovators at EIP-Agri, start-ups also set out from a problem. They focus on the users and try to develop solutions for specific challenges. To this end, they have to continue to hone their ideas in exchange with practitioners, scientific research and business. Start-ups can provide interesting stimulus here. At the same time, some innovations from EIP-Agri have the potential to be launched on the market through the founding of a company. EIP-Agri is the ideal mediator for jointly testing out ideas on the farms. This means that advisors and farmers benefit from creative ideas while start-ups can develop practical solutions through the know-how and the experience of the user.

A good example of a start-up that has already inspired the agricultural industry is Monitorfish GmbH. With EIP-Agri, this young company has transferred AI monitoring in fish breeding to the broiler chicken industry. In this, the start-up provides the technical expertise and a farmer provides the specialist know-how from

animal husbandry. Being flexible and solving known problems using ideas from other sectors: it is exactly this that characterises innovations and start-ups.

EIP-Agri and start-ups are also structurally connected. In Saxony, the innovation support services are part of the futureSAX GmbH transfer network – a central contact partner in the Saxony start-up and innovation ecosystem. In 2022, the first EIP project coordinated by a start-up centre began in Lower Saxony. The responsible coordinator, Greta Fenske from Seedhouse Osnabrück, is now an expert for EIP-Agri and in future will support start-ups in implementing EIP projects together with farmers. "The founders of agrarian start-ups often do not come directly from the agricultural sector. This makes it especially important to bring them closer together with the practitioners", says Fenske. Assistance in applications and the coordination of projects is now an integral component of the portfolio of the Seedhouse Osnabrück start-up centre. As a well-used tool, EIP-Agri can thus connect start-ups and farmers and create added value for all.

Practice-oriented and sustainable – also in the future

A brief look into the effects from seven years of EIP-Agri shows: The EU created a funding programme with enormous potential for improving the situation of agricultural practice in various ways. EIP-Agri is diverse, practice-oriented, sustainable and bridge-building. Therefore, there are firm plans to continue the programme in the coming funding period in all federal states that have implemented EIP-Agri thus far.

Service

Further information on the OGs can be found in the DVS project database (also available in English):

<https://www.netzwerk-laendlicher-raum.de/en/agriculture/european-innovation-partnerships-eip/eip-project-database/>

Success stories

Successfully bringing together many actors, tapping new value-added chains or testing future-proof models for agricultural practice: EIP projects from six federal states provide insight into practice.

By Fabian Storm (Netzwerk EIP Agrar & Innovation Niedersachsen (EIP Agrar & Innovation Network for Lower Saxony)), Gunilla Lissek-Wolf (Humboldt-Innovation GmbH), Katja Beutel (Ministerium für Ernährung, Ländlichen Raum und Verbraucherschutz Baden-Württemberg (Ministry for Food, Rural Areas and Consumer Protection, Baden-Württemberg)), Helene Faltermeier-Huber (Innovationsnetzwerk EIP-Agri Bayern (EIP-Agri Innovation Network in Bavaria)), Yves Reckleben (Kiel University of Applied Sciences, Faculty of Agriculture) and Silke Neu (Sächsisches Landesamt für Umwelt, Landwirtschaft und Geologie (Saxon State Office for the Environment, Agriculture and Geology))

“PhycoFarming” – new value-added chains in micro-algae production

Federal state: Lower Saxony

Members of the OG: Roval GmbH, Alfred-Wegener-Institut, Helmholtz-Zentrum für Polar- und Meeresforschung (AWI), Mial GmbH

Term: 2020– 2022

Further information:

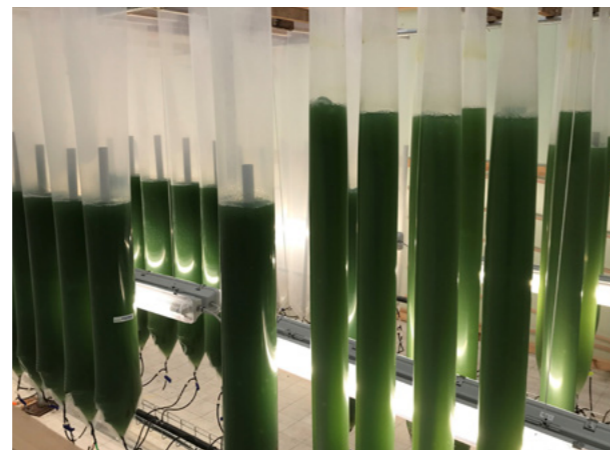
<https://projekte.eip-nds.de/biotechnologie-und-kreislaufwirtschaft/phycofarming-qualitaet-statt-masse-als-vermarktungsvorteil-der-niedersaechsischen-mikroalgenproduktion/>

www.youtube.com/watch?v=5AF1S0HA29c

Quality over quantity: the cultivation of micro-algae is receiving more and more attention, especially from farmers on the look out for alternative business segments. The local climatic conditions do not actually allow the same production quantities as in warmer regions. A focus on quality over quantity, however, promises a remedy: When farmers cultivate and market certain highly prized substances that are formed in the algae, they can compensate for the disadvantages of the location.

The goal of the project is to create a new value-added chain that will make the still-young micro-algae production industry competitive in the long term and tap the market potential of algae, especially for farmers. The project concentrates on further processing fresh spirulina (*Arthrospira*) into a phycocyanin extract, directly at the production site. This makes the farmer both producer and extractor. Phycocyanin extract can be used as a food additive and marketed at much higher prices than the fresh algae matter to companies in the pharmaceutical and cosmetics industries or the fields of wellness, sport and nutraceuticals. The residual material generated by the process can be used after desiccation as fish feed and completes the waste-free extraction process. This means that, in addition to an utilisation option for agricultural waste, the farmer also taps new value-added chains.

Cultivation: A proprietary cultivation process allows the start culture to be produced using minimal quantities from strain banks



Two decision support systems are brought together in the project to optimise the irrigation management. To this end, the recommendation of the “Irrigama steering” software is integrated and tested in the “Raindancer” app

Automated irrigation management for resource-efficient agriculture

Federal state: Brandenburg

Members of the OG: Forschungsinstitut für Bergbaufolgelandschaften e.V. (FIB), Grünhagen Ackerbau GmbH, Hydro-Air international irrigation systems GmbH, IT-Direkt Business Technologies GmbH, Knösels Gemüse-Erzeugung GmbH & Co. KG and Spreewald Agrar GmbH & Co. KG, Theinert und Rienecker GbR

Term: 2021– 2023

Further information:

<https://eip-agri.brandenburg.de/eip-agri/de/projekte/automatisierte-bewaesserungssteuerung-neu/>

<https://eip-agri.brandenburg.de/eip-agri/de/projekte/precision-irrigation-beendet/>

www.youtube.com/watch?v=-6ybXI4V0v4

Suitable technology but above all also efficient irrigation management contributes to the careful use of water. This means, firstly, the technical management of the irrigation infrastructure. Secondly, the farmer must make new decisions every day as to when and how

much a culture needs additional water. Available systems that aid these two aspects have, until now, operated separately from each other. This is why, in the context of the project, two decision support systems were brought together to optimise water management: the “Irrigama steering” software, which generates recommendations for irrigation, and the “Raindancer” app, which regulates the irrigation infrastructure. Three agricultural holdings are testing the system in pivot irrigation systems and drip-tube irrigation systems. At the same time, it is being adapted to conditions in organic cultivation.

In this way, the new application would contain all information that the farmer would need for the logistically and agriculturally optimal utilisation of his irrigation infrastructure, meaning that the means required by the holding for irrigation advice and planning are reduced. Status enquiries by telephone are rarely needed any longer, thanks to the extensively automated and science-based management of the irrigation. The project is a further development of the EIP project “Precision Irrigation” that pushed forward the introduction of effective automated irrigation management in agricultural practice.



Tour at the Bunz GbR dairy farm

“EIP Rind” – construction in cattle farming

Federal state: Baden-Wuerttemberg

Members of the OG: A total of 46 participants from agriculture, advisory services, research and wholesale

Term: 2017 – 2022

Further information:

www.eip-rind.de

The focus of “EIP Rind” (EIP cattle) is on innovative construction to solve the conflict of interests between environmental protection and animal welfare – for example, in the reduction of emissions. In the project, 23 innovative animal sheds were developed, implemented by the participating agricultural businesses and supervised and evaluated by scientists. The ideas for the innovative measures in the sheds came for the most part from the farmers themselves. 46 participants worked closely together in the project.

In order to involve many relevant actors, the project initiators wrote in advance to all known animal-shed companies in Baden-Wuerttemberg and published an advertisement in a regional journal. Further special features of the project: There is an interface with the Agrarinvestitionsförderungsprogramm (agrarian investment funding programme, AFP), which supports the shed-construction project. The OG also undertakes wide-ranging public relations work. It reaches farmers, advisors and shed planners through specialist articles. The findings also flowed directly into training programmes through the state offices involved. The OG also offers animal-shed tours and inspections (also digitally), published a newsletter every four to six weeks and is represented at conferences and trade shows. The farmers themselves are frequently invited to give lectures on their shed construction projects. Consumers are also involved in the shed construction projects: every participating operation receives a signposted visitor tour route that explains the basics of dairy cattle farming.

Social agriculture: Specific economic indicators directly from practice support the planning of various company concepts

Federal state: Bavaria

Members of the OG: KHS AgriConsult, elf landwirtschaftliche Betriebe, Sozialteam-Soziotherapeutische Einrichtungen für Niederbayern gGmbH, Bayerische Landesanstalt für Landwirtschaft

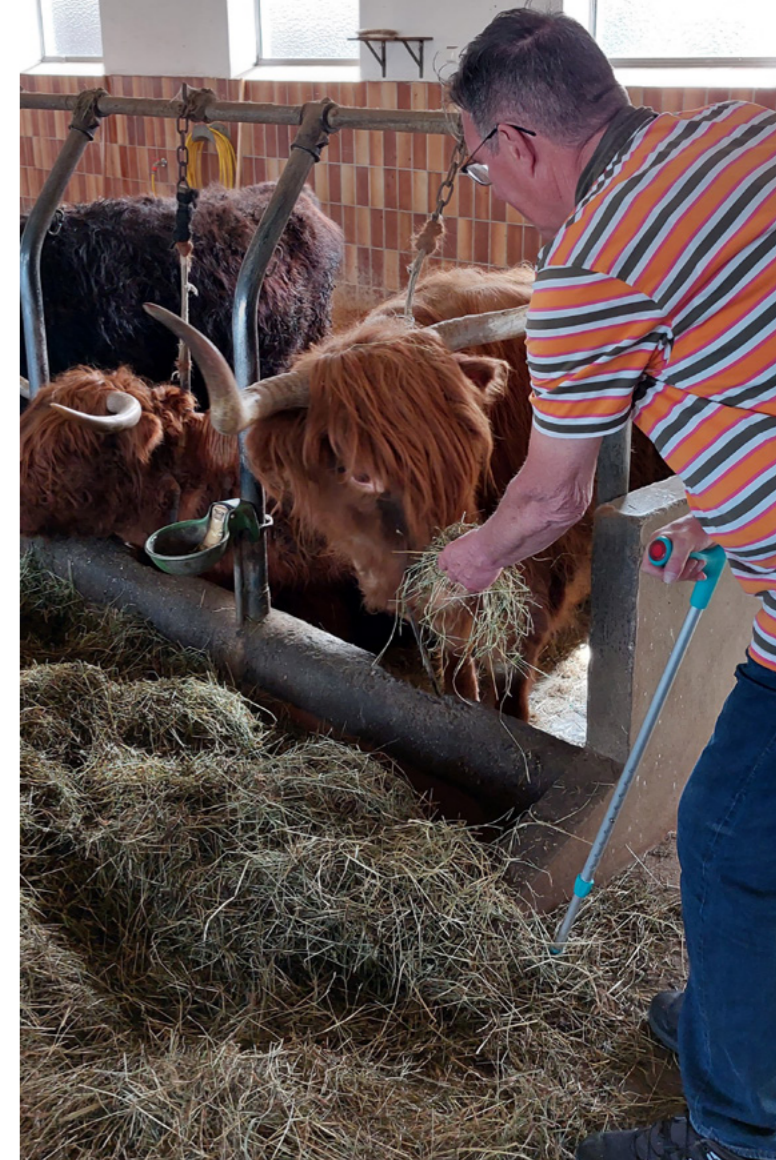
Term: 2018 – 2022

Further information:

www.stmelf.bayern.de/forschung_innovation/263700/index.php

As an instrument for the diversification of agricultural holdings, social agriculture continues to be a small experimental field: The person is at the centre here and, because of his individuality, is difficult to standardise. This is all the more difficult when the people involved have physical, emotional, mental or sensory disabilities. In order to collect reliable economic data for the possibilities of social agriculture, the Bavarian EIP project of the “Innovationspartnerschaft soziale Landwirtschaft e. V.” (social agriculture innovation partnership) OG supervised innovative, economically viable models at ten agricultural holdings. The people in question can be integrated into everyday agricultural life for example through external employment for people with disabilities, inclusive farm kindergartens, animal-supported interventions with donkeys, ponies and dogs, as well as experience-oriented offerings for children in need of support.

The participating farms provide empirical data – from the decision on a selected model to the successful implementation. This includes feedback on networking with social institutions.



Senior citizens on the farm

The findings from the project are to form a practical handbook for the social agriculture business model: with success factors for the development and extension of individual models with offer-specific and target-group-oriented instructions, data and economic indicators that have previously not appeared in any publication. The guidelines should make the entry into social agriculture more plausible and conceivable.



Minister J. P. Albrecht visiting the "TreckDatMol" project on 31/07/2020

„TreckDatMol“

Federal state: Schleswig-Holstein

Members of the OG: Quarnbeck Milberg-Schöller estate management, Mehlbek estate management, Hansen agricultural holding, Hof Wiesengrund, Gut Rosenkrantz, Helmstorf estate management, Kiel University of Applied Sciences, CAU Kiel, SH State Chamber of Agriculture, Digitale Wirtschaft SH Clustermanagement / WTSH GmbH, EasyKom GmbH & Co. KG, Landtechnisches Lohnunternehmen Bendorf, Landesverband der Lohnunternehmen in SH

Term: 2018–2021

Further information:

www.eip-agrar-sh.de/eip-innovationsprojekte/2-call/treckdatmol

Modern, future-oriented agriculture must handle resources ever more efficiently in order to assert itself on the world market and in society. To do this, it needs reliable data and information. For this reason, process monitoring and documentation have become

essential components in the daily business of the farmer.

Science-based action shapes human development – and agricultural primary production – and starts with information, which has to be collected and processed. Also, and especially, in agriculture. Details that came to light through digitalisation in agriculture can now contribute to the acquisition of skills and increase competitiveness.

Such is the case of the "TreckDatMol" project. The goal: to integrate every machine – no matter how old – into the digital data infrastructure and gain process-based data in every work phase. To this end, a data router was developed that can be retrofitted to every vehicle and collects data such as fuel consumption, speed, slippage and position in the field. ISOBUS-compatible auxiliary equipment is also integrated into the mobile-based data transport via the data router. This facilitates the operational management and the connection of the Farm Management Information System (FMIS) with legal documentation or the business partner of the company. The 13 OG partners – including seven agricultural enterprises – thus achieved their

goals and realised the hardware and software linkage via web-app and the AgriRouter.

The ideas from the project encouraged a follow-up application. The seven agricultural enterprises and the partner firm Exatrek EXA Computing GmbH took part in the "Betriebsleitung und Stoffstrommanagement, Vernetzte Agrarwirtschaft in Schleswig-Holstein – BeSt-SH" (Operational and material flow management, networked agriculture in Schleswig-Holstein) follow-on project. Thus, the EIP developments can also make an important contribution in future issues.

"Legu Sachsen" – development of a regional value-added chain: Mini-meals made of legumes

Federal state: Saxony

Members of the OG: QFI Quendt Food Innovation KG, Agrar – GmbH „Am Stromberg“ Gröditz, BÄKO Ost e. G., Rätze-Mühle GmbH & Co. KG, Bäckerei Ermer, Haufe & Deutloff GbR, RKW Sachsen GmbH

Term: 2020 – 2022

Further information:

<https://www.youtube.com/watch?app=desktop&list=TLGGFFcwLwn4hx8xOTA3MjAyMg&v=T1Ha1rJsGpQ+&feature=youtu.be>

www.qfi.de/wp-content/uploads/2022/03/2106_Legu-Sachsen_-_MiniBro_Allg.pdf

To work on regional value-added chains that are resilient, to minimise CO2 emissions, protect the environment and resources and enable better nutrition for everyone: these are the tasks to which the "Legu Sachsen" EIP project has dedicated itself, a project from which a working group of the same name has emerged. Because, after all: leguminous plants have a positive effect on the environment. The extension of crop rotation to include this family of plants is considered to be an important building block for sustainable agriculture. The cultivation and regional marketing of legumes for human consumption also offers an opportunity for an extended sales market.



Prototypes of novel legume-based mini-meals

Agriculture and utilisation, product development, specialist wholesale and the bakery industry all cooperate closely with each other in the OG to develop prototypes for sustainable, nutritious mini-meals based on peas, broad beans or lupines. They are attuned to the current changes in nutritional habits and to specific nutrition-psychological needs profiles, such as those of people who are primarily physically or intellectually active. The mini-meals comprise an accompaniment, a vegetable and a protein element. Following conclusion of the project, the products will be available to all bakeries in Saxony. The cultivation process for the cultures used will be optimised in the project for the desired further processing. With this, the OG hopes to create the basis for the wide-ranging contract cultivation of legumes for human consumption. In order to encourage the required demand, optically innovative product concepts will also be developed. These are to make legumes tangible as a contemporary source of nutrition, to encourage discussion and to offer the opportunity of disseminating knowledge in a situational context. Thus, at the same time, the OG wants to smooth the way for the marketing of new, regional legume-based variants of traditional products such as fine baked and confectionery goods.

Collaboration at eye level

What does it mean to work as part of an EIP-Agri project? How can one find a suitable project partner? And how can one handle conflicts well? Actors from across Germany share their experiences.

In EIP projects, various actors work together towards one goal: these include primarily agricultural enterprises, scientific research and advisory services but often also associations and upstream and downstream areas of agriculture. This interdisciplinary collaboration should accelerate innovation processes. It can, however, also lead to mutual dependencies of those involved, whereby differing notions of goals and sensitivities can harbour the potential for conflict. Participants from all areas told the innovation support services in their federal states how they found it in their EIP projects.

Agricultural practice



Jan Gumpert
Chairman of Agraset Agrargenossenschaft eG Naundorf bei Rochlitz (Saxony)

In the “Mikroalgen als Futtermittelergänzung in der Schweinemast” (micro-algae as feed for fattening pigs) project, Jan Gumpert’s operation produces algae as fresh and needs-based feed for the animals. As project lead, his operation brought new ideas for the utilisation of operational synergies and in animal monitoring:

“With our operations, we can participate in this way to research and development. In contrast to other industries, this is not something that could be refinanced via our product prices. So, despite the bureaucracy, I would do it all again. We have yet to see if, economically speaking, the costs of the algae reactor would be balanced out by reduced loss of animals, more homogeneous growth or lesser discounts in sales. My highly-qualified staff are very motivated to be involved in innovative projects. The collaboration worked out extremely well and I would enjoy more cooperation like this with science.”



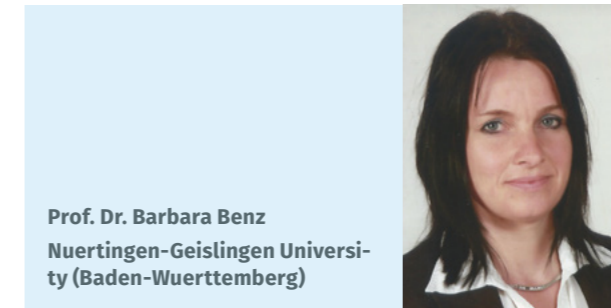
Joachim Klack
Farmer from Versmold (North Rhine-Westphalia)

A successful example of collaboration at eye level is the project from the “Winterhanf” (winter hemp) OG. Joachim Klack reports on how scientific research and practice can manage to get along, even though they often speak different languages:

“It was all about developing a common vision. This vision came about in advance of the project itself. For a long time, we have planted hemp again and again as a winter catch crop. An increasing number of agricultural operations have joined us and wanted to try it out too. With the State Chamber of Agriculture, we then found ourselves a partner that was ready to support us. From the OG, an association emerged that wants to re-establish hemp in agriculture.”

Even before the launch of the project, there were some points of contact with scientific research. Both the State Chamber of Agriculture and the scientists were willing to go along with us farmers. They valued and needed our experience.”

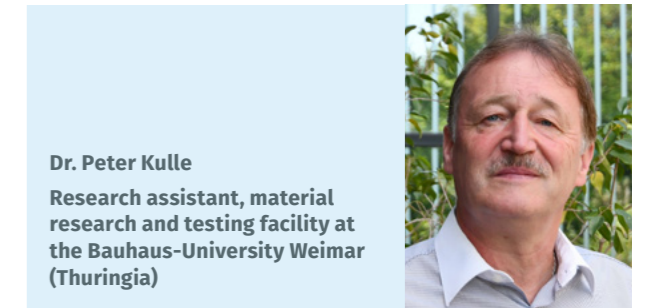
Science



Prof. Dr. Barbara Benz
Nuertingen-Geislingen University (Baden-Wuerttemberg)

In the “EIP Rind” (EIP cattle) project, there are over 50 participants – one of whom is Prof. Dr Barbara Benz. How collaboration between so many partners works, what motivates the professor to be involved with EIP projects and what she expects from the practitioners:

“The field trip at the beginning of the project was especially important for getting to know each other, building trust and encouraging cohesion in the working group. For me it was always essential to maintain good communication throughout the entire course of the project: for example, a newsletter kept us up to date on the progress of the project during the set-up phase and the pandemic. My motivation is using this project to make a contribution to future-proof and competitive cattle farming in Baden-Wuerttemberg – in the field of tension between more animal welfare and, at the same time, lower emissions. In this it was important to me to thoroughly discuss all solution approaches and later to evaluate them in practice. This meant that we were able to clear away hindrances to implementation and uncertainties for further dissemination and acceptance of the measures. Applied research in collaboration with practitioners requires creative methods, flexibility in the implementation and many on-site visits in order to familiarise ourselves with the framework conditions of every single farm. Our research findings are of great interest for practice – that’s the feedback I’m getting from the farmers. It is valuable when the bridge between practice and science is successful and I’m always very happy to hear from the practitioners. Of primary importance are openness and commitment.”



Dr. Peter Kulle
Research assistant, material research and testing facility at the Bauhaus-University Weimar (Thuringia)

Dr Peter Kulle was involved in the EIP projects “ABIO-TEC”, “AMEDITEC” and “CLEAN AIR”. What, in his opinion, makes the collaboration between the various partners so special:

“Decisive is the open, trusting and honest interaction of the partners. It is vital to respect each other as colleagues and to have understanding for the difficulties and concerns of the others. The barometer in all things is always the working practice. A science that locks itself away in an ivory tower is of no help to the practitioner. The dynamics of everyday life, especially in the agricultural industry, necessitates constant discussion and staying flexible. It continues to be difficult for the representatives of farm operations to always make it to meetings, since daily work can very quickly require another scenario – be it in the animal shed or out in the field because of weather conditions. When scientific research can respond to the issues within agriculture in a result and practice-oriented way, a lot of positive things can happen in good collaboration: it can help in designing the processes in agrarian operations specifically according to the handling of the soils, plants and animals, whereby the focus is always also on the question of practicability and cost efficiency. In this way, for example, we want to bring a procedure for the treatment of waste air from animal sheds to application maturity in the “CLEAN AIR” project. Moreover, we have been able to lay the scientific basis for a concept with which the farms themselves can reduce the residue from animal medications in commercial fertilisers and in the soil.”

Advisory services

Jens Rockstroh
Advisor from Agrargenossenschaft See eG (Saxony)



Jens Rockstroh is an advisor in the EIP project “Lavendelanbau in der Oberlausitz” (Lavender cultivation in Oberlausitz). In the face of climate change, the project pursues the goal of tying erosion protection and biodiversity with new income opportunities. Which roles, in his opinion, advisory services can take on in EIP projects:

“As an advisor and trusted contact person for many years, I have raised awareness of the possibilities of EIP-Agri funding. In doing so, openness is essential. Especially when it comes to innovations, cornerstones must be established and the leitmotif taken up again and again. This takes time. Good, unbiased advice can moderate and structure the course of the project in the interests of the farm. After all, this is where the risk is and the challenge to turn knowledge into economic success. And when conflicts do happen to arise, I see it as being a good thing, as long as it sets something positive in motion. The exchange of experience is the cheapest investment in the future.”

Theresa Gärtner
Landwirtschaftliche Beratung der Agrarverbände Brandenburg GmbH



The “Ökoschwein” (organic pig) OG develops feed recommendations for organic pig farming and solutions for the conversion of old pig pens. Theresa Gärtner was the advisor in the project. She explains which advantages collaboration in an interdisciplinary team brings and how one can find a suitable partner:

“The special thing about EIP-Agri is that practitioners are involved. This means that the concepts arrive right there where they are needed. At the same time, differing viewpoints, ideas and perspectives lead to good solutions. As part of our advisory services, we speak a lot with agricultural holdings because this is where you can find many ideas for improvements. We are also in regular contact with scientific institutions. After all, we at the agricultural advisory services know all about the EIP-Agri funding and just have to bring the partners together. Important here: the relationship between science and practice must be balanced. It is also essential to have someone in the project group who will coordinate the project and hold onto the reins. And people who are responsible for public relations work and are familiar with the administration of project funds.”

Project coordination

Malin Bockwoldt
Advisor at the Schleswig-Holstein State Chamber of Agriculture



Malin Bockwoldt coordinated the EIP projects “Nährstoffmanagement im Grünland” (Nutrient management in grassland) and “Flächenkonzepte Grünland” (area concepts for grassland). What factors she believes are essential for good collaboration and what constitutes her role as coordinator:

“As coordinator, I see myself as a mediator between all actors and as the expounder for the ten working operations and six pilot operations in our OG. The actual implementation of ideas should always be understandable for all. Farmers are rarely used to working in this sort of group. It takes motivation and awareness to keep everybody at it. The group structure as a whole also has to be considered and held together. As the project coordinator, I am challenged both as a person, with my social skills, and professionally. In addition to my specialist work, I also see myself as a motivator and a caretaker. That can be a lot of stress but is also very satisfying, since all of the farmers have worked together with commitment. All OG members must get the feeling of really being part of the project. This is only possible with an excellent flow of information. An OG needs communication that always gets everyone pulling in the same direction again – so that all members understand why things happen in the project. Only then does collaboration work over the entire period. Part of this is addressing each individual and utilising diplomatic skills.”

Ute Bader
Advisor at the Baden-Württembergischen Genossenschaftsverband e. V.



Ute Bader coordinates the “Legere Weine” (casual wines) EIP project in Baden-Wuerttemberg. Who is the driving force behind the project and what tips does she have for good collaboration between the various partners:

“The catalysts are working operations that see a need for the development of innovation. In later stages, participants from research and practice then usually drive the project along in rotation. Market demand for the low-alcohol wines examined continuously climbed during the project, which strongly motivated the participating actors. Ultimately, the operations were able to react to this market opportunity with the launch of new products. Basically, we can report excellent collaboration. We inform the working operations how important it is to participate regularly in the OG meetings so that relevant questions from practice that did not come up at the beginning can be included even in the course of the project. The project coordination should maintain good contact with all actors; a constant flow of information and exchange of knowledge between the actors enables transparency. Meetings should take place in person where possible, since this increases interaction between all participants.”

Service

Further information on the OGs can be found in the DVS project database (also available in English):

<https://www.netzwerk-laendlicher-raum.de/en/agriculture/european-innovation-partnerships-eip/eip-project-database/>

In the service of innovation

The implementation of EIP-Agri in Germany is accompanied in almost all federal states by what are known as innovation support services (ISS). What exactly does their work entail?

By Gunilla Lissek-Wolf (Humboldt-Innovation GmbH) and Carola Ketelhodt (Innovationsbüro EIP Agrar Schleswig-Holstein (EIP Agrar Innovation Office for Schleswig-Holstein))

They are familiar with the EIP-Agri application procedures, are interconnected with each other across Germany through the German Networking Unit for Rural Areas (DVS) and exchange information and experiences with the EIP-Agri offices of the federal states: as competent advisors, the innovation support services work side by side with the project team.

Their work starts even before an application is made: they advise individuals or groups in the brainstorming and clarify the requirements of the application procedure. In addition, they discuss how innovative the respective project idea is, whether it fits with EIP-Agri and how the potential applicants can find allies for the project work.

Depending on the federal state, the innovation support services are organised differently. The focus of the work also varies. In some states, they assist only during the application process. In others, they help in the search for partners, mediate contacts, clarify administrative questions and accompany the approval process. In most federal states, they supervise the projects even after approval and support the implementation process throughout the course of the project.

They are available to the project teams should questions arise, organise networking or specialist events, aid in the transfer of knowledge and ensure the dissemination of the project findings. They link up EIP project groups also outside the region and with partners in other EU Member States. There, too, EIP-Agri support structures have been established. For example, in Austria there is a service body for rural development at the Federal Ministry for Agriculture, Regions and Tourism, with an EIP-Agri innovation broker. The Netherlands has a national EIP support structure within the framework of the Rural Areas Network in Utrecht, for which the Ministry for Agriculture, Nature and Food Quality and the 12 provinces are jointly responsible.

The fact that EIP projects are accompanied by the innovation support services was a major factor in the fast start-up and success of EIP-Agri in Germany. As contact persons before, during and at the end of the projects, they help to break down hurdles and to hold groups together. As a mandatory support structure and network manager, the services will be of even greater importance in the future.

Janine Berberich (r) and
Gunilla Lissek-Wolf (l)
Brandenburg



“The work by the innovation support services is needed because...

every OG starts from zero but the innovation support services are already aware of the experiences of other EIP projects and can pass these on. For this reason, we are happy to participate in project meetings. In Brandenburg we are committed to enabling exchange between the EIP projects. We organise regular meet-ups such as those to swap experiences or coordination meetings. We also organise specialist workshops and support projects in the execution of events. By these means, we have built up a lively EIP-Agri network.”

Anne Gueydon (not pictured) and
Helene Faltermeier-Huber
Bavaria



“The support by the innovation support services is especially helpful for the EIP projects because...

administrative language often needs translation and competent contact persons provide reassuring support, assurance and motivation. In Bavaria, we are two innovation support services providers, who work both in the Ministry and in the Management Academy. This ensures close exchange between administration and advisory services and practical orientation.”

Carola Ketelhodt
Schleswig-Holstein



“I enjoy my work as an innovation support services provider because...

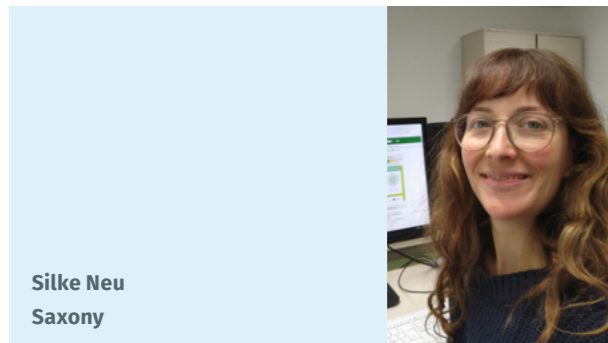
I get insights into various themes and fields of innovation and can provide support repeatedly for the collaboration of teams and groups. The innovation support services in Schleswig-Holstein are commissioned externally and are based in the State Chamber of Agriculture in Rendsburg. This means that I have excellent connectivity with the agricultural advisory bodies and very good contact with agrarian practice. The proximity means that I am also closely connected with the agricultural industry, associations, agrarian research and administration. This is of great benefit to the projects.”

Fabian Storm (r) and
Benjamin Kowalski (l)
Lower Saxony



“Our work as innovation support services was successful if...

with the EIP projects, practice-relevant and current issues are dealt with, and innovative solutions are found and disseminated across regional borders. In Lower Saxony, the innovation support services are located within the state’s innovation and business development programme and are in lively exchange there with industry and technology networks. We also have a close alliance with the start-up initiative in Lower Saxony in order to network the start-up scene with the agrifood industry and EIP-Agri.”



Silke Neu
Saxony

“The support by the innovation support services is valuable for the EIP projects because...

the network allows the formation of important contacts in order to drive forward new ideas

faster and better with existing experience and structures.

In Saxony, a lot of effort goes into transferring innovative approaches from EIP projects into practice, also by means of professional development formats. The Saxony Networking Body of EIP-Agri is located within the State Office for the Environment, Agriculture and Geology. I organise annual network meet-ups, participate in OG events and transfer the EIP-Agri concepts to the Saxony innovation ecosystem via a cross-departmental transfer network. Because I am convinced that central stimuli come about through exchange, I also like to initiate Germany-wide thematic workshops that are open to other actors.”



The innovation support services providers at a joint visit to the DLG field days, June 2022

Service

The contact details for the innovation support services can be found on page 41.

EIP-Agri – and then?

At the end of an EIP project stand new or regionally adapted products, methods or processes. However, these only become innovations once they are actually put into practice and disseminated. How can this work?

By Silke Neu (Sächsisches Landesamt für Umwelt, Landwirtschaft und Geologie (Saxon State Office for the Environment, Agriculture and Geology)), Gunilla Lissek-Wolf (Humboldt-Innovation GmbH), Oliver Müller (Institut für Ländliche Strukturforchung (Institute for Rural Development Research (IfLS))), Julia Bader (Thüringer Landesamt für Landwirtschaft und Ländlichen Raum (Thuringia State Office for Agriculture and Rural Areas)), Fabian Storm and Benjamin Kowalski (Netzwerk EIP Agrar & Innovation Niedersachsen (EIP Agrar & Innovation Network for Lower Saxony)), Carola Ketelhodt (Innovationsbüro EIP Agrar Schleswig-Holstein (EIP Agrar Innovation Office for Schleswig-Holstein)) and Anne Gueydon and Helene Faltermeier-Huber (Innovationsnetzwerk EIP-Agri Bayern (EIP-Agri Innovation Network in Bavaria))

The diversity of the OGs is matched by the diversity of the paths taken to ensure that the project results do not fade away after the end of the project. They all successfully implement three major strategies: Passing on the findings, getting involved in the market and, when necessary, relying on follow-up funding.

Perpetuating the transfer of knowledge

To ensure the successful, broad transfer of innovation, the inclusion of relevant actors and interest groups from the very beginning is essential. This can be seen in several projects, for example in the “Grünlandportal Schleswig-Holstein” app that was developed out of three EIP projects: the participating State Chamber of Agriculture continues to operate the app, even beyond the end of the funding term, and provides it free of charge to the farms.

The “ALVO-TECH-TRANSFER” OG in Lower Saxony also transferred its findings successfully into practice with the help of suitable partners. In order to implement the “Altes Land Pflanzenschutzverordnung” (Altes Land plant protection ordinance, ALVO), the OG investigated to see how the risk of pesticides

running off into bodies of water could be minimised.

To this end, the partners compared axial-blower and tunnel-type spraying equipment. Both were proven to be similarly biologically effective, whereby the latter allowed resources to be used in a markedly more targeted, efficient way. The manufacturers of tunnel-type spraying equipment can build on the OG’s knowledge and offer equipment that is optimised for practical use, which is in widespread use.

The OG “NIKIZ – Nachhaltiges Insekten-und Krankheitsmanagement im Zuckerrübenanbau der Zukunft“ (sustainable insect and disease management in the sugar beet cultivation of the future) in Rhineland-Palatinate has taken on the status of a flagship project in terms of knowledge transfer: It works with 15 participating farms, several research and advisory facilities and virtually all cross-regional associations, organisations and companies involved in sugar beet cultivation. The collaboration was so successful that it will be continued in a follow-up project.



Jürgen Schwarzensteiner
OG "Düngeoptimierung"
(Fertiliser optimisation), Bavaria

"The idea for our project came about in autumn 2018 and developed further into making the funding application. Our cooperation partners brought with them a lot of experience on the structure and evaluation of exact trials. Since implementation, we have attended a workshop and presented ourselves at the DLG field days. This networking has allowed us to collect together many ideas that flow into our daily work. We are more than satisfied that the EIP system works and are ready for new projects."

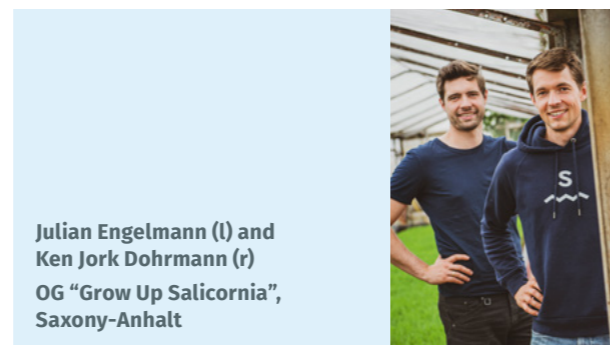
The Bavarian "Düngeoptimierung" OG aims at improving nitrogen efficiency. To this end it uses the Albrecht method, in which the main and trace nutrients are examined, and precision soil analysis through satellite-supported data. It carries out an unremitting transfer of knowledge – driven by the awareness of the fact that broad-ranging effects can only be achieved when science, advisory services and politics all equally acknowledge the findings.

Many ways lead to the market

It is not uncommon for new companies to emerge from EIP projects. The OG "Regionales Biogemüse aus Brandenburg" (regional organic vegetables from Brandenburg) formed several companies, for example: five of its potato farmers came together to market their products together via food retail. The "Frisches Biogemüse Brandenburg GmbH" now brings production, processing and marketing together in the region and offers other organic vegetable producers sales opportunities through the organic food trade.

A peeling plant was also certified organic in the project, meaning that school caterers and other large-scale kitchens can now also use regionally grown organic potatoes. This gave a significant boost to the organic agricultural and food industry in Brandenburg, quite in keeping with the core concept of EIP-Agri.

The "Grow Up Salicornia" OG in Saxony-Anhalt developed new methods of growing nutritionally valuable salt-tolerant plants and in doing so utilised by-products from the regional salt mining that had gone unused until that point. To market its products, it made use of start-up funding; the innovation support services in Lower Saxony helped it into the start-up scene in Osnabrück. The start-up now sells its products via an online shop, Salifaktur GbR, as well as at regional "Marktschwärmerei" markets.



Julian Engelmann (l) and
Ken Jork Dohrmann (r)
OG "Grow Up Salicornia",
Saxony-Anhalt

"It was participation in EIP that gave us the possibility to realise the project idea at all. We were convinced that the cultivation and marketing of salt-tolerant plants was an untapped niche in Germany. There is already a market in other European countries for the salicornia plant, which is often referred to as a superfood. That was our motivation. At home here in Germany, consumers were generally unfamiliar with the plants and experience with horticultural production didn't exist. We were aware that we were facing a steep learning curve in developing a practicable cultivation system and in determining marketing opportunities for salicornia in Germany."

Using supplementary funding opportunities

Often in EIP projects, further development stages are required after funding has expired, since, due to their experimental nature, they generally end before being ready to market. Supplementary funding opportunities can help achieve the outstanding milestones. This funding includes the Deutsche Innovationspartnerschaft Agrar (DIP-Agrar), which funds application-oriented projects. For example, the actors of the Brandenburg OG "Tierwohlampel" (traffic-light system for animal welfare), who developed an animal welfare measuring and management system for dairy cattle. In the closing project, the actors are validating the system and bringing it to market maturity. With this, they want to sustainably improve animal welfare and the competitive capacity in milk production.

The OGs can also carry out two separate EIP projects. Thuringian OG "Clean Air" made use of this option. Its goal: to develop a new system that purifies waste air from animal sheds. In the first project, the participants developed the foundations, from the laboratory phase to the function prototype. The results were very promising. A second

project is currently running to test the prototype under practical conditions.

Much discussed, but until now seldom used is the interlinking of funding options offered by the European Agricultural Fund for Rural Development (EAFRD) with EIP-Agri and LEADER for the development of rural areas. Particularly in the area of regional value-added chains, LEADER projects can perpetuate what EIP projects initiate. In any case: a certain amalgamation exists here and there. Direct marketing farms in Saxony are in the process of establishing the sales and marketing cooperative "Sächsisch-GUT eG" within the framework of a LEADER cooperation project. Some of these farms are involved in parallel in the "DigiGUT" OG, which is developing a prototype digital platform for planning, marketing and monitoring their products. In Bavaria, the LEADER coordinators are to act as first advisors for potential OGs in order to enable at an early stage the perpetuation of EIP projects in the regions and through the network.

No matter which path is taken: it makes sense already at the conception stage to think about the options for the time after the expiry of the funding term.

Service

Further information on the OGs can be found in the DVS project database (also available in English):

<https://www.netzwerk-laendlicher-raum.de/en/agriculture/european-innovation-partnerships-eip/eip-project-database/>

Jointly driving forward agriculture

With over 320 projects, EIP-Agri has been a complete success in Germany. From the point of view of the European Commission too, the instrument has proven its worth, and is continued in the new funding period.

By Anne Gueydon & Helene Faltermeier-Huber (Innovationsnetzwerk EIP-Agri Bayern (EIP-Agri Innovation Network in Bavaria)) and Julia Bader (Thüringer Landesamt für Landwirtschaft und Ländlichen Raum (Thuringia State Office for Agriculture and Rural Areas))

Taking inspiration from practice and developing, implementing and disseminating innovative solutions: the bottom-up approach of EIP-Agri has been and continues to be well-received by the applicants. In most federal states, the demand was high from the very beginning and has remained so until the end. There are a total of 322 EIP projects in Germany in 2022. This has far exceeded all federal expectations.

EIP-Agri in the new funding period

The collaboration between various partners in the OGs – especially from agricultural holdings with scientific research and advisory services – remains a special feature in the funding landscape. As EIP-Agri shows: this collaboration is what makes the programme so successful. When the farmers feel that they are acknowledged as vital partners, their acceptance for new ideas increases. Ultimately, this accelerates the dissemination of these ideas and makes a decisive contribution to the sustainability of the project. And through the teams' bringing together of thematically related EIP projects, whole innovation networks arise, in which they can together tap into an enormous pool of knowledge. This also benefits administration, which gets to know new actors in the agrarian sector.

The European Commission plans to continue with EIP-Agri in the 2023-2027 funding period and give it even more significance. The legal framework is Regulation (EU) 2021/2115 or the Common Agricultural Policy Strategic Plan Regulation (CAP-SP-R), in which EIP-Agri is anchored under Art. 77. It is designed to contribute to the overarching goal of the modernisation of agriculture and rural areas through funding and the dissemination of knowledge, innovation and digitalisation. Another goal is creating a regional as well as a national innovation ecosystem through the improved flow of knowledge between the actors and stronger ties between research and practice. In this way, EIP-Agri aims to further increase the competitiveness of the agriculture industry.

What the federal states are planning

In order to achieve the aims of the new CAP, Germany is strengthening the roles of the innovation support services in the federal states, further developing the relationships between advisory services, research, business and practice and advocating an even better transfer of the findings.

All federal states in which EIP-Agri has already been part of the development programme will continue with it in the next funding period. The funds have already been set out (see table) and the funding guidelines are in revision.

Provisionally planned funds for EIP-Agri in Germany 2023-2027 (EAFRD and state funds)

State	Mio. Euro
Baden-Wuerttemberg	19.8
Bavaria	10.0
Brandenburg	25.0
Hesse	21.2
Mecklenburg-West Pomerania	11.0
Niedersachsen	14.6
North Rhine-Westphalia	15.0
Rhineland-Palatinate	14.6
Saxony	5.0
Saxony-Anhalt	7.5
Schleswig-Holstein	12.5
Thuringia	7.5
Total (rounded)	163.7

Source: Federal state survey DVS, as of July 2022

The experiences of the administration, the innovation support services and the approval bodies have been taken into consideration in the revision. The states have also taken the feedback from the OGs on board: In Hesse and Thuringia, this was gathered in discussions and participative workshops (see image).

In all federal states, the high bureaucratic effort involved emerged as a significant hurdle to the success and viability of the OGs. For this reason, some federal states have already introduced standardised unit cost rates for personnel expenditure and adjusted their guidelines accordingly, during the current funding period. The others also want to adopt this approach with the new funding guidelines.

In some places, overhead flat rates are used to make it easier to invoice indirect costs.

Occasionally, administrative provisions are also adjusted to cut red tape – for example, regarding changes in the awards regulations or the introduction of residual cost flat rates.

Simplifying the preparation of OGs

The key to successful innovation projects: finding suitable partners, setting out a detailed project concept and preparing a well-thought-out work, costs and financing plan. However, this is all associated with a lot of expense and time. For this reason, the EU enables both the funding of the preparation of a project by an OG (intervention code EL-0702-a) and the funding of the execution of OG projects (EL-0702-b). The federal states can utilise the measures separately or combine them into one measure. Whereas Bavaria has used the combination thus far, the state is now switching to separate funding. Thuringia plans to do the same.

Beyond this, the administrations are working out solutions that will facilitate the participation of universities and strengthen the participation of practitioners or start-ups – in particular from agriculture and forestry.



Results bulletin board of the Future Workshop in Thuringia

They are also looking at ways to digitise the project application and funding call-up procedures.

With a view to the funding procedure as a whole, the states are reconsidering for the new funding period the maximum duration of the project, the maximum grant amounts, the amount of funding rates and the funding possibilities of investments. Whether the process should be one- or two-stage in the future is also being discussed. Finally, the states are taking a close look at the assessment of the project outlines – and thus also the selection criteria and the evaluation by specialists or a scientific committee.

New guidelines – Bavaria as an example

The new guidelines are already in place in Bavaria and an invitation to submit applications under its conditions was tested out in summer 2022. The guidelines divide the EIP funding programme into two separate measures: into the establishment of the OG and funding of the concept development versus the funding of the implementation of innovation projects. The successful development of a concept is a pre-requisite here for any subsequent funding of the implementation.

This subdivision aims to support the OGs in a more targeted way in the creation of the concept and the business, cost and financing plans, as well as in the technical and legal interpretation. In addition, it will be possible to fund expenses for tax-related and legal advice on the formation and the legal form of the OG. In this way, the subsequently approved innovation projects should be less prone to errors.

With these new guidelines, Bavaria is placing the focus on the funding of the collaboration through “investments in people”. The composition of the OGs can be designed more inclusively and thus become even more interdisciplinary; the forestry sector has also been included. In the future, not just the OGs themselves but also an agent specified by the OG will be able to submit applications.

Parallel to the revision of the guidelines, the state is also offering a more intensive advisory and support service as well as the further development of networks through the establishment of the Bavarian EIP-Agri Innovations Network and the inclusion of the LEADER coordinators as primary advisors. The targeted offer of professional development measures is intended to reinforce the standing of innovative concepts in administration, research and practice.

Exploring new themes

For Germany, the goals for the new funding period are clear: agricultural practice should be more strongly represented in OGs and develop and disseminate practicable innovations hand in hand with the other actors. To facilitate the interdisciplinary collaboration, as many bureaucratic hurdles have to be broken down as possible. In doing so, EIP-Agri should become better known and new thematic areas tapped – enhanced by the forestry sector. In combination with other funding programmes, EIP-Agri also contributes to developing value-added chains or forming networks. Thus, Germany paves the way for new innovative and practicable EIP projects, which, thanks to the motivation of the OGs and their partners, shape the future of agriculture and rural areas.

EIP-Agri in the agricultural knowledge and innovation system

Can EIP-Agri help generate and disseminate knowledge for agriculture, forestry and the food industry in an even more targeted way? Taking stock of the discussion on the German AKIS.

By Oliver Müller (Institut für Ländliche Strukturforchung (Institute for Rural Development Research (IfLS))) and Andrea Knierim (University of Hohenheim)

To strengthen agricultural knowledge and innovation systems – this is the goal pursued by the European Commission with the reform of the Common Agricultural Policy (CAP). To this end, the Member States are called upon to illuminate the status quo within their CAP strategic plans (CAP-SP). How can they improve the coordination of the exchange of knowledge and the collaboration between the organisations of the Agricultural Knowledge and Innovation System (AKIS)? And what part can the interventions of the CAP-SP play in the education, advisory services and cooperation as well as in the funding of the networks in the agricultural, forestry and food industries? Which complex interrelations hide behind the AKIS acronym? What goal is the European Commission pursuing with this systematic approach?

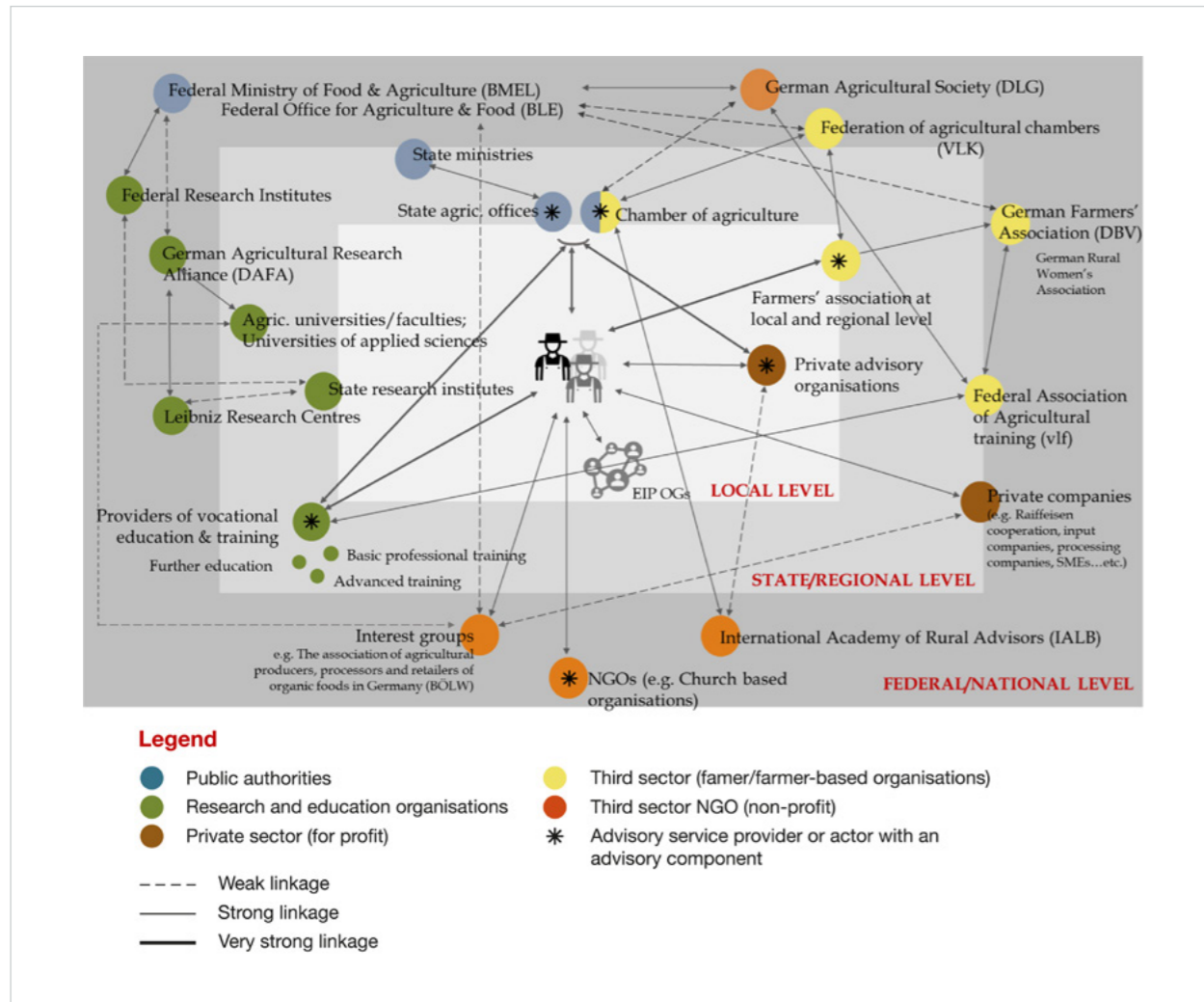
Bringing solutions into practice

Put simply, the AKIS concept is designed to help improve the collaboration, the flow of information and the exchange of knowledge between the various organisations that provide, pass on and use the agriculturally relevant knowledge. Another goal is to improve access to research results, innovation, qualifications and measures of knowledge transfer for actors from agriculture, forestry and the food industry.

All in all, this should accelerate the transfer of solutions in practice and strengthen the

mentioned actors in their innovative capacity in the face of the countless challenges of the sector. This refers to the networks, coordination structures and political instruments that support the collaboration and exchange of knowledge, on the one hand, but also to the processes of this collaboration and interaction.

With this basic orientation, a wide spectrum of organisations and actors come into view. And this is exactly the intention. With the AKIS concept, the European Commission aims at a new interpretation of how knowledge is generated, transferred and utilised: away from linear concepts in which knowledge has to wind its way from the research institutes via the advisory service to reach the end-user, and forward to a systemic understanding. This puts the focus on various actors with their complementary forms of knowledge, i.e. practical and empirical knowledge, process and organisational knowledge and highly specialised technical knowledge. These should all participate equally in the generation of new findings and the development of innovative solutions. In this sort of co-innovation process, different groups of actors jointly initiate collective learning processes – from the definition of the problem to the partner-like collaboration to the practical application of the solutions developed (Fieldsend et al. 2021).



AKIS in Germany. Note: this is a static portrait of the dynamic AKIS concept

The European Commission describes these forms of collaboration as interactive innovation. Advisory bodies in particular are to play a key role in these in the future. They work at the interface of research and practice, translate between various groups of actors and, as multipliers, have the best access to the farmers. For this reason, the European Commission is keen to strengthen the integration of advisory services – governmental, professional or private – in networks and multi-actor projects. Moreover, the advisors should be given further training to meet the demands of their tasks as “innovation brokers” so that they are informed about the latest findings from research and trials and have skills necessary for the exercise of their role as mediator.

After all, as taking stock of the CAP-SP also shows: the various functional areas of the AKIS (education, agrarian research, advisory services and practice) are still insufficiently interlinked with each other, both at the regional and at the national level. Moreover, a number of actors and organisations do indeed produce agricultural and forestry knowledge – but this doesn’t reach the end-users. Here, a stronger coordination of forestry activities is required at a state and federal level, for one thing. For another, current findings from forestry and trials must be pooled and made available in a prepared format.

Strengthening cooperation with EIP-Agri?

But which starting points are there for an improved AKIS? The CAP strategic plans provide a platform for strengthening the functional integration of agrarian research, practice and advisory services as well as of, in the extended context, upstream and downstream areas, trade and end-consumption. According to Regulation (EU) 2021/2115, Art. 77, this affects first and foremost those interventions oriented towards cooperation and the formation of innovation groups within the framework of EIP-Agri. In which areas these interventions apply and who they benefit is consciously kept as broad as possible at the level of the CAP-SP to ensure that as many different groups of actors as possible can participate. The “Networks/Cooperation” intervention will be offered in a total of eight German states in the coming funding period and primarily serves the strengthening of interdisciplinary, regional collaborations. These collaborations may be arranged very differently in the individual states in terms of the goals and the composition of the actors. This means, for example, that collaborations between environmental protection and agricultural will be funding just like those that make the individual value-added chains more transparent or that have locally-adapted agricultural management as their goal.

The flagship in this intervention area is EIP-Agri. It aims to fund practicable innovations for all areas of agricultural primary production – all in the network of advisory services, agriculture and forestry, education and research institutions and upstream and downstream areas. In this, the type of innovation might relate either to a product, to a process or to the trial of new technologies. The common goal is always the minimisation of negative environmental impact to the benefit of an ecologically sustainable and resource-saving agriculture. This makes EIP-Agri the compacter version of the European Commission’s weightier vision with the AKIS concept: The collaborations created under it thus always have a regional focus; the integration of research, advisory services

and practice in individual innovation projects rarely exceed the boundaries of one of the twelve federal states that will once again implement EIP-Agri in the coming funding period. Nor does the transfer of results from the EIP projects already have the penetrative power in the spectrum of agricultural practice that the EU Commission is betting on from a high-performance AKIS network. So far, EIP-Agri has thus been unable to bridge the gap between agrarian research and agricultural practice.

EIP-Agri will therefore be one building block beside many others in an extended AKIS exchange infrastructure. Reference is made here to the transnationally oriented “Horizon Europe (HEU) Research & Innovation Action” or the likewise transnational thematic networks. These “multi-actor projects” pool existing knowledge on a specific thematic area at a superordinate level and translate this knowledge into practical recommendations for action and application-oriented results that are easy to understand and to implement. Farmers and others who utilise the results are part of the consortia from the very beginning – the preparation and the transfer of the results are thus ideally aligned with the needs of these target groups. Thematic networks and other multi-actor projects thus make a vital contribution to the pooling of practice-relevant findings in the EIP-Agri network.

Laying the foundations for exchange and making knowledge accessible

All contributions to research connected with interactive innovation processes in multi-actor networks are made available in abbreviated form as practice abstracts on the website of the EIP-Agri Support Facility and can be searched by keyword. However, there is a considerable need for improvement in their presentation, in terms of both content and format, if the information is really to be made available in a practicable form (Kemper et al. 2021). The newly approved HEU project “Farmbook” aims to change this, and at the same time will develop a user-friendly knowledge database available in 14 EU languages.

In addition, further activities are necessary to generate relevant knowledge in science/practice networks. In particular, the understanding of common concepts, goals and methods for interactive research requires time and commitment from all those involved. Workshops, excursions and events jointly organised for third parties often lay the foundations for a fruitful exchange, for the learning from and with each other and for the generation of new knowledge. On the basis of these conditions, the direct results are limited to the immediate circle of those involved and the question of scalability is generally an open one.

The project "i2connect" takes a somewhat different path. Here, the various groups of actors are integrated in the semi-system of advisory services – individual advisors, managers in advisory organisations, national and international advisory associations and umbrella organisations and advisory researchers. This means that the skills and competences of the advisors are disseminated and amplified for the promotion of interactive innovation processes. Together they should prepare, test and evaluate the diverse insights and findings from advisory research and practice in such a way that these can be utilised in accordance with the respective professional interests. The project runs until 2024 and also incorporates findings from the research and development work undertaken by the national Operational Groups funded through EIP-Agri. At the same time it should unite the interested actors internationally. In addition, diverse information and professional development offers are made in the project to the interested specialist community in the EU Member States.

In summary, it can be established that, through EIP-Agri and together with the multi-actor approach of the European research funding programme, a diverse network has been stimulated for the interlinked and lively generation and utilisation of knowledge in agriculture, forestry and the food industry – one that grows, inspires and bears fruit.

Service

The European EIP-Agri database:
<https://ec.europa.eu/eip/agriculture/en/find-connect/projects>

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Contact details of the innovation support services

EIP-Desk Baden-Württemberg

Ministry for Food, Rural Areas and Consumer Protection
 Katja Beutel
 +49 (0)711 126-2434
eip-agri@mlr.bwl.de

EIP-Agri Innovation Network in Bavaria

State Management Academy for Food, Agriculture and Forestry, FÜAK
 Helene Faltermeier-Huber
 +49 (0)871 9522-4414
eip-agri@stmelf.bayern.de

Innovation support services for Brandenburg

Gesellschaft für soziale Unternehmensberatung mbH (gsub)
 +49 (0)30 284 09-330
info@idl-bb.de

Innovation support services for Hesse

Institute for Rural Development Research (IfLS)
 Svea Thietje
 +49 (0)69 972 6683-18
eip-hessen@ifls.de

Mecklenburg-West Pomerania Ministry for Climate Protection, Agriculture, Rural Areas and the Environment

+49 (0)385 588-16365
b.kuhnert@lm.mv-regierung.de

EIP Agrar & Innovation Network for Lower Saxony

Dr. Benjamin Kowalski, Fabian Storm
 +49 (0)511 76 07 26 64
kowalski@nds.de

Ministry for Agriculture and Consumer Protection of the Federal State of North Rhine-Westphalia

Claudia Leibrock
 +49 (0)211 4566-953
claudia.leibrock@mulnv.nrw.de

Innovation support services for Rhineland-Palatinate

Institute for Rural Development Research (IfLS)
 Oliver Müller
 +49 (0)69 972 6683-23
eip-rlp@ifls.de

Saxony Networking Body of the EIP-Agri State Office for the Environment, Agriculture and Geology (LfULG)

Dr. Silke Neu
 +49 (0)351 2612-2121
silke.neu@smekul.sachsen.de

Innovation support services for Saxony-Anhalt

Institute for Rural Development Research (IfLS)
 Oliver Müller
 +49 (0)69 972 6683-23
eip.sachsen-anhalt@ifls.de

EIP Agrar Innovation Office for Schleswig-Holstein

Schleswig-Holstein State Chamber of Agriculture
 Carola Ketelhodt
 04331 9453-114
eip-agrar@lksh.de

Thuringia State Office for Agriculture and Rural Areas (TLLLR)

Julia Bader
 0361 574041-406
innovation@tlllr.thueringen.de

Legal notice

Publisher

Federal Office for Agriculture and Food (BLE) –
German Networking Unit for Rural Areas (DVS)

and

Reports on Agriculture – Journal for
Agricultural Policy and Farming – Federal
Ministry of Food and Agriculture (BMEL)

Editorial Board

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Editorial support:
neues handeln AG

Editorial office

Bundesanstalt für Landwirtschaft
und Ernährung
Federal Office for Agriculture and Food (BLE)
Deutsche Vernetzungsstelle Ländliche Räume
German Networking Unit for Rural Areas
Deichmanns Aue 29, 53179 Bonn
Tel.: +49 (0)228 6845-3461
Fax. +49 (0)30 1810 6845-3361
Email: dvs@ble.de

Design

Federal Office for Agriculture and Food (BLE)
Dept. 74 – Internal and external communication

and

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11: C. Wiermann, p. 12: DVS, p. 14: C. Ketelhodt,
LKSH, p. 15: Kreisbauernverband Werra-
Meißner, p. 16: A. Fink-Keßler, S. Lindauer,
p. 18: M. Heins, p. 19: R. Schlepphorst, p. 20:
OG Rind, p. 21: V. Lofner-Meir, p. 22: D. Rixen,
LKSH, p. 23: AG Legu Sachsen, p. 24: left
Absatzgemeinschaft Sächsisch Gut eG, right
Nutzhanf-Netzwerk e.V., p. 25: left J. Benz, right
M. Kuhne, p. 26: left S. Neu, right T. Paulke, p.
27: left C. Wiermann, right: BGWV e.V., p. 29: left
top C. Ulrichs, right D. Rixen, LSKH, bottom G.
Lissek-Wolf, p. 30: top S. Neu, bottom G. Lissek-
Wolf, p. 32: left J. Hilmer, right F. Schildmann
f3 Magazin, p. 35: J. Bader, p. 38: Knierim et al.
(2022).

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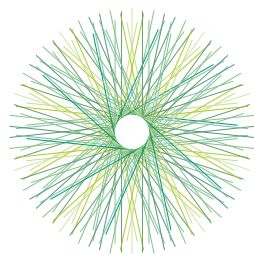
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Funding

Funded through the Federation and the
European Union within the framework
of the European Agricultural Fund for
Rural Development (EAFRD). Competent
administrative bodies: Federal Ministry of Food
and Agriculture (BMEL).

dvs*

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