

The Practice of Innovation: The Role of Institutions in Support of Non-Wood Forest Products

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Abstract

This article examines institutional structures of innovations in Non-Wood Forest Products (NWFPs). We examine both the involvement and the role of institutions via three in-depth case studies in Europe: a food label from nature parks in Austria, a mushroom cooperation in Spain, and a chestnut association in Italy. Our analyses show that in all three cases, specific conglomerates of different types of institutions had decisive impacts on innovations. Innovations were developed by associations and cooperatives of producers that were supported by private consulting companies in the first two cases, and by a municipality in the third case. To date, scholarly literature on the role of institutions in innovations has focused on institutions as external support. In contrast, our results show that institutions can also be part of the innovations themselves. Consequently, we claim that it is more fruitful to analytically examine institutions for innovation from two separate perspectives. First, from an external perspective because institutions may influence the development of innovations through their support. Second, from an internal perspective because institutions may constitute part of the innovation development process itself, which we label as “institutional innovation”. Institutional innovations are labour intensive and time-consuming. They take five to twenty years to evolve and require specific support from “outside” institutional actors.

Keywords: Institutional Innovation, Associations, Cooperation, Non-Wood Forest Products (NWFP), Innovation Support

1.0 Introduction

Innovation studies frequently denote institutions as an important element of support for innovations to occur (Edquist, 1997). Recent innovation research on

forestry focused primarily on wood-based products (Rametsteiner and Weiss, 2005) and links innovativeness to firm performance (Hansen et al., 2014), which is also reflected in most forestry laws (Laird et al., 2010). Yet, there is large, unused potential for Non-Wood Forest Products (NWFPs) to support rural development and income generation of land owners and rural enterprises (Emery et al., 2006; Niskanen, 2006; Niskanen et al., 2007; Nybakk et al., 2009; Schulp et al., 2014). Innovation processes are complex within companies and evidence suggests that little “structured” product development happens in the forestry sector (Hansen et al., 2014). Experience-based insights into management processes for innovation are still sparse in the forestry literature (Hansen and Breede, 2016). The realm of innovation in NWFPs furthermore covers broader economic areas that go beyond the forestry sector to include food and agriculture, leisure, recreation and tourism activities in forests and woodlands, crafts decoration, chemical substances and health products. In general, the NWFP

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economic sector is less technology-intensive than others. NWFP innovations often take place on a small scale, yet development in these fields is beneficial for employment and development in rural areas (Lawrence, 2003; Nybakk et al., 2009; Rametsteiner and Weiss, 2006; Weiss, 2013) and can also improve the economic value of small-scale forestry as complementary products in marginal areas (Pettenella et al., 2007). As monetary policy is generally not targeted or prevalent for NWFPs (Ludvig et al., 2016), the development of regional brands and labels, including the fostering of excellence standards through specific sustainable features of products, can be a valuable way of strengthening such innovations. This is particularly important because NWFPs often have “public good” characteristics (Mavsar et al., 2008) and production and marketing practices are frequently connected to landscapes as “territorial goods and services” (Slee, 2011). This raises the question, how are innovations able to succeed under adverse circumstances, such as those involving economically weak and remote rural areas? This article tackles two questions: First, what role do institutions play in the development of such regional innovations? Second, what types of institutions and specific social configurations are likely to lead to successful innovations? Challenges facing innovation in NWFPs have been connected to institutional dimensions and a lack in cooperation (Weiss et al., 2010). Hence, we study three cases of innovations that either launched successful labels or formed cooperative associations around NWFPs in three rural areas across Europe. Our cases include a chestnut association in Trentino, Italy, a mushroom cooperative in Castilla y Leon, Spain, and a forest food products label from nature parks in Styria, Austria. While we investigated various instances of NWFP innovation, these cases were selected to demonstrate successful and exemplary innovations through a qualitative, small-*N* research design (Yin, 2009). This sample allows us to provide an in-depth study of the combined efforts of many institutions.

In the following sections, we first outline the concept of institutions in innovation theory. Second, we shed light on the support mechanisms provided by institutions. Third, we assess the support mechanisms that were most important in the cases considered. In conclusion, we draw attention to the specific combinations of collective effort that were prevalent in the cases considered, which supported institutional innovation.

2.0 State of Knowledge: Institutions for Innovation

Innovation research is a broad field and most approaches consider the single firm the centre of interest (Hansen et al., 2006; Hansen et al., 2014). Systemic approaches in the innovation literature emphasise *institutions* as well as the interaction between actors and institutions (Edquist and Johnson, 1997) as an important and central element. However, different meanings have been associated with institutions. Some define “supporting institutions” of innovations as research universities, governmental laboratories and technology policies (Nelson and Rosenberg, 1993, p. 5, 9-13). Lundvall denotes institutions as a type of rules or as “rules of the game”, where “institutions provide agents and collectives with guide-posts for action” and subsequently “[...] may be routines, guiding everyday actions in production, distribution and consumption [...]” (1992, p. 10). However, routines and “guide-posts for action” deviate from Nelson and Rosenberg’s definition, which includes research universities and governmental laboratories. Thus, there are two seemingly different perceptions of institutions; one is rather “tangible” and refers to concrete, material actors, such as governmental and non-governmental organisations, while the other depicts these institutions as entities that influence and pattern behaviour, such as routines, norms, values, shared beliefs, expectations and morals. Followers of the second stream of literature are also sometimes referred to as “neo-institutionalists”, such as Meyer and Rowan (1977) and DiMaggio and Powell (1991), who argue that “organisations” are deeply embedded in social and political environments, and therefore all organisational practices (i.e. the “acting” and the “acts” of organisations) are constantly shaped by outside practices such as public opinion, cultural traditions, social order and other norms. The latter are what these authors refer to as institutions.

Neo-institutionalists rather view organisations as “formalised structures” than only as norms. However, we must consider the distinction between organisation and institution when we wish to examine the role of institutions in empirical research. Thus far, the new institutionalism has addressed the influence of institutions on human behaviour through rules, norms and

other frameworks, and by “other frameworks”, these scholars apparently mean organisations. Moreover, to become “institutionalised”, such norms and “other frameworks” have to occur repeatedly. Edquist and Johnson (1997), both prominent innovation scholars, address two views on organisations versus norms. They distinguish between institutions that are formal (e.g. laws, regulations, constitutions, formal technical instructions) and informal (e.g. common law, traditions, work norms, practices). Furthermore, they suggest referring to everything else as “organisations” (p. 49ff). In sum, organisations seem to be more established and tangible than institutions (Powell, 2007, p. 1). We suggest distinguishing between

- Organisations (e.g. established and tangible institutions)
- Formal institutions (e.g. laws, regulations, programmes and formulated policies)
- Informal institutions (e.g. unwritten norms, values, beliefs and cultural practices)

We denote the first as organisations and the second as formal institutions because these are both more tangible than the third form, that of norms and values. However, for our research focus, the role that institutions play in fostering innovations is the most important question to address. Edquist and Johnson tackle this question by first asserting rather loosely that institutions “regulate the relations between people and groups of people” (1997, p. 51). Second, they describe the functions of institutions *in support of innovation* as such: institutions reduce uncertainty by providing information, they manage conflicts and cooperation, and they provide incentives (Edquist and Johnson, 1997, p. 51). Thus, a conception of institutions presents many different features. Also, the functions and activities associated with institutions in innovation processes have been described in many different ways for which a common understanding does not yet exist (Edquist, 1997; Kubezko et al., 2006). As a first approach to describing the “functions of institutions”, we apply the Edquist and Johnson definition here. We classify the support provided by institutions as support through information, cooperation, and financing (Weiss, 2011, p. 19). We examine the organisations, policies, regulations and institutional influences that played a role in support of the innovations observed and analysed.

3.0 Research Method and Data

3.1 Case study methodology

We selected three cases out of a sample of 25 innovations in rural areas across 13 different European regions. The three cases selected for our in-depth study stood out because each was characterised by the involvement of surrounding actors and the formation of cooperatives, despite originating in different regions and around different products. One of the most cited researchers on the issue of case studies defines a case study as an “empirical inquiry that investigates a contemporary phenomenon within its real-life context” (Yin, 2009, p. 18). This approach fit our research interests addressing three case examples emerging around NWFPs. Despite similarities and differences, each case demonstrated similar features which rendered comparison worthwhile in order to gain more detailed insights (Lijphart, 1971).

3.2 Data collection and analysis

Data sources consisted primarily of interviews but also included documents related to the cases, such as brochures, website information and press releases. Data were collected between July and October of 2014 by our partners in each region. A total of 11 semi-structured interviews were carried out face-to-face with selected actors involved, such as the founders, producers, funding bodies, CEOs of consultancy agencies or other relevant personnel pertaining to each case. A sample interview guide was developed from the three key themes (i.e. informative, financial, and cooperative support) and open-ended questions were formulated (see Appendix). The interviews took approximately one hour, were all recorded, and subsequently transcribed. One hour of a transcribed interview resulted in approximately 30 typed pages. All transcripts were analysed deductively, applying a method of qualitative content analysis (Mayring, 2000). In concrete terms, our deductive analysis of the literature on innovation support enabled the initial identification of four key themes for the analysis, including the involvement of institutions in general, as well as the three forms of support. In order to address the important “pilot phase” in innovation processes, the interviews also investigated the specific genesis of each case.

3.3 The search for innovativeness

The forestry sector has generally been described as showing few indications of being innovative (Hansen et al., 2014). It would follow that the same would be true for NWFPs. Shakelton et al. (2011) have already outlined in detail the difficulty of comprehending NWFPs because of their inherent variety and diversity. Our methodological design is based on the assumption that the innovations in our example cases are non-technical and yet subsume innovative features. For a definition, we lean on Schumpeter's five types of innovation, to include the introduction of a new good, a new method of production, the opening of a new market, new materials or resources, and the creation of new forms of organisations (Schumpeter, 1934). In a traditional sector such as forestry and in the realm of NWFPs, innovation not only occurs when new products and services are offered for the first time but also when technical changes in pre-existing production processes or when organisational changes in labour relations or marketing approaches occur. Such new products are connected to goods, such as mushrooms, Christmas trees, berries, pellets or drinking water. Innovation also occurs when traditional processes, services or products are used in novel forms in management or marketing, the foundation of cooperatives, the creation of specific labels, or the marketing of natural or organic products (Weiss, 2010, 2011). The cases we have selected as examples for innovativeness in three European regions include the following: the label "nature park specialities" in the Austrian region of Styria, the gourmet mushroom cooperative "Del Monte de Tabuyo" in León, Spain and the Italian chestnut association "Associazione Tutela Marroni di Castione" located in south-western Trentino. Our selection conforms to the scholarly standards for innovativeness because each case either introduces a new idea for a historical, traditional product (Italy) or commercialises a product in a new way that is unique for the sector and the region (Spain and Austria) (Edquist, 1997, pp. 11; Nelson and Rosenberg, 1993, pp. 5; Weiss, 2011). Moreover, these three projects involve several actors and institutions that are supported by associations. Finally, all three involve a combination of several additional services linked to the traditional products. In the Austrian case, the recreational and cultural functions of the regional nature parks are complemented by the traditional products produced and provided by local farmers living in the parks utilizing the label. In the

Spanish case, de Del Monte de Tabuyo, which is both a cooperative and a limited society, includes a restaurant and the sale of processed and preserved gourmet mushroom products (sold in the restaurant as well as online) in Castilla y Leon, a region that had not previously utilized its mycological resources. In the Italian case, 100 associated chestnut growers and supporters from the Brentonico Plateau organized activities, services and gourmet events around their chestnuts.

4.0 Results

4.1 Nature Park Specialities in Styria, Austria

Genesis of the case: The "Association of Austrian Nature Parks" (VNÖ) was founded in 1994 to incorporate 28 Austrian nature parks. Due to the founding of additional nature parks, there are currently 48 parks encompassing a total area of 500.000 ha. By definition, a nature park is a "cultural landscape" that has to fulfil four functions (four columns): nature protection, recreation, education, and local development. In 1999, amongst other projects, the VNÖ developed a Christmas present "box" with locally produced food products from the parks. Later, the members agreed on a common label for these products. They acquired funding and consulted with an Austrian regional development consultancy company (ÖAR-Regionalberatung) that is still the managing executive for lobbying and applications for funding the project. According to our interviews, the idea came from several people in both the ÖAR and the VNÖ.

The label "Österreichische Naturpark-Spezialitäten" (Austrian Nature Park Specialities) has gone through different phases of financing through national means, LEADER and EAFRD. Until 2003, the label embraced all members of the VNÖ, but with the LEADER monetary support (after 2004) only some members (15 in total) continued to participate because from that point on, they were required to contribute part of the costs. In its latest phase, from 2009-2012, the label included 20 Nature Parks. Currently, all monetary support is acquired competitively through projects (partly via regional LEADER funding).

The institutions involved include the 20 Austrian nature parks that are active in the label, the umbrella organisation (VNÖ), the regional development consultancy company (ÖAR), and, in separate stages of the project, the Federal Ministry and the Länder governments, where the active nature parks are located.

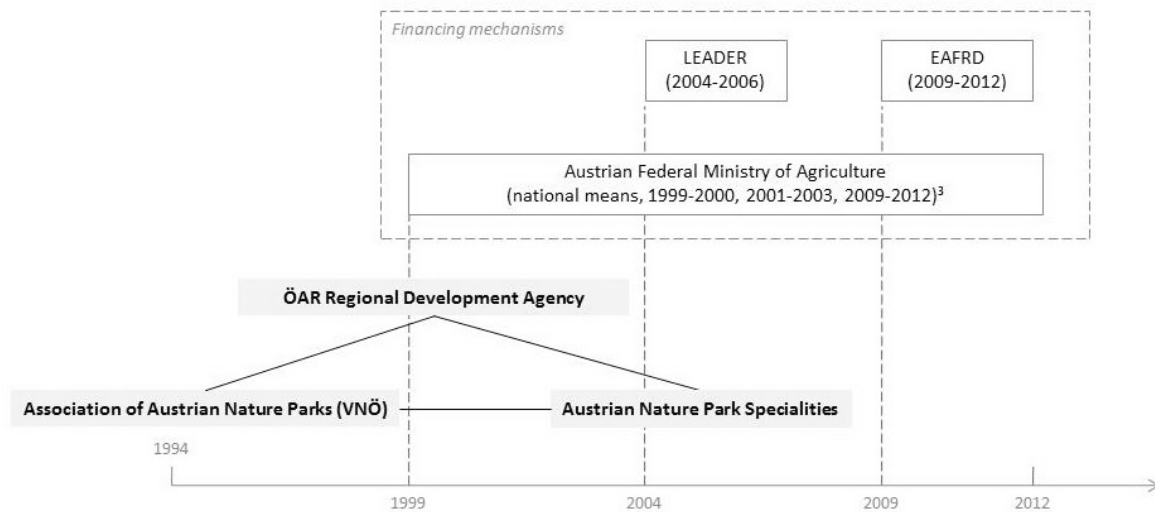


Figure 1: Institutions involved in Austrian Nature Park Specialities

Forms of support

Information: Information and know-how was provided by the ÖAR to the nature park managers who held contracts with the farmers.

Finance: Monetary funding was acquired from public sources through the Association for developing and maintaining the label. These public sources for monetary support included an “innovation scheme” by the Austrian Ministry for Agriculture, with subsequent financing from LEADER and EAFRD. In its first phase, the project was funded for “innovation” and later for education and training measures, however, the authorities argued that after the first provision of funding, it was no longer considered an innovation because it was declared no longer “new”. The Association later managed to acquire money for product design and marketing development from the producers. The products included varieties of juices, tea, jam, liqueurs, wines, honey, sweets, meat and herb products. Some products stem from traditional domestic Austrian species (*Pyrus communis*, *Prunus spinose*, and others). In particular, the period between 2006 and the following funding period, which began in 2009, was very demanding for the nature parks and the ÖAR because it was not clear whether and how funding would be available. One of the interviewees from the ÖAR who was involved from the beginning stated, “It was really so, that I was thinking 20 times, now what the hell, when they [the ministry] really do not want it, then we leave it. Eventually and suddenly they [the ministry] said, ‘well ok, now we do it’”.

(INT I AUT220914, p. 9). It was a difficult path, and the organisation was tempted to give up many times.

Cooperation activities took place between the nature parks and the farmers, between the nature parks amongst themselves, and between the Association and the nature parks. Negotiations and lobbying activities took place between the Association and the public funding agencies.

The VNÖ always worked in close contact with the public governments and funding sources. Nonetheless, there were many bureaucratic hurdles, for instance, when the authorities decided after the first period that the project no longer qualified for the “innovation” scheme.

Informal institutions: The unifying factor for the label was the nature parks’ branding as “cultural landscapes” with the production of its connected regional-specific products. The traditional forms of production and the use of these products provided the local population and producers with unifying possibilities for common identification. As such, the label sells successfully to national and international visitors to the nature parks.

4.2 Del Monte de Tabuyo in León, Spain

Genesis of the case: This project arose amongst a group of five women in a rural area who were searching for employment. The forest in the area represents a public utility for communal use. In this area, there were no timber forest resources that could be exploited to generate a profit, but there was an abundance of mushrooms with no developed tradition of use and consumption. Del

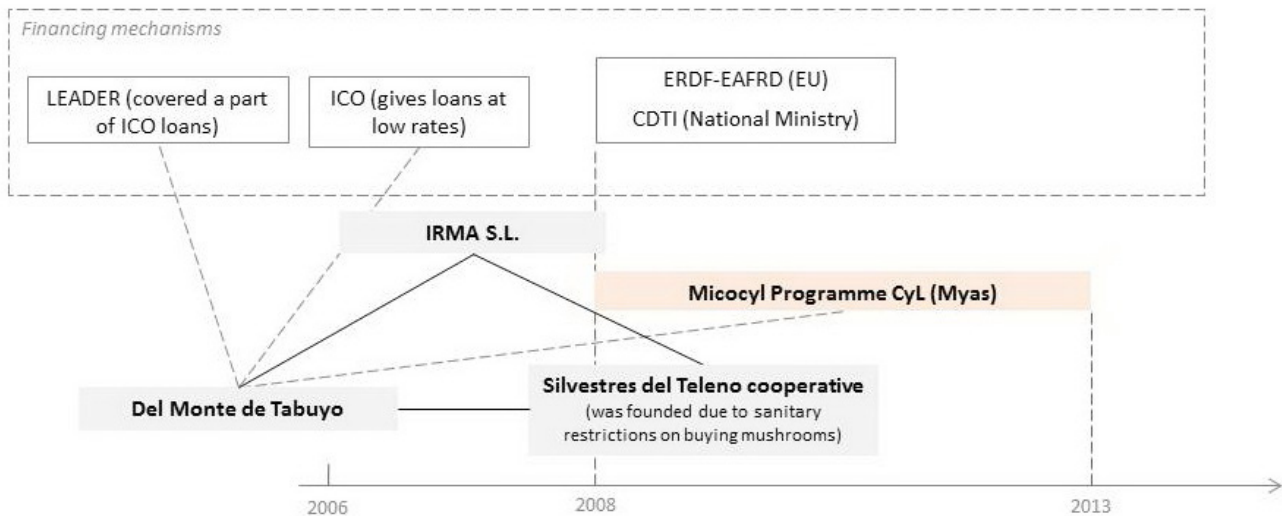


Figure 2: Institutions involved in Del Monte de Tabuyo

Monte de Tabuyo is a restaurant with an attached gourmet shop. The women sow, cultivate, collect and cook almost all of the products by themselves, and they also buy raw materials from within the region. They perform the manufacturing and the packaging and also run the gourmet restaurant. They market the products directly and via their online shop as well as in gourmet shops in the city of León. The products include various types of jams, sauces, liqueurs and mushrooms prepared in assorted ways, from remoulade to patés.

Institutions involved: Del Monte de Tabuyo was formed by two separate organisations. The first included the Silvestres del Teleno cooperative, which was created by the five women with the aim of commercializing the mushrooms as a primary resource and to provide a legal entity for this resource, which was required for billing. The second founding organisation included the Del Monte de Tabuyo, which was based on the restaurant and the commercialization of the products that were manufactured and packaged by the five founding members of the company. The third involved organisation included the IRMA S.L., which is a regional development consultancy company that was the advisor for the project and that provided advice on funding. IRMA S.L. was paid for its services, but was not part of the company. The project Mycology of Castilla y Leon (Myas, 2008-2013) was also an important institution for networking and information for the project. It was funded by the regional government (JCyL-Diputaciones) at the time.

Forms of support

Information: One of the women entrepreneurs stated that she received information from other examples of gourmet shops and restaurants that she knew about and that could be adapted to the project. "All information is important, but you have to shift, select and prioritise, and with this you are left. But from other things that we have seen and ... going to other countries in the European Union, we saw other models of ... managing resources, although they had nothing to do with what we do in the forests ... but, of course, other experiences we had in other places."

Information came from different sources, from people in the same town who had always lived in the mountains to people with more specialised backgrounds. "The information was ... very varying ... it was people from the village, people from the mountains, ordinary workers ... and then specialists, technicians. What helped us also was an intraregional cooperation project, 'El Myas' (Marketing Project of Mycological Resources in Castilla Y Leon, <http://www.micocyl.es/>); that was important."

Finances: From the beginning of the project, the enterprise was funded with a bank loan from the ICO (Official Credit Institute), because the women needed to pay the bills for their start-up. Thanks to IRMA S.L., the regional development consultancy agency, the women obtained a loan from the CDTI (Centre for the Development of Industrial Technology), which is part of the Spanish Ministry of Economy and Competitiveness,

and received FEDER funds for R & D at regional, national and European levels. Securing financing was a very important step for Del Monte Tabuyo.

Cooperation: The most important coordination and cooperation took place between the project promoters and the consultant IRMA S.L. on various funding schemes and sources of information. There was also one regional political actor interviewed who was not directly involved in the project but who was familiar with it. He emphasised that depending on political changes, they [the politicians] could encourage, avoid, or even obstruct projects with innovative bases. This statement implies that IRMA S.L. was an important backup and served as an intermediary between the five female founders and the funding institutions.

One decisive regional policy was the above-mentioned “Regulation and Marketing Project of Mycological Resources in Castilla Y Leon” (Myas), which was influential because it promoted mycology as a resource with great potential that, until then, had not been valued economically. Later, the “Mobilization program of forest resources in Castilla y León 2013-2021» was described as important by the interview partners, as it went hand in hand with the national “Plan of socio-economic activation of forestry” of the Spanish National Agricultural Ministry.

Informal institutions: The five founders all stemmed from the region and were close neighbours and friends for many years. In the interviews, they emphasised that the strong loyalty and shared values amongst them were a strong factor for the success of their mushroom cooperative. A second informal component was the fact that the woodland that they used for the harvesting of their products was “common municipal land” that could be used without formal contracts.

4.3 *Associazione Tutela Marroni die Castione in Trentino, Italy*

Genesis of the case: Chestnut cultivation was historically an important source of livelihood for people living in rural areas of Italy. In Trentino, according to statistics compiled in 1852 by Agostino Perini, the chestnut was defined as a “fruit tree cultivated with more profit and greater extension”. Due to the abandonment of rural areas and changes to other agricultural products, chestnut cultivation experienced a dramatic decline during the 20th century.

The Associazione Tutela del Marrone di Castione restarted chestnut production through a chestnut association located on the Brentonico Plateau in southwestern Trentino. Since 1994, producers in the association have been working together to recover the natural heritage characterised by chestnut cultivation. First, producers restored the old chestnut stands that had not been used professionally for many years. Today, the association has approximately one hundred associates (both chestnut growers and supporters). The chestnut trees are now well managed and represent both profitable production and an asset to the landscape. The association promotes chestnut cultivation, teaches people how to manage chestnut orchards, provides a conservation standard, and determines pricing. All of these elements help guarantee a high quality product that is then sold directly by the farmers.

In 2013, an invasion of the chestnut gall wasp (*Dryocosmus kuriphilus yasumatsu*) led to a dramatic decline from 500-2000 quintals per year to 10 quintals, and normally the Association provides 35% of Trentino’s total production. Due to investments and initiatives of the association, a remedy was successfully developed (natural antagonist) and production is recovering. Of the production, a portion is sold fresh, another is transformed into products, and another, usually the main part, is sold during the annual Chestnut Festival in the form of roasted chestnuts and sweets. At the beginning of the Association, the leading role was managed by the producers with the aid of the municipality and the tourism sector in the area, although this arrangement later changed, as is illustrated below.

Institutions involved: The Association was founded by a group of farmers who elected a president, Fulvio Viesi. According to the interviewees, there were no consulting agencies involved. The founders remembered the tradition of chestnut cultivation (from their parents and grandparents), and they gathered together with passion. The municipality of Brentonico was involved in the sense that it sponsored the idea by providing funds (at the beginning of the project) as well as space and visibility.

Forms of support

Information: According to the interviewees, the “old” (historical and traditional) knowledge on how to maintain, grate and cultivate chestnuts never vanished entirely in Castione, despite the huge decline in chestnut cultivation during the 20th century. Thus, the farmers who

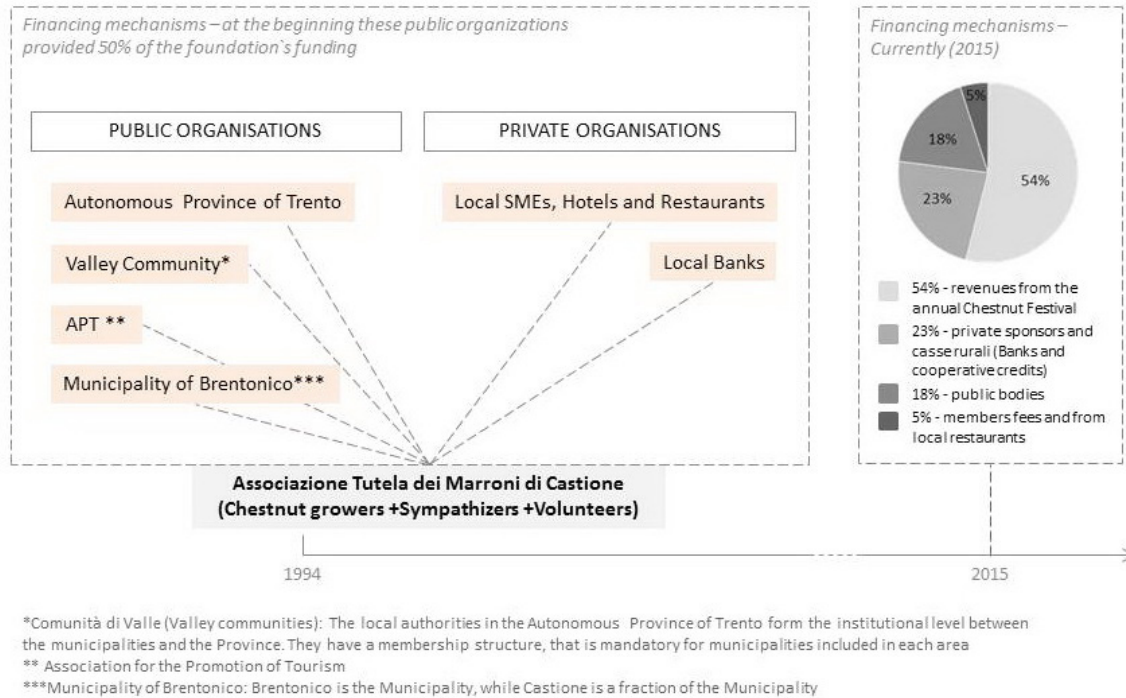


Figure 3: Public and private institutions involved in the funding of the Associazione di Castione at the beginning (box to the left) and currently (box to the right)

founded the Association had obtained knowledge from their parents. However, they organised training and information courses during the growth phase of the project for other farmers and producers, not only in the area of Castione but also in other areas of Trentino. Over a period of time, they invented new products, such as the liqueur "marroncino di Castione". This product was invented through discussions with people in other sectors – in this case, the sector of grappa and wine production. In addition, for chestnut creams, farmers had relationships with people from other regions who already produced similar products. An important source of information was the National Association of Chestnut Cities, which is a national network of chestnut grower associations that was important for sharing experiences and learning from others. Some information was searched for by the producers themselves via internet sources.

Finances: The association is primarily funded through volunteer work. Revenue from the annual Chestnut Festival and local products and handcrafts are used to maintain the association. The chestnut farmers obtain their profits from the sale of fresh chestnuts. At the beginning, the association was co-financed by public bodies and, in particular, by the Autonomous Province

of Trento, the Municipality, the Valley Community, and the APT (Association for the Promotion of the Tourism). Together, these initiatives were able to provide 50% of the necessary funds. Currently, this contribution is less consistent, not because the territorial bodies do not trust the association anymore, but because there is less money available. The vice-president, Viesi, said that the association never asked for European Union funds. He stated that there was a possibility of applying for additional funding but that no one had yet started the process. However, the chestnut farmers have applied for EU Rural Development Programme funds and provincial funds to restore their orchards for cleaning and pruning.

Currently, according to the interviewees, the association receives 54% of its maintenance from revenue from the annual Chestnut Festival, 23% from private sponsors and "banks of cooperative credit" (casse rurali), and approximately 18% from public bodies (mainly the Autonomous Province of Trento). The remainder comes from members of the associations and from local restaurants.

Cooperation: From the beginning, the chestnut growers in the association recognised the importance of working in cooperation with the tourist sector, both

with the Association for the Promotion of Tourism (APT) and private actors, such as restaurant and hotel owners. In collaboration with the restaurants on the Brentonico plateau, the association promotes menus based on chestnuts. The need to improve the growers' knowledge led the association to start discussions with other organisations in the Province of Trento and with actors at the national level. As a result of this process, the municipality of Brentonico, which includes the village of Castione, became an active member of the National Association of Chestnut Cities, which is a network in which experiences and innovations related to chestnuts are shared.

When asked about the bodies that helped them, the respondents listed them as follows: the vice-president stated that the association did not receive funds from Europe, but almost all of the individual producers applied for and received funds for chestnut recovery and maintenance, both from the Province and the EU RDP. In particular, in Trentino, article 23bis of the Provincial Law no4/2003 specifically targets chestnut orchards, and is entitled "Demand for contribution for the conservation and amelioration of the chestnut orchards". The aid is paid to the owner or lessee of areas planted with chestnut trees, who is committed to their recovery, maintenance and management for a period of at least five years.

Informal Institutions: In the beginning of the project, the main motivation for the activities was a non-commercially oriented preservation of the old tradition. In addition, there was an interest by public political actors to revive a typical activity or product of the region, in light of "regional marketing". Still today, the regional specific aspect is very strong in the activities and self-representation of the association.

5.0 Discussion: The Role of Institutions

The functions of institutions (Edquist and Johnson, 1997; Kubeczko et al., 2006; Weiss, 2011) denote the support functions for innovation from the surrounding innovation systems.

Indeed, these three cases found success because of the continuous efforts of a range of various associations, consulting firms and municipalities. Ros-Tonen and Kusters (2011) have emphasised the importance of institutional frameworks as decisive factors for success (and failure) of the use of NWFPs in cases of development contexts. They also underline the importance of

partnerships and participatory action for this process. In the Austrian and the Italian case, larger associations were formed. In the Spanish case, a smaller cooperative was initiated by five producers. The main support for the larger Austrian association and the smaller Spanish cooperative came from consulting firms. The Italian case gained its primary support from the municipality and the provincial administration.

In each of these cases, the formation of conglomerates of organised structure and cooperation was no coincidence. Each formation was necessary to build capacity, as no single entrepreneur could have achieved the desired outcome alone. First, all of the cases involved collaboration and cooperation, where people invested time and effort in the structures because they believed there would be a benefit for the group, including themselves. To develop the innovations (i.e. by bringing novel products to the market), the institutions (in this case, organisations, that is, the associations and cooperative) had to be founded. In other words, the innovative new products and the attached services could only be created with the simultaneous creation of the organisations. Thus, the product and service innovations required an "institutional innovation" for their realisation. An institutional innovation includes new or adaptations of existing organisations, new or significantly modified rules, regulations and policies, as well as new or significantly modified procedures to implement such policies (Weiss et al., 2010, p. 43).

Second, all of the cases have a regional marketing strategy that refers to the specific regional landscapes (nature parks), municipalities (Luyego), or plateau (Castione) in common. Their brands and methods of regional marketing also attract consumers from outside their respective areas. All of these cases are embedded in broader regional areas and involve more people at larger scales than a single entrepreneur could reach, as each brand or label required coordination efforts and mutual trust among numerous participants. These characteristics are what render the innovations institutional; they are characterised by repeated practices and organisational formations. Their expertise is rooted in a conglomerate of commitment and personal connection that has been claimed to be crucial to forestry expertise in general (Lawrence, 2009).

The additional institutional features in support of these cases, such as formal institutions (policies) or

organisations, are external in character. In the Spanish case, a new regional policy programme was influential when combined with the LEADER and EAFRD funds, the same funds that supported the Austrian case. The Italian case was supported by local public administrations. Individual producers received some additional funding for maintenance of their orchards.

In all three cases, institutions were most prevalent in the perceptions of the interviewees, especially when they recalled organisations and people who helped them develop their idea, and when they recalled the policies or regulations that were most helpful for their projects (formal institutions). In addition, it seems that informal institutions played an important role in the success of each of these cases. Each project was embedded in the local and regional identities that surrounded the products, yet also assisted in creating or enhancing such identities. Forms of interrelated loyalty and trust amongst the founders of the projects were also important informal factors for success. These formal and informal institutions influenced innovations considerably. According to Peters, it is institutions that “guide and shape individual behaviour” (Peters, 2012, p. 2). Yet, the initial ideas stemmed from specific innovators who

had the will and energy to carry the ideas through. In all of these cases, the entrepreneurs and producers first gave the decisive stimulus and were only subsequently supported either by a consulting agency (e.g. the IRMA S.L. in Spain and the ÖAR in Austria) or by direct support from a public entity (e.g. the municipality and the other organisations in Italy). In addition, in all three cases, institutions were part of the innovation, as new cooperatives, associations, and branded labels were founded for each project. In other words, at the core of the innovations was the foundation of organisational institutions. It is therefore fruitful to distinguish between external institutional influences and the shaping of institutions *within* the innovations. The following figure illustrates the institutional framework found in our results.

The uppermost rectangle in Figure 4 (Funding Schemes) involves the political programmes and funding (“formal institutions”) as well as private and public organisations, banks and public agencies (“organisations”). The external private and public organisations involved in these cases, such as the consulting firms and the supporting municipality (local institutional capacities), form an additional institutional layer around the bottom circle of the core institutional innovation.

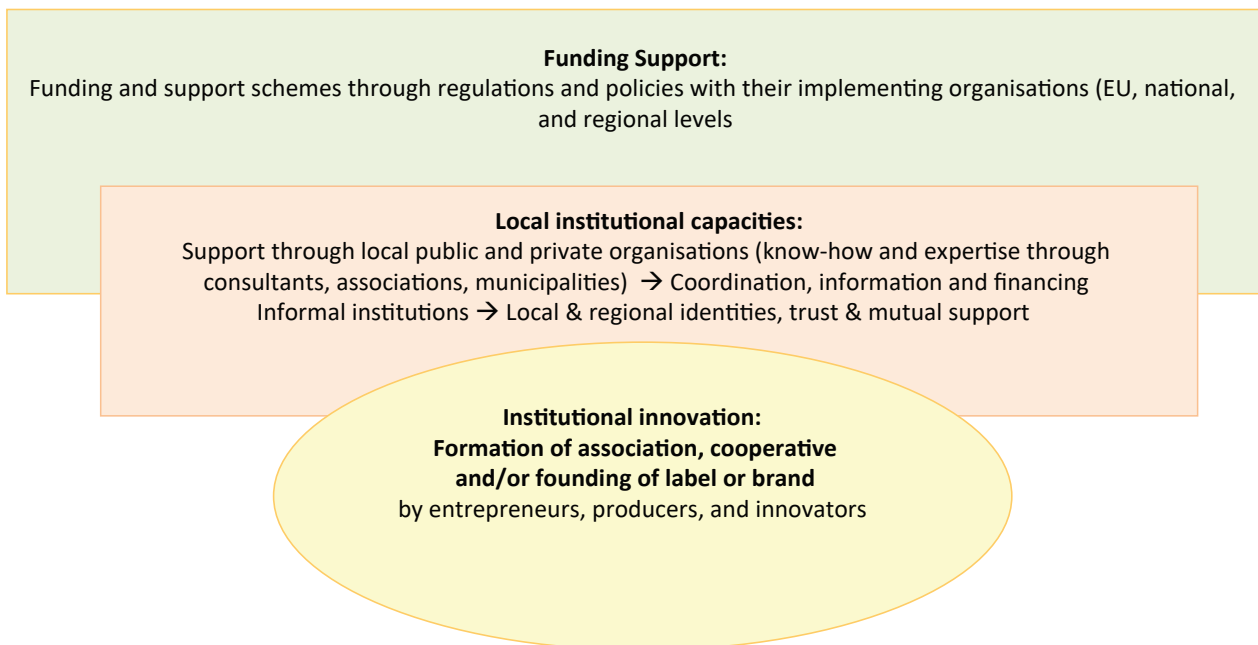


Figure 4: Institutional framework to foster innovation

6.0 Conclusions

Without institutional support, these projects would not have been realised, nor would they have been successful. However, the classical conceptualisations of “institutions in support of innovations” are not sufficiently differentiated for the practical settings of institutions when scrutinized at the empirical level. It turns out that according to these definitions, institutions “always have a say”, as they are present at many levels. In the three examples we have explored, first, there is a combination of three types of institutions (organisational, formal, and informal) that become prevalent, and second, two pathways are possible: an existing organisation may found an association of producers (e.g. the VNÖ), or creators may found a cooperative or association (e.g. the Tabuyo del Monte or Associazione Tutela Marroni di Castione). The founders have a decisive influence in stimulating and developing the project. It is this institutionalisation, the formation process of forming associations and cooperatives in the first place, which renders the innovation institutional. In the next step, together with intermediate organisations (e.g. the ÖAR; IRMA S.L., or a municipality) that provide necessary information (on funding) and know-how (technological or infrastructural), the founders then garner financial support from other institutional infrastructures and funding schemes (e.g. the EU, national, and/or regional development organisations). This process takes place within the institutional framework (Figure 4).

In sum, the founding of an association and the branding of a label is an “institutional innovation” and thus should be denoted as such. Institutional innovations are necessary among small structured projects that involve a label or a brand. The label is a necessary pool for the producers, both in terms of produced amounts and the marketing of their products. In this way, customers can be better reached through the intentional founding of labels. For the association, both agreements between the founders and support from intermediate institutions were necessary. Infrastructure and capacity are likely necessary to grow and realise success in succeeding stages. To understand these processes, we argue that it is important to distinguish between the institutional aspects of the innovations themselves and the surrounding institutions that support them over time. The study of institutional innovations underlies, first, the challenges within the sector of NWFPs and, second, the attempts to create economic benefits within a region. Further,

these cases demonstrate the collective effort required to produce an umbrella label to be used by various actors in order to achieve benefits for all. It is a collective exercise that gives the innovation a special, “extra” meaning. Some actors group themselves, while others are placed together. Using a participatory approach, actors negotiate a common production standard, associate the standard with a label, and then promote the label amongst potential buyers. This is a step-wise approach and our article has shown that although the roles are sometimes played by different local compositions of institutions, both public and private, in very different regions within Europe, the mechanisms behind these steps and the necessary functions for the success of such labels (information, networking, and financial support) are quite similar in each of these cases. Furthermore, in all three cases, it took five to twenty years to achieve commercial success. A step-wise approach suggests scholarly examinations across longer time-spans. The same goes for the improvement of support schemes. In all three cases, the innovations occurred on an ad-hoc basis and were not planned systematically. Funding was particularly difficult. In the Austrian and Spanish cases, funding required many years and efforts were only successful after the inclusion of specialised consulting firms for regional development. In the Italian case, the founders did not even attempt to obtain funding but instead trusted long-established community connections with the local administrations. Thus, it appears advisable to intensify efforts of bottom-up support schemes in rural areas as well as support of potentially risky projects. Especially when it comes to projects around NWFPs, it is advisable for policy makers to think outside the box of forestry-centred funding schemes and use new synergies with related sectors, such as food, energy, tourism and others.

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