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Behind the scenes of quality labels: Tripartite regulation and overlapping markets

From the Europeanization to the globalization of organic agriculture

Eve FOUILLEUX
Allison LOCONTO

Résumé. Cet article s'intéresse aux modalités concrètes du gouvernement par régime de standardisation tripartite. Cette forme de régulation alliant standards volontaires, certification et accréditation est de plus en plus utilisée dans de nombreux domaines de l'activité économique. À partir du cas de l'agriculture biologique, pour laquelle la certification par tierce partie accréditée a été imposée par l'Union européenne à partir des années 1990, nous montrons que cette régulation repose en réalité sur une imbrication de marchés, dont nous explorons les caractéristiques et les effets. Les marchés des produits biologiques sont étroitement imbriqués dans trois marchés de services (le marché des standards, de la certification, et de l'accréditation), dont les dynamiques concurrentielles expliquent la trajectoire d'eupéanisation puis de globalisation du secteur. Nous soulignons aussi les limites de ce mode de régulation, dans lequel le contrôlé paie le contrôleur et qui fait peser l'essentiel du coût et des contraintes du contrôle sur les agriculteurs. Ces limites génèrent des critiques croissantes au sein du mouvement pour l'agriculture biologique, certains acteurs proposant de revenir aux formes participatives de contrôle non marchand forgées par les militants initiaux.

Mots-clés. RÉGIME DE STANDARDISATION TRIPARTITE – CERTIFICATION – ACCRÉDITATION – NORMES – MARCHÉS IMBRIQUÉS – AGRICULTURE BIOLOGIQUE – STANDARDS VOLONTAIRES

ABSTRACT

Behind the scenes of quality labels: Tripartite regulation and overlapping markets **From the Europeanization to the globalization of organic agriculture**

This article focuses on the modes of governing through the tripartite standards regime. This form of regulation combining voluntary standards, certification, and accreditation is increasingly used in many areas of economic activity. We draw upon the case of organic farming where accredited third-party certification has been imposed by the European Union since the 1990s. We show that this form of regulation is in fact facilitated by a layering of multiple markets, which have specific characteristics and effects. The market for organic products is closely intertwined with three markets for services (the markets for standards, certification, and accreditation), whose competitive dynamics explain the path toward Europeanization, and then globalization, taken by the sector. We point out the limitations of this mode of regulation, in which the regulated party pays the regulator, and in which the bulk of costs and the burden of regulation fall on farmers. These limitations have generated increasing criticism from within the organic agriculture movement, with some actors proposing a return to the non-market, participatory forms of regulation devised by its original activists.

Key words. TRIPARTITE STANDARDS REGIME – CERTIFICATION – ACCREDITATION – STANDARDS – Layered MARKETS – ORGANIC – VOLUNTARY STANDARDS

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Introduction

Across sectors ranging from banking and finance, to industry, management, nanotechnology, and food security there is an increasingly widespread use of “voluntary standards” (or “voluntary norms”) (Brunsson and Jacobsson 2000; Cashore, Auld, and Newsom 2004; Thévonot 2009; Timmermans and Epstein 2010; Büthe and Mattli 2011; Busch 2011; Ponte, Gibbon, and Vestergaard 2011), and their associated labels. These standards are frequently aimed at promoting environmental and social sustainability, healthy practices, or human rights. Many studies have approached these instruments as forms of ‘governing at a distance’, that is, as tools for ‘the conduct of conduct’ (Ponte, Gibbon, and Vestergaard 2011; Djama, Fouilleux, and Vagneron 2011). But whether they view this governing at a distance in terms of norms and standards (Ponte, Gibbon, and Vestergaard 2011; Alphandéry et al. 2012) or in terms of quality labels (Bergeron, Castel, and Dubuisson-Quellier 2014; Béal, Epstein, and Pinson 2015), very few studies look closely at the concrete ways in which they work. Put differently, at the sociotechnical infrastructure (Star and Ruhleder 2010) that gives these instruments their power to govern at a distance. The ability of a voluntary standard to “govern” (or to regulate) involves two associated regulatory activities: certification and accreditation. In other words, the establishment of a specific, standards-based regulatory regime, which we explore in this article.

A voluntary standard is used to communicate information between consumers and producers about the intrinsic qualities, credence attributes, of products on the market (Ponte and Gibbon 2005; Daviron and Vagneron 2012). It is above all a list of criteria, that is, a list of specific practices (e.g., technical, social, or environmental) that are voluntarily carried out by the producer or manufacturer, and communicated to the final consumer through a quality label that is affixed to the product.¹ The credibility of this information exchange is based on a dual-level control. To obtain a quality label for their product, the producers and processors of the product must submit themselves to a process known as “third-party certification.” This means that an independent private operator (the “certifier”), in exchange for payment, visits the producer or processor to check whether their practices conform to the standard. The certifier then provides a compliance certificate that authorizes the use of the label on the final product. The certificate accompanies the product throughout the production and distribution chain, making it possible to ensure traceability in the system. In the event of non-compliance, the label is denied or rescinded. The certifier itself is regulated—again in exchange for payment—by an organization known as the

¹ These are termed “Business to Consumer” (B2C) standards, as opposed to “Business to Business” (B2B) standards, which do not have quality labels attached to them and are therefore invisible to the final consumers. The latter simply involve an exchange of certificates between operators within the relevant supply chain. However, this boundary is fluid, as B2B standards often develop into B2C standards.

“accreditation body,” which vouches that the certifier is capable of certifying compliance to the required standard.

This article seeks to contribute to the theoretical debate on governance by voluntary standards and quality labels, by demonstrating that the ability of these instruments to govern is built on a particular organizing structure that layers four distinct types of market: the market for certified products (with or without a quality label), the market for standards, the market for certification services, and the market for accreditation services. The market for certified products cannot function without the three others, and vice versa. We thus address these markets as an interconnected system, focusing on the actors that emerge within the markets, their interactions, the rules and infrastructures that control them, and the values that they hold. In general, economic sociology has tended to approach markets individually or (more rarely) comparatively, but it has not often addressed their interdependence. We shall analyze how voluntary standards constitute a form of political regulation through the overlapping of markets for products and services and with their effects. We will pay particular attention to the interactions between public and private actors and their power struggles in market construction.

Our empirical study focuses on organic agriculture, which offers several points of interest for the question of modes of governing. First, the experience that has been accumulated throughout the process of regulating the oldest form of sustainable agriculture offers a wealth of information that can inform the question of ecological transitions. Second, the public authorities chose to govern organic agriculture through—and, for many years, *exclusively* through—a voluntary standard. In other words, it is regulated separately and differently from conventional agriculture, which benefits from substantial budgetary support by means of redistributive public policies.² It therefore provides a unique case in which the layering of markets was established by a public authority, through European regulation. We are then faced with understanding the effects of this choice. The public intervention was initially intended to “segment” the market for farm products (Ansaloni and Fouilleux 2008), to discipline the market via standards, and to ensure that consumers were protected by guaranteeing that the products they bought were indeed products produced using organic practices. Instead, it led to the spread of several different market mechanisms, which have had a profound effect on the development of the sector, and on its globalization. In this article we shall show how the tripartite standards regime for European organic agriculture has created, from Brussels and under the control of the European Commission, globalized market relations. Relations through which certifiers and accrediting bodies use public legislation to impose and increase their market share, while participating in a process of redefining the original organic agriculture political project.

Our analysis is based on material gathered between 2011 and 2016 through around twenty semi-structured interviews with various actors at the international level,³ various participant observations of European and international meetings of professionals in organic agriculture⁴ and sustainability standards,⁵ and from subscribing to a number of specialist professional online discussion lists. It is also based on the analysis of

² Organic farming emerged in opposition to so-called “conventional” farming, which is based on industrial practices (monoculture and specialized livestock production) that are made possible by the use of chemical products (fertilizers, pesticides, and antibiotics), in other words, practices that are intensive in terms of capital input but not in terms of labor.

³ IOAS, ASI, IFOAM and member organizations, SAAS, ISEAL, FAO, UNCTAD, UNFSS, etc.

⁴ Most notably, the GOMA Project, SOAAN workshops, the BIOFACH international trade fair in Nuremberg in 2011, 2013, and 2014, the 2014 General Assembly of IFOAM, and the 2014 and 2016 General Assemblies of IFOAM-Europe.

⁵ Including various meetings and General Assemblies of ISEAL, the certification working group of ISEAL between 2011 and 2013, and Sustainability Days.

several organic agriculture, sustainability, audit, and verification standards,⁶ and the analysis of the websites of relevant organizations concerned with standards, certification, and accreditation.

After presenting our analytical framework, we shall describe each the four markets involved in regulating organic agriculture in turn. We then present the principal characteristics of the tripartite standard regime of governing via layered markets - which are the steering role of the European Union, the fluidity of roles and bureaucratization, and criticisms and forms of resistance - and the limitations of this form of governance.

Voluntary standards and the overlapping of markets

Governing through voluntary standards: a fragmented literature

The literature on voluntary standards has developed substantially over the last two decades. It primarily consists in analysis of the strategic use of voluntary standards by a large number of actors with varied interests. NGOs use them to pursue their own causes (Murray and Raynolds 2000; Djama, Fouilleux, and Vagneron 2011). Industrial actors use them to manage risks in their supply chains, to ensure that they are compliant with the needs of their distributors, to limit their transaction costs or competition between firms, or to gain competitive advantages (Ponte and Gibbon 2005; Busch 2007). Standards allow distributors to differentiate their products or to pass the cost of risk management further up the supply chain (Berdegue et al. 2005; Henson 2008). States turn to them when they have no other instruments or resources to carry out their policies, since they make it possible to pass the costs of execution onto private actors (Henson and Reardon 2005; Borraz 2004). The literature has also concentrated heavily on organizations and the activity of standardization (Brunsson, Rasch, and Seidl 2012), and on the conditions of their legitimacy (Tamm Hallström 2004; Glasbergen, Biermann, and Mol 2007; Bernstein 2011). Finally, an increasing number of studies address voluntary standards as emergent forms of transnational regulation (Bartley 2007; Bütthe and Mattli 2011; Loconto and Fouilleux 2014; Abbott, Lévi-Faur, and Snidal 2017) and emphasize the very unequal power relationships within this multi-stakeholder approach (Cheyns 2011; Fouilleux 2013).

Few authors, however, have taken an interest in the interactions between standards and the activities of certification and accreditation. The latter have mainly been addressed by the literature on audit and the practices of surveillance and verification that they entail (Power 1997; Campbell, Murcott, and MacKenzie 2011). They emphasize the proliferation of formal auditing organizations, with varying effects and characteristics depending on the countries or sectors involved (Power 2003). Most studies of audit in the domain of standards are actually concerned only with the certification activities, which are described as the means of verifying compliance with standards and therefore of building the trust that is the foundation of the system as a whole (Prakash and Gugerty 2010; Boiral and Gendron 2011; McDermott 2012; Hatanaka 2015). Few authors call into question the devices that produce the credibility and impartiality of certification, and therefore the very legitimacy of standards (Boiral 2012; Frankel and Galland 2017). However, certification involves multiple interpretations of the standards by auditors, which results in considerable variation in practices between certifiers, and can even lead to fraudulent acts (Mutersbaugh 2005; Maltetz and Tysiachniouk 2009; Galland 2017). There are even fewer studies focused on accreditation: the practice designed to bring certifying bodies into compliance with norms and confer legitimacy on them (Loconto and Busch 2010). This activity emerged at the end of the 1940s

⁶ Including European regulation, the IFOAM Basic Standard, USDA NOP, other national and regional organic standards, ISEAL standards, and ISO 17065 and 17011.

in Australia and New Zealand, spread widely, and is now organized internationally through the International Accreditation Forum (IAF).⁷

The tripartite standards regime and the overlapping of markets

The concept of a “tripartite standards regime” (TSR) allows us to approach the nexus of standardization, certification, and accreditation as the system of regulation that it is (Loconto and Busch 2010; Busch 2011; Loconto, Stone, and Busch 2012; Hatanaka, Konefal, and Constance 2012; Fouilleux and Loconto 2017). Rather than reducing the system of regulation by standards to simple interactions between “rule-makers”, “rule-takers” and intermediaries (Abbott, Lévi-Faur, and Snidal 2017), it reveals the play of interactions within this triptych. The TSR designates a form of techno-economic network (Callon 1991), a coordinated whole of heterogeneous actors that interact with varying degrees of success to develop, produce, distribute, and disseminate methods for managing products and services using standards (Loconto and Busch 2010). The associations, interdependencies, and irreversible relationships created by the combination of these activities are built on the specific actors involved and the interconnection of networks (Callon 1991; Rip 2010). The standardization, certification, and accreditation activities that constitute the TSR are themselves highly characterized by norms, specifically the norms established by the ISO’s technical committee for the evaluation of compliance: the Committee on Conformity Assessment (ISO/CASCO). This model of regulation pertains to all sectors of activity, involving both public and private actors:

TSRs differ from state-based modes of governance in that they are often a cobbled-together network of persons, organizations and things, rather than being constructed on a formal hierarchy of status relations. TSRs may be granted special status by nation-states, or they may be an entirely private form of governance, subject to state laws about contracts, fraud, and so forth, but not the subject of any special legislation. (Busch 2011, 221)

In the case of organic agriculture, public authorities—European ones in this case—occupy a central position (Winickoff and Klein 2011; Arcuri 2015).

Whether or not it involves public authorities, regulation by TSR contributes directly to the emergence of four layered markets, whose dynamics we shall describe empirically: the market in certified products, the market for standards, the market for certification, and the market for accreditation (Figure 1). The market for certified products (with or without a quality label) is the main market, and brings into play a multitude of actors connected to the material products that are exchanged (and connected to the certificates that are associated with them): producers, traders, different types of processors, wholesalers, retailers, etc.⁸ The market for certified products could not exist without the three markets in services that are associated with it, as these are responsible for building trust among market actors and the consumers who buy the products in question.

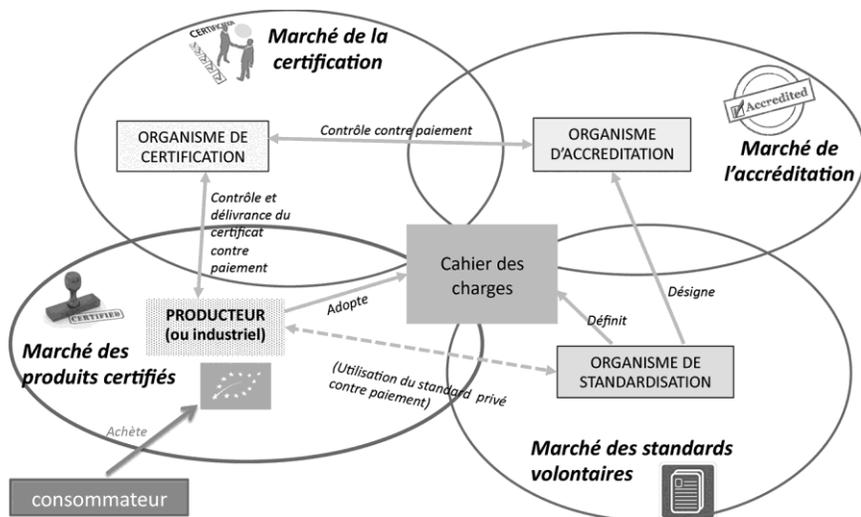
First, the market for standards brings different standards (both public and private) into competition, each vying to convince actors to adopt them (these actors include producers, processors, traders, and distributors). These actors can theoretically choose between several types of standards in order to differentiate their products (for example, fair trade, food safety, protected designation of origin, or organic agriculture). They can also choose between different standards of the same type: there are several standards for fair trade, food safety, and of course organic agriculture (Fouilleux 2010). Next, the markets for certification and accreditation consist of

⁷ The IAF comprises seventy-eight accrediting bodies, including public, semi-public, and private institutions, which accredit certifiers. They audit management systems, products, services, and personnel. To provide a final level of oversight to the accrediting bodies, the IAF manages a system of peer review, in which national accrediting bodies assess each other.

⁸ We should really speak here of markets (in the plural) in certified products, since there are as many markets as there are products, as the latter are connected to each other vertically, but for the sake of simplicity we shall use the singular term.

selling their regulatory services, to producers and processors (in the case of certifiers), and to certifiers (in the case of accrediting bodies). We shall return in subsequent sections to the specific way in which they work in the case of organic agriculture. Although the emergence of “standards markets” has already been analyzed (Reinecke, Manning, and Von Hagen 2012; Marx and Wouters 2014), the connections between the certification and accreditation markets for a given standard, a single type of standard, or between different types of standard, remain largely under-explored. Finally we note that there are a large number of other markets in specialist secondary services (marketing, institutional engineering, web design, organization and facilitation, networking, arbitration, etc.), which we shall not discuss here because they are not as central to the TSR’s ability to govern: in other words, they are interdependent, but do not *overlap* with the market for certified products.⁹

FIGURE 1. — The overlapping markets of the tripartite standards regime



French	English
Marché de la certification	Market for certification
Organisme de certification	Certifying body
Contrôle et délivrance du certificat contre paiement	Audit and certificate delivery for payment
Producteur (ou industriel)	Producer (or processor)
Marché des produits certifiés	Market for certified products
Achète	Buys
Consommateur	Consumer
Adopte	Adopts
Utilisation du standard privé contre	Use of a private standard in exchange

⁹ This is not the case for the market in laboratory testing, which is commissioned by certifiers in certain circumstances in order to guarantee the quality of organic products, and which we can therefore consider to be an overlapping market; nonetheless, the article will not discuss this market either, for lack of space.

paiement	for payment
Marché des standards volontaires	Market for voluntary standards
Organisme de standardisation	Standards body
Définit	Defines
Désigne	Designates
Organisme d'accréditation	Accreditation body
Marché de l'accréditation	Market for accreditation

One tenet in the literature on the effects of voluntary standards focuses on their ability to “re-embed” the market in society (Jaffee 2007; Higgins, Dibden, and Cocklin 2008). Instead, we consider markets as social activities in their own right, as sociotechnical arrangements (Le Velly and Dufeu 2016). We further the work of sociologists of markets who look at the institutional supports from which markets develop (rules, social and cultural networks, norms and values) (Aspers 2009; Fourcades 2011) but also the cognitive devices and processes that support market transactions (Cochoy 2008). Rules are especially important: they govern both what is exchanged and the way in which it is exchanged (Fligstein and Mara-Drita 1996). They can apply to public legislation, private contracts, civic norms, conventions, or any other type of market relationship (Cochoy 2012). Markets organize exchanges of values in specific contexts. They are collective devices that allow the creation of compromises, not only regarding the nature of goods to be produced and distributed, but also regarding the value that is attributed to them (Callon and Muniesa 2005). Furthermore, in order to give value to a product in a market, in other words to confer an economic value on it (in the form of a price), it is necessary to create shared measures for assessing products. These two “valuation” activities (assessment and conferring value) are concomitant in every situation of market exchange (Vatin 2013). Competition is another central element; for Patrik Aspers (2006, 247), it involves at least three actors: an actor on one side that has knowledge of at least two actors on the other side, which present their respective offers to be assessed in relation to each other.

Building on these studies, we approach a market as a device that organizes exchanges of goods and/or services between actors, governed by: 1) a set of rules providing a framework for the exchanges; 2) competition between actors (those offering and those receiving); and 3) mechanisms for the “valuation” of the goods and services being exchanged. From this starting point, we consider a market to be layered when the exchanges of products and services that take place within it depend unavoidably on products or services exchanged in the other market. More precisely, two markets are layered when the respective rules that govern them, their systems of competition, and their “valuation” mechanisms are interdependent. Multi-layered markets not only have institutions, infrastructure, and/or actors that are intertwined, interact, or even held in common, but are also necessary for each other’s existence. The accreditation market would not exist without the market for certification, which would also have no purpose outside the existence and functioning of the market for certified products, which, again, would not exist without the means to build trust among consumers and the various intermediaries (importers, processors, wholesalers, and retailers); that is, without the markets for certification and accreditation. Let us now consider how these different markets function, and the concrete ways in which they interact.

From the original project to four layered markets for organic

Organic agriculture began as an agronomic, social, and political alternative, and has developed gradually through the construction of four layered markets. This section briefly sets out the history, determining factors, and dynamics of this process.

The emergence of organic agriculture in Europe

The intellectual and practice roots of organic agriculture in Europe go back to the 1930s, in the United Kingdom, Switzerland, Germany, and Austria, at a time when scientists and thinkers were developing a series of specific agronomic techniques (methods of composting, crop rotation, conservation tillage, intercropping, biodynamic preparations, etc.). Fundamentally holistic in their techniques, their ideas were also philosophical, health-oriented, social, and political. They placed farmers and food production at the heart of society (Besson 2011). These various thinkers produced different currents and movements of organic agriculture, which subsequently spread. Although they shared a rejection of the dominant model for the modernization of agriculture based on the specialization of holdings, and an opposition to the intensive use of artificially produced chemical products and industrialization (Lockeretz 2007; Freyer and Bingen 2014), the organic agricultural movements had a range of different ideologies.

In France, up until the 1950s, the actors involved were mainly agrarian, reactionary, and close to the far right, just as they were in the United Kingdom (Reed 2001), but from the 1960s onward they belonged largely to the left and were anti-capitalist and anti-centrist (Leroux 2015). The creation of the organization “Nature et Progrès” (Nature and Progress) in 1964, which promoted a clearly defined technical approach, and rejected excessively commercial approaches (such as that of Lemaire and Boucher, which had been dominant in the earlier period) or those considered too esoteric (such as the concept of biodynamic farming connected to anthroposophy), gave a notable boost to these values (Leroux 2015). It contributed to the creation of various organizations that gradually structured the national landscape alongside traditional agricultural trade unions. Organic agriculture was also organized at the international level, with the creation of the International Federation of Organic Agriculture Movements (IFOAM) in Versailles in 1972. The founders were Nature et Progrès, the Soil Association in Britain, the Rodale Institute in North America, the Swedish Biodynamic Association, and a South African association. The original mission was to spread organic agriculture and its values throughout the world.

The gradual rise of the market for organic products

Organic agriculture initially developed around informal and local markets, based on the trust and close linkages established between producers and consumers, but has been transformed over the last three decades. Although it remains marginal in terms of agricultural production, and therefore also in terms of the agricultural area that it covers,¹⁰ consumer demand for organic products continues to grow (by 10% in France in 2015, for example).¹¹ Many states and international organizations have an interest in it, and the number of certified producers continues to increase throughout the world, supplying a global market for organic products that was worth 80 billion dollars in 2014 (Willer and Lernoud 2016).

¹⁰ 2.3 million agricultural workers in the world are involved in certified organic agriculture, covering an area of 43.7 million hectares (0.99% of the total surface area of agricultural land across the world; 0.8% in North America; 5.7% in the European Union in 2014) (Willer and Lernoud 2016).

¹¹ Agence Bio, “2015: Record d’acheteurs et de consommateurs de produits bio,” accessed June 4, 2019, http://www.agencebio.org/sites/default/files/upload/dp_agencebio_def.pdf.

Since 2000, data on the global market for organic agricultural products have been collected systematically, making it possible to track its development.¹² The first markets developed in the United States and northern Europe, which remain the countries with the highest consumption rates for organic products. Similarly, the first public legislation was developed by a few European countries in the 1980s (notably France and Austria), then by the European Union from 1991, before reaching the United States (1997), Canada (1998), and Japan (1999). This public legislation defined lists of specifications, quality labels, and methods of regulation, and gradually transformed the markets in organic products from mainly informal sites of exchange into highly formal sites of exchange. It introduced various operators that were private but followed the legislation set out by the public authorities, with consequences both within the countries concerned and outside them. As Table A1 shows (pp. 522–24 below), the countries that were first to develop a public standard are also the countries in which the consumer markets for organic products are the most developed and in which growth has been fastest (for example, the United States and France). The situation is different with regards to production: the countries with the largest growing areas have seen their domestic consumer markets increase, but their export markets have seen the greatest growth (for example, Australia, Ethiopia, Mexico, and New Zealand). The development of markets in the global North and consumer demand for tropical organic products has supported the rise in exports from Southern countries, where the number of certified producers has increased. This pattern is reflected in the development of new members of IFOAM: in ten years, the organization went from 93 members in 1993, of which 80% were from OECD countries, to 724 members in 2003, of which 41% were from OECD countries (Coleman and Reed 2017).¹³ In 2016, the federation had 787 members from 119 countries, of which 43% belonged to countries outside the OECD.¹⁴

The market for organic standards: between differentiation and harmonization

Initially, there was no standards providing a precise definition of organic agriculture, either in Europe (except for biodynamic agriculture, with its “Demeter” list of specifications from 1928), or elsewhere. Standards were finally established by the Soil Association in 1967 and Nature et Progrès in 1972, but more as broad principles to be interpreted rather than lists of strict criteria to be followed. Similarly, the first global standard for organic agriculture, launched by IFOAM in 1980, was not conceived as an instrument of regulation but rather as a shared definition to be spread throughout the world. For example, its seven principal objectives include: “working as much as possible within a closed, autonomous agronomic system, based on the use of local resources,” “maintaining the long-term fertility of the soil,” and “providing livestock with the living conditions appropriate to their physiological needs and the requirements of humane treatment” (Schmid 2007).

More formal lists of specifications started to proliferate, mainly private ones to begin with, supported—often at a regional level—by agricultural producers themselves, and then a number of countries developed public legislation. In France, the 1981 Agricultural Act recognized “a form of agriculture that does not use artificially produced chemical products,” which was designated as organic agriculture (“agriculture biologique”) in 1988 and protected by a quality label (conferred by the state) and a system of national certification (Piriou 2002). By the early 1990s, France had around ten standards managed by the state. The implementation of a public

¹² This task is undertaken by FIBL, a Swiss research body that specializes in organic agriculture.

¹³ IFOAM is an umbrella structure representing all actors in the organic sector as a whole (farmers, processors, certifiers, scientists, consultants, etc.). The only condition for being a member with voting rights in this organization is to carry out at least 50% of one’s activities in the organic sector (Geier 2007).

¹⁴ IFOAM, “Directory of Affiliates,” accessed June 4, 2019, <https://directory.ifoam.bio/>.

European standard from 1991 (for crops, and in 1999 for livestock) resulted in far-reaching changes to the landscape.

The European regulation replaced the pre-existing national standards. Countries where the market had historically been dominated by one or more private standards—such as Germany or the United Kingdom—had to integrate the legislation into their own standards. They did however seek to differentiate themselves by stressing that they maintained higher standards than those required by the public legislation in several respects (including in animal welfare, the types of fertilizer used, the connection to the soil, and food additives). All of which also had to be verified by the certifier in order to use their private quality label, already familiar to consumers, while continuing to be able to describe the product as “organic.” Whereas, in the case of private standards, the producer pays the costs of membership or a fee for the right to use the quality label,¹⁵ adoption of the European standard is obviously free as well as voluntary. However, the producer must have their practices certified by an accredited third-party certifier. If they are found to be non-compliant with the legislation, they are sanctioned and lose the right to use the quality label. Organizations that have chosen not to submit to certification by a third party no longer have the right to describe their products as being “organic,” and if they do so may be subject to criminal prosecution. This is the case for Nature et Progrès, for example, as they do not use third-party certification for their standard. Despite being a pioneer of organic agriculture in France and a major political actor in its development during the 1980s, Nature et Progrès remains a private brand and cannot use the term “organic” or “bio” (the term commonly used on organic consumer products in France) on the packaging of the products that it sells.

The promotion of European regulation was accompanied by increasingly formal procedures. First of all, unlike the broad principles or specific values of the earlier organic agriculture movement, the European list of specifications was written as a list of technical criteria, included in appendices, and set out in such a way as to be easily checked by the certifier.¹⁶ Next, legislation gradually became stricter with a view to harmonizing the various national situations in order to facilitate trade in organic products within the European market. While this had already been the aim in 1991, member states had had room for maneuver in their application of the legislation. This disappeared with the reform of 2007, which aimed to reduce differences between national interpretations of the legislation (Gibbon 2008), notably forbidding states from exceeding the European standard (i.e. being more “organic” than the minimum required by the legislation). This reform, which several organic agricultural producers saw as representing a loss of identity, had major consequences for the market for standards, giving a new lease on life to private standards. In France, several private standards appeared, such as Biocohérence and BioBreizh, with stricter limits on the permitted content of GMO traces, rejecting large-scale distribution, guaranteeing a better connection to the soil (the use of products from the farm to feed livestock), and respecting the principle of seasonality, etc. Following the German model, these private standards are certified in addition to the European regulation, and their specific quality label is applied to products in addition to the European label.

Globally, organic agricultural standards have proliferated over the last two decades. In 2015, 87 countries around the world had a public standard in place, and 18 were in the process of defining them (Willer and Lernoud 2016). In 2012, there were at least 121 private organic standards (Global Organic Market Access

¹⁵ For example, processors of Soil Association products (manufacturers of teabags, canned goods, etc.) must pay for the specific rights to attach the quality label to their packaging.

¹⁶ For example, the management of pests, or the maintenance of soil fertility, which organic agriculture had previously undertaken through a holistic approach based on natural ecological processes, were now reduced to a list of authorized or forbidden products, whose presence on the farm could be tested during a visit to the place of storage, or an audit.

(GOMA) 2012). Competition increased between the standards that claimed to represent organic agriculture (eight standards per country on average, according to the ITC—see Table 1). The increase in the number of standards is often presented as a “proliferation” that risks hindering trade and access to export markets for developing countries, which is used to justify a principle of harmonization. Although, in theory, this harmonization should take place via the Codex Alimentarius; in practice Codex does not play a real, practical role, since the main importing countries refer exclusively to their own import regulations.¹⁷ Instead, harmonization takes place through bilateral agreements signed by countries that have their own public standards. The European Union, for example, has signed equivalence agreements with Australia (1996), Argentina, Israel, and Switzerland (1997), New Zealand (2002), Costa Rica (2003), India (2006), Tunisia (2009), Japan (2010), Canada (2011), the United States (2012), South Korea (2015), and Chile (2016). Active promotion of regional standards, on the model of the European standard, can also be observed (Global Organic Market Access (GOMA) 2012). Both public authorities and IFOAM encourage these “regional harmonization projects,” which they regularly hail as great accomplishments, such as the creation of the East African regional standard in 2007 or that of the Pacific Community in 2008. Most of the time, however, these regional standards are ineffective, since they are neither enshrined in national legislation, nor familiar to producers or consumers, nor of use to exporters as they are not recognized by importers (Mapusa 2016). Indeed, the need of importers (mainly in North America, the European Union, and Japan) for products certified according to their own regulations has effects that go far beyond the markets for certified products and standards; they also directly influence the construction and functioning of the certification and accreditation markets in the exporting countries (Martinez and Bañados 2004).

Professionalization and globalization of the market for certification

The Europeanization of regulation has not only changed the nature of the standards that are used. It has also profoundly changed the way in which regulation is carried out, or in other words, the processes by which trust is built between producers and consumers of organic products.

Historically, the practices of organic agricultural producers were usually regulated without a strictly formal process. It was conducted by groups of producers, based on a system of self-regulation and peer assessment, with a focus on sharing knowledge and techniques (Freyer and Bingen 2014). In France, the first regulatory processes were introduced by Nature et Progrès in 1978, through the Association des conseillers indépendants de l’agriculture biologique (ACAB) (Association of Independent Organic Agriculture Advisors), replaced in 1988/1989 by the Commissions mixtes d’agrément et de contrôle (COMAC) (Joint Committees for Authorization and Audit). These committees, made up of producers, technical advisors, and consumers, were responsible for managing various French standards, taking a collective and participatory approach (Garcia-Parpet 2012). Audits became a legal requirement in 1988 with the creation by the state of a national approval committee, in conjunction with the EU’s “New Approach to Technical Harmonization and Standards,” which passed into law in 1985 with a view to constructing the European single market, but not yet, at that stage, imposing specific processes (Frankel and Galland 2017). In 1991, European organic agriculture legislation formally imposed the need for certification, which called for standardized processes, based on checking written documents (accounts, bills, etc.), along with a visit to the producer’s main office, and sometimes a visit to the fields themselves. Unlike earlier practices, the audit now took precedent over any other interaction between

¹⁷ The Codex Alimentarius is a joint FAO/WHO program, to which the WTO has delegated the responsibility of defining food standards that could serve as a reference for international trade. It provided directives for the production, processing, labeling, and marketing of food products produced by organic farming in 1999 (for arable products) and 2001 (for animal products).

inspector and agricultural producer. For example, providing advice or improving organic practices was no longer considered to be the role of the inspector.

This regulation had several effects. First, the market for organic certification became heavily professionalized. The former informal groups and associations for collective and participatory certification either disappeared or turned themselves into businesses offering third-party certification services.¹⁸ Second, the increase in activity made organic agriculture attractive to various certifying bodies that had no previous experience in the field but were established in other sectors. As they benefited from economies of scale, they were taking only a small risk by investing in this new, potentially lucrative activity. This was the case for multinationals such as SGS and Bureau Veritas, which entered the certification market and thereby strongly increased the competition for the preexisting certifying bodies (Garcia-Parpet 2012). Finally, the organic certifying bodies became strongly internationalized. This was the case with Ecocert, for example, a body that was created in 1991 by the ACAB as a campaigning organization involved in the French organic movement. It obtained its first authorization from the state as an organic agriculture inspection body in 1992, then its first accreditation in 1996. Initially launched as a small, activist certifier, involved only in organic certification, within twenty years Ecocert had become a multinational certifying company. With 24 offices and subsidiaries, it operates and offers its services in 120 countries.¹⁹ Others have followed suit: for example, the Institute for Marketecology (IMO), a Swiss certifier that emerged from the organic movement, took a similar path before being bought by Ecocert in 2013.²⁰ In total, the International Trade Centre currently lists 391 certifiers of organic agriculture in its database, of which 147 are European, 75 Japanese, 28 Chinese, and 44 North American.²¹

Besides the internationalization of their activities, certifiers diversified outside the sector of organic agriculture. Since the mid-2000s, Ecocert has been accredited as a certifier for several other standards, such as organic and sustainable textiles, but also IFS Food and GLOBALG.A.P. (food safety), ISO 14001, ISO 9001, and ISO 26000 (environmental management, quality, and social responsibility), PEFC (sustainable forestry), and VCS (Verified Carbon Standard). This is a common theme among all the certifying bodies operating in international markets, since it allows them to offer a “one-stop shop for certification,” presented as a means of reducing costs for agricultural producers confronted with the growing need to have multiple certifications in order to be able to export their products (Djama, Fouilleux, and Vagneron 2011).

Finally, certifiers began to offer their own standards, first of all for organic agriculture. Out of the 549 organic certifiers listed in 2012,²² 121 said that they offered their own organic standard (Global Organic Market Access (GOMA) 2012); as we shall explain, this point is partly connected to the particularities of the accreditation market. But certifiers also began to develop standards beyond organic agriculture. For example, in 2002 Ecocert launched a range of “sustainable” standards for gardens, restaurants, spas, and cleaning products. In 2005 it launched its subsidiary Ecopass, specializing in management systems and social responsibility (which became Ecocert Environment in 2011), then the subsidiary Ecocert Greenlife in 2008, specializing in inspection and certification for environmentally-friendly products (such as cosmetics, textiles, detergents, and deodorants).

¹⁸ Some certifiers set up as community organizations still operate, occupying a small part of the market (Garcia-Papet 2012).

¹⁹ ECOCERT, “Nos implantations dans le monde,” accessed June 4, 2019, <http://www.ecocert.com/nos-implantations>.

²⁰ Ecocert IMOSwiss AG, “History,” accessed June 4, 2019,

http://www.imo.ch/logicio/pmws/indexDOM.php?client_id=imo&page_id=about&lang_iso639=en; and personal communication with representatives of IFOAM, January 19, 2016.

²¹ International Trade Centre, “Certification bodies,” accessed June 4, 2019, <http://www.intracen.org/itc/sectors/organic-products/certification-bodies/>.

²² The statistics vary according to the source (see above, source: ITC).

Similarly, before being bought out, the Swiss certifier IMO offered certification and inspection services for more than seventy different standards, including several that were exclusive to them. In this way certifiers have gradually transformed themselves into organizations for standardization and brand management.

The diversification of the activity of certifiers has led to tensions in the organic movement, centered on an opposition between values and profit. In May 2014, on the grounds that such diversification “jeopardize[d] the impartiality and objectivity of organic certification,” a motion was put forward for electronic voting outside the General Assembly of IFOAM. It proposed that only those certifiers that devoted more than 50% of their activities to organic agriculture should be accredited by IFOAM-IOAS. However, the IFOAM’s World Board (equivalent to an executive board) opposed the motion, echoing the arguments of the certifiers: “Certifying bodies should be free to engage in the various certification schemes required to sustain their business. Nowadays, organic operators often need multiple certifications (e.g. organic + Global Gap + Rainforest Alliance + Fair Trade) and it is only rational that they can access all those from one single certification body.”²³ This subject continues to produce tensions, to the point of calling into question the identity of the movement as a whole, as seen in the proposal in June 2016 for an electronic vote on a motion to abolish the need to devote more than 50% of one’s activities on organic agriculture to be a voting member of IFOAM. This vote was ultimately deferred to the movement’s next General Assembly, in November 2017 in **New Delhi**.

From state monopoly to a global market for organic accreditation

The activity of accreditation consists of ensuring the ability of certifiers to certify standards. Two systems coexist for organic agriculture: at the European level, accreditation is enshrined in national law, whereas in many other countries around the world it is strictly private.

The European approach to standardization established in 1985 was reviewed in 1993, then in 2008. The revision required, first, that the certifier be regulated and accredited by an organization specifically designated by the state for certification in general (in compliance with ISO 17065/NE 45011) and, second, that the certifier be specifically authorized to certify the European standard for organic agriculture.²⁴ These two processes are delegated to member states, which may in turn delegate them to private actors. In France, the Comité français d’accréditation (COFRAC) (French Accreditation Committee) accredits certifiers, and the Institut national des appellations d’origine (INAO) (National Institute for Designations of Origin) accredits them for the European organic regulation. European regulation defines accreditation as a non-profit activity, conducted by either public or private actors, which nonetheless provides a paid service. It stipulates that there should be a national monopoly in each member state, on the grounds that the existence of competition between accrediting bodies would lead them away from their principal mission: to embody the authority of the state, as the ultimate guarantor of compliance, and therefore also of the credibility of the system.²⁵ The European Union therefore rejects, on paper, the idea of a market for accreditation. Things are quite different on the ground, where European accrediting bodies can be seen to be in competition in several countries outside of the European Union.

In third countries benefiting from an equivalence agreement with the European Union (see above), products certified by certifiers accredited according to the procedures of that country can be exported to the European

²³ IFOAM, 2014, “Membership Vote on Motions to the IFOAM Norms,” accessed June 4, 2019, http://www.ifoam.org/sites/default/files/ifoam_norms_motions_membership_vote_2014.pdf.

²⁴ For a history of European regulation on standards and certification, and an analysis of its technopolitical implications, see Frankel and Galland (2017).

²⁵ Regulation (EC) No. 765/2008, paragraphs 14 and 19.

market without the need for the certifiers to have an additional accreditation. In countries without an equivalence agreement, things are more complicated. In order to have the products that they certify accepted on the European market, the certifiers must produce specific standards that are directly informed by the European regulation (“checklists,” in European terminology), and submit these standards to the European Commission (EC) for approval. The list of certifiers that are approved to do this is regularly updated by the EC. For example, the list of forty-eight organizations recognized in May 2014 included seven American, five Italian, three Argentine, three German, and three Indian firms. This checklist system has broad implications. First, it turns certifiers approved at the European level into EU-sanctioned standard-setters who adapt public standards for private market around the world, which has the effect of artificially increasing the number of private organic standards, as we noted above. Although it is not presented as such, it amounts to a system of ‘shadow accreditation’ regulated by the EC, which directly supervises certification activities in third countries. In 2014, the Turkish certifier ETKO presented its EC approval on its website as an “accreditation from the European Union,” which clearly demonstrates the potential confusion. Next, national accrediting bodies draw on the public authority that they possess at the European level to become “accreditors for the world” and thus increase their markets in the global South. For example, the German accrediting body (DAkKS) accredits Biolatina (Peru), COAE and ECOA (Egypt), CertiMex (Mexico), Argencert (Argentina), and Indocert (India). Finally, the accredited multinational certifying bodies, which do not have offices in all countries, tend to entrust subcontracting of inspection services to local, non-accredited organizations, which leads to and promotes a parallel local market for auditing services.²⁶

The other major organic accreditation system is organized around a private transnational accrediting body, the International Organic Accreditation Service (IOAS). Issuing directly from IFOAM, IOAS was created in 1997—as a non-profit organization based in the United States. The separation of the standard-setting and accrediting functions of IFOAM was mandated by ISEAL, the organization that brings together the main private standards and accrediting bodies in the environmental and social fields throughout the world. As part of its efforts to gain public recognition and international legitimacy, ISEAL had explicitly asked its members, which included IFOAM at the time, to conform to ISO 17065, which specifies that accrediting bodies must be independent of the body that produces standards (Loconto and Fouilleux 2014). The creation of IOAS was thus conceived by IFOAM as a means of defending the rights and the role of the private sector, a foundational element of its identity, in the face of a proliferation of government regulation. At the same time, it enabled a standardized offer of accreditation for the global organic agriculture sector, and “a mechanism for building trust amongst the various certification bodies” (Katto-Andrighetto 2012, 18).

IOAS provides accreditation in compliance with ISO 17065 to certifying bodies for the so-called “auditable” standard of IFOAM, and therefore is part of the “IFOAM Organic Guarantee System,” which is designed to legitimize private standards by establishing their equivalence with public standards. IOAS also works directly for public authorities. Canada delegates to IOAS the task of accrediting its public standard for organic agriculture, and on behalf of the European Union it conducts assessments of organic certifiers in third countries that wish to be able to certify to the European standard (the final decision regarding authorization remains with the EC).²⁷

²⁶ The revision of European organic agriculture regulation that is currently being negotiated proposes the complete elimination of equivalence agreements, which would lead to an even greater increase in these three phenomena.

²⁷ IOAS is thus active in the European accreditation of certifiers in New Zealand, India, Turkey, Brazil, the United States, and Canada.

Finally, as is the case for certifiers, there is a trend toward diversification. IOAS was initially rooted in the organic movement, but now seeks to extend its markets far beyond organic agriculture, providing accreditation for a growing number of sustainability standards such as Rainforest Alliance, organic textiles (Textile Exchange, Global Organic Textile Standard), and organic cosmetics (NATRUE, COSMOS Organic). IOAS has an agreement with the American National Standards Institute to conduct accreditation audits for certifiers of the GLOBALG.A.P. private food safety standards and the British Retail Consortium global standards. IOAS is also diversifying into training, even offering courses aimed specifically at public actors.²⁸

Conditions and limitations of regulation through the tripartite standards regime

Based on the analysis of the conditions of the four layered markets for organic agriculture, we now return to the way in which the TSR governs, and its limitations.

A proliferation of markets led by the European Union

Although organic agriculture was initially supported by social movements centered around an alternative political project, organic agriculture was gradually regulated by European public authorities from the 1990s onwards. As we have described, these regulations first defined the content of the standard through specific restrictions on organic agriculture, then through regulation aimed at technical standardization they made it necessary to obtain third-party certification, then for certifiers to obtain accreditation in compliance with the ISO standards, which ultimately structured the four layered markets.

Regulated by the rules that make up the standards, the product market introduces competition between producers, between processors, and between distributors. The value of the products that are exchanged is defined in relation to the willingness of consumers to pay more for them than for conventional products, because of their intrinsic ‘organic’ quality. As we have shown, the product market’s development at the global level is inseparable from the market for standards. This latter is characterized by a multiplicity of standards, both public and private, in which public standards carry particular weight. We see this at the European level where it is the minimum basis for private standards; and in the rest of the world, where it is simultaneously the reference standard for importing (like that of the United States, the other major global importer of organic products) and a reference for other public standards (including in the United States). In the market for standards, there is competition between standardization bodies to increase their numbers of clients (producers and processors). The value of standards is determined by various elements, such as the reputation of the standard and its stringency (how closely it follows the original values of the organic movement), how practical it is to execute, and the costs involved in membership (for private standards). Although public standards are free to use, they are associated with certain values—such as market access or public legitimacy, for example—and have a direct influence on the competition between private standards in the European market, but also in the rest of the world.

As for the market for certification, it reflects a transformation in the practice of auditing, from a mechanism of informal regulation adopted on a voluntary basis by actors belonging to community organizations, to an obligatory paid service provided by commercial operators active in globalized markets. Value is determined in this market by the certifiers, who price their services according to the size of the agricultural businesses that

²⁸ IOAS, “Training,” accessed June 4, 2019, <http://www.ioas.org/services>.

they visit, the number of products that are certified, the time required for the audit, and client loyalty.²⁹ Competition is based on the certifiers' ability to adjust the prices of their services to match the clients that they wish to attract. By requiring the public standard to be certified by a third party that is accredited according to ISO standards, the European public authorities played a crucial role in the development of the market for certification, which is characterized by a high degree of professionalization, growing concentration, global expansion, and a tendency toward diversification of activities. The market for accreditation is theoretically limited by public legislation to a monopoly within each European country, but the expansion of the European public standard's area of influence around the world has contributed to the emergence of a global market for accreditation. The formal rules of the ISO and IAF—which exercise a type of regulation that is far removed from activities on the ground—define the boundaries of the market, and fees are defined competitively within the market by accrediting bodies that sell their services to certifiers. Competition takes place at two levels in this market: first, there is competition to obtain contracts with the standards bodies (public and private) that designate the accrediting bodies for their standards; and second, there is competition to have as many certifier clients as possible. Specific tensions exist between public and private actors around accreditation. As such, the repeated requests by the IOAS to be integrated into the IAF have been systematically rejected because of the European Union's categorical refusal to allow admission to accrediting bodies that are not direct representatives of a state. Several accrediting bodies have even threatened transnational accrediting bodies with prosecution.³⁰ These include DAkkS, the German accrediting body, which might be suspected of seeking to reduce competition in the third countries where it aims to extend its own market share.

We can therefore observe the emergence of a system of multi-layered markets through a nesting of rules, actors, competitive dynamics, and the mechanisms of valuation that are specific to these four markets. We note that European public authorities play a central steering role. Not only have they created the central standard and imposed the system of ISO accredited third-party certification; but, through a complex system of procedures aiming to ensure that imported products are regulated in a similar manner to the rules applying to the European market, they have also exported the TSR to the rest of the world. They have thus simultaneously created specific markets for European accrediting bodies and certifiers, which extend and diversify their activities outside the EU.

Between a fluidity of roles and bureaucratization: the limits of the tripartite standards regime

Although it enabled the growth of markets in products derived from organic agriculture and the expansion of markets in associated services, the layering of markets has also had paradoxical effects through the multiple competitive dynamics that it has created. Whereas the principle of the TSR in the ISO and European Union standards prescribes a clear separation between the activities of standards-setting, certification, and accreditation, which is supposed to ensure the integrity of the actors involved in regulation, there is empirical evidence of a growing confusion between the three poles of the TSR. Competition leads actors at the three poles to extend and combine their activities. Certifiers have thus entered the market for standards, which, despite being less profitable than the market in certification, provides them with a certain level of power. This power is realized through the ability to define some of the rules of the game of the layered markets, including the market for certification where they conduct their main business, and the possibility of entering new markets. By becoming producers of standards they also gain a central role in defining what should be governed (organic

²⁹ This was a point of discussion at meetings of ISEAL's Assurance Code Technical Committee, between 2011 and 2013.

³⁰ Interview with IOAS and Accreditation Services International (ASI), Bonn, Germany, June 30, 2012, and London, United Kingdom, June 12, 2013.

agriculture or sustainable golf courses? See Loconto and Fouilleux 2014) and the associated values. Similarly, the European accrediting bodies—which officially exercise a public mandate—have begun to position themselves in competition with private certifiers in the markets for accreditation outside Europe. More generally, the growing confusion of roles between the three poles of the TSR is likely to result in an increased risk of conflicts of interest, which are already inherent to a system in which the regulated parties directly pay their regulators for the auditing service that they provide.

Another important characteristic of governing through the TSR, which also constitutes another of its limitations, lies in the phenomenon of bureaucratization that it produces (Raynolds 2004; Hibou 2015). Bureaucracy is indeed inherent to the procedures of certification and accreditation (Mutersbaugh et al. 2005), which predominantly consist in the accumulation and control of documents—accounts, bills, crop rotation plans, results from laboratory tests, etc.—and the completion of forms. Besides the fact that it places a substantial daily burden on producers, who have to collect, file, and preserve these documents, it also involves significant financial costs. These costs are a direct consequence of the layering of the markets for products with the markets for standards, certification and accreditation. They are directly supported by producers through the payment for certification—the price set by the certifiers automatically includes their share of the cost of accreditation—and ultimately by consumers, through the higher prices that they pay for food products certified as organic. The costs are even higher for producers that are required to conform to several standards at the same time in order to be able to sell their products. Organic producers that wish to export fresh produce to the European market, for example, must also comply with the private GLOBALG.A.P. food safety standard, which is legally voluntary but practically obligatory, since it is required by all European supermarkets. This has led IFOAM to try to find forms of interoperability with GLOBALG.A.P. (Fouilleux and Loconto 2017).

In the same way, contemporary debates about sustainable development, climate change, and energy transitions, raise a thorny problem for the organic movement. In its “Sustainable Organic Agriculture Action Network” project (2011–13), IFOAM listed certain issues (such as gender and equality, property rights, greenhouse gas emissions, investment, and responsibility) that could be used to enlarge the organic standards (which are currently organized principally around the exclusion of synthetic inputs from farming practices) to the idea of sustainable development in the broader sense.³¹ This work has placed the initial values of the organic movement back at the heart of internal debate in IFOAM, and opened up future possibilities for representing the movement under the banner of “Organics 3.0.” But it has also run up against the limitations of the process, as several of the actors involved—especially producers—have emphasized. Any increase in the number of criteria included in the standards would likely discourage a large number of farmers and lead them to abandon the process of certification. Since the price of certification is largely proportional to the time devoted to the audit, any extension of the standard inevitably involves an increase in the costs of certification for producers and an increase in practical constraints (e.g., more elements requiring evidence, more documents to collect, to file, etc.). Beyond the simplification of issues that is inherent in the creation of standards (Cheyns 2011; Djama, Fouilleux, and Vagneron 2011; Fouilleux and Loconto 2017), the capacity for regulation through the TSR is therefore limited by the burden of bureaucracy on which it is built. While ensuring the credibility of the system, this bureaucracy generates direct and indirect costs that limit its ability to address complex political issues.

³¹ IFOAM, *Best Practice Guideline for Agriculture and Value Chains*, public version 1.0 – November 2013, accessed June 4, 2019, https://www.ifoam.bio/sites/default/files/best_practice_guideline_v1.0.pdf.

Criticisms and forms of resistance to governance by the overlapping markets

These limitations, as well as the resulting professionalization of certifiers and the loss of its original activist dimension, have fueled significant criticisms within the organic movement. Increasingly bitter disputes have developed within IFOAM. An employee of IFOAM declared at the last world congress: “We sold our soul to the devil long ago with certification. [. . .] We had to buy into this system, the ISO system, as a way of legitimization [. . .] but there are too many conflicts of interest.”³² One of the members of the World Board argued: “We must get out of the trap of certification. We have put all our energy in certification those last years and now it is chaos.”³³

These criticisms have gradually made themselves heard since “participatory guarantee systems” (PGSs) were put on the agenda in 2004. This form of certification existed before third-party certification but is now practiced only to a limited extent in Europe, for example, by Nature et Progrès in France. It is based on peer assessment, sharing experiences, and the participation of external actors (technicians and consumers), rather than on a purely financial exchange, in which individual farmers face the inspector alone. IFOAM became an advocate of this approach in 2009, presenting PGS as an alternative practice to third-party certification, which can be too costly for small producers and is ill-suited to local conditions in many countries, particularly developing countries (Bouagnimbeck 2014). Since 2015, IFOAM has recognized PGS as a legitimate form of certifying compliance and sets itself up as a kind of accreditation body for them by verifying (free of charge) that the systems corresponds to its own vision.³⁴ In 2016, 123 PGSs were in operation across 72 countries around the world, and 110 were in the process of being created.³⁵

PGSs are recognized by the state in Bolivia, Brazil, Chile, and India, and therefore contribute to the growth in organic markets in developing countries for local consumption (Loconto, Poisot, and Santacoloma 2016). The international organizations involved (for example FAO and FIDA) now present them as useful approaches for bringing about better agricultural practices in these countries, since they are adapted to the realities of small producers and local markets. In India, their emergence has been accompanied by a 50 percent reduction in the amount of land approved by third-party certification and a growth in the domestic market by 91.6% (see Table 1).³⁶ However, the main importers of organic products—led by the European Union and the United States—do not recognize PGS, which explains their virtual absence from the European debate and the limited involvement of IFOAM-Europe in these issues. As a proportion of products sold, the use of this alternative to the TSR therefore remains extremely marginal, even though it is being increasingly used outside the European Union.

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In response to reflections on the effectiveness of markets to support political causes (Cochoy 2008) and on standards as forms of oppression and subjugation (Thévenot 2009) or vectors for reducing the horizons of what can be discussed in the field that they institutionalize (Loconto and Fouilleux 2014; Fouilleux and Loconto 2017), we have analyzed here the layering of the markets on which they depend, and the way in which public and private actors are constantly tangled within them. Much more than simple rules, voluntary standards are instruments of power. But in order to understand the extent of and basis for these power relations, it is not

³² Istanbul, Organic World Congress, October 13, 2015, public speech.

³³ Nuremberg, BIOFACH Fair, February 14, 2014, public speech.

³⁴ As of the end of 2016, nine PGSs were recognized by IFOAM through this parallel system of accreditation. See IFOAM, “IFOAM PGS Recognition,” accessed June 4, 2019, <http://www.ifoam.bio/en/ifoam-pgs-recognition>.

³⁵ IFOAM, “PGS Statistics Map,” accessed June 4, 2019, <http://www.ifoam.bio/en/pgs-map>.

³⁶ 21,240 producers, covering an area of 9,442 hectares, are certified by PGSs in India.

sufficient to view them merely as a system of governance by standards, or by labels. In order to grasp the conditions of governance that are at work, we need to venture behind the scenes of these labels and make an effort to open up the black boxes of certification and accreditation that are associated with them. This is what we have done in this article, by using the concept of the TSR and analyzing the multi-layered structure of the markets that constitute it.

Beyond the specific case of organic agriculture, in which public authorities define the content of the voluntary standard, this article sheds light on the particularities of governance through the TSR in general. The rules of which are defined in the same way by the European Union (rules relating to harmonization and technical standardization), or by the ISO at the international level, and can be applied to any sector. These particularities relate to the conventions of neoliberal globalization. The TSR is therefore based on establishing an entire chain of governance operated by actors that are theoretically independent from each other. It aims to build trust both between the different commercial operators and their increasingly long and complex supply chains and with the final consumer. This chain is entirely based on financial transactions, with responsibility for oversight entrusted in the final instance to the state, which, through its monopoly on accreditation, is supposed to guarantee the credibility of the system as a whole. As we have shown, these theoretical principles underpinning the TSR have not prevented the emergence of a global market in accreditation. Instead, it has increasingly blurred the roles of standards-setters, certifiers and accreditors. This is both a result of the conditions of the market in which they operate as well as the conflicts of interest that are already inherent in a system of governance in which regulation is paid for by the regulated party. While it is not clear that the TSR keeps its promises about building trust, our case study has, however, shown it to be effective in creating and expanding markets. This is thus in line with the avowed objective of the European “new approach” to standardization in the 1980s, in anticipation of a large European market playing a role in globalization. These new markets have gone far beyond European borders, as the globalization of markets for products is inseparable from the globalization of the markets for standards, certification, and accreditation. The result is a form of second-order governance of the global market by the European authorities.

Finally, these processes pose questions about the values associated with them. The original political project of organic agriculture, which aimed to liberate agronomy and farmers from industrialization, has actually been rejected in part by the dissemination of these multiple commercial mechanisms and their accompanying bureaucracy. While this bureaucracy is both the means and entire *raison d'être* of the certifiers and accreditors, its burden falls mainly on producers, and its costs are partially passed on to consumers. This gulf between the values of the organic movement and the effects of its regime of governance has led to the (re-)emergence of alternative forms of certification, which are once again supported by activists on the ground, as a resurgent form of criticism. Locally rooted and based on a different notion of trust, they aim to disentangle the markets for products and standards from the markets for certification and accreditation. They eliminate the latter from their model in order to return producers and consumers to the center of the organic movement and to support the development of social relations that are not limited to financial transactions. The prospects for widespread success of these alternatives, however, seem limited. This is largely owed to the considerable stability that the TSR enjoys through its institutionalization at the European and international level. Rather than reifying markets or, conversely, separating them, the specific logic of governance inherent in the TSR creates new arrangements whose only function is to govern other markets in the name of the state but outside its control. This logic has every chance of prospering and continuing to frame globalized market creation and expansion, all the while ignoring local markets and the people who buy and sell in them.

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Reference list

- ABBOTT, K. W., D. LEVI-FAUR, and D. SNIDAL. 2017. "Theorizing Regulatory Intermediaries: The RIT Model." *The Annals of the American Academy of Political and Social Science*, no. 670: 14–35.
- ALPHANDERY P., M. DJAMA, A. FORTIER, and E. FOUILLEUX. 2012. *Normaliser au nom du développement durable*. Versailles: Quæ.
- ANSALONI, M., and E. FOUILLEUX. 2008. "Terroir et protection de l'environnement: un mariage indésirable? À propos d'intégration de critères transversaux dans les politiques sectorielles." *Politiques et management public* 4, no. 26: 3–24.
- ARCURI, A. 2015. "The Transformation of Organic Regulation: The Ambiguous Effects of Publicization." *Regulation & Governance* 2, no. 9: 144–159.
- ASPERS, P. 2006. "Sociology of Markets." In *International Encyclopedia of Economic Sociology*, edited by J. BECKERT and M. ZAFIROVSKI, 427–432. London: Routledge.

- ASPERS, P. 2009. "Knowledge and Valuation in Markets." *Theory and Society* 2, no. 38: 111–131.
- BARTLEY, T. 2007. "Institutional Emergence in an Era of Globalization: The Rise of Transnational Private Regulation of Labor and Environmental Conditions." *American Journal of Sociology* 113, no. 2: 297–351.
- BEAL, V., R. EPSTEIN, and G. PINSON. 2015. "La circulation croisée." *Gouvernement et action publique* 3, no. 3: 103–127.
- BERDEGUE, J. A., F. BALSEVICH, L. FLORES, and T. REARDON. 2005. "Central American Supermarkets' Private Standards of Quality and Safety in Procurement of Fresh Fruits and Vegetables." *Food Policy* 3, no. 30: 254–269.
- BERGERON, H., P. CASTEL, and S. DUBUISSON-QUELLIER. 2014. "Gouverner par les labels." *Gouvernement et action publique* 3, no. 3: 7–31.
- BERNSTEIN, S. 2011. "Legitimacy in Intergovernmental and Non-State Global Governance." *Review of International Political Economy*, no. 18: 17–51.
- BESSON, Y. 2011. *Les fondateurs de l'agriculture biologique. Albert Howard, Rudolf Steiner, Maria & Hans Müller, Hans Peter Rush, Masanobu Fukuoka*. Paris: Sang de la Terre.
- BOIRAL, O. 2012. "ISO Certificates as Organizational Degrees? Beyond the Rational Myths of the Certification Process." *Organization Studies* 33, no. 5-6: 633–654.
- BOIRAL, O., and Y. GENDRON. 2011. "Sustainable Development and Certification Practices: Lessons Learned and Prospects." *Business Strategy and the Environment* 20, no. 5: 331–348.
- BORRAZ, O. 2004. "Les normes: instruments dépolitisés de l'action publique." In *Gouverner par les instruments*, edited by P. LASCOUMES and P. LE GALÈS, 11–44. Paris: Presses de Sciences Po.
- BOUAGNIMBECK, H. 2014. "Global Comparative Study on Interactions Between Social Processes and Participatory Guarantee Systems: A Best Practice Study for Learning and Development with Case Studies from Africa, Asia, Europe and Latin America." *AGROECO*. Bonn: IFOAM Organics International.
- BRUNSSON, N., and B. JACOBSSON. 2000. *A World of Standards*. Oxford: Oxford University Press.
- BRUNSSON, N., A. RASCHE, and D. SEIDL. 2012. "The Dynamics of Standardization: Three Perspectives on Standards in Organization Studies." *Organization Studies* 33, no. 5-6: 613–632.
- BUSCH, L. 2007. "Performing the Economy, Performing Science: From Neoclassical to Supply Chain Models in the Agrifood Sector." *Economy and Society* 36, no. 3: 437–466.
- BUSCH, L. 2011. *Standards: Recipes for Reality*. Cambridge (MA): MIT Press.
- BÜTHE T., and W. MATTLI. 2011. *The New Global Rulers: The Privatization of Regulation in the World Economy*. Princeton (NJ): Princeton University Press.
- CALLON, M. 1991. "Techno-Economic Networks and Irreversibility." In *A Sociology of Monsters: Essays on Power, Technology and Domination*, edited by J. LAW, 132–163. London: Routledge.

- CALLON, M., and F. MUNIESA. 2005. "Peripheral Vision: Economic Markets as Calculative Collective Devices." *Organization Studies* 26, no. 8: 1229–1250.
- CAMPBELL, H., A. MURCOTT, and A. MACKENZIE. 2011. "'Kosher' in New York City, 'Halal' in Aquitaine: Challenging the Relationship Between Neoliberalism and Food Auditing." *Agriculture and Human Values* 28, no. 1: 67–79.
- CASHORE, B. W., G. AULD, and D. NEWSOM. 2004. *Governing Through Markets: Forest Certification and the Emergence of Non-State Authority*. New Haven: Yale University Press.
- CHEYNS, E. 2011. "Multi-Stakeholder Initiatives for Sustainable Agriculture: The Limits of the 'Inclusiveness' Paradigm." In *Governing Through Standards. Origins, Drivers and Limitations*, edited by S. PONTE, P. GIBBON, and J. VESTERGAARD. Basingstoke, UK: Palgrave Macmillan.
- COCHOY, F. 2008. "Faut-il abandonner la politique aux marchés? Réflexions autour de la consommation engagée." *Revue française de socio-économie*, no. 1: 107–129.
- COCHOY, F. (ed.). 2012. *Du lien marchand. Comment le marché fait société. Essai(s) de sociologie économique relationniste*, postface by Michel Callon. Toulouse: Presses universitaires du Mirail.
- COLEMAN, W. D., and A.J. REED. 2007. "Legalisation, Transnationalism and the Global Organic Movement." In *Law and Legalization in Transnational Relations*, edited by C. BRÜTSCH and D. LEHMKUHL. London: Routledge.
- DAVIRON B., and I. VAGNERON. 2012. "Standards, risques et confiance dans le commerce à longue distance de produits agricoles à destination de l'Europe: une lecture historique à partir de Guiddens." In *Normaliser les conduites au nom du développement durable*, edited by P. ALPHANDERY, M. DJAMA, A. FORTIER, and E. FOUILLEUX. Versailles: Quæ.
- DJAMA, M., E. FOUILLEUX, and I. VAGNERON. 2011. "Standard-Setting, Certifying and Benchmarking: A Governmentality Approach to Sustainability Standards in the Agro-Food Sector." In *Governing Through Standards. Origins, Drivers and Limitations*, edited by S. PONTE, P. GIBBON, and J. VESTERGAARD, 187–209. London: Palgrave Macmillan.
- FLIGSTEIN, N., and I. MARA-DRITA. 1996. "How to Make a Market: Reflections on the Attempt to Create a Single Market in the European Union." *American Journal of Sociology* 102, no. 1: 1–33.
- FOUILLEUX, E. 2010. "Standards volontaires. Entre internationalisation et privatisation des politiques agricoles." In *Les mondes agricoles en politique: de la fin des paysans au retour de la question agricole*, edited by B. HERVIEU, N. MAYER, P. MULLER, F. PURSEIGLE, and J. REMY, 371–396. Paris: Presses de Sciences Po.
- FOUILLEUX, E. 2013. "Normes transnationales de développement durable. Formes et contours d'une privatisation de la délibération." *Gouvernement et action publique* 2, no. 1: 93–119.

- FOUILLEUX, E., and A. LOCONTO. 2017. "Voluntary Standards, Certification, and Accreditation in the Global Organic Agriculture Field: A Tripartite Model of Techno-Politics." *Agriculture and Human Values* 34: 1-14.
- FOURCADE, M. 2011. "Cents and Sensibility: Economic Valuation and the Nature of 'Nature.'" *American Journal of Sociology* 116, no. 6: 1721–1777.
- FRANKEL C., and J.-P. GALLAND. 2017. "Market, Standardization and Innovation: Reflections on the European Single Market." In *Handbook of Innovation and Standards*, edited by R. HAWKINS, K. BLIND, and R. PAGE, 287–301. Cheltenham: Edward Elgar.
- FREYER, B., and J. BINGEN. 2014. *Re-Thinking Organic Food and Farming in a Changing World*. Dordrecht: Springer.
- GALLAND, J.-P. 2017. "Big Third-Party Certifiers and the Construction of Transnational Regulation." *The Annals of the American Academy of Political and Social Science* 670: 263–279.
- GARCIA-PARPET, M.-F. 2012. "Le marché des certificateurs de l'agriculture biologique." In *L'alimentation sous contrôle. Tracer, auditer, conseiller*, edited by L. BONNAUD and N. JOLY, 109–123. Dijon, Versailles: Educagri Éditions, Quæ.
- GEIER, B. 2007. "IFOAM and the History of the International Organic Movement." In *Organic Farming. An International History*, edited by W. LOCKERETZ, 175–186. Oxfordshire: CAB International.
- GIBBON, P. 2008. "An Analysis of Standards-Based Regulation in the EU Organic Sector, 1991-2007." *Journal of Agrarian Change* 8, no. 4: 553–582.
- GLASBERGEN, P., F. BIERMANN, J. MOL, and P. ARTHUR. 2007. *Partnerships, Governance and Sustainable Development. Reflections on Theory and Practice*. Cheltenham: Edward Elgar.
- HATANAKA, M. 2015. "Organic Certification and the Rationalization of Alternative Food and Agriculture: Sustainable Shrimp Farming in Indonesia." In *Re-Thinking Organic Food and Farming in a Changing World*, edited by B. FREYER and J. BINGEN. Dordrecht: Springer.
- HATANAKA, M., J. KONEFAL, and D. CONSTANCE. 2012. "A Tripartite Standards Regime Analysis of the Contested Development of a Sustainable Agriculture Standard." *Agriculture and Human Values* 29: 65–78.
- HENSON, S. 2008. "The Role of Public and Private Standards in Regulating International Food Markets." *Journal of International Agricultural Trade and Development* 4: 63–81.
- HENSON S., and T. REARDON. 2005. "Private Agri-Food Standards: Implications for Food Policy and the Agri-Food System." *Food Policy* 30, no. 3: 241–253.
- HIBOU, B. 2015. *The Bureaucratisation of the World in the Neoliberal Era*. Basingstoke: Palgrave Macmillan.

HIGGINS, V., J. DIBDEN, and C. COCKLIN. 2008. "Building Alternative Agri-Food Networks: Certification, Embeddedness and Agri-Environmental Governance." *Journal of Rural Studies* 24: 15–27.

- JAFFEE, D. 2007. *Brewing Justice: Fair Trade Coffee, Sustainability, and Survival*. Berkeley (CA): University of California Press.
- KATTO-ANDRIGHETTO, J. 2012. "A Retrospective on the Organic Guarantee System." In *Organic without Boundaries. IFOAM Celebrating 40 years, 1972-2012*, edited by IFOAM, 18–21. Bonn: International Federation of Organic Agriculture Movements.
- LE VELLY, R., and I. DUFEU. 2016. "Alternative Food Networks as 'Market Agencements': Exploring Their Multiple Hybridities." *Journal of Rural Studies* 43: 173–182.
- LE ROUX, B. 2015. "L'émergence de l'agriculture biologique en France: 1950-1990." *Pour* 3, no. 227: 59–66.
- LOCKERETZ, W. (ed.). 2007. *Organic Farming. An International History*. Oxfordshire: CABI.
- LOCONTO A., and L. BUSCH. 2010. "Standards, Techno-Economic Networks, and Playing Fields: Performing the Global Market Economy." *Review of International Political Economy* 17, no. 3: 507–536.
- LOCONTO, A., and E. FOUILLEUX. 2014. "Politics of Private Regulation: ISEAL and the Shaping of Transnational Sustainability Governance." *Regulation & Governance* 8, no. 2: 166–185.
- LOCONTO A., A. S. POISOT, and P. SANTACOLOMA. 2016. *Innovative Markets for Sustainable Agriculture: Exploring How Innovations in Market Institutions Encourage Sustainable Agriculture in Developing Countries*. Rome: Food and Agriculture Organization of the United Nations.
- LOCONTO, A., J. V. STONE, and L. BUSCH. 2012. "Tripartite Standards Regime." In *The Wiley-Blackwell Encyclopedia of Globalization*, edited by G. RTIZER, 2044-2051. Malden (MA): Blackwell Publishing Ltd.
- MALETZ, O., and M. TYSIACHNIOUK. 2009. "The Effect of Expertise on the Quality of Forest Standards Implementation: The Case of FSC Forest Certification in Russia." *Forest Policy and Economics* 11, no. 5-6: 422–428.
- MAPUSA K. 2016. "The Pacific Islands." In *The World of Organic Agriculture: Statistics and Emerging Trends 2016*, edited by H. WILLER and J. LERNOUD, 273-280. Bonn, Frick: Research Institute of Organic Agriculture (FiBL), IFOAM-Organics International.
- MARTINEZ, M. G., and F. BAÑADOS. 2004. "Impact of EU Organic Product Certification Legislation on Chile Organic Exports." *Food Policy* 29: 1–14.
- MARX, A., and J. WOUTERS. 2014. *Competition and Cooperation in the Market of Voluntary Sustainability Standards*. Geneva: UNFSS, UNFSS Discussion Papers.
- MCDERMOTT, C. L. 2012. "Trust, Legitimacy and Power in Forest Certification: A Case Study of the FSC in British Columbia." *Geoforum* 43: 634–644.

- MURRAY, D. L., and L. T. RAYNOLDS. 2000. "Alternative Trade in Bananas: Obstacles and Opportunities for Progressive Social Change in the Global Economy." *Agriculture and Human Values* 17: 65–74.
- MUTERSBAUGH, T. 2005. "Just-in-Space: Certified Rural Products, Labor of Quality, and Regulatory Spaces." *Journal of Rural Studies* 21: 389–402.
- MUTERSBAUGH, T., D. KLOOSTER, M.-C. RENARD, and P. LEIGH TAYLOR. 2005. "Certifying Rural Spaces: Quality-Certified Products and Rural Governance." *Journal of Rural Studies* 21: 381–388.
- PIRIOU, S. 2002. "L'institutionnalisation de l'agriculture biologique (1980-2000)." *Économie de l'agriculture et des ressources*. Rennes: École nationale supérieure agronomique de Rennes.

- PONTE, S., and P. GIBBON. 2005. "Quality Standards, Conventions and the Governance of Global Value Chains." *Economy and Society* 34: 1–31.
- PONTE S., P. GIBBON, and J. VESTERGAARD. 2011. *Governing Through Standards. Origins, Drivers and Limitations*. London: Palgrave Macmillan.
- POWER, M. 1997. *The Audit Society: Rituals of Verification*. Oxford: Oxford University Press.
- POWER, M. 2003. "Evaluating the Audit Explosion." *Law & Policy* 25, no. 3: 185–202.
- PRAKASH, A., and M. K. GUGERTY. 2010. "Trust but Verify? Voluntary Regulation Programs in the Nonprofit Sector." *Regulation & Governance* 4: 22–47.
- RAYNOLDS, L. T. 2004. "The Globalization of Organic Agro-Food Networks." *World Development* 32, no. 5: 725–743.
- REED, M. 2001. "Fight the Future! How the Contemporary Campaigns of the UK Organic Movement Have Arisen from Their Composting of the Past." *Sociologia Ruralis* 41: 131–145.
- REINECKE, J., S. MANNING , and O. VON HAGEN. 2012. "The Emergence of a Standards Market: Multiplicity of Sustainability Standards in the Global Coffee Industry." *Organization Studies* 33, no. 5-6: 791–814.
- RIP, A. 2010. "Processes of Entanglement." In *Débordements. Mélanges offerts à Michel Callon*, edited by M. AKRICH, Y. BARTHE, F. MUNIESA, and P. MUSTAR. Paris: Transvalor - Presses des Mines.
- SCHMID, O. 2007. "Development of Standards for Organic Farming." In *Organic Farming. An International History*, edited by W. LOCKERETZ, 152–174. Oxfordshire: CABI.
- STAR, S. L., and K. RUHLEDER. 2010. "Vers une écologie de l'infrastructure." *Revue d'anthropologie des connaissances* 4: 114–161.
- TAMM HALLSTRÖM, K. 2004. *Organizing International Standardization. ISO and the IASC in Quest of Authority*. Cheltenham: Edward Elgar.
- THÉVENOT, L. 2009. "Governing Life by Standards: A View from Engagements." *Social Studies of Sciences* 39, no. 5: 793–813.
- TIMMERMANS, S., and S. EPSTEIN. 2010. "A World of Standards but not a Standard World: Toward a Sociology of Standards and Standardization." *Annual Review of Sociology* 36: 69–89.
- GLOBAL ORGANIC MARKET ACCESS (GOMA). 2012. "Proceedings of the Global Organic Market Access (GOMA) Conference." <http://www.fao.org/3/an909e/an909e00.pdf>.
- VATIN, F. 2013. "Valuation as Evaluating and Valorizing." *Valuation Studies* 1: 31–50.
- WILLER, H., and J. LERNOUD. 2016. *The World of Organic Agriculture. Statistics and Emerging Trends 2016*. Bonn, Frick: Research Institute of Organic Agriculture (FiBL), IFOAM-Organics International.
- WILLER H., and M. YUSSEFI. 2001. *Organic Agriculture Worldwide 2001. Statistics and Future Prospects*. Bad Dürkheim: Stiftung Ökologie & Landbau.

WINICKOFF, D. E., and K. KLEIN. 2011. "Food Labels and the Environment: Towards Harmonization of EU and US Organic Standards." In *Transatlantic Regulatory Cooperation: The Shifting Roles of the EU, the US and California*, edited by D. VOGEL and J. F. M. SWINNEN, 229-248. Cheltenham: Edward Elgar.