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Authenticity renewal – institutions, innovation systems, and Cognac evolution (when the rules of the game don't change)

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ABSTRACT

This paper draws on observations from a long-established network in France, located around the town of Cognac – site of distilled beverages with the same name. Firms within this network have been successful in developing new types of products in the past decades, drawing on and diverging from the conservative culture upon which the region and beverage have built their reputation. The paper reveals that a thick institutional setting, which has been in place for more than a century and is being maintained to preserve the quality and authenticity of the Cognac product, also serve as enablers for new development among local firms.

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Abstract

This paper draws on observations from a long-established network in France, located around the town of Cognac – site of distilled beverages with the same name. Firms within this network have been successful in developing new types of products in the past decades, drawing on and diverging from the conservative culture upon which the region and beverage have built their reputation. The paper reveals that a thick institutional setting, which has been in place for more than a century and is being maintained to preserve the quality and authenticity of the Cognac product, also serve as enablers for new development among local firms.

Introduction

In recent years the institutional setting in innovation systems has been discussed as an influential component of innovation and change. Strict norms and regulations have long been seen as substantial enablers of organizational routines, but also as hinderers for innovation-related activities and as potentially creating lock-in situations in regional economies (e.g. ARTHUR, 1994; FAGERBERG, 2006). Recently, such norms are seen as fruitful ingredients for innovation, while simultaneously providing the undoubted necessary stability needed for day-to-day business. An illustrative case in this context is that of Cognac and its local industry. Firms in the local setting around Cognac have been specializing not only in one industry, but in one singular product with fairly strict and very specific regulations regarding production techniques of the latter. Despite - or 'supported by', as we will argue in this paper - this strict regulatory setting, new and related products (at the time uncommon to the area) have successfully emerged through firms in the local setting around Cognac since the 1990s. The new entrants either did not respect or reinterpreted established local institutions.

Most studies of regional economies stress the crucial role of institutions as determinants for economic evolution, stability and change. Not least the regional innovation systems approach, which constitutes the underlying analytical framework for this study, highlights institutions strongly. A regional innovation system is generally defined as being composed by three interrelated subsystems – the production structure, the knowledge infrastructure and the support structure – surrounded by an institutional framework which contributes to delineating, but at the same time is being influenced by, the behavior of the actors composing the three subsystems (COOKE, 2004). Defined in such a broad way, one could in principle argue that regional innovation systems are present in all regional economies. However, for regional innovation systems to work in a desirable way – contributing to positive development of the regional economy – the three subsystems must work in harmony (HENNING et al., 2010). The knowledge

infrastructure (i.e. universities, research institutes, educational organizations) must produce and diffuse knowledge and human capital that the production structure (i.e. firms) needs, is able to absorb, and can make use of. The support structure (i.e. public and private actors whose main rationale is to provide good conditions for economic activities in the region), in turn, must deliver support measures that are needed and requested by the other actors of the system. Whether such functional dynamics of the regional innovation system will appear or not, we argue, is largely dependent on the institutional framework (i.e. rules, norms, culture) of the system. Thus, given that all necessary components of a potentially well-functioning regional innovation system are in place (within the region or within reach through extra-regional relations), the institutional framework can be seen as a crucial determinant for success or failure (MOODYSSON, 2007).

As argued above, the Cognac region is a suitable case for regional innovation system analysis since it displays very distinct regional features, both in terms of actors (subsystems) and in terms of institutional framework (rules, norms, culture). It includes a critical mass of actors representing the entire value chain of at least one cluster (that is cognac, the beverage), and a range of related industries, located within well-defined regional boundaries, and it is linked up with and embedded in a global market. In this respect it constitutes a 'schoolbook example' for assessing the dynamics (or lack of dynamics) that, according to theory, is assumed to take place in regional innovation systems. These dynamics are outlined below, followed by a detailed definition of the institutional framework of regional innovation systems, and an analysis of the Cognac case.

Given that the innovation system works in harmony, forces of renewal will most likely be set in motion (BERGEK et al., 2008). Examples of such functional dynamics are, in addition to new knowledge creation and diffusion, better performance in terms of resource mobilization and market creation, better abilities of sensing new directions for future development and market trends, better preconditions for

entrepreneurial activities and risk-taking, and legitimation of new technologies and procedures due to a critical mass of actors with shared incentives. Many of these dynamics, in particular new knowledge creation and diffusion, are assumed to benefit from new combinations of different types of knowledge (e.g. SCHUMPETER, 1934). From a regional innovation systems perspective it is thus particularly important to foster new network constellations including actors which previously have lived in 'separate worlds', rather than to further promote already existing networks. Recent contributions to the economic geography and regional studies communities refer to such new knowledge combinations as benefits of 'related or unrelated variety' (BOSCHMA and IAMMARINO, 2009). With a reference to NOOTEBOOM's (2000) theory on 'optimal cognitive distance', this literature argues that benefits from variety presupposes a certain degree of similarity allowing for shared understanding and incentives, and a certain degree of difference allowing for novelty creation and exploitation. By the words of NOOTEBOOM (2000, p. 153), from a firm perspective, "information is useless if it is not new, but it is also useless if it is so new that it cannot be understood".

The analysis presented in this study, aiming to explain the success of new entrants in a long established regional spirits network, identifies 'relatedness' in terms of technology, markets and organizational routines as core assets without which the establishment of new entrants would not have been possible and, in turn, without which the current situation of related variety would not have arisen. However, while not neglecting these aspects of technological and organizational relatedness, this study identifies the institutional framework of the regional innovation system as a core precondition without which such exploitation of relatedness would not even have been a concern in the first place. In the most basic definition, going back to the sociological literature of the early 1900s, institutions are referred to as "settled habits of thought common to the generality of men" (VEBLEN 1919, p. 239), which according to NORTH (1990, p. 4) can be seen as "perfectly analogous to the rules of the game in a competitive team

sport". This definition primarily takes account of societal codes and norms that provide necessary stability, transparency and predictability for economic activity as well as other interaction in society. Yet, such settled habits of thought obviously do not appear in a vacuum, but draws on a complex institutional framework which to some extent may be globally uniform, but in many respects is assumed to be nationally and regionally, and sometimes even sectorally, specific (MOODYSSON and ZUKAUSKAITE, 2012).

Scott (2008) specifies three interdependent pillars of an institutional framework: regulative, normative and cultural-cognitive. Regulative institutions are usually legally sanctioned and most often territorially confined. Instrumentality and conformity to rules are the main coercive mechanisms of regulative institutions. Normative institutions are morally governed and sustained trough appropriateness and social obligations in ongoing systems of social relations (such as families, communities, business networks etc). These are thus not necessarily territorially confined, but maintained through continuous interaction in networks and other forms of social groups, with varying geographical configuration. Cognitive institutions, understood as shared conceptions and frames through which meaning is made, are sustained by the logic of orthodoxy and taken-for-grantedness. Similar to normative institutions, the territorial dimension of these institutions are not easy to pin-point (SCOTT, 2008, p. 57). Some would argue that the cognitive dimension is the "deepest", since it rests on preconscious, taken for granted understandings. It is however important to note that the regulative dimension in some respects has very strong coercive power and might, thus, shape the normative and cognitive dimensions, at least when, as in the case presented in this study, the regulative dimension remains stable through many generations.

Institutions may either constrain or facilitate innovativeness (HOLLINGSWORTH, 2000). Drawing on the logics of conformity to rules (SCOTT, 2008), regulative institutions are normally seen as factors regulating what is not allowed, while at the same time – obviously – thereby also indirectly specifying

what is allowed. Likewise, through the logics of appropriateness and obligations, norms very much impose constrains on social behavior, while at the same time thereby also specifying expected behavior. Cognitive institutions, drawing on the logics of orthodoxy and taken-for-grantedness, also largely work as conserving selection mechanisms by ruling out or overlooking the new and unfamiliar. Yet, at the same time, they empower and enable social action, and they can therefore explain renewal as much as they can explain lack of renewal (SCOTT 2008).

Understanding the workings of institutional frameworks for shaping the behavior of actors in a regional innovation system requires a focus not only on the institutions and their carriers (as described above), but also on the actors (individuals, organizations and groups) exposed to and ultimately influencing them. As stressed by GERTLER (2010) there is a dangerous tendency to just 'read off' individual and organizational behavior from institutional structures, while neglecting individual and organizational agency. Despite the strong focus on the institutional framework presented in this study, we share GERTLER's concern in this respect; conclusions on regional preconditions for individual (economic) behavior and performance cannot, for at least two reasons, be based solely on a specification of the institutional framework of the regional innovation system. First, institutions must be 'inhabited' by human actors to have any effect (HALLETT and VENTRESCA, 2006), let alone explanatory power. Regulations and norms of a regional economy cannot explain the behavior of actors unless they are part of the actors' perception and routines. Secondly, different actors may very well respond differently to the same set of institutions, i.e. the same set of institutions may result in different perception and routines among different parts of the population in a regional economy (MOODYSSON and ZUKAUSKAITE, 2012). It is thus necessary to specify both the characteristics of the institutional framework and of the actors composing the regional innovation system.

STRAMBACH (2010, p. 413) makes a strong argument using the term 'plasticity' of institutions, referring to "the interpretative flexibility of their meanings". She argues not only that different actors may respond differently to the same set of institutions, but also that the 'interpretative flexibility' differs with regard to different kinds of institutions, and that differences in this respect are defined by the forms and strength of sanctions for deviation. Institutions with fixed and forceful enforcement characteristics such as legal sanctions provide less interpretive flexibility, while institutions primarily enforced by social obligation provide a wider room for flexible interpretation. Linking this argument to SCOTT's (2008) discussion on 'institutional resilience' one could argue that the cognitive dimension is least flexible since it is pre-consciously interpreted. Also the regulative dimension is, in principle, inflexible, however obedience may differ. The normative dimension would, according to these arguments, be the most flexible since this is continuously recreated through social interaction, thus allowing for dynamic evolution of networks constellations (e.g. if an actor is excluded from a community due to too flexible interpretation of the normative institutions of this community, the same actor can seek acceptance in another community). These arguments indicate that, logically, institutional reconfiguration would most likely start with the normative dimension. They also indicate that such reconfiguration is more easily initiated by outsiders or newcomers in a community since they have less at stake in the established structure and therefore less to risk by challenging established institutions. These assumptions are supported by the analysis of this paper, which provides an empirical assessment of how "interpretative flexibility at the micro level enables the slow evolution of institutions and the elasticity of institutional arrangements on the macro level" (STRAMBACH 2010, p. 414) in the case of Cognac. The analysis reveals that evolution and renewal in Cognac is primarily a result of reinterpretation by new entrants acting as first movers.

At some points the paper uses the term networks where the established term of business clusters may be expected. This is done consciously due to what we realize as the perception of local entrepreneurs and firms themselves in the local and global setting. In contrast to policy makers, who may see the agglomeration of firms within a limited geographic area, the firms themselves perceive their working field differently. They usually work with few carefully selected local partners, while also and essentially, keeping ties to firms external to the local milieu (e.g. BATHELT et al, 2004). Those networks are, furthermore, very selective in nature, and certainly not all local firms are, as convincingly argued by GIULIANI (2005, 2006), linked up to new developments. Nevertheless, there are certain territorially contained features which impact the evolution of these networks and their activities. These territorially contained features – in particular the place-bound institutional specificities – are at the center of analysis in this paper.

Methods

In 2011-2012, one of the authors spent several months in the network of firms in and around Cognac. Through the CIDS[1] and a local administrative board, he was able to identify around 50 new (non-cognac) products that have emerged through local firms since the mid-1990s. He created a database with descriptive statistical data about these products (year of creation, growth figures), but also gathered a wide set of qualitative information about emergence and development of these new products (e.g. where and at what time did it emerge, what was the main rationale for renewal, which factors served as preconditions and enablers for renewal, what was the background of the investors and owners, which specialists developed which components, was it sold to a larger corporation and for what value, etc.). In

[1] The International Center for Spirits (or CIDS) is an inter-firm-organization connected to the local university in the Cognac area. It serves as an intelligence unit for local firms by a daily newsletter and provides different types of training and education for professionals in the industry.

order to collect this data and to get deeper insights into recent developments, semi-structured interviews were held with implicated managers, engineers, designers and traders. For this study, a total of 41 targeted interviews were conducted mainly with involved SME managers during a period of 4 months. The qualitative content of these interviews was supplemented by informal conversations with local professionals (engineers, marketers, traders) at different occasions (e.g. trade fairs, product presentation events). Furthermore, one of the authors participated as an observer in 12 meetings of a local SME association board where recent developments were on the agenda. He also had insight into local economic databases which allowed understanding the effects of these new developments on involved firms. In some cases, the stories of new product creation slightly diverged depending on the individual that was interviewed. However, as most products were not developed by one single firm, but combinations of different specialized firms and individuals within the local network, it was generally possible to cross-verify gathered information.

Research setting

In the Cognac district, around 2500 firms are operating in relation to the local spirits industry. A large proportion of these firms are small family vineyards, selling their yearly harvest to the local cognac trading firms, which then assemble and bottle the final products. Within this setting, numerous supply firms emerged, providing packaging, design, barrels and other essential elements for the spirits industry. Of around 300 major spirits-related firms in the Cognac area roughly 40 have been directly involved in product innovation in recent years. These innovating firms are generally of small and medium size, ranging from 5 to 50 employees. Large firms in the area reach up to 800 employees, but these are only indirectly involved in innovative activities, often driven by their corporate headquarters (e.g. Pernod Ricard in Paris, Diageo in London, Suntory in Tokyo or Beam Inc. in Chicago). The largest firms have

existed for many decades or even centuries and dominate much of local decision-making. In recent years those larger firms have followed the smaller ones by increasing their efforts in developing new products through the local network of firms. Among the small innovating firms there is an even repartition of knowledge, from symbolic skills of marketers and designers in trading firms to the analytical and synthetic skills of engineers at distilleries, bottle or cooperage firms. Some firms have, along the new developments, taken the role of knowledge-brokers, which puts them right at the interface between different production specialists on the one side, and external investors with product ideas and access to markets on the other.

As many firms are still family driven, there is a good historical track of events over several centuries. The same is true for the development of the institutional setting, which is tracked in well-kept archives of local trade organizations and partly in literature written by former managers and policy makers. Relatively good information goes back to the emergence of the first major export firms in the mid-1700s, and becomes very solid since the turn of the 19th century, when the first official local trade organization emerged. Some local organizations also play a crucial role as mediator and knowledge node among innovating firms, such as the local university and an adherent intelligence unit (CIDS), providing quotidian and weekly insights into the spirits world in a tailored newssheet for local firms. In terms of research, it serves as a node of information about local developments. These organizations were valuable for getting insight into recent developments and into the evolutionary aspects leading to them over time.

Cognac-production has a history of several centuries. The resulting local economic system is to some extent comparable to porterian clusters and to Italian industrial districts (e.g. HARRISON, 1992; MARKUSEN, 1996; ASHEIM, 2000). Besides the export-oriented cognac trading firms, many different industrial segments of the local network have gained strong global reputation within their own

specialized products or services. Local barrel firms, for instance, one of the oldest local industries, usually sell up to 80% of their products and solutions to external customers world-wide . Some of the local design agencies reach even higher export rates and are recognized for their service quality among the largest and most prominent corporations in the spirits and wine industry. Critical innovations in the production of glass bottles in fact have their roots in small firms and entrepreneurial events around Cognac.

Before the turn of the 21st century new developments in this network shook the local setting. New consumer products, at the time unusual but related to the local industry, were developed through the network with the help of a handful of embedded firms; and that with tremendous success. Newly created and innovative brands from this development were, with fairly small initial investments, sold to large corporations after just a few years for sums comparable with even some of the larger software start-ups of the internet age. This development, which may today be understood as a new wave of related products developed by emerging firms from within the local setting, had its visible take-off with one famous case in the mid-1990s[2], and was then followed by a multiplicity of others, created by different combinations of agents (initially: mainly small firms and individual consultants) throughout the network until today. Some modern production techniques were certainly included in the development of these new products; but their value was, essentially, created by creative recombination of knowledge, technologies and resources in the local milieu that would in principle have been available quite long before. Presuming the technical capacities for these products already existed earlier, why did they develop at that moment in time in that specific place, and how come they emerged with such a fast pace? What specific preconditions favored this development? Did some settings retain it for a long time before it was unleashed and what was, in that case, the trigger for take-off?

[2] That product was created from scratch in 1996 through local specialists and a foreign investor, and then sold eight years later (in 2004), to one of the leading corporations in the industry for 2.2 Billion $.

From a set of qualitative information and descriptive statistical data about the newly developed products, supported by a series of interviews with managers, entrepreneurs, engineers and employees in different parts of the network, this paper addresses these questions from a regional innovation systems perspective. It conceptualizes them in a wider frame of innovation systems theory, with a specific focus on the role of societal institutions and their impact on innovating firms in the regional innovation system.

The Cognac network has various features that make it an interesting case from a regional studies point of view. It displays distinct specialization, high density of similar and related firms, and a global reach of production (97% export rate). It is defined by fixed boundaries[3], a thick institutional setting, and it provides an extensive time record. The region hosts all major actors in the spirits industry, be it directly through their headquarters (in all different segments of the value chain), through sales and development offices, or through local consumer brands belonging to the portfolio of the industry's largest corporations. From an evolutionary perspective, one interesting aspect is also the speed of change and development. While Silicon Valley type clusters reveal short time records and very fast-paced developments overlapping each other and blurring the effects of individual events, things in Cognac seem to have evolved relatively slowly since its first emergence a few centuries ago, which makes it easier to observe the effects of specific events in time on subsequent developments.

The traditional cognac product has a history dating back to the 16th century, when Nordic traders came to the region to acquire salt and other raw materials. On the way, they also discovered local wines which

[3] The product *Cognac* is protected by a designated label of origin. This means that the production needs to respect specific historical processing techniques, and, most importantly, frames it into a limited geographical area. Raw material (white *Ugni Blanc* grapes), have to be grown in one of the Cognac region's six vintage areas in order to be applicable for cognac production. This limits the space for all trading firms and major suppliers mainly to a triangle of a handful of small towns with a combined population of roughly 50 000 inhabitants.

they began to appreciate. To avoid excessive fermentation during transport they started distilling them locally to then blend them again with water at arrival. As the distilled product had decent flavor, and became even better when transported in oak barrels over longer time periods, the today well-established product of Cognac was born. It was, successively, sold and exported under the name of trading families, protected as a designated label of origin (AOC) and, over time, developed its reputation on a global scale. Since that time, a dense network of specialized firms has developed around the local setting of vineyards and trading brands. Today, one can find specialists for the production of the liquid (oenologists; distillers; chemical analysts), the solid (bottle producers; labels and serigraphists; cork and cap factories) but also firms going beyond the traditional production chain, as for instance adapted services for the local industry (such as packaging design agencies, specialized marketing consultants, traders and distributors, banks, insurances, adapted real estate firms) supporting organizations (specialized university, training centers, forums and expositions) and a thick set of shared formal and informal institutions, essentially protecting the quality and tradition of local products against internal and external fraud.

Innovative developments in this context are limited, but have emerged in several different dimensions. As product and process innovations are technically prohibited by the AOC[4] regulation for the region's traditional product (i.e. Cognac, the beverage), most strategic investments of local trading brands have historically been focusing on conquering new markets. This may partly be an explanation for the striking export rates. Another dimension of evolutionary improvement is the organizational structure of firms and their surrounding network. As firms could not put much energy into lowering costs by improved processes or even developing entirely new products, they have, over time, put much effort into the

[4] AOC stands for Appellation d'Origine Contrôlée. It can be translated as 'protected designation of origin' and is the official name of the rules that have been set for a number of (mainly) food and beverage products in France.

development of a stable institutional setting, leading to strongly increasing returns within the network (even though this was not necessarily the primary intention). In no way have these developments been led by the totality of firms, but in most cases by singular or small groups of striving firms or even, in some cases, by devoted institutional entrepreneurs (SOTARAUTA and PULKKINEN, 2011). Due to the conservative regulations (the AOC) and the norms working in correspondence with these regulations, one type of innovation has for long been entirely neglected: the core product. The last famous non-cognac product in the region was Grand Marnier[5], introduced in 1880. More than 100 years later a new wave of product innovation emerged, following the first-mover case which is further described in the analysis section below.

Analysis

The rules of the game in Cognac

Cognac's principal standardized production techniques of distillation were established by foreign traders in the 17th century, when the first export firms emerged. From individual firms using these distinct techniques[6] it quickly became a norm which local vineyards had to follow in order to comply with the requirements of the traders for a qualitative and regular product. In the early 1800s, Cognac had its first boom on global markets, getting big enough to generate explicit infringements of the label 'Cognac' by in- and outsiders. Those were regularly reported by Cognac salesmen from foreign markets (such as Germany, Denmark, Brazil, Mexico, United States), and ultimately led to the formulation of written laws which need to be respected until today in order to call the product 'Cognac'. The first of these regulative

[5] Grand Marnier is a French liqueur based on distilled grape juice from the Cognac region with added extract of bitter oranges from the Caribbean. It is today one of the world's most precious cocktail ingredients and it is commonly also used for cooking and baking. Grand Marnier was created in 1880 by Alexandre Marnier-Lapostolle in Bourg Charente, 10km from the town of Cognac.

[6] In brief: for Cognac production, fermented grape juice is double distilled in copper pot stills before being aged in oak barrels for several years.

institutions was passed in 1909 and defined the geographical origin of the grapes. A second one was passed in 1937 with even more explicit rules regarding production techniques. The essential rules are;

1) Only specific grape types can be used (Ugni Blanc, Colombard, Folle Blanche), coming from the delimited winegrowing area around the town of Cognac

2) After harvest and fermentation follows a double distillation in traditional copper pot "alembics" at a delimited period of the year (harvest until 31st of March)

3) The distilled liquid ("Eau-de-Vie") is aged in oak barrels of a certain size range, with oak coming from delimited French forestry areas (Limousin & Troncais)

4) The minimum age for the youngest eau-de-vie used for Cognac is 2 years

5) Age categories (VS, minimum 2 years; VSOP, 4 years; XO, 6 years) need to be respected and labeled on the bottle

The initial intention of these regulative institutions was rather simple: it was oriented towards "those who mislead or tend to mislead the consumer" (COUSSIÉ, 2010; decree 1909), and should protect the "quality and dignity of local products" (ibid.). Despite its relatively simple foundation, the consequences of this decision were profound in the long run and went much further than their initial intention.

The AOC regulations led, obviously, to the establishment of a shared identity and image among local firms, and solidified the trust of their external customers. On the other hand, it created a local system of quasi standardized and interchangeable goods, allowed an important increase in confidence by local services (such as banks and insurances), and strongly amplified, in a cluster perspective (e.g. PORTER 1990, 1998; KRUGMAN 1991), localization economies and increasing returns. Shared use of the same raw material and production techniques generated similar needs and challenges among local firms,

which led to the creation of numerous specialized service and supply firms as well as, over time, a thick set of local organizations and public support structures. In that sense the protection created a stable 'comfort zone' in which firms could focus on other key business issues, such as the expansion of export markets or the build-up of solid stocks of raw material. But it also created a regulatory setting which was absolutely hostile for innovation and new developments.

Certainly, the AOC law passed in 1909 and 1937 was only the written and regulative form of what already had existed locally as normative institutions (in form of norms and habits) among vintners, distillers, coopers and other traditional professions long before. The AOC was making these emerged norms explicit - and prevented insiders and outsiders from infringing the built-up structure with its valuable reputation. Normative institutions, nevertheless, still exist until today and go far beyond the sole AOC regulation. Many unwritten rules have been created and are respected among local firms and along different professions within the local system, and some of them have subsequently been included in official AOC regulation (as for instance changes in minimum age for different product categories, which is an ongoing debate in recent years at the BNIC[7]). The institutional setting, though relatively static over long periods, is in that sense also to some extent continuously evolving.

The developed norms may also be an indicator for general business mentality among local firms, and an explanation for why it was new entrants rather than existing firms that detected and exploited those unused capabilities. It seems that for a very long time, local firms never even considered doing anything else than traditional cognac, as this was not within their normative or cognitive framework, especially when things were working well. Not to mention the advantages of the comfort zone which the AOC and

[7] The BNIC (Bureau National Interprofessionnel du Cognac) was created in the 1940s and hosts a board representing the main agents in the local network of firms, both the traders (cognac brands) and the suppliers (vineyards and distillers). It takes and carries out all key decisions regarding the rules and quotas of production and the protection of the cognac label on international markets.

the local cluster provides, with low transaction costs and relatively limited risks in terms of investment (in stocks, marketing and production). This comfort zone is even enhanced at times when positive developments on export markets are pushing sales upwards. Throughout its history, the product of cognac has naturally seen different ups and downs, with downturns often linked to economic crises on core export markets, such as the oil crisis in the mid-1970s or the East Asian and Japan crisis in the early 1990s (COUSSIÉ, 2010). It is only at such times of crisis that doing something else would even be considered. But, in the case of Cognac, it seems like this variety was only triggered by new entrants, who – probably rather accidentally, and with different intentions than that of enhancing the local economy – reinterpreted the existing norms and habits, leading to the successful development of new products based on existing skills and unused capabilities in the local setting.

Below, general possibilities of innovation in firms in the Cognac setting are described: respecting local production rules and norms, most pertinent innovation over long time periods has been happening in supply sectors orbiting around the cognac industry, such as bottle producers and designers, barrel makers, cork producers or aroma specialists. It is, as innovation research has proven, just as possible to innovate in such 'low-tech' industries as it is in 'high-tech'. Examples of some improvements and transformations are explained in the next paragraph. After that, three cases are described which constitute the focus of the analysis, the more recent development of product innovation and variety – from a first and famous new entrant case, to adaptive cases emerging from incumbent firms.

Innovation and renewal

There are several historical examples of innovations developed by actors embedded in the Cognac region, mainly in the service and supply sector of the local distilled beverage. In the early 1900s, for

instance, the local entrepreneur Claude Boucher – “the Henry Ford of bottling” – shifted bottle manufacturing from labor-intensive and slow hand-blowing to conveyor-belt style industrialized production. More recent examples are local engineers, designers and marketers who have, for instance been working on the perfect sound when pouring a glass from a bottle. Cognac firms, cork technicians and designers are cooperatively working on unrecoverable screw corks and connected bottlenecks in order to prevent refill and black trade of empty cognac bottles – which has recently become a threat on some export markets. Barrel firms work on solutions to create aromas revolutionizing the capital-intensive aging process, and water producers have developed formulas to extract certain minerals from the liquid in order to prevent consumers from the next-day hangover. These are all examples of innovations within the existing framework, i.e. innovations which aim at improving already existing products in various ways. In recent years the strongest of such improvements have been made in the design segment of the production chain, following the occurring global trend towards symbolic brand creation.

However, these improvements and innovations within the established modes of production in the Cognac region are not the main concern of this paper. What the paper specifically focuses on are those more radical steps towards industrial renewal, breaking with established paradigms and leading the region into new development paths (TRIPPL, 2011). In total, around 50 new products have been discovered that were developed since the mid-1990s. Within this short time frame, these 50 products have reached a total volume above one third of total local production, of which a handful of products make up the largest share. In turnover these developments are not as impressive, as the new brands are most commonly foreign (majority-)owned, but locally produced and composed. It is essentially the local suppliers and services that highly profit from these developments. Recently, even some of the traditional cognac firms have started to link up to newer developments, in some cases encouraged by

their corporate headquarters. Thus, these new developments serve very much as triggers for renewal, which may contribute to wide implications of the entire region. Three such examples of change agents are introduced below.

The new entrant first mover: Case A

Case A was the first successful new product (vodka) developed in Cognac in the 1990s. It can arguably be seen as the breakthrough case which led to significant changes in the local context and was followed by other new entrants, as well as local firms and entrepreneurs in subsequent years. It was created in 1995 by an American entrepreneur in cooperation with local distilleries, aroma specialists, packaging designers and water engineers. It revolutionized its segment in the global spirits industry and had a remarkable impact on the local institutional context; the brand was sold to one of the industry's largest corporations for 2.2 Billion USD in 2004.

The entrepreneur founding Case A, although possibly not actively reflecting on the matter, clearly took advantage of the established institutional framework of Cognac. By his flexible interpretation of the long established AOC regulation and its corresponding norms, he could make use of previously unexploited resources of the region. One such resource was production capacity. Since the AOC stipulates restrictions as regards how certain steps of the production process can take place and when, and since this has led to very specific practices and routines distributed over the calendar year, production facilities and human capital were largely unused parts of the year. This made it possible for alternative production during these periods, without heavy initial investments in machinery and training. Thus, the new entrant could easily tap into an already established production system, turning barriers into enablers.

Another crucial resource stemming from the institutional framework regulating and guiding Cognac production was the strong reputation of the 'Made-in-France-brand', especially on foreign markets. The regulation and authenticity-focused norms of production indicates high quality. Drawing on this made it possible for the entrepreneur to enter another price segment than normal vodka producers. This image must be seen as the main factor behind the success of Case A. A product with similar quality and characteristics would not have made the same impact if produced somewhere else.

Even though there was, and to some extent still is, a debate among the Cognac population whether this kind of differentiation is good or bad for the region, there is no doubt that Case A served as a change agent, paving the way for several other initiatives of diversification in the Cognac network. One of these was a cognac-based liquor with added ingredients described below.

The new entrant follower: Case B

Case B shows some similarities with Case A, though it emerged 6 years later (2001). It was triggered by a new entrant (of foreign origin) who, with an existing product idea tapped into the local network of specialists and started cooperation with a local distillery. Inspired by the success of the first-mover Case A, this distillery had already tried diversifying in the years before, for strategic reasons of portfolio diversification, and built up the necessary capabilities and production facilities for related variety – although with little success on the market. The turning point came when a former professional tennis player linked up with the local distillery, taking care of brand and distribution.

While this collaboration turned out a success in the end, it was preceded by hard negotiations and several failed attempts. One reason for this was the initial skepticism among actors in the local network. Though recognizing the success of the high-end vodka, acknowledging the potential of product

diversification, the local actors still proved fairly conservative and careful not to harm the reputation of their core product. During the first attempts for renewal, the Case B distillery was largely excluded from the local network of cognac producers.

Subsequently, however, the consortium reached acceptance and gained international as well as local reputation and respect. The newly created product exceeded all growth expectations and was bought out by an American corporation after less than a year, for a value of 65M USD. Just like Case A, Case B can be seen as a change agent drawing on external push factors, i.e. factors stemming from outside the region entering and influencing it. Stemming from outside however, we argue, also means these two cases cannot be seen as proof for wide ranging regional renewal, since they are not fully embedded in the long established network of incumbent firms which has been present for many generations, and in which professional and private relations are mingled. Nevertheless, these cases served as crucial influences for reconfiguration of the institutional framework, contributing to opening up a previously closed and conservative local network to becoming more adaptive and receptive to change. In the years following the establishment of these new entrants, the region also experienced diversification among local entrepreneurs. One such example is described below.

The locally embedded change agent: Case C

The third case of product diversification used as an illustration in this paper, Case C, is the first successful case of which the key impulse came from a local entrepreneur. This entrepreneur had spent many years working abroad and created a shareholder-cooperation with his former employer, one of the largest corporations in the spirits industry, in order to finance the new product development. Accordingly, this product is very well embedded locally and uses the widest range of local assets and capabilities, from

the raw material to the design and packaging. The newly created firm of the entrepreneur is until today specialized on innovating products in the local context, and has built up strong competence in the role of a knowledge broker between involved agents. Today Case C is the second largest case in terms of sales volume after Case A.

Stemming from within the region, drawing on internal pull factors, we argue that this case represents a more comprehensive change of the regional institutional framework than the two new entrants cases described above. Taking advantage of his own local history and his established relations in the region, as well as the increased openness to renewal following the first movers described above, the founding entrepreneur could build up his new company without facing the same skepticism and challenges as the new entrants did some years earlier. This was partly as a result of his embeddedness in the region but more importantly, we argue, as a result of the ongoing change of the regional institutional framework which the two first movers set in motion. Thus, the local entrepreneur was never forced to any 'flexible interpretation' since this had already been made by the first movers and at the time of the Case C establishment had already been adapted to the norms.

Discussion and conclusions

Regulatory settings and their impact on local economies have gained attention in the innovation systems literature in recent years. For a long time, thick institutional settings have been regarded as unreceptive for transformational innovation and change. Along the described cases of related variety from Cognac, we argue that such regulative settings may have twofold effects: they can allow, besides their role as stabilizers of daily business activity and as preconditions for efficient routines and incremental improvements within and between organizations, to foster new opportunities and to

provide fertile soil for unexpected developments in old and established innovation systems. They offer the framework in which exploiting firms can operate, but simultaneously build up boundaries and limitations which may inhere opportunities that remain unexploited due to established regulative, normative and cognitive institutions. The setting in Cognac is certainly a stylized example, but serves as a valuable illustration of a thick and relatively static institutional framework, constraining all embedded actors in the exact same regulative, normative and cognitive context over an extended time period. Similar cases could most likely be found in other regions (obvious examples would be Armagnac, Champagne, Bordeaux and Alsace), as well as in a range of other sectors (e.g. food, specialty coffee, chocolate, fashion, arts and other high-end consumer goods in which the local origin is perceived important for the attractiveness of the product).

The observed cases of product innovation and related variety in this paper have some important aspects in common. Each of them breaks with or reinterprets the existing institutional context, is constituted of new and creative recombination of local skills and capabilities, and exploits capacities that have been unused so far. The vast majority of cases also emerged at a relative time of crisis in the local system, which indicates that external impulses usually are required to set endogenous change in motion.

All the early cases observed in this paper were triggered by some type of new entrant who was, arguably, not as embedded in the local setting as the incumbent firms and were therefore able to reinterpret – intentionally or not – norms and regulations, while profiting from the built-up image and related capabilities. Only after some successful cases, local agents seemed to adapt to the institutional change process introduced by these new entrants. The institutional change process has triggered a still ongoing debate among local firms on how to handle this recent divergence from old norms and regulation, and also led to new initiatives intended to further develop the established institutional setting, while at the same time retaining the authenticity upon which the region has based its competitive advantage. Not

least regional innovation policy faces challenges on how to deal with such a balance between promoting renewal and preserving authenticity.

For future research, more work could be done on explaining the specific impact of different types of institutions (regulative, normative, cognitive) in such a production and innovation system. This may reveal typically occurring sequences of institutional events, or display patterns of institutional change in old and new industries. It may also be worthwhile asking similar questions for different industries and different regional settings (as indicated above). The specificity of the Cognac case with some of its almost stylized institutional features provides a laboratory-like environment for innovation system theory. In line with this, the transmission of reflections from this paper on different regional and industrial contexts will be potentially very useful.

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