



GUIDANCE DOCUMENT AND CONSIDERATIONS FOR THE MARKETING OF BIODIVERSE FOOD PRODUCTS

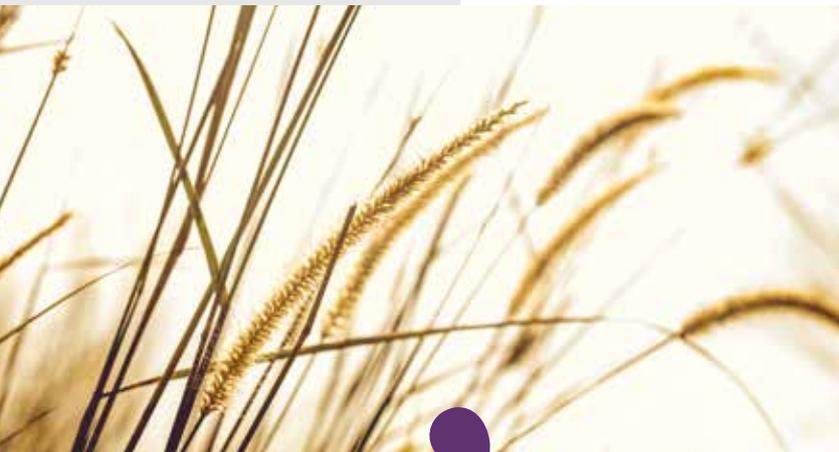
Booklet #7

This booklet presents approaches that support the valorisation of biodiverse food and promote agrobiodiversity.



CONTENT

Introduction.....	3
Why designing valorisation strategies for biodiverse food products.....	4
The innovative potential of networks.....	10
Recognise and understand the specific quality of biodiverse crops.....	13
Models of development.....	15
Communication about the added value.....	19
Faire pricing and benefit sharing across the value chain.....	24
Investment in trust and credibility.....	26
Evaluation - Matrix for the valorisation of products from biodiverse crops	29
Literature.....	31



INTRODUCTION

The prevailing food supply chains are characterised by a highly standardised food offer produced in an impoverished agricultural system. The loss of diversity in food production is not only a loss of crop species and varieties but also a loss of taste, culture and knowledge and adaptability to a changing environment. This booklet is intended to contribute to a transformation of this system by supporting the use of the biological diversity of cultures. It aims at supporting practitioners that want to enhance crop genetic diversity in agricultural systems and increase the link between consumers and producers.

Moreover, the booklet contains a compilation of all the lessons learned from the valorisation of crop genetic diversity during the European research project DIVERSIFOOD - Embedding crop diversity and networking for local, high-quality food systems. Based on a comprehensive, multi-actor and sys-

temic approach developed by Rossi et al. (2016), supply chains built around biodiverse products were analysed (Padel et al., 2018). In addition, information was gathered about strategies to communicate the added value of a product to consumers (Holzherr et al., 2018), and in four European countries, an online consumer survey was conducted (Meier & Oehen 2018).

The main result of the project is that the valorisation of biodiverse products requires the involvement of all actors along the supply chain from breeder to consumer, their appreciation of the value of plant genetic diversity and their willingness and engagement to adapt their practices. The most important lesson from DIVERSIFOOD is therefore that the development of food diversity consists of different people with complementary skills gathering together and striving for more diversity in the food system.



1 WHY DESIGNING VALORISATION STRATEGIES FOR BIODIVERSE FOOD PRODUCTS



DIVERSIFOOD showed that the valorisation of crop genetic diversity (=biodiverse products) requires the involvement of all actors along the supply chain from breeder to consumer. Based on their appreciation of plant genetic diversity their willingness and engagement to adapt practices in food production, processing and tasting are growing.

During the project, some very innovative cases of valorisation of crop biodiversity in European countries were identified. Examples are the marketing of biodiverse crops in France, Hungary, Switzerland, Austria, Portugal, Spain, Italy and the UK. They are selling biodiverse products at different scales, in different market channels and with a different level of cooperation between producers, processors and consumers.

Vegetables	Alternative cereal	Bread making
1 Bauernparadeiser <i>[Heirloom tomatoes],</i> Arche Noah, Austria	5 Heritage cereals, RAS, Spain	9 ORC Wakelyns Population, ORC, UK
2 Landrace tomatoes, ÖMKI, Hungary	6 Maize Broa bread, IPC, Portugal	10 Bread wheat from participatory breeding, RSP, France
3 PSR heritage vegetables, PSR, Switzerland	7 Emmer and Einkorn products, RSR, Hungary*	11 Floriddia Farm, Italy
4 Purple carrots, RAS, Spain	8 Alternative cereals, RSR, Italy	12 Virgo bread, Italy
		13 Montespertoli Old Wheat Association, Italy

THE CASES STUDIES

IN DIVERSIFOOD

1. ARCHE NOAH: BAUERNPARADEISER (AUSTRIA)

This farmers' heirloom tomato project was established in 2010 to support the use of open-pollinated varieties and on-farm breeding, creating food sovereignty and excellent product quality through collaborative learning. The network involves organic tomato farmers, BioAustria, a horticultural school and a research station of the University of Applied Life Sciences (BOKU). The tomatoes grown are sold unprocessed, and most farmers sell directly, at local markets. One of the farmers sells to the biggest food retailer in Austria, REWE Österreich.



Box of Austrian Heirloom tomatoes Photo Rupert Pessl



Selection of Hungarian Heritage tomatoes. Photo Oemki

2. ÖMKI: LANDRACE TOMATOES (HUNGARY)

The network aims to assess, compare, and evaluate Hungarian tomato landraces, develop organic production recommendations and explore marketing opportunities for fresh or processed tomato products. The project consists of about 40 farmers and researchers in different regions of Hungary. Consumers show interest in local tomatoes with exceptional taste, shape and colour. The farmers value them for genetic diversity and adaptability and expect better performance in organic farming. Some farmers use social media for communication. A website to share knowledge about the different varieties and growing conditions and recipes is envisaged.



3. PRO SPECIA RARA (PSR): HERITAGE VEGETABLE PROJECT (SWITZERLAND)

PSR supports the breeding and growing of traditional vegetable varieties through knowledge sharing, seed propagation and product marketing using the well-established PRS label. The project involves farmers, breeders, the Federal Office for Agriculture and retailers. Consumers in Switzerland are interested in local heritage vegetables. PSR established a supply chain with co-op, one of Switzerland's leading grocery retailers, and also sells to restaurants and organic retailers. Many producers also market directly to consumers. For some varieties, they sell transplants or grow-your-own starter kits, which contribute to raising consumer awareness about genetic diversity.



Promoting diverse heritage vegetables at local events
Photo from PSR website



Andalusian Purple Carrots

4. RED ANDALUZA DE SEMILLAS (RAS): PURPLE CARROTS (SPAIN)

The project aims to recover and commercialise two types of purple carrot, La Janda and Cuevas Bajas that are local to Andalucía. Farmers and gardeners have preserved varieties with distinct size and colour intensity for generations, but the seed is now also available for sale in small quantities. Varieties differ in size, colour intensity, internal colour, and culinary uses. Consumers value the carrots for the taste and nutritional characteristics, using the traditional local dishes. New products (e.g. beer, gin, vinegar, carrot jam, pate, juices, dried snack) are under development, and they could be used as food colouring. The farmers mainly sell through local markets and festivals, but some producers want to develop their processing and distribution capacity.

5. RED ANDALUZA DE SEMILLAS (RAS): HERITAGE CEREALS (SPAIN)

Red Andaluza de Semillas (RAS) has been working with farmers and researchers to develop value chains for local varieties of wheat, used in artisanal bread, pasta and other cereal products. Farmers have started by bulking seed donated by the National Centre of Plant Genetic Resources to improve seed availability and are working with organic and artisanal bakeries, wheat and pasta processors to develop the supply chains. They are at early stages, mainly operating at a local level, but the farmers see considerable potential for the development of production and valorisation.



Broa Bread from Val de Sousa

6. INSTITUTO POLITECNICO DE COIMBRA (IPC): BROA BREAD (PORTUGAL)

The project aims to improve yield and maintain typical landraces for maize bread production that has been traditional in Val De Sousa for generations. Farmers are supported in obtaining quality seed, in developing supply chains and in better understanding consumers' preferences. The network consists of farmers, breeders, researchers, and local millers, bakers and shops that sell the bread. The final product is the typical maize bread of the region, that of high quality and taste, produced with traditional recipes and methods of baking. Market development is in early stages, supported by loyal customers in local bakeries and markets.

7. RESEARCH INSTITUTE OF ORGANIC AGRICULTURE (ÖMKI): EMMER AND EINKORN (HUNGARY)

These two projects in promote varieties of these crops as alternatives to spelt. The value chains involve about ten organic producers, the ÖMKI, breeders at Centre for Agricultural Research at Martonvasar and the company Naturgold Ltd that owns the seed, and is the main processor and trader of the products. Einkorn is used to make a beer (Alkobeer' project) and both einkorn and emmer are used for bread, pasta, flakes, cookies and crackers. Products are sold into the developing health-food markets by Naturgold, which already has established value chains for other cereal and health food products.



Range of products from Emmer/Einkorn Photo Oemki

8. RETE SEMI RURALI (RSR): ALTERNATIVE CEREAL PRODUCTS (ITALY)

Two companies, Shebar® and Prometeo, have been working, on selecting and breeding with both heritage and new varieties of alternative cereals, aiming to support the diversification of cereals through new markets. Prometeo uses two networks of farmers to produce the seeds and to grow the crops. The company processes the grains into pasta, organise the sales and marketing and information campaigns about these old crops. They work with public research institutions and technicians to support their activities. The Shebar is the trademark for a specific Einkorn variety that originated from a research project. The initiative works with the local food consortium in Brescia province, and agricultural cooperative L'Antica Terra that cultivates the einkorn, a local pasta factory with a dedicated line for Shebar® Einkorn, local millers and bakers and a beer factory.





Bread from ORC Wakelyns population

9. ORGANIC RESEARCH CENTRE (ORC): WAKELYNS POPULATION (UK)

This diverse cross-composite population (CCP) of wheat consist of over 190 crosses of the 20 different parent varieties (older and newer). The network consists of researchers from the ORC who developed the CCP, several farmers, a seed merchant, some bakers and retailers. There has been a close collaboration with the UK Animal and Plant Health Authority (APHA) in facilitating a temporary relaxation of the seed regulations for experimental purposes. The development of bread and other products are at an early stage.



ORC Wakelyns population in the field



Wheat from Participatory Plant Breeding

10. RESEAU SEMENCE PAYSANNES (RSP): BREAD WHEAT FROM PARTICIPATORY BREEDING (FRANCE)

The programme aims to develop new cereal cultivars adapted to organic that make healthy flour and bread and enhance the autonomy of farmers' organisation in breeding and management of cultivated biodiversity. Réseau Semences Paysanne (RSP) is collaborating with researchers from INRA in co-constructing methods and tools supporting participatory breeding and training sessions. About 15 farmer organisations and 120 farmers are directly involved. Diversity, both of plant genetics and human actors, is seen as essential to cope with many different situations and needs. The Farmers sell directly in local markets; some sell to grain to local millers or the «*local*» cooperative and local bakers or grocers.



12. VIRGO BREAD (ITALY)

The project aims to rediscover old wheat varieties, benefit the farmers, provide high-quality food to consumers, support the local economy and the environment. The initiative is based on collaboration between a group of 10 biodynamic farmers in Emilia Romana and researchers at the University of Bologna and has links with Rete Semi Rurali (RSR), a major second level network engaged on issues of agrobiodiversity management. The farmers grow the Virgo variety mix, and the products (flour and bread) are sold locally through short supply chains.



11. FLORIDDIA FARM (ITALY)

This is an important organic cereal farm in Tuscany, that grows about 300 hectares, and processes and sells cereal and legume-based products directly, using only old wheat varieties. The aims are greater autonomy, profitability and social engagement. The farm is a key actor engaged in participatory breeding, cooperating with organisations and research institutes. The farm co-operates with other local small farms and has an agreement with them, based on fairness principles that formalise the collaboration. Most production is sold in the region, directly or through local retailers. The choice of old varieties helps to differentiate the farm products and strengthens the consumers' feeling of participation in a shared project of «*quality reconstruction*», looking both at the final product and the production system.

13. MONTEPERTOLI OLD WHEAT ASSOCIATION (ITALY)

The «*Associazione di Grani Antichi di Montepertoli*» includes farmers, processors, researchers and consumers and uses old wheat varieties. Jointly they have developed a code of practice that all producers and processors have to follow before using the label «*Old Wheats of Montepertoli*» that is registered with the local Chamber of Commerce. The association organises farms visits and monitors processing to check that the code of practice is respected, following the model of a participatory guarantee system to ensure the quality of grains, flour and bread.



2 THE INNOVATIVE POTENTIAL OF NETWORKS



Most DIVERSIFOOD case studies collaborate with researchers from universities, national centres for plant genetic resources, facilitators from NGOs or extension services, seed conservation

organisations, groups of farmers but also artisanal/craft processors, chefs, municipalities or regional authorities (Figure 1).

Figure 1: The valorisation of crop genetic diversity involves different people (farmers, other value chain actors, scientists, facilitation, consultants, consumers, other networks) and their different types of knowledge (experiential, scientific, technical, institutional, legal, economic, political knowledge).



The links with different actors and the associated exchange of knowledge and experiences are seen as crucial for the initiatives. Through these interactions, the involved actors discuss the value of crop genetic diversity, traits of varieties, growing practices, nutritional and organoleptic properties, economic opportunities, legal problems. The interaction among different types of knowledge (experiential, scientific, technical, institutional, legal, economic, political knowledge) and knowledge carriers (farmers, other value chain actors, scientists, facilitation, consultants, CSOs, other networks) allows mutual learning, catching new opportunities and developing collective awareness and identity. Hence, the most important lesson from DIVERSIFOOD is that the valorisation of crop genetic diversity involves different people gathering and sharing a common aim (Rossi et al. 2018).

The social processes underlying the development are crucial. The common understanding of the specific value, including all material and immaterial components, strengthens the commitment of the various actors (e.g. farmers, processors, retailers

and others) and is at the basis of the re-definition of farming and processing practices (i.e. codes of practice, agreements) and of the development of a coherent valorisation strategy.

Through interaction, all the people involved can take part in the process of awareness raising, development of new knowledge and the change of practices in production, processing and consumption (see Figure 1).

Given the diversity of actors and knowledge involved, a facilitation action gives the network a structure, supports the interaction among all actors involved. In the best case, this leads to the development of a

- Common understanding of the quality of biodiverse crops and derived products,
- Re-definition of practices of farming and processing,
- Definition of suitable tools and arrangements along the chain,
- Management of marketing and communication,
- Support for farmers and other supply chain actors.

FORMS AND SPACES FOR INTERACTION

The cases in DIVERSIFOOD show that the closeness of the involved actors - being it geographical and/or social - is a fundamental component of a valorisation strategy. It allows the interactions and the associated learning processes that are needed for the management of the diverse genetic resources and the creation of sustainability

conditions through their appreciation on the market. In the long run, collaboration with other initiatives has the potential to make a network stronger, as more people support the idea, bring in new skills, knowledge and resources but also new niche markets. There are different networks to collaborate with.





NETWORK OF FARMERS

In a network of farmers with different skills knowledge, experiences in the production and adaptation of biodiverse crops can be shared and farmers' awareness about crop genetic diversity increases.

LOCAL CIVIL SOCIETY ACTORS

Involving organised groups of consumers (e.g. the Italian Solidarity-based Purchase Groups - GAS, or other buyer groups), if existing in the territory, and establishing relationships with other actors of civil society (e.g. educators) may be strategic to communicate the value of biodiverse products and thereby creating/reinforcing its identity and visibility. Many DIVERSIFOOD cases show the importance of these alliances.

AGRICULTURAL ADVISORS, FACILITATORS AND SCIENTISTS

During DIVERSIFOOD, there were several examples where the support provided by advisors, facilitators and scientists improved the production of the biodiverse crops, enhanced product quality and provided access to processing technology and knowledge. Moreover, especially facilitators became relevant in the maintenance of a network and in establishing reliable communication and market planning.

COMMUNITY SEED BANKS AND NETWORKS OF SEED SAVERS

Depending on the underutilised crop plants, farmers are producers of crops as well as of seeds. To make seeds of biodiverse crops available and seed supply more stable, a collaboration with a community seed bank, networks of seed savers or even small breeding companies could be helpful.

ARTISANAL/CRAFT PROCESSORS, CHEFS AND SENSORY EXPERTS

These stakeholder groups are interesting for underutilised crops in two ways. On the one hand, sensory experts and chefs may complement the description of your products. On the other hand, the gastronomy sector and artisanal processors, e.g. bakeries, millers make use of your products a specific way. Experiences of collaboration with restaurants in Switzerland and Austria during DIVERSIFOOD showed a genuine interest of gastronomy in products of underutilised crops.

TOURIST ASSOCIATIONS/ LOCAL AUTHORITIES

These stakeholders from tourist associations and rural communities could have an interest in the cultivation of local varieties. They see the market potential of local crop diversity (e.g. heirloom varieties, landraces, local seeds) combined with territorial identity and local supply of quality products. By doing so, they support the promotion of biodiverse products and enhance sales rates.

3 RECOGNISE AND UNDERSTAND THE SPECIFIC QUALITY OF BIODIVERSE CROPS

Biodiverse crops are often in a specific condition compared to conventional plants, because of the origin of the varieties e.g. from participatory breeding of varieties and landraces, collective management of seeds, reintroduction in farming activities of seeds taken from gene banks.

Some cases highlight the importance of social factors underlying the joint effort to reintroduce these crops. The networks and initiatives include e.g. farmers, processors, advisors, researchers and consumers and aim at developing knowledge and tools to manage diverse crop varieties and to build supply chains for their valorisation.

The peculiar properties of biodiverse varieties derive mainly from their genetic components, which contribute to specific agronomic characteristics of plants (i.e. adaptability, competition with weeds) and/or to nutritional and/or organoleptic traits of final products.

It is crucial that actors involved around biodiverse crops/products develop a clear shared understanding of the «*special quality*» of these crops and particular varieties used. This process covers determining and agreeing on the quality attributes and developing

a strategy of valorisation. In many of these cases, these initiatives also aim at allowing regaining farmers' autonomy in seed management and new, multi-actor cooperation for more diversified, higher food quality.

For instance, in the case of Floriddia farm, the choice to convert the entire wheat cultivation to old varieties was motivated by the willingness to regain control over the seeds/varieties to optimise the organic farming system and provide consumers with a high-quality final product. The farmer developed this belief within a network of people engaged in the topic. The same motivation of regaining autonomy in breeding and management of cultivated biodiversity has guided the French peasants of the RSP in their experiments with wheat varieties-populations throughout the entire country.

In other cases, the cooperation around these diverse varieties is linked to the goal of revitalising a local production. The old local variants make it possible to motivate the actors involved to set up their own supply chain. In terms of distinctiveness, the old varieties give the products a special character when marketed locally or via longer channels.



At the local level, this territorial identity can support the development of the new supply chain. This is the case of Grani Antichi di Montespertoli, where the regional element qualifying the

bread (through the homonymous trademark) was also instrumental to the development of relationships among all the chain actors, with local institutions and with the local community.

FROM RARE SEEDS TO BIODIVERSE FOOD

Biodiverse crops can derive from different genetic material, such as pure-line varieties (for example of an underutilised plant that is not commonly used at present, and thus adds diversity to the system despite not being genetically diverse in itself), composite cross populations (CCP) and open-pollinated varieties (which contain high levels of genetic diversity due to increased levels of outcrossing) (see also: [Diversifood Innovation Factsheet no. 2](#)). In any case, knowledge about the crop traits, the agronomic and processing characteristics are needed.

Moreover, despite great enthusiasm for the idea, the availability of seeds necessary to sustain initiatives working on biodiverse crops can be limited and/or unstable. This is further complicated by the fact that seed laws regarding heritage/conservation varieties as well as heterogeneous populations could be restrictive. Hence, there are several things to be aware of when buying, trading or saving on-farm the seed of biodiverse crops. In this regard, more information on the legal status of biodiverse crops is available in the [Diversifood booklet No. 2](#)

The Diversifood experience provides useful indications on how to make these seeds more available for farmers and allow the development of knowledge to manage them:

- Re-embedding biodiversity in farming and consumption practices is the best way to enable its enhancement; it is an innovation process, rather than a work of conservation, and has to involve all the actors and stages, from field to fork;
- Cooperation among farmers, breeders, other supply chain actors, researchers, and facilitators allows overcoming the separation between variety breeding and growing, thereby easing knowledge sharing, learning and development of appropriate skills; these new knowledge includes agronomic and processing aspects, but also legal and political issues;
- Continue to improve and stabilise seed availability is an ongoing process; seed reserves can be created as an insurance policy for cases where seed is infected with diseases, so that farmers can continue to use the population and treat the diseases adequately; moreover, investment in seed quality is needed, e.g. providing resources for seed testing and diseases treatment.



4 MODELS OF DEVELOPMENT

«special quality»



DIVERSIFOOD has shown that the interest in a more diverse food system is growing, be it among producers, consumers or governments. The project also showed that the approach to valorisation ranges from short supply chains and embeddedness in local communities to the willingness/capacity to grow and interact with other initiatives, broader markets and different sales channels.

More specifically, three typologies of development have emerged, which can be considered illustrative of different ways to impact on the socio-economic environment. Of course, combinations of the three forms are possible, concerning the motivations, values, visions and goals underlying the marketing of biodiverse products.

- Scaling up - Growth in scale and collaboration with larger actors in the marketplace. The Emmer and Einkorn projects follow this strategy.
- Scaling out - No particular interest in growth but rather investment in replication of the experience, at the local level or in other territories, and, eventually, in establishing relations with other networks to have a more significant impact. Many DIVERSIFOOD initiatives are engaged in spreading their experience, involving other farmers and other chain actors and fostering the establishment of relationships with similar initiatives

and other organisations. For example, the French Network RSP - aims to engage new groups in participatory plant breeding through developing tools. Floriddia, who has no interest in scaling up further, is involved in the activities carried out by RSR - on the issues regarding seeds and farmers' autonomy.

- Scaling deep – Changing relationships with consumers and their relationship with food through education and communication of the meaning and values of products. Many DIVERSIFOOD initiatives have also invested in this different model of «*development*», fostering the creation and spread of new food culture, such as Floriddia and Purple Carrot Project from Red Andalucia de Semillas.



Own figure adapted from Moore et al. (2015)



WHICH SALES CHANNEL TO USE?

Many of the DIVERSIFOOD initiatives started with local it allows. Local and short supply chains allow the direct interaction with consumers, enables communication about the quality and the story of the product, and allow for transparency and trust. The local dimension also provides a further model for scaling impact through an increase in the number of enterprises involved (farmers, processors, intermediate users, retailers). Later, a network of interested persons and stakeholders can be given other marketing opportunities that contribute to the success of the product.

LOCAL MARKETS, FARM SHOP AND CLOSE COLLABORATION WITH CONSUMERS

DIVERSIFOOD case studies identified local markets and direct marketing via farm shops and relationships with organised groups of consumers to be important. Biodiverse crops match very well with the concept of farm shops and local markets, mainly when the farmer is engaged in a network for genetically diverse crops. Direct marketing provides plenty of opportunity for communication about the specific quality of the crops and products. Local markets may also attract people, who are prepared to spend more for quality and local products.

In Community Supported Agriculture or similar (as the Italian Groups of Solidarity-based Purchase - GAS), consumers are closely involved in the production activities which allows them to develop a strong commitment to the farm and its goals.

The consumer research from DIVERSIFOOD has shown that even when supermarkets are the most important purchase channel, local markets remain relevant, especially in Italy, Spain and France (see figure 3).

BAKERIES, HEALTH FOOD AND OTHER SPECIALITY FOOD STORES

In several DIVERSIFOOD cases – e.g. the French PSR network, the Broa Bread project in Portugal and the Italian initiatives - bakers and artisan processors are active members of the networks and support the ideas with their skills in artisanal food processing. Speciality food stores are suitable outlets for products from underutilised crops or biodiverse food. The customers are likely to appreciate the product attributes, and the shops may already sell similar products. Moreover, they allow face-to-face communication about crops and products. Training events, field visits and tastings with the staff will help to ensure that the right message is communicated. Initiatives should also provide their marketing material, such as attractive packaging and additional communication material for the point of sale in speciality food stores.

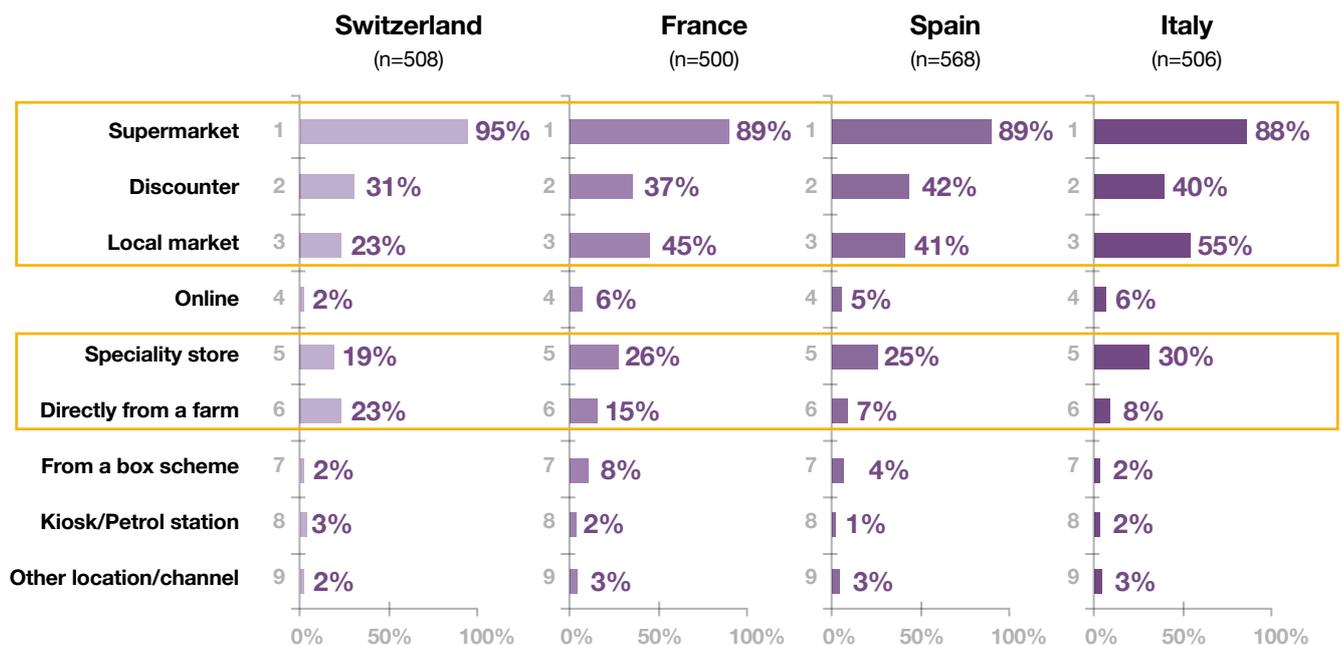
GASTRONOMY SECTOR

There is a growing interest in the gastronomy sector in specialties and local products. Especially top chefs demand authentic products. This trend presents a chance for underutilised crops, mainly if chefs are involved in the development of products. Some of the case studies of DIVERSIFOOD, e.g. ProSpecieRara and Arche Noah have worked with chefs and restaurants, making them ambassadors for their product and involving them in the discovery and tasting of underutilised crops. Chefs can present their dishes with underutilised crops and provide recipes. An advantage of the gastronomy sector is the communication about biodiverse crops through the chef and staff.

ONLINE SHOP/ BOX SCHEME

Online sales present huge opportunities for the communication about underutilised crops, providing an opportunity for product descriptions with pictures, testimonials, etc. According to the consumer survey in DIVERSIFOOD online sales are still a small market niche (see figure 3), but they might be interesting for the trade of small quantities and direct marketing. The Floriddia case uses an internet shop for cereal products successfully. However, the time and knowledge needed for the implementation of an online sales platform and the linked logistics should not be underestimated, especially when trading with fresh products.

Figure 3: Use of purchase channels based on a representative online consumer survey. Meier and Oehen (2018).



SEED/SEEDLING MARKETS

Some products are interesting but difficult to grow in agricultural systems. Might be, that seed markets/seedlings and planting materials are for (urban) gardeners the right market channel for specific cultivars or varieties. Especially the market for seedlings could be attractive in spring.

GENERAL FOOD STORES AND SUPERMARKETS

The Pro Specia Rara vegetable project in Switzerland works with Coop, a large food retailer for several products. Bauernparadeiser in Austria, the purple carrot project in Andalucia and Shebar in Italy are also already using or considering to develop sales outside of the region and through retailers. This can help to reach people, who may not go

to local outlets. Opportunities for promotion may exist in the distributors' newsletter. However, working with supermarkets could become challenging. Only some initiatives working with bio-diverse crops have significant product volumes to meet the demand of larger stores, and others are worried about the risk of losing credibility.

Before entering negotiations with large and powerful partners, it is essential to prepare well and be clear about the aim of the collaboration, potential agreements beyond the product supply (promotion, donations), any unique attributes of the product and the quantities that can be guaranteed. In general food stores, products of underutilised crops need to compete within an enormous variety of visually flawless products offered at low prices. Distinct product attributes will help, and additional information on the use and handling can be helpful.



5

COMMUNICATING THE ADDED VALUE



Conveying the values of biodiverse products is crucial for their successful valorisation, thereby creating conditions for sustainable management of the diverse genetic resources that these products incorporate. When doing this, it is essential to be consistent with the other marketing choices made, that is the specific characteristics and values recognised in the varieties/ crops/products and the kind of consumers and market one wants to reach.

The DIVERSIFOOD cases show that there are several possible ‘values’ to convey to consumers as constituting the added value of the biodiverse products. The general environmental and social values of agrobiodiversity here translate in the values of more sustainable and resilient practices, of farmers’ autonomy in managing seeds, of availability of diversified diets, including potentially healthier and tasty food, and of cultural-gastronomic traditions, of support to local/regional production systems.

However, often the public is not aware (enough) of this topic. The representative online consumer survey in DIVERSIFOOD identified the items mentioned above as of high priority when consumers are informed about the issue. Therefore, a successful valorisation needs to be able to accompany the core message with understandable «*reasons why*»; this not only for consu-

mers but also for the other value chain actors (e.g. intermediate users, chefs) and other actors more indirectly involved (i.e. local public authorities, opinion leaders).

DIVERSIFOOD cases often show a focused communication addressing a specific group of consumers that are considered potentially more responsive and approachable, about the values and the kind of relationship. This is linked to the need that communication should correspond to the potential (and chosen) volume of production. In the case of the Grani Antichi di Montespertoli bread the distinctiveness of the product is built on the territorial identity of the production system, and the consumers are mainly represented by the local community, in multiple market channels (direct selling, small retailers, school canteens, local supermarket). The Floriddia farm stresses the nutritional and health properties of the products, while at the same time communicating in many forms the meaning of the project on varieties and populations that the farm is carrying out with the other partners of its network. The alliance with consumers here is built on aspect of the belonging to a community. In the case of purple carrots in Andalusia, the carrots have been preserved by local farmers and gardeners for generations and are nowadays recognised and valued by consumers for their taste and nutritional characteristics.





Of course, there can also be the need to establish a relationship at a distance, especially in longer supply chains. Communication, although different, can be useful even in these cases. The product distinctiveness can be linked to the place of production, often in connection with the character of heritage value, or to higher nutritional value or taste, or the idea to contribute to the recovery of the cultivated diversity.

An easy way to attract consumers to biodiverse products is to invest in communicating the taste, but also allowing consumers a direct experience of it through tastings. This first level of appreciation can be an entry point for learning what there is behind that product, through an adequate «*storytelling*». The consumer survey in DIVERSIFOOD

identified «*good taste*» as being the most important features to consumers when buying vegetables (see figure 4). The potential of particular tastes among underutilised (old) crops and varieties is probably huge, especially for vegetable crops. Modern breeding strategies of the last decades have neglected this attribute or strongly impoverished it; for instance, in tomatoes, the taste is defined only by the two primary flavours of sweetness and sourness. The evaluation of taste can become a significant opportunity to involve consumers directly, through sensory studies or providing recipes or including them in events where the products are evaluated collectively, also through the help of experts, such as chefs.

Figure 4: Importance of attributes when buying vegetables in a supermarket (= purchase channel consumers are most familiar with) based on a representative online consumer survey. Meier and Oehen (2018).

	TOTAL	CH	FR	ESP	IT
Good taste	High	High	High	High	High
Produced in your region	High	High	High	Medium	High
Produced in your country	High	High	High	Medium	High
Impeccable and fresh appearance	Medium	Medium	Medium	High	High
Organic or pesticide free	Medium	Medium	Medium	Medium	High
Good price	Medium	Medium	Medium	Medium	Medium
Traditional, old variety	Low	Low	Low	Low	Low
Special or unfamiliar colour	Low	Low	Low	Low	Low
Special or unfamiliar shape or size	Low	Low	Low	Low	Low

TOOLS TO COMMUNICATE ABOUT BIODIVERSE FOOD



The ability to use appropriate communication tools, in relation to the chosen marketing channel and consumers identified as possible allies in the valorisation of the product, is crucial. There are various ways to communicate the messages of biodiverse products. The findings of DIVERSIFOOD have allowed identifying the most important tools, which can be adopted taking into account the characteristics of the context and the resources needed to use and maintain it.

OPEN-FARM DAYS / TASTING EVENTS

Open-farm days and tasting events resulted quite popular within DIVERSIFOOD. The events allow people to get in touch with the products and their production through intense sensorial and emotional experiences (taste, outdoor experience, encounter with farmers, etc.). For many people, they provide an exciting experience and offer producers and consumers an accessible way of getting in contact with each other.

Storytelling about the origin and the most valuable characteristics of the variety and information about the best use of a variety/product may complement these emotional experiences.

Floriddia farm, relying on its excellent reputation at the local level, carries out an intense communication focused on its activity, organising visits and learning and testing events periodically.

PRODUCT INFORMATION AT THE POINT OF SALE

DIVERSIFOOD studies identified the points of sale to be very important for the communication of values of underutilised crops to consumers. Flyers, shields, signs, advertising banners, etc., are helpful on markets and field days, but in stores, their use could be limited to special promotional days. Offering customers the opportunity to taste the product may be «strategic» too. Other relevant strategies are information given on the packaging (see section labelling) and the direct communication by the retailer, that is the capacity to communicate the story, provenance, characteristics of biodiverse products.

LABELLING

A label informs consumers about the «invisible» quality of a product. A label can increase the visibility of a product in a simple





way, attract consumers' attention, provide information about the exceptional quality of the products and has a high recognition value.

Some projects use a label that communicates the particular work of breeding, emphasising the network and their aims (e.g. autonomy in managing seed, fairness in economic value distribution), rather than a specific crop per se. This helps to make consumers aware of what is behind the product, in addition, to assure them about the authenticity of the product.

One example is the well-established «Arche Noah» label in Austria, the «ProSpecieRara» label in Switzerland or the label «Cultivando Biodiversidad» from the Red Andaluza de Semillas.

The ProSpecieRara label owned by the network ProSpecieRara is used for seeds, seedlings, fruits, vegetables and processed products (e.g. fruit or vegetable juice, jam, schnapps) are sold in supermarkets, garden centres, farmers markets, and farm shop etc. It has high credibility, a positive image among the public' and is third party certified.

The Italian organisation «Associazione dei Grani Antichi di Montespertoli» governs a label of similar name, which aims at differentiating the products with a link to the territory, its resources and its community.



WEBSITES

Among DIVERSIFOOD cases, websites are favourite communication tools, even for farmers. They can be the first entrance for interested consumers that want to know more about biodiverse food. A website can introduce the product, the producers and tell the story and characteristics of biodiverse food to any interested person.

If well structured, they provide access to a significant amount of information and, in addition to specific information on the farm/other organisation and their activities. Websites need to be kept up-to-date to maintain their attractiveness.

SOCIAL MEDIA/ TWITTER/ FACEBOOK

Social media allow pushing short messages at a brisk pace. But using social media requires continuous engagement. The consumer survey in DIVERSIFOOD demonstrated different consumer preferences for communication tools, especially social media, depending on the countries. In Spain and the UK, twitter is more often used compared to Switzerland, France or Italy. Generally, the survey (conducted in 2017) demonstrated rather low responsiveness to social media, compared to other communication tools, e.g., points of sale, articles, newsletters, and websites. One exception is the case of facebook, which seems to be used by a noteworthy part of the people.

EMAIL-NEWSLETTERS

Similar to social media, email-newsletters allow pushing the messages regularly to potential consumers. A common strategy is to have teasers in the newsletter that are linked to more detailed information on a website. Email-newsletters keep significance for

a more extended period than messages on social media. Also, this communication tool needs to be up to date technically, and this requires to remain skilled to manage it.

The Italian organisation «*Associazione dei Grani Antichi di Montespertoli*» uses a newsletter to inform about field visits and related events, such as seminars and celebrations for consumers and other interested stakeholders.

PUBLIC RELATIONS (TV/RADIO/PRINT MEDIA)

Public relations activities can be very effective in creating trust and credibility for biodiverse products or, more generally, for organisations engaged in this kind of products. However, if there is limited awareness, most media is not likely going to be interested unless there is a very specific issue of public interest. Especially on local media, communication can be very effective, helping raise awareness about food diversity and draw the attention of the local community to the topic and the work of the involved actors. Dedication to underutilised crops and, generally, diversity of crops and food might be a great way to capture media attention, especially in times of increasing interest in high-quality food and resilience to environ-

mental changes. At the same time, the accessibility of the message is crucial, and it should not be taken for granted that journalists and users have sufficient knowledge of the topic.

To attract media attention, regular media releases can be a very useful tool. For example, in Switzerland ProSpecieRara experienced situations when newspapers and magazines printed reports very close to the text of the foundation's press releases about specific topics. In this case, ProSpecieRara could capitalise on its excellent image in public, as well as on its expertise in a very specific topic.



6

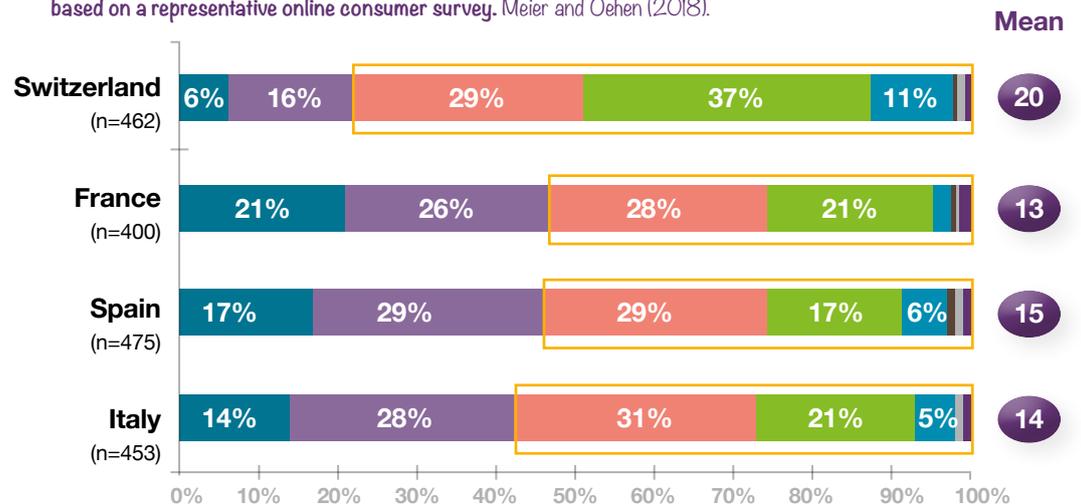
FAIRE PRICING AND BENEFIT SHARING ACROSS THE VALUE CHAIN



Case studies in DIVERSIFOOD sell their products in different value chains, referring to specific attributes (e.g. taste, colour), the sustainability of the production systems and links to the locality or community (local origin, tradition). The initiatives aim for a fair price and sharing of risks and rewards in the networks. Farmers' autonomy in relation to seed is also important.

Some case studies experienced confusion or ignorance around the product and the price being asked and whether consumers are willing to pay more than for comparable other products. However, the DIVERSIFOOD consumer survey in Switzerland, Spain, France and Italy showed that the majority of participants in all four countries were willing to pay at least 10% more for vegetables in supermarkets marked by a hypothetical Diversifood label. (see figure 5). Some of the case studies reported even higher willingness to pay more for bread from heritage grains or heirloom tomatoes.

Figure 5: Willingness to pay more for vegetables with hypothetical DIVERSIFOOD Label based on a representative online consumer survey. Meier and Oehen (2018).



■ I am not willing to pay more (0)
 ■ 10% max (10)
 ■ 50% max (50)
 ■ 100% max (100)
■ 5% max (5)
 ■ 25% max (25)
 ■ 75% max (75)
■ I am willing to pay more than double (150)

Consumers' willingness to pay is related to the ability to communicate the benefits of biodiverse products to consumers (see section 5). This is easy for producers selling directly and being able to explain face-to-face the quality and value of the product to consumers. If customers are enthusiastic about the quality of the products, price is less likely to be a limiting factor. Consumers of alternative bread in Portugal and Spain buy the bread even if they pay more for it because they find it is longer lasting and has a better texture and taste than regular bread.

For all supply chains - short or long - product price should cover the production costs and guarantee a fair price for the producers, processors and the consumer. The table illustrates potential cost categories for production and processing/retail but can be extended. There might be more costs that are not covered in this table. For example, as in the Italian and French cases, the actors of collective initiatives have started thinking of ways to reward the work behind the network organisation and activities for agrobiodiversity (facilitation, research, labelling, etc.). This implies to include another item among costs to consider (and to communicate to consumers).

Table: Potential categories of costs of production, processing and retail

Production on farm		Processing and/or retail
Labour cost for on-farm seed production (selection, cleaning, storage....)		
Labour costs for seed sharing (Co-operation and networking)		
Other seed costs		
Total costs for seed production		Energy
Crop Yield (t)		Storage
Other inputs		Package
Contractors and machinery		Transport and logistics
Cleaning, sorting and grading		Labour costs
Storage		Marketing and promotion
Processing		Certification Fees
Farm labour costs		Other fixed costs processing
Share of other farm fixed costs		
Total costs farm level /yield (€/t)		Total costs processing



7 INVESTMENT IN TRUST AND CREDIBILITY



Trust and credibility are relevant issues in food supply chains, and there is a whole range of measure to create and maintain them. In some networks, this trust is created in the relationship and exchange between producers, processors and consumers. They foster personal contacts, offer open farm days and invest in relations with the customer and processors.

In DIVERSIFOOD, some market actors implemented a so-called «*Participatory Guarantee System*» or PGS. This system certifies producers or processors based on the active participation of stakeholders and builds trust through social networks and knowledge exchange between different actors. Not only producers and processors participate, but also consumers may get involved in decisions. Stakeholders define their standards and develop their certification procedures. Moreover, importantly, they decide about applicants and exclusions using the criteria that were jointly developed in the standards. This approach fits best local markets and short supply chains

Other supply chains actors invest in trust via product trademarks, standard development and third party certification. The direct contact between consumers, producers and processors is delegated to an association, a market actor or a certifier. Examples are the EU quality schemes for agricultural products e.g. «*organic*», «*PDO*» marks and private or collective trademarks (e.g. «*ProSpecieRara*» label in Switzerland).

A system based on collective trademarks and guidelines needs to continually evolve and develop. If personal trust and voluntary control are good enough in the beginning, it may not be satisfactory anymore when your products are introduced into new sales territories where more people with different values and interests are exposed to your product.

TOOLS AND STRATEGIES TO INVEST IN TRUST AND CREDIBILITY

PERSONAL TRUST/ VOLUNTARY CONTROL

For direct relationships between farmers and consumers, it might be best omitting all administration costs and certification expenses, as well as any tasked marketing efforts relying instead on personal trust only. The points of sale will probably be focused on regional/local markets and farm shops. Personal contact between farmer and consumers is essential to this approach, as well as general accessibility to the farm.

This approach is probably mostly restricted to the promotion of biodiverse crops of a single farm via a farm shop, a farmers market or within a small network or Community Supported Agriculture (CSA). Observing consumers' reactions allows considering whether it could be time for another way of creating trust and credibility, especially when an initiative starts selling at more sales outlets than mainly one farm shop or market stand.

PARTICIPATORY GUARANTEE SYSTEM - PGS

A PGS is based on the idea of mutual controls between close stakeholders of a local network, and thus third party control and certification becomes optional. The actors define their standards and develop certification procedures. Importantly to the basic idea, they decide about applicants and exclusions.

The form, how a PGS is implemented, varies widely. IFOAM Organics International defines «Participatory Guarantee Systems» as follows: «Participatory Guarantee Systems (PGS) are locally focused quality assurance systems. They certify producers based on the active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange» Further information can be found on the IFOAM's website (IFOAM 2018). A good introduction to the topic is given in «Participatory Guarantee Systems –PGS» by Inger Källander (2008).

This approach fits best local markets and short supply chains. The wide-reaching possibilities of participation provide some strong reasons for this approach.

USE OF QUALITY MARKS WITH STANDARDS AND CONTROL SYSTEM

Having guidelines and a control system is the most professional way of creating trust, of addressing potential standing customers' criticism, and of winning many stakehol-



ders for your label. It is also the most cost-intensive way for an initiative and/or trademark holders, depending on the implemented fee system.

Try to estimate the administration costs within your initiative and costs of third party control firms. Estimate yearly costs, in the long run, try to envision a trademark fee system to cover these costs. Have enough resources to cover investment costs, and to start the process of trademark creating and trademark implementation, respectively.

The EU offers the following quality mark schemes:

- Organic certification
- PDOs and PGIs: the mark the name of a product, which is (entirely or in part) from a specific region and follows a particular production process. It is not allowed to use the name of a variety.
- Traditional speciality guaranteed (TSG) highlights the traditional aspects such as the way the product is made or its composition, without being linked to a specific geographical area. The name of a product being registered as a TSG protects it against falsification and misuse.

Moreover, there are also regional trademarks, such as collective geographical trademarks, which allow linking the products to a specific production system located in a particular territory. These guarantee systems might be more convincing than a PDO or PGI, as they are much more fitting the idea of a network and a place of production. In DIVERSIFOOD, the Montespertoli bread is an example of such a system.



8

EVALUATION - MATRIX FOR THE VALORISATION OF PRODUCTS FROM BIODIVERSE CROPS



During DIVERSIFOOD, a matrix to develop and evaluate valorisation strategies for biodiverse products was developed (Holzherr et al. 2018). I shall help networks involved in agrobiodiversity conservation and breeding to find, evaluate or improve their valorisation strategy.

The matrix covers nine categories and an extensible list of items. For a valorisation strategy, each category should be represented by at least one item.

PRODUCT QUALITY AND ETHICS OF PRODUCTION

I) Seed Quality / Mobilization of Local Genetic Ressources	participatory breeding	heirloom variety landrace	breed for organic / agroecological farming	breed for other niche markets	local seeds for local production	rare/ endangered varieties		
II) Ethics / Sustainability	support of small-scale farms and business	farmers' autonomy and integrity	fair prices	fair social working conditions	respect local culture and its values	respect of environmental resources		
III) Specific Product Quality	special shape / color	special taste qualities	special use	special health qualities	locally / handcrafted product	organic / agroecological / sustainable		
IV) Feasibility of Production / Impact on Price Level	perfectly viable production, low costs/risks	viable production, middle costs/risks	barely viable production, high costs/risks	poorly viable production, very high costs/risks	not viable production, too high costs/risks			

Source : Holzherr et al.



MARKETING CONTEXT

V) Network of Actors/Integration with other Initiatives	network of farmers	agricultural advisors and scientists	seed producers and conservators	processors/traders	tourist associations/rural communities	other initiatives, in- and outside of territory	sensory experts/chefs	
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VI) Points of Sale	super-market/discounter	health food shop/specialties store	bakery/other manufacture store	local market/farm shop	gastronomy/canteen	onmine shop/box sheme		
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VII) Trust and Credibility	good brand/claim/message/trademark	label with guidelines and control	traceability: link from produce to produce	participatory guarantee system	alternative : personal trust/ coluntary control			
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VIII) Governance and Owership of Label	breeders or producers association	collective marketing initiative	npr-profit foundation association	supermarket/discount compagny	regional marketing initiative	govern-mental trademark		
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IX) Communication Tools	product information ar point of sale	initiative's and partner's websites	social media/ Twitter/ Facebook	e-mail - news-letters	mobile - technology: APPs/ QR-tag	open-farm days/tasting events	public relations (tv/ radio/print media)	advertising (tv/radio/ print media/ internet)
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Source : Holzherr et al.



9

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FURTHER READINGS BOOKLETS

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- **Innovation fact sheets** www.diversifood.eu



This **booklet #7** presents and describes recommendations and guidance for the valorisation of crop genetic diversity.

21 partners DIVERSIFOOD CONSORTIUM

France

INRA • Institut National de la Recherche Agronomique
ITAB • Institut Technique de l'Agriculture Biologique
RSP • Réseau Semences Paysannes
IT • INRA Transfert

UK

ORC • Organic Research Centre

Switzerland

FiBL • Forschungsinstitut für biologischen Landbau
PSR • ProSpecieRara

The Netherlands

LBI • Louis Bolk Instituut

Portugal

IPC • Instituto Politécnico de Coimbra
ITQB NOVA • Instituto de Tecnologia Química e Biológica-Universidade Nova de Lisboa

Italy

UNIBO • Alma Mater Studiorum Università di Bologna
UNIPI • Università di Pisa
RSR • Rete Semi Rurali
FORMICABLU • Science communication agency

Cyprus

ARI • Agricultural Research Institute

Finland

LUKE • Natural Resources Institute Finland

Spain

CSIC • Agencia Estatal Consejo Superior de Investigaciones Científicas
RAS • Asociación Red Andaluza de Semillas Cultivando Biodiversidad

Hungary

ÖMKI • Ökológiai Mezőgazdasági Kutatóintézet

Austria

ARCHE NOAH • ARCHE NOAH - Vielfalt erleben GmbH

Norway

FNI • Fridtjof Nansen Institute

All DIVERSIFOOD partners contributed to this booklet through workshops and exchanges with the authors.

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Design: Galerie du Champ de Mars, floredelataille.grafic@gmail.com

Contact: bernadette.oehen@fibl.org

www.diversifood.eu



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