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# Geographical Indication as a tool to strengthen sociotechnical quality niches. The case of Corsican clementine.

R. Belmin<sup>1</sup>, J.-M. Meynard<sup>2</sup>, F. Casabianca<sup>1</sup>

**Abstract** – In this paper, we explore the socio-technical mechanism through which Geographical Indications (GIs) can strengthen alternative quality models. Building on transition theory, we analyzed the reconfigurations of the Corsican Clementine basin under a recent Protected Geographical Indication (PGI). Results show that the PGI stimulated 3 processes - the construction of a local norm, the coordination of actor network, and the strengthening of quality - which together contributed to the success of the Corsican Clementine, despite its specific quality and production model were challenging the competition rules of the citrus sector. In the light of transition framework, these findings suggest that the PGI strengthened a prior existing socio-technical niche by regulating tensions with regime.

**Keywords** – Transition, innovation, typicity, Corsica

## INTRODUCTION

Green revolution and globalization have deeply transformed agri-food systems toward standardization and deterioration of products' gustative quality. In reaction to this trend, Geographical Indications (GIs) have emerged as a major source of innovation, leading to a bloom of high quality products related to original technical models. In this paper, we analyze this dual movement, by building on the theory of Multi Level Perspective (MLP) on transition (Rip & Kemp, 1998; Geels, 2004). This body of literature shows that in agriculture, undesirable situations (e.g. massive use of pesticide, low product quality) are stabilized by lock-in mechanisms structured at the level of the socio-technical regime. By contrast, alternative technical models emerge and develop in protected spaces called niches. On the basis of this theoretical framework, we wonder to what extent and through which mechanisms GIs can strengthen niches where alternative qualities develop despite tensions with overall agricultural regime.

## METHODS

In order to address this question, we analyzed the recent reconfigurations of the Corsican Clementine production basin under the influence of a Protected Geographical Indication (PGI). This case study is interesting with regard to the question of niche construction versus regime, because both product and production model associated with Corsican

Clementine are challenging the competition rules of the citrus sector. Thus, we sought to understand the role that the PGI has played with regard to the co evolution of socio-technical network, agricultural practices, and product quality. Fieldwork with semi-structured interviews of a set of local actors and data analysis were driven by our theoretical framework. We thus analyzed the system generated by (and generating) Corsican Clementine as a socio-technical network, composed of 3 inter related components (Geels, 2004) – actor network, rules system, and technology-, and to what extent it behaves as a niche (i.e. a protected space where an alternative production model develops).

## RESULTS

In the 1960-70s, the Corsican Clementine developed under the protection of the monopoly over commercialization of fruits with its leaves. This monopoly resulted in a sanitary barrier, which prevented other countries from exporting fruits together with leaves. In Corsica, the objective of having the fresh leaf attached to fruits when marketed had profound implications for the management of harvest and for the product quality. In fact, it prevented storage and ethylene degreening (which deteriorate leaf aspect). Accordingly, farmers had to carry a selective picking of naturally coloured fruits, involving several harvests on each tree. In turn, the leaf-driven harvest model indirectly allowed the expression of the specific sensorial characteristics of the Clementine varieties that had been developed by a local breeder: In the cool but not cold Corsican autumns, the fruits that have just coloured keep green pigments on their bottom part (inducing what actors call "cul-vert"), and the on-tree colouring occurs at a ripening stage where fruits have not achieved acidity drop (inducing "acidulous taste").

At the same time, the leaf acted as a protection to the Corsican model, despite tensions with the competition rules of the citrus sector. The added value provided by the leaf made economically bearable harvest costs and risks. The leaf also hid - both physically and symbolically - the product's specificities (small calibre, acidulous taste, "cul-vert") that were regarded as defects in the mass market. In this protected space, actor network developed under the influence of both agronomical and sensorial implication of the "work with leaf". On the production side, local actors built a "just-in-time" supply chains as a way to mitigate harvest risks and costs. On the consumers' side, the persistence and use of this

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non-standard product shaped representations among consumers and downstream buyers, leading to the categorization of Corsican Clementine as a singular product. In sum, the "work with leaf" both induced and enabled the emergence of an alternative quality model in tension with the competition rules of the citrus sector.

In the 1980-1990, Corsican Clementine entered a crisis period. Through a modification of the UE phytosanitary rules, Spain obtained the right of marketing its citrus fruits with leaves, and Corsica lost its "leaf monopoly". In this new context, the insular production was increasingly exposed to international competition, and the specificities of both production model and product became economically unsustainable. Some local actors started to align with Spain, adopting controversial innovations such as ethylene degreening, as well as Spanish varieties characterized by high calibre and very early or late fruiting. These technical changes contributed to an erosion of the Corsican model and related quality. During this period, the commercial difficulties and quality heterogeneity stimulated individual strategies. Local actor network became divided, and marketing function was transferred to wholesalers, who put in competition cooperatives and fostered crisis and quality uncertainties (De Sainte Marie and Agostini, 2003).

In the late 1990s, after a large debate within the sector, local actors embarked a PGI certification project as a way to solve crisis with a quality strategy. The PGI was used by local actors as a leverage to operate 3 strategic changes, which have reinforced each other, and contributed to solve quality uncertainties, to restore typicity, and to an increased valorisation of Corsican Clementine. The first strategic change consisted in qualifying and legitimating the full implications of the "work with leaf". At the conclusion of a multi-stakeholders process involving collective learning, controversies resolution, and articulation of expectations, local actors could define product quality, related practices, and control procedures through PGI specifications. The PGI qualified and protected the local harvest model and related quality, despite being in tension with competition rules of mass market. Thus, specifications and controls were focused on preventing degreening hormones, imposing multi-stages harvest, and recognizing "cul-vert", acidulous taste, and small calibre as typicity attributes (mandatory criteria for the use of the protected name).

The second change provoked by the PGI was to stimulate the reconfiguration of the whole actor network involved in quality management. On the one hand, the consensual definition of quality and good practices enabled the concentration of supply around 3 marketing organizations owned by farmers. On the other hand, the PGI acted as a lever for vertical integration of supply chain, since the distribution trademarks aligned their specification sheet with the PGI one, and relied on the 3 marketing organizations as commercial partners. Because the

"local norm" became the shared rule system in the supply chain, downstream actors recognized the Corsican Clementine typicity attributes. In this system constrained by fruits' natural colouring, such change in supply chain organization revealed to be highly strategic for quality management.

Last but not least, the PGI contributed to the strengthening of the Corsican Clementine production model and related quality. On the one hand, enforcement of PGI specifications and control device led to an improved management of quality among farmers and sorting stations. Multi stage harvest model was restored, Spanish varieties were replaced by local ones, and fruit quality was homogenized. More indirectly, the coordination of actor network around the local norm allowed an improved management of harvest and marketing, an increased remuneration of farmers for quality fruits, and an improved management of quality at the level of the whole production basin.

#### DISCUSSION

In the light of MLP-transition framework, these findings suggest that actors used the PGI to strengthen a prior existing socio-technical niche. During a first period, the leaf monopoly opened a protected space, allowing and fostering the development of an alternative model of harvest and quality – i.e. a socio-technical niche. The protection mechanism of the niche relied in the leaf, which mitigated tensions with agro industrial supply chains – i.e. the socio-technical regime. During the second period, the niche became unprotected due to the loss of leaf monopoly. The niche was therefore destabilized by both exogenous tensions (regime actors sanctioned out-ruling Corsican model) and endogenous tensions (some of the niche actors sought to align with regime). In the third period, the PGI fostered 3 changes – Local norm elaboration, actor network coordination, and restoration of typicity –, leading to an increased protection of the niche. The new protection mechanisms relied on the management of both exogenous tensions (regime actors aligned with the local norm) and endogenous tensions (niche actors did not anymore align with Spain).

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