Global organic agriculture governance through standards – When inter-institutional policy-making oscillates between global harmonization and regional integration

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1) Introduction

Organic agriculture is a rapidly growing segment of the global food system. As of the end of 2013, it was practiced in 170 countries with 43.1 million hectares of agricultural land managed organically. Global sales of organic food and drink reached almost 72 billion US dollars in 2013 (Willer & Lernoud, 2015, pp. 24-25). Organic agriculture has high socio-economic, environmental and agro-ecological potential (Halberg & Muller, 2013), especially with regard to increase food security in Africa (Dissing, Nalunga, Tibasiima, Dissing, & Vaarst, 2013).

As a policy issue, organic agriculture is part of a dynamic cross-sectoral institutional context in which public and private institutions interact on the national, regional and global level. It thus serves as a good laboratory for analyzing the regulatory shift towards a new interplay between the state, business and civil society and an increased use of voluntary approaches to regulation (Flohr, Rieth, Schwindenhammer, & Wolf, 2010). Responding to globalized flows of organic trade, demand for healthy products, and growing consumer awareness (Ponte, Gibbon, & Vestergaard, 2011), organic agriculture standards (OAS) have proliferated cross-cutting environmental, health, social, developmental and trade policies. While at first glance it appears that regulatory fragmentation is the overall feature of global organic agriculture governance through standards, the historical examination presented in

this paper reveals distinct paths of institutional development towards local, regional and global standard schemes. In the course of time, scattered individual pioneering production systems relying on traditional farming techniques and local standards changed into concerted public-private policy-approaches of global and regional standard-setting.

Scholars from different disciplines have done a lot of research on the role of standards in global governance (e.g. Brunsson & Jacobsson, 2002; Derkx & Glasbergen, 2014). Although there is also a growing body of literature that focuses on food standards (Busch, 2011; Ponte et al., 2011; Gibbon, Lazaro, & Ponte 2010, Fulponi, 2007), and especially on organic agriculture standards (Arcuri, 2015; Jaffee & Howard, 2010; Smid, 2007), yet, we know little about why and how the global architecture of organic agriculture governance through standards evolved. Applying a meta-policy perspective, the paper contributes to fil this gap. It examines which OAS emerged on different regulatory levels and detects the key role of individual and institutional entrepreneurs in standard-setting processes. It combines an explanation based on organizational field analysis from sociological neo-institutionalism with research on entrepreneurship. The main assumption is that both, *structure and agency* must be considered. Global organic agriculture governance through standards is conceptualized as a historically grown organizational field that emerged from the interplay of institutional self-organizing dynamics (structuration & homogenization) and the inter-institutional engagement of individual and institutional entrepreneurs.

The paper starts introducing the framework for analysis that applies organizational field analysis and research on entrepreneurship. The empirical analysis shows how the organizational field of organic agriculture governance through standards incrementally developed in three historical phases. It indicates the significance of individual and institutional entrepreneurship for processes of institutional change within the organizational field next to institutional self-organizing dynamics. Finally, the paper discusses the empirical and theoretical implications of the findings and sketches future steps for research.

2) Framework for analysis

To gain systematic knowledge about the development of the global architecture of organic agriculture governance through standards, the framework for analysis applies organizational field analysis from sociological neo-institutionalism combined with research on entrepreneurship. While the former approach explains why and how the entities of an organizational field adopt similar institutional structures and procedures, the latter approach convincingly argues that *agency* is of crucial importance in the formation and diffusion of norms. The paper argues that, over time, key field entities (‘entrepreneurs’) gained the legitimacy to prescribe how OAS ought to be set and designed and, thus, significantly

contributed to the development of the organizational field (next to institutional factors of influence).

2.1) Organic agriculture governance through standards as an organizational field

Organic agriculture governance through standards is conceptualized as a historically grown organizational field (*dependent variable*). According to Scott (1995, p. 56) an organizational field is 'a community of organizations that partakes of a common meaning system and whose participants interact more frequently and fatefully with one another than with actors outside the field'. DiMaggio and Powell (1983: 48) define an organizational field as 'those organizations that, in the aggregate constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services and products'. Early organizational field analysis was mainly about explaining the outcome of organizational fields. Due to its origins in sociological neo-institutionalism, organizational field analysis asked why different field entities conform to the same standards of behavior and how they employ similar structures. It turns toward cognitive and cultural explanations for processes of institutional homogenization (DiMaggio & Powell, 1991a, b). The behavior of public and private field entities is motivated by forces in the institutional environment in which they are embedded. Field entities seek legitimacy by adhering to rules and norms that are valued by society and, more specifically, by certain institutions in society. Institutions constitute field entities and elaborate the rules and requirements to which they must conform if they are to receive support and legitimacy (Scott & Meyer, 1991, p. 123). Institutions consist of regulatory and legal frameworks, norms and value systems, and cultural elements and beliefs that create shared meanings and reflect socially appropriate behavior (Scott, 1995). They stem from regulatory agencies authorized by the state, from professional associations, from generalized belief systems and similar domestic sources that define how specific types of organizations ought to behave appropriately (Scott & Meyer, 1991, p. 123). Thus, institutions constrain or enable action and provide strategies for behavior (Suchman, 1995, p. 576).

However, the institutions classical organizational field analysis defines have the deterministic tendency 'to be overly sticky' with field entities largely fixated in terms of norms (Schmidt, 2008, p. 313). The classical reading predicts a relative stability of organizational fields and does, in a narrow sense, fail to explain processes of institutional change. It leaves the important questions open why there is so much empirical evidence of institutional change and the existence of both, processes of convergence *and* divergence, within organizational fields (Beckert, 2010). Thus, a new line of reasoning in organizational field analysis moves beyond stability and inertia to introduce notions of institutional change (for an excellent overview see Wooten & Hoffman, 2008, p. 134-142). Rather than thinking of field entities

automatically acting in a homogeneous way as subjects to a common set of institutional pressures, it is argued that field-level interactions remain vital to organizational fields. 'Fields are richly contextualized spaces where disparate organizations involve themselves with one another in an effort to develop collective understandings regarding matters that are consequential for organizational and field-level activities' (Wooten & Hoffman, 2008, p. 138). Indeed, in vast part of social life, institutions guide but do not completely determine social action. Although field entities seek guidance from general standards of obligation to reduce organizational uncertainty (DiMaggio & Powell, 1991b, p. 9), they also might have various (and maybe competing institutional interests) and influence processes of institutional change.

2.2) The role of institutional self-organizing dynamics

Each organizational field has institutional self-organizing dynamics of its own that influence institutional development. These dynamics are an important defining characteristic differentiating the organizational field from static concepts of institutional environments. 'While environments are given, fields are made – although the making of a field is not necessarily the result of conscious and intentional activities' (Dingwerth & Pattberg, 2009, p. 720).

The first self-organizing dynamic is the 'structuration' of the organizational field. It is especially important in the formation of organizational fields. According to DiMaggio (1983, p. 148), structuration comprises four elements: (i) an increase in the extent of interaction among organizations in the field, (ii) the emergence of sharply defined inter-organizational structures of domination and patterns of coalition, (iii) an increase in the information load with which organizations must contend, and (iv) the development of mutual awareness among participants in a set of organizations that they are involved in a common enterprise.

The second self-organizing dynamic organizational field analysis predicts is 'homogenization': Once organizational models are institutionalized, they diffuse and cause organizational structures to grow more and more alike (see for example Boli & Thomas, 1999, p. 4). The mechanism through which field entities adopt similar procedures is termed 'institutional isomorphism'. Isomorphism is 'a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions' (DiMaggio & Powell, 1983, p. 149). Isomorphism emphasizes that field entities do not only strive for resources, but also for political influence and institutional legitimacy. It differentiates between coercive, mimetic and normative isomorphic pressures[1] (DiMaggio & Powell, 1991a,

[1] Coercive isomorphism involves one organization exerting power over another to force the adoption of preferred practices, often through legal means or by controlling resource access (Andrews, 2009, p. 9). Mimetic isomorphism rests on habitual taken-for-granted responses to circumstances of social disorientation. When the environment creates uncertainty, technologies are poorly understood or goals are ambiguous, organizations model themselves on others and copy what appears to be a desirable or accepted practice (DiMaggio & Powell, 1991a, p. 69). Normative isomorphism stems from the potent

p. 67). The findings on similarities amongst organizational structures are important, since they provide valuable insights on institutional harmonization within organizational fields.

2.3) The role of entrepreneurs

Classical organizational field analysis widely neglects the role of *agency* in processes of institutional change. Although it highlights the influence of field entities promoting certain scripts that are consistent with salient values and norms, it does not deal with the influence of entrepreneurs in promoting new norms or in changing the organizational field. More recent literature in organizational field analysis convincingly argues that field entities can play different roles and, thus, influence institutional change processes within the organizational field (Wooten & Hoffman, 2008, p. 140). Institutions are 'the object of ongoing skirmishing as actors try to achieve advantage by interpreting or redirecting institutions in pursuit of their goals, or by subverting or circumventing rules that clash with their interests' (Streeck & Thelen, 2005 p. 19). Consequently, institutions are vulnerable to change not only in times of revolutionary upheavals and institutional breakdown, but also in normal times when agents seek to modify or sustain institutional arrangements (Mahoney & Thelen, 2010). Agents perceive societal problems and possible institutional solutions to them (Beckert, 2010, p. 156). They can actively contribute to the transformation of the organizational field. They can establish and maintain the field, but they can also disrupt it. Moreover, there is the possibility of collaboration and competition between agents, depending on their different values, interests, and resources.

Applying this line of research, I argue that key entities of the field can act as entrepreneurs[2] and thus, promote new norms or change the organizational field. This argument relates to constructivist International Relations (IR) scholars that argue that *agency* is of crucial importance in the formation and diffusion of norms (for what follows see Schwindenhammer, 2015). A broad range of actors, such as NGOs (Price, 1998), activist networks (Keck & Sikkink, 1998), epistemic communities (Haas, 1992), international organizations (IOs) (Barnett & Finnemore, 2007), governments (Deitelhoff, 2009) or business actors (Flohr et al., 2010) is regarded as institutional agents with the potential for normative change. Individuals can also engage in entrepreneurship (Crow, 2010). They invest time, issue-specific expertise, and skills to promote certain policies. Entrepreneurs strategically engage as 'meaning managers' by creating new 'cognitive frames', establishing 'new ways of talking about and understanding issues' (Finnemore & Sikkink, 1998, p. 897). They aim to

influence of the professions and the role of higher education. It works through socialization, professional training and networks, educational programs and fora for information sharing. These elements are a pool of almost interchangeable individuals who occupy similar positions across a range of organizations and possess a similarity of orientation and disposition that may over-ride organizational variations in tradition and control (DiMaggio & Powell, 1991a, p. 71).

[2] I use the terms 'entrepreneur' and 'key field entity' synonymously.

reframe a formerly unproblematic phenomenon to become problematic or illegitimate (see also Flohr et al., 2010, pp. 18-22) and 'attempt to convince a critical mass' (Finnemore & Sikkink, 1998, p. 895) or 'principal protagonists' (Nadelmann, 1990, p. 484) to embrace newly established norms. When entrepreneurs are joined by like-minded actors, 'norm leaders' (Finnemore & Sikkink, 1998, p. 895) or 'regime proponents' (Nadelmann, 1990, p. 485) who accept the new norm and socialize other actors to become norm-followers, the success or failure of a norm depends on whether it reaches wide acceptance and, thus, the 'tipping point' or 'norm cascade' (Finnemore & Sikkink, 1998, pp. 895-896). In doing so, they can act as facilitators of normative change, or as in the focus of this paper, of organizational field development.

Entrepreneurs must establish 'authority' to influence other actors (Boström & Tamm Hallström, 2013, p. 99). Political authority exists, 'when an individual or organization has decision-making power over a particular issue and is regarded as exercising that power legitimately' (Cutler, Haufler, & Porter, 1999, p. 5). The literature on private authority convincingly argues that political authority is no longer exclusively associated with public actors. A useful general distinction can be drawn between public actors as being elected 'in authority' and private actors being regarded as 'an authority' (Cutler et al., 1999). This paper differentiates between legal, moral, and technical authority. Legal authority refers to the constitutionally institutionalized delegation of competencies by democratic procedures and is, thus, exclusively exercised by public actors. Moral authority is based on the credibility with which actors pursue goals in the public interest (Lipschutz & Fogel, 2002, p. 125). Technical authority rests on the promise of more rational policy outcomes by bringing in knowledge-based expertise or substantial financial means to reduce the costs of institutional infrastructure, monitoring and evaluation (Flohr et al., 2010, p. 210). Whereas most authors regard political authority sources as distinct and independent, this study follows authors that convincingly argue that technical, moral and legal authority are increasingly exercised simultaneously (Boström & Tamm Hallström, 2013; Flohr et al., 2010). To foster their influence on other actors, entrepreneurs (individually or collectively) strategically pool different authority sources at the same time. In doing so, they use different tools like defining problems, network building, and leading by example (for the concept of 'authority pooling' and the respective 'authority tools' see Schwindenhammer, 2015).

3) The historical development of the organizational field of organic agriculture

The empirical analysis traces the historical development of the organizational field of organic agriculture governance through standards from its origins to its present form. Applying a three-phase heuristic, the analysis took snapshots at a series of historical moments and identified key steps in the development of the field to find and interpret diagnostic evidence of

the influence of both: institutional self-organizing dynamics and individual and institutional entrepreneurship. The division into phases is provisional. Although each phase is analyzed separately, certain policy processes might span across the phases empirically. It must also be noted that the presented data does not claim to be exhaustive - neither with regard to the OAS under consideration nor in terms of the entrepreneurs involved in standard-setting. Comments are most welcome!

3.1) Phase 1 (1920-1980)

Organic agriculture developed as a response to the chemicalization of agriculture (Paull, 2011b, p. 111) that traces its origins back to the nineteenth century. In 1840 Justus von Liebig (1803-1873) presented his vision of a 'rational system of agriculture' that should be based on 'the application of scientific principles' from the natural sciences. He emphasized that 'this knowledge we must seek from chemistry' (Liebig, 1840, p. iiv-iv; cited in Paull, 2009, p. 16). In 1909 two German chemists, Fritz Haber and Carl Bosch, gave impetus to the chemicalization of agriculture through the discovery of the conversion of nitrogen and hydrogen to ammonia ($N2 + 3H2 \rightarrow 2NH3$) (Paull, 2009, p. 16). This discovery and its commercialization by the chemical company BASF fundamentally transformed the system of global food production and laid the foundation for modern intensive agriculture (Smil, 2001) by providing ready access to cheap synthetic fertilizers (Paull, 2009, p. 18).

The emergence of the 'biological systems-based paradigm of agricultural production' (Bowen, 2013, p. 4) marks the historical starting point of the development of the organizational field of organic agriculture. In the 1920s, organic pioneers formed up a small but rapidly growing countermovement against the chemicalization of agriculture. The ideas promoted by individual entrepreneurs such as Rudolph Steiner, Ehrenfried Pfeiffer, Sir Albert Howard, Lady Eve Balfour and others questioned, challenged and rejected the dominant direction of agriculture. There was no mass movement in the 1920s and 1930s but a network of organic pioneers investigating the ideas and themes that became the underpinning of the organizational field. These early individual entrepreneurs exercised moral authority mainly through the provision of scientific expert knowledge and network-building activities. Organic farming at that time was institutionalized in small inter-personal networks in which organic farmers (often in close and direct contact with the pioneers) regularly met and discussed the ideas of organic farming.

The individual entrepreneurs promoted and actively practiced (leading by example) a holistic approach that took account of the broader perspective, 'motivated by a desire to reverse the perennial problems of agriculture – erosion, soil depletion, decline of crop varieties, low quality food and livestock feed, and rural poverty. They embraced a holistic notion that the health of a nation built on agriculture is dependent on the long-term vitality of

its soil' (Kuepper, 2010, p. 2). In Germany, Rudolf Steiner laid the intellectual foundation of the development of 'biodynamic agriculture' through a lecture series at a farm in Koberwitz (now Kobierzyce, Poland) during 1924 (Paull, 2011a). Steiner emphasized the farmer's key role in guiding and balancing the interaction of animals, plants and soil. Healthy animals depend upon healthy plants (for their food), healthy plants depend upon healthy soil, and healthy soil depends upon healthy animals (for the manure). Steiner's lecture inspired other early individual entrepreneurs to exert moral authority through the provision of expert knowledge that gained international attention. In 1938, Ehrenfried Pfeiffer published his book "Bio-dynamic farming and gardening" which appeared simultaneously in English, German, Dutch, French and Italian editions (Paull, 2011b). In 1939, Pfeiffer, along with several other leading European biodynamics experts led the 'Betteshanger Summer School on biodynamic farming' at the Kent farm of the English agriculturalist Lord Northbourne (Paull, 2011c). Northbourne published his book *Look to the Land* (1940) in which he introduced the term 'organic farming' and where he wrote of the contest of 'organic versus chemical farming'. At the same time, the British botanist Sir Albert Howard documented traditional Indian farming practices in Pusa, Bengal, and came to regard them as superior to conventional agriculture science. His book, 'An Agricultural Testament' published in 1940, was influential in promoting organic techniques, and his 1947 book 'The Soil and Health, A Study of Organic Agriculture' was the first to include 'organic agriculture' in its title. The US entrepreneur J.I. Rodale gave impetus to the development of the organic farming movement in the US. Highly inspired by the work of Howard, Rodale founded the 'Organic Farming and Gardening magazine' in 1942 to promote the holistic idea of non-chemical agriculture. In Australia, the 'Australian Organic Farming and Gardening Society' was founded in Sydney in 1944 and published the periodical 'Organic Farming Digest' (Paull, 2008).

The first OAS in the first phase were biodynamic standards developed by single farmers, e.g. the Demeter network introduced the first biodynamic standard, the "Demeter" label, in 1928 (Aschemann, Hamm, Naspetti, & Zanoli, 2007). As long as organic farmers were selling their products directly to consumers on the farm or a local market, there was no strong need for standards, inspection and certification (Smid, 2007, p. 152). There were direct personal relationships between consumers and producers. Consumers could always directly ask the farmers what they were doing and what inputs they were or were not using (Smid, 2007, p. 152).

From the mid-1940 to the late 1960s, after the interruption by the 2nd World War, the organic movement saw the foundation of the first broader formal organizations, such as the 'Soil Association' (UK) by Lady Eve Balfour and others in 1945 or the 'Demeterbund' (Germany) in 1955. Organic agriculture at that time faced a policy environment in which capital investments intended the creation of stable markets with assured prices fixed by

governments to raise the supply of food for the urban majority (Reed, 2010, p. 60). The organic movement first became a bit marginalized vis-à-vis the success of the 'Green Revolution' (1960s-1970s). As a campaign originally financed by the Ford and Rockefeller Foundations for the industrialization of agriculture in the global South, the Green Revolution increased agricultural productivity by the introduction of high-yield varieties of grains, the broad proliferation of chemical fertilizers and synthetic herbicides and pesticides. Although 'credited for saving the world from hunger in the 1960s and 1970s, the Green Revolution led to the monopolization of seed and chemical inputs by northern companies, the loss of 90 percent of the global South's agricultural biodiversity, the global shift to an oil-based agricultural economy, the displacement of millions of peasants to fragile hillsides, shrinking forests, and urban slums' (Holt-Giménez, 2011, p. 316). In this regard, the negative impacts of the Green Revolution prepared the ground for entrepreneurs to establish a new way of talking about and understanding global agriculture. The ideas of the organic movement gained increasing attention.

In the 1970s, organic food chains rapidly increased when consumer awareness of environmental and health issues grew in Europe, North America and Japan, leading to a willingness to pay premium prices for organic foods (Aschemann et al., 2007, p. 124). In the 1970s, 'a whole new generation of younger people looked to the opportunity to farm organically and live in rural areas. […] The energy of this new wave of activist farmers, the ideas they used and brought forward, saw the organic movement make considerable progress in the following decades' (Reed, 2010, p. 89). With the organic market becoming more impersonal, more centralized and more globalized, the need for standards and inspection systems to protect producers from unfair competition and consumers from fraud was growing. In Europe, the Soil Association set its 'Soil Association Standards' in 1967 and a corresponding certification system in 1973 'to provide an independent audit and tracking system' (Soil Association 2015). Others soon followed – e.g. the Danish Association of Organic Farmers (Økologisk Landsforening), the Swedish KRAV, the Italian Associazione Italiana Per L'Agricoltura Biologica, and in the US the California Certified Organic Farmers (Arcuri, 2015, p. 145-146).

All in all, the first phase marks the beginning of field development. It was mainly influenced by individual entrepreneurs teaching and promoting the organic philosophy and transforming it into practical farming methods. Although the ideas of organic agriculture reached more and more attention, the first OAS set by the newly established private organizations remained highly decentralized. Although there was an increase in the extent of interaction among organic movement organizations, the 'structuration' of the organizational field (DiMaggio, 1983, p. 148) had not been fully completed. Sharply defined inter-

organizational structures of domination and mutual awareness among organic organizations of being involved in a common enterprise were still some way off.

3.2) Phase 2 (1980-2002)

The second phase was mainly characterized by global institutionalization efforts and the rise of broad organic food retailing. Since the 1980s organic food became a notable part of the food industry and a regular fixture on the shelves of supermarkets (Reed, 2010, p. 91). This trend was accompanied by growing consumer concerns about food quality and safety issues.

The first milestone to unite and promote the global organizational field was the founding of the 'International Federation of Organic Agriculture Movements' (IFOAM). The main drivers of the founding of IFOAM were, again, individual entrepreneurs. Roland Chevriot, President of the French national farmer organization 'Nature et Progrès' had the idea of organizing 'a big national conference […] and also to work on the launching of an international federation' (Bourgeois, 1997, p. 1). IFOAM appeared as the idea of a global organic structure (Reed, 2010, p. 89). Chevriot mentioned 'that he discussed the idea with [US entrepreneur; the author] Bob Rodale, and that this talk had played an important role in his decision to implement the idea' (Bourgeois, 1997, p. 1). The five founding member organizations were the Soil Association (UK), the Swedish Biodynamic Association, the Soil Association of South Africa, Rodale Press (US) and Nature et Progrès (France) (Geier, 2007, p. 176). They initiated IFOAM as the global umbrella organization of the major organic farming organizations in 1972 at Versailles, France (Paull, 2010). The founding of IFOAM was mainly influenced by individual entrepreneurship by means of network building on an inter-personal level. Today, IFOAM is much more institutionalized, globalized and qualifies as an institutional entrepreneur. IFOAM increased the density of interaction among the field's entities. It represents and coordinates more than 800 member organizations in over 100 countries (IFOAM, 2015a). In 1980, IFOAM adopted the first version of its Basis Standards as 'Recommendations for international standards of biological agriculture'. They were the first *internationally agreed-upon* private OAS. Within the organizational field of organic agriculture governance through standards, the regularly revised IFOAM Basic standards constitute a global normative reference framework with regard to content and procedure of OAS-setting. IFOAM qualifies as a key entity of the newly established organizational field (Paull, 2010) with the legitimacy to prescribe how OAS-setting out to be designed. Today, nearly all OAS-setting processes directly or indirectly refer to the IFOAM Basic standards. In the course of the second phase, the IFOAM standards fundamentally influenced the public OAS-setting processes in the EU in 1991 and by the FAO and WHO Codex Alimentarius Commission in 1999 (Aschemann et al, 2007, p. 131).

In the late 1980s the European Commission considered drafting a directive to define and control organic farming. The Commission turned to IFOAM 'as the primary source of organic expertise' (Schlüter & Blake, 2009, p. 8). In response, IFOAM formed the IFOAM EC Delegation[3] in 1987 as a negotiating partner for policy-making in the EU. This step towards a formalized cooperation with public actors was highly disputed among organic movement actors because 'there was considerable unease within the organic movement about the attentions of the authorities. Recognition potentially could bring financial support, but control meant losing control. However, the die was already cast – it was an almost inevitable consequence of success' (Schlüter & Blake, 2009, p. 8). In 1991, EU regulation (EEC) No 2092/91 on organic production of agricultural products and indications was published. This regulation marks the beginning of public OAS-setting on the regional level. It defined how agricultural products and foods that are designated as ecological products had to be grown. It was supplemented in 1999 by regulation (EC) No 1804/1999 which regulated the raising, labelling and inspection of the most relevant animal species.

OAS-setting initiatives by public actors did not remain limited to the EU in the second phase of field development. In the 1990s, the Codex Alimentarius Commission, an intergovernmental body within the framework of the Joint Food Standards Programme established by FAO and WHO, placed organic agriculture governance through standards on the agenda of international organizations. It initiated a global standard-setting process aiming at internationally agreed guidelines of the production and labelling of organically produced foods. The Codex Committee for Food Labeling (CCFL) invited IFOAM as an 'observer organization', at that time an unusual step, since observers normally had been states that, while not member nations or associate members of FAO or WHO, had to be members of the UN. During the standard-setting process, IFOAM actively participated by providing expert knowledge and sending several official comments to the Codex Alimentarius Working group on the draft guidelines between 1997 and 1999 (Codex Alimentarius Commission, 1999a). In 1999, WHO and FAO jointly released the first edition[4] of the Alimentarius Commission Codex guidelines (GL 32) which were about 'providing an agreed approach to the requirements which underpin production of, and the labelling and claims for, organically produced foods' and 'a first step into official international harmonization of the requirements for organic products in terms of production and marketing standards, inspection arrangements and labelling requirements' (Codex Alimentarius Commission, 1999b). Next to the IFOAM Basic

[3] The IFOAM EC Delegation first transformed into the IFOAM EU Working Group (1990) and then the IFOAM EU Group in 2000 ensuring representation of organic producers from EU member states, the EU accession countries and EFTA.

[4] The Codex Alimentarius Commission guidelines were revised in 2001. The annex lists, which define what substances can be used in organic food and farming systems, have also been under revision since 2005, with a focus on substances for food processing and criteria for the use of new substances. A working group within the CCFL was appointed for this work. The Codex Commission adopted several amendments to the annex lists that were proposed by the CCFL in July 2009 (Huber, Schmid & Mannigel, 2015, p. 129).

Standards, the Codex Alimentarius Commission guidelines constitute the second global reference framework for organic agriculture standard-setting within the organizational field. The regulatory efforts on the global level were accomplished by early national organic standard-setting initiatives, e.g. the US Organic Foods Production Act (1990) and the US National Organic Program (2000), or the Japanese Agriculture Standard (2001).

All in all, the institutional developments in the second phase provide empirical evidence of the final 'structuration' of the organizational field. The phase is characterized by the development of the first global OAS-setting frameworks and the emergence of key field entities that gained the legitimacy to prescribe how OAS-setting out to be designed. IFOAM and the Codex Alimentarius Commission contributed to the development of a collective understanding of organic agriculture and the mutual awareness among field entities that they were involved in 'a common enterprise' (DiMaggio, 1983, p. 148). IFOAM was (and still is) central in the definition of what can be called 'core organic values' (Arcuri, 2015, p. 146) and the development of inter-organizational structures. The setting of the IFOAM Basic standards and the Codex Alimentarius Commission guidelines represent disruptive events because with the first global 'standards for standards' the entrepreneurs established a collective rationality about which OAS belong within the field and which do not. These global institutional developments are consistent with the assumption of organizational field analysis of 'homogenization' within organizational fields. The Codex Alimentarius Commission guidelines and the IFOAM Basic standards exerted mimetic isomorphic pressures (DiMaggio & Powell, 1991a, p. 67) within the field and, thus, paved the way for global OAS harmonization. Once the global OAS-setting frameworks were institutionalized, they diffused and caused organizational structures within the field to grow more and more alike.

3.3) Phase 3 (2002-2015)

In the third phase, the institutional dynamic of 'homogenization' within the organizational field continued. However, institutional change processes directed towards OAS-harmonization did not proceed automatically as classical organizational field analysis predicts. Instead, regulatory fragmentation became the opposing trend: Despite the IFOAM Basic standards and the Codex Alimentarius Commission guidelines, a myriad of public and private OAS and a host of different certification and accreditation systems emerged on different regulatory levels in the early 2000s (Twarog, 2008). The uncontrolled growth of OAS soon turned out to be a key stumbling block for global organic trade and market development (Bowen, 2013). Regulatory fragmentation results in the duplication of regulatory efforts, undermines the stringency of standards, and exacerbates third-party concerns regarding the credibility and legitimacy of standard-setting (Derkx & Glasbergen, 2014). Thus, international and transnational entrepreneurs initiated several policy processes aiming at minimizing regulatory

fragmentation within the organizational field. In the course of these processes the regional integration of OAS became a commonly accepted policy strategy next to regulatory efforts on the global level. As shown in Table 1, organic agriculture governance through standards in the third phase oscillates between the global harmonization and regional integration of organic agriculture standards.

Year	Standard-setting framework	Regulatory level	Participating entrepreneurs	Policy approach
2002 – 2008	International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF)	global	IFOAM, FAO, UNCTAD	public-private partnership
2005 - 2007	European Council Regulation No 834/2007	regional	lobbying by IFOAM	public regulation
2005 - 2007	East African Organic Products Standard (EAOPS)	regional	IFOAM, UNCTAD	public-private partnership & public regulation
2006 - 2008	Pacific Organic Standard (POS)	regional	IFOAM	public-private partnership
2009 - 2012	Global Organic Market Access Project (GOMA)	global	IFOAM, FAO, UNCTAD	public-private partnership
2010 - 2013 & 2013 - 2014	Asia Regional Organic Standard (AROS) & ASEAN Standard for Organic Agriculture (ASOA)	regional	IFOAM, FAO, UNCTAD	public-private partnership & public regulation
2010 - 2012	Harmonized Organic Regulations for Central America, Panama and the Dominican Republic	regional	financial support by GOMA	public regulation
2013 - ongoing	United Nations Forum on Sustainability Standards (UNFSS)	global (meta-governance)	FAO, UNCTAD, IFOAM	public-private partnership

Table 1: Timeline of OAS-setting frameworks in the 3rd phase

Global standard-setting frameworks

International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF)

To address OAS multiplicity and fragmentation, FAO, UNCTAD, and IFOAM established a network in 2002 as a global public-private-partnership funded by the Swedish International Development Cooperation Agency (Sida), the Norwegian Agency for Development (Norad), and the government of Switzerland. The 'International Task Force on Harmonization and Equivalence in Organic Agriculture' (ITF) (2002-2008) defined its main objective as facilitating international organic trade and access of developing country producers to international markets. It initiated a global multi-stakeholder dialogue on opportunities for

harmonization, recognition, and equivalence of public and private OAS (Bowen, 2013, p. 2). In 2008, ITF published two practical tools, the 'Guide for Assessing Equivalence of Standards and Technical Regulations' (EquiTool) and the 'International Requirements for Organic Certification Bodies' (IROCB). These tools can be used by any public and/or private actor within the organizational field for recognizing other organic standards and certification performance requirements as equivalent to their own. ITF allowed entrepreneurs to strategically intensify professional connections and to acquire common systematic knowledge on regulatory fragmentation. Moreover, by means of defining problems entrepreneurs, for the first time, reached a common understanding of *regional OAS-setting* as an appropriate strategy to minimize regulatory fragmentation (UNCTAD, FAO & IFOAM, 2012a, p. i). In doing so, they pooled legal, moral and technical authority collectively and paved the way for the subsequent regional standard-setting processes in different world regions (Schwindenhammer, 2015).

Global Organic Market Access Project (GOMA)

Funded by Norad, the GOMA project was launched in 2009 by IFOAM, FAO and UNCTAD as a follow-up on their work in the ITF. The main policy focus of the entrepreneurs was about providing technical assistance and training to governments and other actors in the implementation of the EquiTool and the IROCB and on further promoting standard harmonization. The aim of the project 'was to increase awareness of the need and opportunity for harmonization and equivalence for organic trade, to facilitate regional initiatives for cooperation, to promote the ITF Tools and offer technical assistance for using them, and to follow up on other recommendations and results of the ITF' (UNCTAD, FAO & IFOAM, 2012b). In the course of GOMA, the entrepreneurs continued network-building and the provision of expert knowledge. They implemented several revisions in the EquiTool and the IROCB that were published in a second version in 2012. Version 2 of IROCB adds a requirement for the legal and financial stability of certification bodies and clarifies the obligation of certification bodies to specify documentation required of operators. Version 2 of EquiTool includes a new instrument, the 'Common Objectives and Requirements of Organic Standards' (COROS), to assess equivalence of standards within the framework of common objectives for organic production and processing (UNCTAD, FAO & IFOAM, 2012c). In the context of GOMA, the entrepreneurs also further facilitated regional standard-setting through the establishment of networks and cooperation between various public and private field entities on the regional level. The entrepreneurs recognized that the second version of EquiTool and IROCB should serve as a benchmark for harmonization processes (Bowen, 2013, p. 3) and fostered regional OAS-setting processes by means of network-building in Asia and Central America (see case descriptions below). In doing so, they placed priority on both: the global harmonization and regional integration of organic agriculture standards.

United Nations Forum on Sustainability Standards (UNFSS)

In recent years, one can observe a trend towards the 'meta-governance' of standards on the global level. In this 'umbrella concept for the fragmented plurality of toolkits for regulating self-regulation' (Sørensen, 2006, p. 101), OAS are not only part of one organizational field, but located in a broader context of sustainability standards. In 2013, the United Nations Forum on Sustainability Standards (UNFSS) was initiated as a global platform of FAO, UNIDO, ITC, UNEP, UNCTAD and a multi-stakeholder Advisory Panel (composed of some 20 experts representing the key target groups). Led by governmental agencies, the UNFSS is designed for providing a platform of international dialogue on voluntary sustainability standards (including OAS). It provides analysis on voluntary sustainability standards with a focus on their potential as tools for developing countries to achieve the sustainable development goals and, at the same time, addresses the potential trade or development obstacles standards may create. The platform explicitly continues the objectives of the GOMA project, especially in the 'Working Group on Enhancing Interoperability of Voluntary Sustainability Standards'. This working group focuses on standards schemes in organic agriculture and good agricultural practices. It implements practical activities on harmonization, equivalence, benchmarking, and other forms of cross-platform cooperation. 'It is foreseen that these activities will produce models and case examples as references to scale up interoperability of voluntary sustainability standards' (UNFSS, 2015).

Regional standard-setting frameworks

East African Organic Products Standard (EAOPS)

While the idea of harmonized OAS gained ground globally in the context of the ITF in the 2000s, the EAOPS was the first regional OAS ever developed in a public-private-partnership approach. The EAOPS development process (2005-2007) was significantly influenced by the engagement of public and private entrepreneurs (for EAOPS see Schwindenhammer 2015). In 2005, IFOAM initiated the 'Organic Standards in East Africa' (OSEA) program that established a network with the national organic movements of Kenya, Tanzania and Uganda. OSEA promoted a regional standard and aimed to facilitate trade in organic products and regional certification cooperation (IFOAM, 2007, p. 4). Through network building, IFOAM advanced regional cooperation and capacity building among societal actors. At the same time, UNEP and UNCTAD launched the project 'Promoting Production and Trading Opportunities for Organic Agricultural Products in East Africa within the framework' of the Capacity-Building Task Force on Trade, Environment and Development (CBTF) to increase awareness and appropriate organic agriculture policies in Kenya, Tanzania and Uganda. The CBTF project also explicitly pursued the goal of a common East African OAS. Due to the similar goals and the close communication between the project participants, the

entrepreneurs merged the OSEA and CBTF-project in the course of 2005. They created the 'Regional Standard Technical Working Group' (RSTGW) to take the different stakeholder positions into account. RSTWG was commissioned to develop the draft text of EAOPS. It was co-chaired by UNCTAD and IFOAM and included representatives from the national standard bureaus, organic movements, organic certifying bodies, and the East African Business Council. The standard draft went through three revisions and was developed with ongoing input from a series of consultations. The interplay of the collectively pooled legal and technical authority sources in the RSTWG, complemented by growing stakeholder acceptance, significantly influenced East African governments to conceive EAOPS as an appropriate and legitimate policy goal at last. 'There was a general consensus that the time was ripe for the development of a common East African organic products standard' (EAC, 2007). In April 2007, EAOPS was finally adopted as the official East African organic standard (EAS 456:2007) that is applied today in Burundi, Kenya, Rwanda, Tanzania and Uganda. The provisions of EAOPS are on the one hand adaptations to the context-specific characteristics of East Africa and, on the other hand, refer to the IFOAM Basic standards and the Codex Alimentarius Commission guidelines.

European Council Regulation No 834/2007

Two months after EAOPS was adopted, the European Union finalized its review process of the legal framework for organic agriculture (2005-2007). (EEC) No 2092/91 was replaced in June 2007 by European Council Regulation No 834/2007 setting out new principles, aims and overarching rules of European organic production and defining how organic products have to be labelled. This legislative framework was further completed with production standards for aquaculture in 2010 and for wine production in 2012. In 2012, the European Commission decided again to review the current legislative and political framework for organic farming. In March 2014, it published a legislative proposal for a new regulation that would result in a complete revision of the legislation. The vast majority of the organic sector, and a lot of the European member states rejected the proposed revision so that the political discussion still continues in 2015 (Huber et al., 2015, p. 130). Although OAS-setting in the European Union was not designed as a public-private-partnership approach, entrepreneurs continuously influenced the development of European organic regulation. By means of awareness raising, advocacy and network-building, IFOAM, through its regional 'IFOAM EU Group', influenced the European policy-making process. 'The advocacy strategy remains targeted on the Commission on the one hand and Member States' experts […] on the other hand' (Kölling, 2012, 20). IFOAM had close contact with the European Commission, especially with the Organic Unit, and the Directorate Generals for Agriculture, Environment, Climate, Research and Consumer Protection and participated in several Commission Advisory Groups (IFOAM EU Group, 2013, p. 7). IFOAM EU Group was also invited by

several EU Council Presidencies to attend high level conferences and informal meetings (IFOAM EU Group, 2013, p. 7). Since 2009, when the Lisbon Treaty became the new legal basis for all EU policies, the IFOAM EU Group intensified its cooperation with the European Parliament. IFOAM improved 'contacts with key Members of the European Parliament (MEPs) who are active in agriculture policies. Members of the Committee for Agriculture and Rural Development will mainly be targeted. But we will also target and approach other interested MEPs who have influence on farm related policies, such as members of the environment, consumer protection, research and industry committees' (Kölling, 2012, p. 19). Although IFOAM significantly influenced the European organic regulation, this regional OAS-setting process differs from public-private-partnership approaches. It was neither initiated by the entrepreneurs, nor did the IFOAM EU Group cooperate with public actors on an equal footing.

Pacific Organic Standard (POS)

Next to EAOPS, the POS was the second regional OAS developed in a public-private-partnership approach. In 2006, IFOAM initiated the 'Organic Standards for the Pacific' project in cooperation with the Italian environmental and ethical certification institute 'Istituto Certificazione Etica E Ambientale' (ICEA) and the 'Secretariat of the Pacific Community' (SPC). Financial support was provided by the 'International Fund for Agricultural Development' (IFAD). The project aimed at taking stock of the existing situation of organic agriculture governance in the Pacific, increasing certification capacity, and developing a regional OAS (IFOAM, 2015b). When institutionalizing the project, IFOAM largely emulated the prior experiences made in the regional OAS-setting process in East Africa. It applied the multi-stakeholder approach of OAS-setting that today 'serves as a successful and replicable model for developing regional standards worldwide' (UNEP & UNCTAD, 2010, p. 37). Form 2006-2008 the standard draft was developed with ongoing input from different stakeholders. By means of network building, IFOAM established a 'Regional Organic Task Force' that allowed taking different stakeholder positions into account. IFOAM brought together representatives of national organic movements, government bodies, organic businesses and NGOs from ten Pacific Island countries and territories, Australia and New Zealand. The task force also received feedback from a series of workshops, national consultations and trainings that were conducted in the Pacific region (IFOAM International Projects Manager Anne Boor, cited in: SPC, 2008, p. vii). IFOAM exerted technical authority by means of the provision of scientific expert knowledge provision. It commissioned the report 'An overview of organic agriculture in the Pacific' (Mapusua & Maccari, 2007) that analyzed the state of regional and national organic policies, organic market developments, and conducted nine case studies on the Cook Islands, Fiji, Kiribati, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, and Vanuatu. The interplay of moral and technical authority sources, complemented by the

networking in the working group paved the way for the POS. According to IFOAM, especially the active participation of local governments and the close cooperation with the SPC were key in the successful implementation of the project (IFOAM, 2015b) and increased stakeholder acceptance. The POS was finally published in 2008 covering organic production and processing in the 22 Pacific Island countries and territories[5]. The provisions of POS are based on local agricultural traditions and the IFOAM Basic standards and the Codex Alimentarius Commission guidelines (SPC, 2008, p. 5).

Asia Regional Organic Standard (AROS) & ASEAN Standard for Organic Agriculture (ASOA)

The AROS was developed from 2010-2012 under the auspices of the GOMA project in a public-private-partnership approach. The 'GOMA ASIA-Working Group' initiated the setting of AROS with input from stakeholders from East Asia (China, Japan, South Korea), South-East Asia (Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Cambodia, Laos, Myanmar, Vietnam) and South Asia (Bangladesh, India, Sri Lanka, Pakistan, Nepal, Bhutan), with most participants coming from the latter two regions. The Asian stakeholders applied expert knowledge provided by the entrepreneurs. Seven Asian governments compared their national OAS and certification requirements with COROS and IROCB, and, thus, provided the ground for the development of AROS (Bowen, 2013, p. 15). The entrepreneurs also commissioned the 'Drafting Group' to develop the standard draft text. The Drafting Group held national consultations and workshops in the Philippines, Laos and South Korea (UNCTAD, FAO & IFOAM, 2012b, pp. 1-2). The standard draft went through three revisions between March 2011 and February 2012 and was prepared with input from local stakeholders and the GOMA-Asia Working Group. AROS was finally published in Nuremberg, Germany, in February 2012 'as a regional benchmark for equivalence and for adoption by countries in the region that have not yet set their own national organic standards' (Kung Wai, 2014, p. 165).

Originally only intended for equivalence purposes, the Asian stakeholders soon recognized the potential of AROS to further harmonize organic agriculture standards in the region. The 'Task Force on ASEAN Standards for Horticultural Produce and other Food Crops' discussed to adopt AROS during a meeting in April 2012. The discussion led to the establishment of a new interim 'Special Task Force on the ASEAN Standards for Organic Agriculture' for further consultation amongst member states. Chaired by the Philippines, the Special Task Force met in April 2013 and agreed to use AROS as a working document to develop an 'ASEAN Standard for Organic Agriculture' (ASOA) (Kung Wai, 2014, p. 165).

[5] The Pacific Island countries and territories include American Samoa, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Pitcairn Islands, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna (plus Australia, France, New Zealand and the US as four of the founding countries).

After three workshops held in the Philippines, Thailand and Malaysia, the Special Task Force completed the ASOA draft in April 2014. Finally, ASOA was adopted in late 2014. Although the entrepreneurs were not directly involved in the development of ASOA, they laid the foundations of this public OAS-setting process in Asia. With minor revisions the ASOA pretty much reflects the content of AROS. That ASEAN member states could reach consensus in 12 months 'speaks highly of the GOMA project team foresight, inclusive consultations and sound preparatory work in development of the AROS' (Kung Wai, 2015, p. 159).

Harmonized Organic Regulations for Central America, Panama and the Dominican Republic

The Harmonized Organic Regulations for Central America, Panama and the Dominican Republic were finalized between 2010-2012 under the auspices of the Inter-American Institute for Cooperation on Agriculture (IICA) and with financial and technical support by the GOMA project. The impetus for the regional standard-setting process came some years earlier from the creation of a group of 'Competent Authorities on Organic Agriculture' (ACAO) from these countries. The countries aimed at facilitating 'intra-regional trade and to enable the countries to negotiate equivalence agreements as a bloc' (Twarog, cited in GOMA, 2012a, p. 15). Similar to the European organic regulation, the regional standard-setting process was dominated by national governments. It was neither initiated by the entrepreneurs, nor did the entrepreneurs cooperate with public actors on an equal footing. The entrepreneurs defined their role in the standard-setting process as 'to provide the necessary resources to finish the process that the authorities started, and to encourage effective public-private participation in the regional standards process in Central America' (GOMA, 2012b, p. 12-13). GOMA's financial support intended to enable Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama and the Dominican Republic to resume work on the regional standard-setting process, which was started in 2004, but stalled by 2007 (GOMA, 2012b, p. 11). However, 'lacking an early, comprehensive discussion of assumptions and expectations, the cooperating parties, including the government authorities, soon learned that they had different operating concepts. While GOMA assumed it would fulfill an advisory role in the development process for the standard, its Latin American counterparts saw the role of the GOMA project as primarily a funding function for the activities of the governments' (Bowen, 2013, p. 18). The standard draft was developed in the countries via publication and dissemination and national and regional consultations. Responses from the consultations were prepared by each country and addressed by the competent authorities (Twarog, cited in GOMA, 2012a, p. 15). In contrast to the standard-setting process in Asia, the entrepreneurs did not actively participate in the standard-setting meetings. They only commented on the standard draft. The competent authorities did not directly employ the GOMA tools (COROS and IROCB), 'although during the course of the process, governments learned about them' (Bowen, 2013, p. 15). In 2012, the Central American Agricultural Council

officially approved the harmonized regulations that include standards for organic production and processing, requirements for conducting organic certification, and a system for supervision of the regulation by the governments. All in all, although entrepreneurs were involved the OAS-setting process, they did not take a leading role in the production of the harmonized organic regulations.

3.4) Field development at a glance

The organizational field of organic agriculture governance through standards incrementally developed in three historical phases. The first phase was mainly characterized by organic self-subsistence systems and the uptake of a countermovement against the chemicalization of agriculture. The first OAS and certification systems emerged on the local level, mainly influenced by individual organic pioneers and the beginning institutional self-organizing dynamic of structuration. The early individual entrepreneurs gave impetus to the formation of the organizational field. They mainly exerted moral authority through the provision of expert knowledge (e.g. lectures, publications), leading by example (practicing traditional farming techniques) and through networking building (founding of the first local organic-farmers groups).

The second phase is characterized by the final structuration of the field and the beginning of institutional homogenization. At first, individual entrepreneurs engaged in the institutionalization of global structures by means of global network-building (founding of IFOAM). At the end of the second phase, institutional entrepreneurs prepared the ground for institutional homogenization within the organizational field. Through the exercise of moral, technical and legal authority transnational and international entrepreneurs set two global standard-setting reference schemes (IFOAM Basic standards & Codex Alimentarius Commission guidelines) that provided a 'common framework for the establishment of more specific organic standards at a regional, national governmental or private level' (Schmid et al., 2007, p. 50).

The third phase is characterized by institutional homogenization on different regulatory levels. Institutional entrepreneurs from the public and the private sector played a key role in fostering global OAS harmonization (including meta-governance) and regional integration. UNCTAD, FAO and IFOAM joint forces in ITF and GOMA to foster harmonization and equivalence in organic agriculture governance through standards. They promoted the setting of regional standards and, thus, successfully paved 'the way towards a new regionalism for organic agriculture' (UNCTAD, FAO & IFOAM, 2012a, p. i). Entrepreneurs successfully provided an overarching normative floor on which regional OAS-setting today takes place. Although EAOPS, European Council Regulation No 834/2007, POS, AROS & ASOA, and the Harmonized Organic Regulations for Central America, Panama and the

Dominican Republic are adaptations to context-specific characteristics of the different world regions, they also directly or indirectly refer to the IFOAM Basic standards, the Codex Alimentariums Commission guidelines and the GOMA tools (COROS and IROCB). Moreover, as the UNFSS meta-governance scheme shows, standard harmonization is not necessarily limited to one organizational field, but may exceed several institutional contexts.

4) Conclusion

The paper has shown that organizational field analysis and research on entrepreneurship are valuable approaches for analyzing the global architecture of organic agriculture governance through standards. The combination of both approaches broadens the perspective beyond single policy processes and avoids the pitfalls of generalized system-level explanations. The empirical findings provide evidence of the dynamics that promoted the development of the organizational field of organic agriculture governance through standards. The empirical analysis has shown that both, institutional self-organizing dynamics (structuration & homogenization) and entrepreneurs promote field development. Individual entrepreneurs (organic pioneers) and institutional entrepreneurs (IFOAM, FAO and UNCTAD) pooled legal, moral and/or technical authority and gained the legitimacy to prescribe how OAS-setting ought to be designed. While individual entrepreneurship was key in the first and second phase, institutional entrepreneurship significantly influenced field development in the third phase. Today, organic agriculture governance through standards clearly oscillates between global OAS harmonization (including meta-governance) and regional integration.

However, there are also some limitations to the presented research results. Critics might arguably state that, after all, the findings do not reveal the causal mechanism by which entrepreneurs advocate OAS-setting. The unanswered question is still *how* the individual and institutional entrepreneurs received support and legitimacy to influence the development of the organizational field. Own research results on the EAOPS development process indicate the significance of ‘authority pooling’ in a new functional division of labour between public and private entrepreneurs (Schwindenhammer, 2015). However, further research (e.g. from a cross-regional perspective) is needed to reveal additional explanatory value.

Another point of criticism concerns the effectiveness of governance through standards. According to Abbott and Snidal (2009, p. 577), the effectiveness is still limited by an ‘orchestration deficit’ that can only be compensated by even greater involvement of the state. Because of their legal authority sources, public actors seem to be particularly well equipped to establish and protect the constitutional rules of the game for governance through standards (Conzelmann & Wolf, 2007, p. 113). Consequently, meta-governance schemes set by public actors, such as the UNFSS, seem to be a desirable development in global governance through standards. However, in how far the growing influence of public actors

leads to a process of organic standards' strengthening or weakening is a matter of ongoing debate. According to Smid (2007), organic agriculture was originally understood as a natural form of farming characterized mainly by the non-use of chemicals and other synthetic inputs. This narrow understanding improved when organic agriculture was defined in private and later also public standards, e.g. by emphasizing a more preventive approach to crop and animal production. In contrast, Arcuri (2015) identifies a general transformation of private into public OAS ('publicization'), where the setting of minimum standards has become the monopoly of public actors. She argues that, under public regulation, the content of organic standards is increasingly watered down, e.g. by excluding social and normative issues (Arcuri, 2015, p. 147). Here, again, future research is needed to reveal the appropriate role of public actors in the overall architecture of global organic agriculture governance through standards.

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