



AlpBioEco

Transregional and Transnational Transfer Guideline



DEAR READER,

This guideline is the result of the collective work of the AlpBioEco project partners. It gives an outlook on the AlpBioEco project: It shows the developed Business Models and their validation. It also shows how the results can and are transferred to other regions and how the spark lives on beyond AlpBioEco.

Together, let's make the bioeconomy grow!

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Apfel © planet_w lee n kim

Walnut picking season walnut tree branches of walnuts opened the shell and the collected walnuts are kept in bulk and broken walnut which is composition on the table Shell nut © allamimages

Nahaufnahme eines frischen Kräuterbuchsches © marcin jucha

Grafensteiner Apfel und grüne Nüsse © knut.grafik

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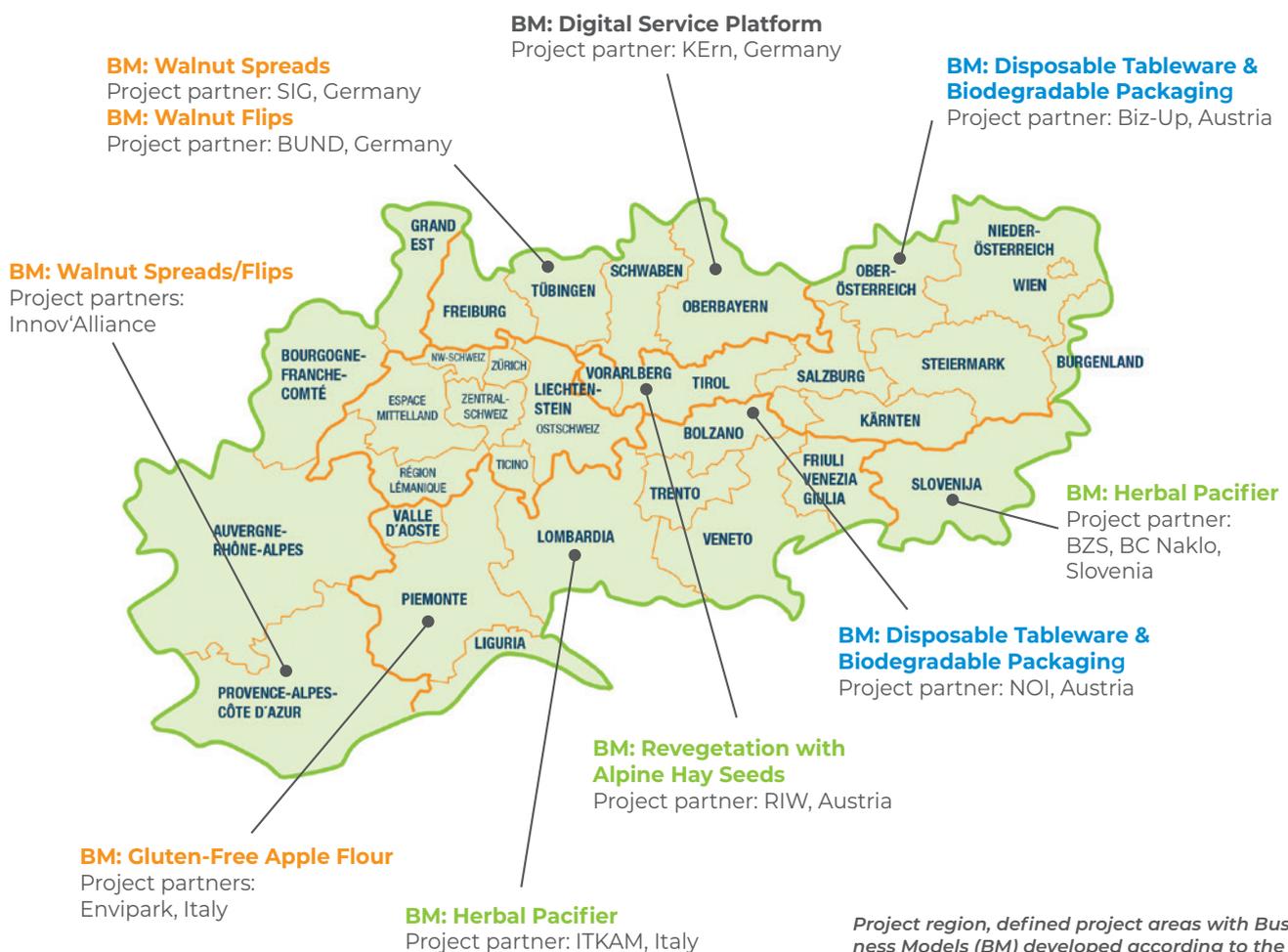


INTRODUCTION

The AlpBioEco project addresses the bioeconomy potentials in nine Alpine regions of the European Union (EU). It uses innovative methods to foster sustainable development in the Alps, raises awareness regarding the economic potential in bioeconomy and actively supports interdisciplinary and supra-regional cooperation for the development of innovative business concepts. This contributes also to the creation of new jobs in the Alpine regions.

We are an interdisciplinary project group consisting of 13 partners from five different countries in the Alpine Space (Austria, France, Germany, Italy and Slovenia). We comprise research, business, innovation centres, universities, local entities, NGOs and Chambers of Commerce. Together, we are looking for new ways to create economic value from vegetable products. For this purpose, the value chains of walnuts, apples and herbs are examined in terms of their bio-economic potential. Together with various stakeholders involved in the project, we develop and validate eco-innovative bio-economic business models that are transferable to other crop products and, in the long term, to other regions.

In each region, an eco-innovative business model has been implemented to revalue apple, walnut or alpine herb waste. The business models to be implemented in each region were selected on the basis of the region's characteristics and the presence of companies interested in continuing the implementation of the business model beyond the AlpBioEco funding period.



This strategy paper is one of the last outcomes of the AlpBioEco project and presents the results of a three years work. It was developed to pave the way for the further implementation of business models and transfer of the project outputs to other geographical areas. The findings of the project were translated into recommendations and guidelines for stakeholders and institutions, in order to foster knowledge transfer and future cooperation.

Particularly, the present guideline aims at:

- Developing a strategic pathway for Alpine Space regions to foster the implementation of innovative business models developed within this project;
- Modernising regional food economies in other regions or countries through the transfer of our project results;
- Involving regional authorities and stakeholders to anchor the project content sustainably in the region. On the regional level, stakeholders and companies were already integrated in the development of the business models and are now part of the sustainable anchoring of the BM in their regions.
- Developing a common transnational policy guideline that is actively sent to national and European authorities in order to take biotechnology and the developed business models into account for future activities;
- Integrating knowledge transfer between different related Alpine Space projects and Alpine Space regions.

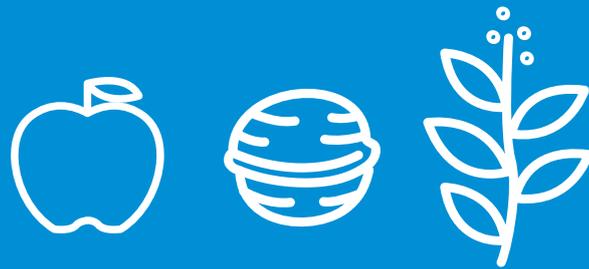
Therefore, we needed first to take some major questions into account:

- How will the project outputs be further used once the project has been finalized?
- How will the project ensure that the results are applicable and replicable by other organizations/regions/countries outside of the current partnership?

We have to address three levels of scale that we need to consider. First, the project regions themselves must ensure that the BM continues to be implemented in order to locally promote bioeconomy and modernize regional food economies. As a second step, each BM should also be transferred to other regions with the same or similar strengths, in order to find interested companies that will also benefit from the business idea. The third level concerns the dissemination of all results of the project into other regions, including the general transfer of knowledge between project partners, networks and different EU projects.

According to the three levels of dissemination, the guideline is addressed to a plurality of stakeholders: to local, regional and international public authorities and stakeholders as well as to other interest groups including NGOs and higher education research down to interested SMEs and business support organizations. Our purpose is to provide them with a strategic paper helping them to strengthen their economic region, foster bio-economy and ensure networking and knowledge growth.





1. SUMMARY OF THE REGIONAL IMPLEMENTATION GUIDELINES

1.1 SWOT ANALYSIS

The analysis of strengths and weaknesses is based on the Regional Implementation Guidelines and the included overview tables. These tables were created by the Regional Advisory Boards according to their experience, assessment and knowledge concerning the Business Model they worked on.

	Strengths	Weaknesses
Opportunities	<ul style="list-style-type: none"> > Raw material supply everywhere > Increase of regional value chain > Regional products replace imported ones > Positive effect on the region (CO2 emission, less waste, high biodiversity) > Networking between regions > Positive image (apple packaging, herbs and superfood nuts) > Increasing markets > Conservation of small-scale cultural regions > No rival products on the market > Additional income for small businesses, SMEs and farmers 	<ul style="list-style-type: none"> > Raw material competition: The raw material is used for other things (less value added) > Search for innovative business model implementers > Interest of trade concerning new products
Threats	<ul style="list-style-type: none"> > Regionality: Increasing demand for regional, environmentally friendly, healthy, natural organic products > Consumers spend more money on such products > Common patent registration and certification > Different cultivation structures due to increasing demand > Competition with other cheap, non-organic products on the market 	<ul style="list-style-type: none"> > Raw material fluctuations: Poor harvests cause shortage for niche products > Inhomogeneous raw material > Logistics/Transport > More research needed > Change and adaptation of legislation necessary > High production costs > High investment costs > Short production periods due to highly perishable nature of raw materials

The Regional Implementation Guidelines analysed in detail which requirements and framework conditions must be present in order to be able to successfully implement the corresponding business model in a region. In the project regions, all relevant information and basic data were collected and an assessment of the region's strengths and weaknesses was given with a view to implementing the respective business model.

The table shows a summary of all regional implementation guidelines that have been drawn up in the regions based on their business model. It contains information concerning the experience, assessment and know-how of the Regional Advisory Board. A group of interdisciplinary people formatted in every project region. (The map on page 3 shows an overview about the different Business Models in their project regions and the project partners. For more information download the Regional Implementation Guidelines on our project homepage: <https://www.alpine-space.eu/projects/alpbioeco/en>



1.2 COMMON KEY POINTS WITH REFERENCE TO THE SWOT ANALYSIS OF THE REGIONS ACCORDING TO THEIR BUSINESS MODELS

All products that were presented and analysed here as business models and as part of this project are niche products that are not yet on the market in this form or whose market readiness was only made possible through this project. Either waste products were picked up and additional value was generated through further processing, or additional ideas were generated in the area of herbs.

The possibilities to use these by-products could lead to an increase in the profitability of the companies by diversifying the incomes. Moreover, this led to new opportunities in the circular economy, by creating and strengthening collaborations, and therefore led to a reinforcement of the territorial competitiveness. For example, more and more farmers are giving up rough meadows because they are unprofitable, poor in yield and extremely difficult to cultivate due to the often steep locations. Making such meadows available as seed donation areas should represent a further, but small, incentive to continue mowing these important ecosystems and thereby prevent them from becoming overgrown. Another example is that of apple pomace, a waste product that can be processed and transformed into a new product. In this way, additional opportunities will be generated for producers to increase their turnover through the development of new products (biodegradable packaging, additives for cosmetics, apple flour) depending on the market situation and the investment volume.

All product ideas are fully recyclable in the sense of biodiversity and generate additional benefits for the producers. Nowadays the awareness of the consumers about the local and bio-based products is rising. Consumers are looking for high quality products that are made of local ingredients and that are affordable. The consumers will demand customized products, addressing solely their specific problem. In order to achieve good market position of these products, personalized marketing, based on a good "story telling" approach is one of the solutions.

As awareness of the importance of biodiversity and regional ecosystems grows, it is to be expected that demand will also increase. Many consumers want to make their contribution.



1.3 MAJOR DIFFERENCES

Despite the fact that the project partners started from a common base, the business models differ greatly in their implementation. The differences concern both the level of maturity of the product and the local framework conditions that have an impact on the development of these innovative business models.

Consequently, some business models are already finished products and are sold on the market whereas others are still in research process waiting for approval, patent registration or product development. The table at page 8 shows that in Vorarlberg, a federal state of Austria, you can already buy alpine hay seeds for recultivation of wasteland whereas for the development of disposable tableware or biodegradable packaging out of apple pomace as well as for herbal pacifier is still a lot of effort necessary. Walnut flips are at the moment in a testing phase of different products. It needs to be decided what kind of product development should be driven forward (flips for cereals, snack flips, etc).



Project partner	Business Model	More research is needed	Find cooperation and implementation partners	Product development	Market launch	Market maturity
SIG	Walnut Spreads		→			
Innov' Alliance	Walnuts flips/spreads			→		
Biz-Up	Disposable Tableware & Biodegradable Packaging	→				
Regio Im Walgau	Alpine Hay Seeds					✓
NOI Techpark	Disposable Tableware & Biodegradable Packaging	→				
KERN	Digidal Service Platform		→			
Envipark	apple flour		→			
GZS, BC Naklo	Herbal Pacifier	→				
ITKAM	Herbal Pacifier		→			
BUND	Walnut Flips		→			

Level of development of Business Model. Arrow starts at current level of development. If Market Maturity is ticked, Business Model is market-ready.

For some of the business models there is still a lot of research to be done before they are market-ready. The various Alpine regions differ considerably in quality and quantity of research on the reuse of bio-based product waste. While Germany intensively researches in the field of biodegradable packaging made from apple pomace, in Upper Austria actions in this field must be significantly strengthened. We recommend cooperation between the different regions, also to enable peer learning processes. Concerning nuts, there is a lack of research work in Germany, whereas France is researching intensively also in the private business sector. In this case as well, networking between these two regions would be useful.

There are also substantial differences in the regulatory framework. In fact, if no changes to the existing rules are required for the marketing of new food products, changes and additions to the law are necessary in the case of biodegradable packaging and in the processing and sale of medicinal herbs. Eventually, differences across value chains are also present with regard to financing. The Advisory Boards do not see any further national or international funding requirements for the business models "apples and herbs", while more funding is needed for the walnut value chain. There is more funding and therefore more motivation to make new non-food products out of food by-products than creating new dishes. Here is a clear recommendation to enable more funding for healthy, biological, innovative food. However, the differences might also come from differences in the availability of funding within different regions. In the Lombardy Region it seems that there is a lot of funding for projects on circular economy, no matter for which value chain.

You can find all recommendations of the regions based on their business models on the website AlpBioEco Homepage: <https://www.alpine-space.eu/projects/alpbioeco/en/activities-results/main-activities-results/policy-guidelines>



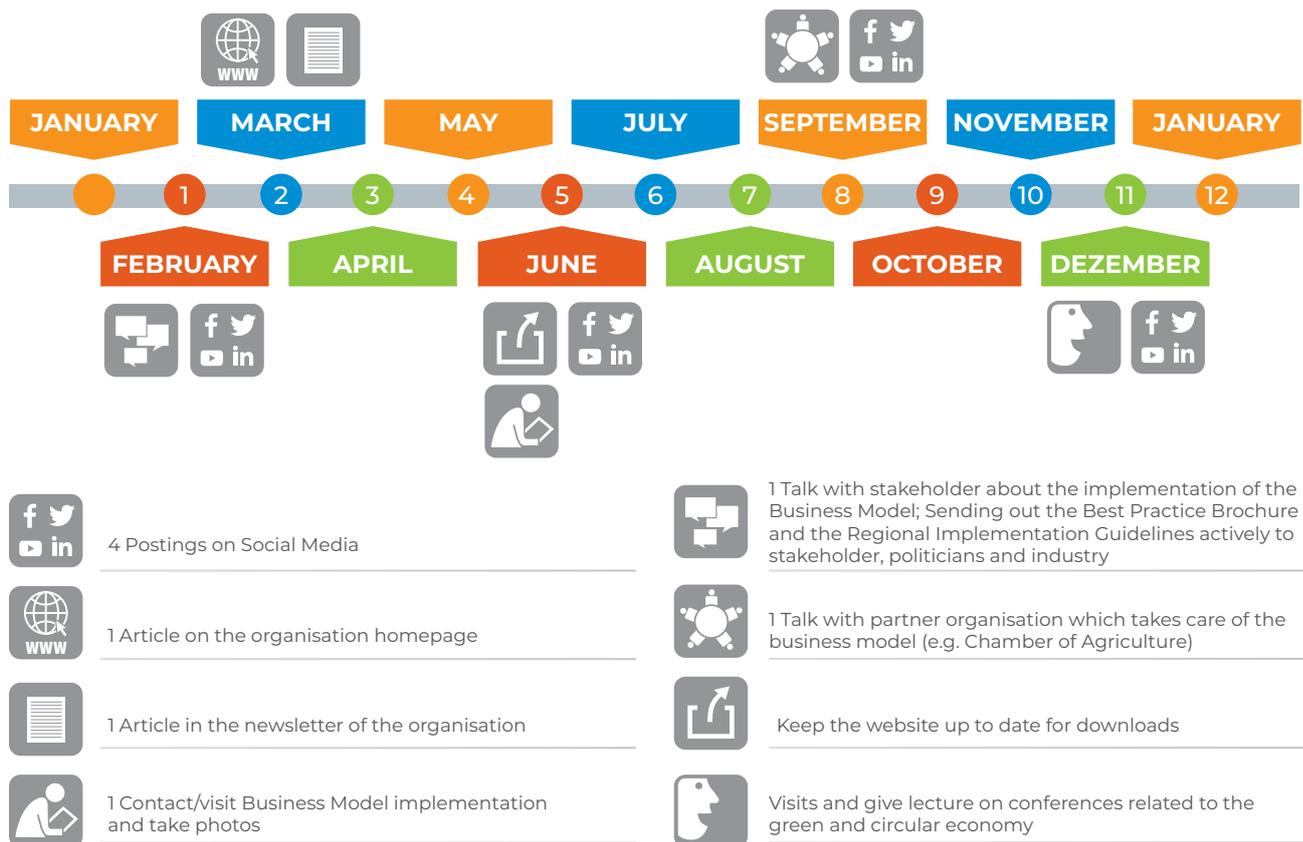


2. SUSTAINABLE ANCHORING OF THE BUSINESS MODELS IN THE REGIONS

During an online meeting (Transnational Meeting) with all project partners and the Chair Men and Chair Women from all Regional Advisory Boards, different options were discussed of how the project could live on in the future without disappearing in the depths of a drawer. Main goal is to go on working on the innovative ideas so that persons and businesses interested in the field can always gain access to the existing data. The different scale levels of the project were analysed both on a regional level, which business models data should be disseminated and also on the EU level, where networking should happen and 'Best Practice Examples' should be available.

2.1 COMMUNICATIONS STRATEGIES OF THE REGION

In the meeting and in a survey it was decided that after the project ends all project partners are themselves responsible for publishing information concerning the project or business model of their region. It is recommended to develop a communications strategy where each project partner keeps record of which dissemination measure will be taken and in what frequency. This plan precisely specifies when Social Media postings are made, newsletters and articles are sent out or stakeholders are informed. This ensures that activities are carried out according to the planning.



Communication plan of project partner (Graphic based on: Danglade, R., Robison, R., Balint, L., Foulds, C., Garzón, O., Torres, M., Furrer, N., Kanani, D., Andre, I. and Bentz, S 2018. Communicating the SHAPE ENERGY H2020 project – Strategies for dissemination and exploitation in the coming year. Cambridge: SHAPE ENERGY)

To guarantee permanent and long-lasting availability of info concerning the business model in the regions not only project partners are responsible but also partner institutions in the regions that are already in contact with potential implementers of innovative ideas must be found. These organisations

could be Chambers of Commerce or Chambers of Agriculture or Cluster Organisations which can be contacted by farmers and companies when they want to restructure their business and maybe implement the idea of the business model. On the other hand, also schools and universities that work with young innovative people could integrate new business models in their curriculums.



Regional organisations which store business model (BM) data and make it available to interested persons and businesses

2.2 TRANSREGIONAL COOPERATION

Cooperations were created by the project AlpBioEco and its value chains and business models. Similar business models and regions working on the same value chain recognized their common features and started common activities.

Here you can see common networks, activities, projects and co-operations which were initiated by the project AlpBioEco:

- Networking between Italienische Handelskammer für Deutschland (ITKAM) and Parco Scientifico-Tecnologico Per L'Ambiente (Envipark): In July 2020 a project application was submitted within the framework of LIFE Calls for proposals in cooperation with Business Upper Austria – OÖ Wirtschaftsagentur (BIZ-UP), City of Sigmaringen, Gospodarskazbornica Slovenije - Zbornicakmetijskih in zivilskih podjetij (GZS) and Management Center Innsbruck (MCI) and many other partners. Unfortunately, the application was not accepted. Further activities, project ideas, applications and cooperations are planned, however, as the topic is very interesting for the regions.
- Project initiation biodegradable packaging made of apple pomace: Due to promising results in the project AlpBioEco Business Upper Austria – OÖ Wirtschaftsagentur (BIZ-UP) and Management Center Innsbruck (MCI) decided to continue working on the development of biodegradable packaging made of apple pomace. Research activity in Austria is poor at the moment and should be promoted by a further project with partners from science and industry. A national project application is planned for the year 2021.
- Networking between City of Sigmaringen (SIG) and Bund für Umwelt und Naturschutz Deutschland (BUND): Both project regions are geographically close and both regions produce nuts. It therefore seems obvious to have common activities and share experience gained from implementing the business models. Both organisations built a network of 140 walnut farmers and 80 players from oil mills, research institutions, relevant authorities, companies, Start-ups, associations, functionaries and food trade representatives. The network mainly concentrates on southern German regions. Currently a common implementation of the project idea from AlpBioEco is worked out and walnut farmers, oil mills and social enterprises are informed. Furthermore, a close cooperation developed between the University of Albstadt Sigmaringen and the Competence Centre for Food to improve sustainable processing of walnut and to implement the project.





3. KNOWLEDGE TRANSFER INTO NEW REGIONS

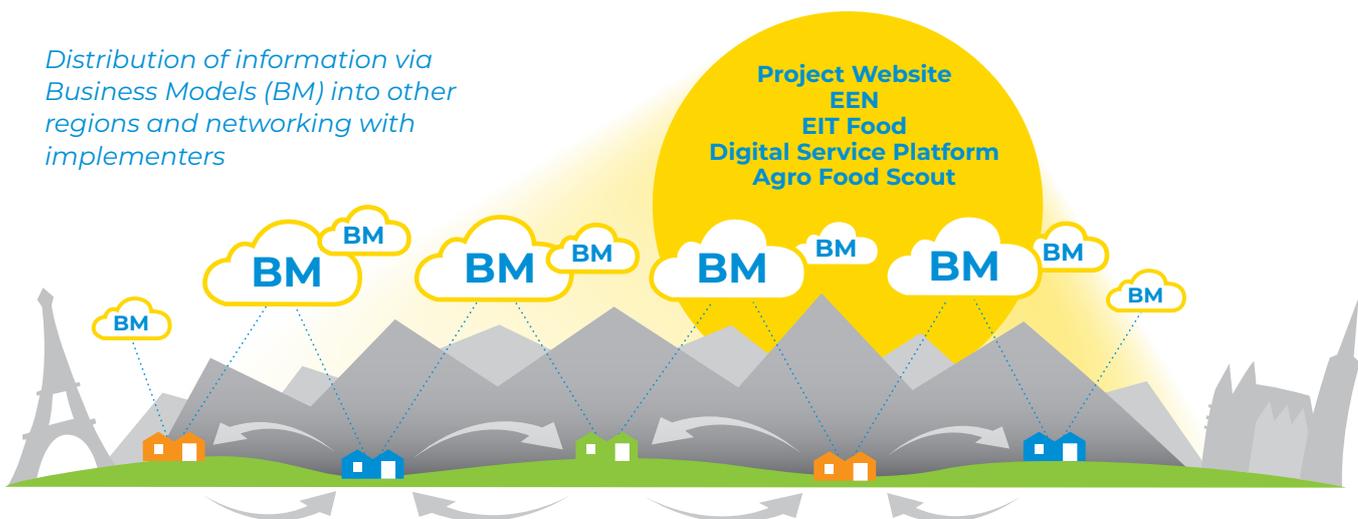
3.1 DISSEMINATION OF THE PROJECT RESULTS ESPECIALLY THE BUSINESS MODELS INTO OTHER ALPINE SPACE REGIONS

Seven business models for ten regions were developed in AlpBioEco. However, these business models cannot only be implemented in the regions developed for them, but should also be used wherever similarly good framework conditions exist for their implementation. Where especially innovative people take up the idea of the business model, adapt it for the region and process it into a market-ready product, which leads to added value in the region and generates additional jobs.

Concerning this matter our own project homepage plays a significant role. Numerous information regarding the business models and the results of all work packages were published on this homepage throughout the last three years. Reference was made on different Social Media Channels, so that many people already know the homepage. It is important to ensure that the homepage continues to be available for information not only in English but also in all languages of the project partners. Translation is in progress at the moment.

However, in order to increase the radius of action and the level of awareness, the results of the AlpBioEco project are uploaded to international platforms and are available to everyone there even after the project is completed. Some platforms also enable networking between interested parties. For a defined period of time, EEN enables B2B matches and implementers of e.g. walnut spreads in different regions of Europe can exchange their ideas, problems, solutions and can network.

Distribution of information via Business Models (BM) into other regions and networking with implementers



Distribution of project results and information concerning the business models from the project region to other Alpine Space Regions

Within this project one of the business models developed is a Digital Service Platform. This platform is not only to create a virtual marketplace for all kind of bio-based products but also it should serve as a virtual space to exchange information and ideas about these materials. The connection of small businesses, farmers, private persons or scientific institutions creates an innovative network. The companies benefit from the exchange on the platform of new business or product ideas and an open discussion about hurdles and problems is possible. Thereby further pilot projects and experiments arise and the ideas can be tested for their suitability. The platform, however, is still not available in the internet. Supporters and public funding are necessary to implement, create and further develop the platform.

Another already existing digital platform concerning food and food production by-products is Agro Food Scout. It is relatively new, as it was initiated in the second half of the year 2019. Its purpose is to connect business partners from the value chain of agriculture and the food sector. It should provide and communicate offers, requests, events and all other issues and it should be available for all persons



interested in the matter, for info exchange, cooperation and added value. The information about AlpBioEco is already available on the platform. The current idea is a transnational German version of Agro Food Scout. It is unclear at the moment whether there will be a European network in the future. The Enterprise Europe Network (EEN) is the biggest business support network in the world with 3,000 experts in 60 countries. It helps with further internationalization and the search for cooperation partners. The EEN's provided marketplace is remarkable. It is the biggest database in the world for business cooperation and technology transfer. Businesses can present their business models via existing cooperation profiles and search for suitable cooperation partners. This is especially interesting for less developed business models of AlpBioEco which need further research and suitable partners. Additionally, it is possible to place an advertisement regarding EEN events, e.g. B2B matchmaking events. The use of such matchmaking platforms is subject to charge, however.

Information on individual business models will also be published via EIT Food and its subsequent homepage www.foodunfolded.de. EIT Food is a European food innovation initiative, with the aim to make the food system more sustainable, healthy and trusted. It is building up a community of diverse food sector partners, to drive innovation and entrepreneurship across Europe. Against this background, it is very fitting that EIT Food supports AlpBioEco in the dissemination of the very innovative business models and publishes the business models on their homepages, where numerous people search for new ideas and obtain information. Additionally, further cooperation with the AlpBioEco project partners is planned to continue supporting the business models and their implementers.

3.2 KNOWLEDGE TRANSFER AND LESSON LEARNED OF ALPBIOECO

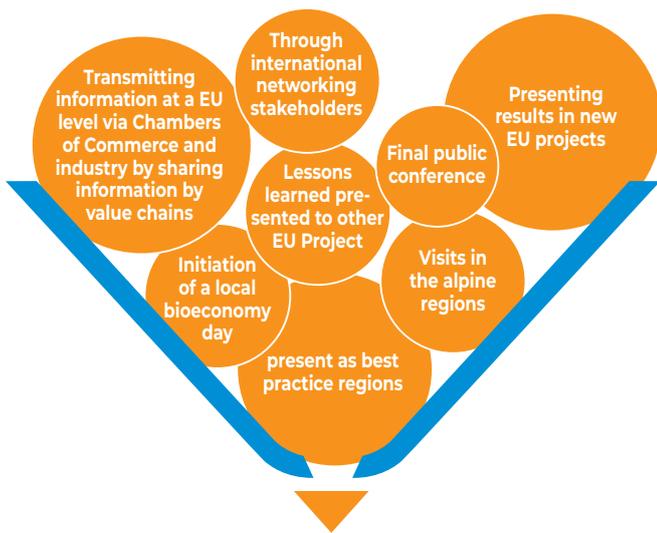
A perfect possibility to provide the general public with results, lesson learned and experiences from the project is to upload the information on a platform accessible from all over Europe. Many project partners have already made good experiences with such networks and strongly recommend to upload all experiences and results from the project AlpBioEco on the platform and make them available to the public.

The European Bioeconomy Network (EuBioNet) is a platform for EU-funded projects which are concerned with funding, communication and supporting bioeconomy. Its main goal is to maximize efforts to improve knowledge exchange, networking, mutual learning and the coordination of common activities and events. AlpBioEco is already registered and active exchange and networking between projects and project partners is going on.

On the platform Alpine Space Project Library project results and documents of Alpine Space Projects can be downloaded. Therefore all results have to be put into three categories: Strategy, Network and Tool. Direct links to the homepage can be made which enable a targeted and structured search for results for the general public. The results of AlpBioEco are currently being made available to the library and those documents are being selected that can then be downloaded directly from the library.

As you can see in the figure on the next page the project partners are now directly asked. In the transnational meeting, one task for the project partners clearly emerged: To keep the knowledge of the business models and the project itself present and up-to-date, to convey the experiences from the implementation and to attract the interest of other regions in the innovative ideas of the AlpBioEco project. We must develop best practice regions from the project regions and their implemented business models. These model regions serve as showcase regions and are repeatedly used as positive examples when it comes to implementing bio-ecology strategies.





Knowledge Transfer into other regions

The figure shows additional methods to make sure, the results of the AlpBioEco project are transferred into other regions of Europe and that the knowledge gained out of the project stays visible for the future. The bigger the bubble the more important the project partners and the chairmen/chairwomen of the project regions find this type of knowledge transfer.

The project partners should continue to work on the implementation of the business model in the region and support the implementers. In addition, the results can be made public at national and international conferences or in new EU projects in order to establish the project regions as model regions.

The third big issue is to transmit the results of the project at an EU Level via the interest groups and stakeholder groups from the project countries into their EU organisations. Transmitting information at a EU level via Chambers of Commerce and Industry by sharing information by value chains. The project committee will actively send this guideline to the relevant organizations and stakeholders so that the results can be anchored in the long term and maximum reach can be achieved.

4. CONCLUSION

In order to make a project sustainable it is essential to provide all interesting results of hard work even after the project is completed so that the project can live on. This document defines the facts.

Regional anchoring of the project:

Ideas and innovation developed in the regions are on different levels of development. The goal is to guarantee further implementation and development of the business models. Information must be available and new implementers must be found or recent implementers must be supported.

By the means of an annual communications plan the project partners made themselves responsible for publishing the project to the general public in order to foster new research, implementers and networking.

Partner institutions had been found that are in contact with potential implementers of innovative ideas in order to anchor and disseminate the Business Models sustainably. These organisations can be Chambers of Commerce or Chambers of Agriculture or Cluster Organisations which can be contacted by farmers and businesses when they want to restructure their business and maybe implement the idea of the business model. On the other hand, also schools and universities that work with young innovative people could integrate new Business Models in their curriculums (page 11).

Dissemination of the Business Model into other regions and knowledge transfer:

The Business Models should serve as Best Practice Example not only in the project region but also in regions with similar conditions. Therefore, all project results and findings must be made public. Due to Social Media presentations during the process of the project the project homepage became well-known. Furthermore, translation into the different project languages guarantees better understanding of the contents of the homepage.

Numerous Alpine Space or EU platforms - on different standard levels - offer to publish results, help to connect interested people or pass on information. All these platforms are highly used to make the project results available for organisations and future projects.

All this guarantees to keep the knowledge of the project itself present even after it is completed, so that based on that new ideas can be generated to strengthen the bioeconomy.



Interreg Alpine Space



Alp Bio Eco

ABOUT US

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www.alpine-space.eu/alpbioeco



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