Rural Spaces

Online

Volume 1 - Issue 2015-3

Agrifood Networks, Provenance and Imagination in Intensive Livestock Production

Oliver Klein & Christine Tamásy

Editor: Christine Tamásy
Managing Editor: Thomas Conradi
ISSN: 2363-9873
University of Vechta | Institute for Spatial Analysis and Planning in Areas of Intensive Agriculture (ISPA)
Driverstrasse 22 | 49377 Vechta | Germany | http://www.ispa.uni-vechta.de

Agrifood Networks, Provenance and Imagination in Intensive Livestock Production

Oliver Klein & Christine Tamásy

Abstract:

This paper deals with the globalizing pork industry of the Oldenburger Muensterland, Northwest Germany, which is well known for its very high livestock concentration. Due to strong linkages in the regional agrifood sector including lots of innovative small- and medium-sized companies ('hidden champions'), the region has performed very well in recent years. However, intensification processes and increasing livestock numbers, especially in pork and poultry farming, cause new challenges (e.g. manure spreading) resulting in a regional image which is in some way problematic.

Against this background, the research focus lies on a multi-scalar analysis of pork production networks (originating from the Oldenburger Muensterland) in special consideration of discourses on provenance and regionality. The empirical findings show that key actors of the pork industry (e.g. slaughterers, processors) adopt new business strategies based on changing (and partly delusive) meanings of product provenance and regionality leading to modified configurations of production networks. On the one hand, export-oriented pork producers tend to put a guaranteed German provenance in the limelight, especially since the pork sector becomes more and more globalized. On the other hand, regional and small-scale strategies are obviously not of such a great importance as media-dominated discourses on regionality in food would like us to believe. Therefore, in global markets it does not matter that much whether pork is from the Oldenburger Muensterland or from any other region in Germany because the national scale seems to be crucial for the perception of quality features.

1. Introduction

Economic activity is embedded in continuous processes of change entailing reconfigurations of production networks in terms of complexity, intensity and operation distance. In this respect, a polarizing and by now inflationary used term has become the focus of attention: globalization. Influenced by significant transformation processes, the agrifood sector represents a special globalizing field with both positive and negative implications. Increasing competition, land-use conflicts, volatile commodity markets and price pressures cause disadvantages particularly for upstream actors in the food chain (e.g. smallholders in developing countries). However, a highly integrated global agrifood industry also offers a lot of chances for suppliers and consumers. These include, among others, access to new markets, greater efficiency and all-season availability of special food. On this account, globalization can be interpreted as a 'double-edged sword'.

Despite the widening of economic transactions and networks, there are still remarkable spatial concentrations which indicate the existence of specific agribusiness clusters. Concerning this matter, the Oldenburger Muensterland (OM), an area of intensive livestock production in Lower Saxony, Northwest Germany, is without any doubt a prime example. As one of the most important industries in the OM, the rapidly developing pork sector is characterized not only by a close meshed regional network of numerous actors along the value chain, but also by an increasing emergence of 'global pipelines' based on exports. Therefore, the existence of large pig farms, slaughterhouses and pork processing firms managing international business relations is a crucial feature of the OM thus functioning as intersection point in multiscalar networks of pork production.

However, due to the high degree of intensive agriculture and livestock production, the Oldenburger Muensterland is often marked with stigmata such as 'swine belt' or 'manure belt', especially in the media. The result is a negative external perception describing the OM in different ways as problematic, if not unsavory. The status quo of a successful and prospering rural area is thus called into question (HUTER 2005, MOSE & SCHAAL 2012). This could be all the more a dangerous issue since the marketing success of agrifood commodities increasingly depends on 'soft criteria' such as provenance, regionality and imagination (FEAGAN 2007, FONTE 2010, GOODMAN 2010, KNEAFSEY 2010, TREGEAR & GORTON 2005). The idea behind this trend is, inter alia, to create positive emotions among consumers by emphasizing the country/region of origin. Such additional quality features are also evident in the pork industry as some special products have impressively testified (e.g. Parma ham, Black Forest ham).

Against this background, the following considerations aim to scrutinize the complex multi-scalar networks of pork production with a specific focus on the Oldenburger Muensterland. Thereby, a central research question addresses the function of (negative) imaginations based on critical discourses on areas of intensive livestock production. While several studies point out that special (and partly organic) foods of a clear geographic origin gain positive attributions (ILBERY ET AL. 2001, KNEAFSEY & ILBERY 2001, PIKE 2011, TREGEAR ET AL. 2007, VOTH 2011), there is obviously a lack of knowledge about conventional products from regions which are well-known for 'mass livestock farming', among others. This research gap is intended to be closed by a qualitative methodology based on 39 guided interviews with actors along the pork chain (from primary production to food retailing) which have been conducted in 2013 and 2014. The theoretical framework consists of two specific approaches in terms of productions networks and geographical imaginations which are outlined in the following two sections.

2. Globalizing Agrifood Networks

In recent years, the agrifood sector has undergone remarkable transformation processes accompanied by the emergence of complex network configurations and commodity flows. Therefore, contemporary food systems are interconnected by cross-cutting affiliations, strong and loose linkages, formal and informal relations, which empower and disempower as they bind people and places more tightly together (MURDOCH & MIELE 1999). Producing food for a global market requires huge capital investment and gives immense power to large food producers and retailers which are able to create global agrifood networks on their own targets. Agrifood chains on a small scale are dissolving, while the expansion of sourcing and sales activities becomes more and more decisive for the constitution of these global networks. Referring to this, MORGAN ET AL. (2006) identify a tendency of deterritorialization within conventional agri-industrial systems characterized by corporate capitals' attempts to appropriate some of the functions of agriculture in ways that stretch links, networks and chains between production and consumption spheres. The contemporary growth in food consumer markets, the increasingly weakened and fragmented position of the food manufacturing sector and the spectacular rise of corporate retail are the most important trends with a clear power shift implicating buyer driven processes of value creation (ebd.).

Taking into account these dramatic changes in the era of globalization, a variety of theoretical frameworks has been developed to explore the relationships between stakeholders in global network configurations, particularly the approaches

of Global Value Chains (GVC) and Global Production Networks (GPN). Both frameworks are "centrally concerned with the globally coordinated interorganisational relationships that underpin the production of goods and services, and the power and value dynamics therein" (COE 2012: 390). Despite these common features, there are also some differences, mainly with the GPN approach being deliberately broader in remit.

The quintessence of the GVC approach, however, consists of its sophisticated typology of five basic governance types: markets, modular, relational, captive and hierarchy (GEREFFI ET AL. 2005). These types are measured and determined by three variables: the complexity of information and knowledge transfer, the extent to which this knowledge can be codified and the capabilities of actual and potential suppliers. Thus, the GVC framework focuses on the nature and content of inter-firm linkages, and the power that regulates value chain coordination, spanning not only transnational borders, but particularly extending to a global reach (ebd.). Several GVC analyses on the agrifood industry aim to explore the power relations of large transnational retailers (DOLAN & HUMPHREY 2004, GEREFFI & CHRISTIAN 2010), the opportunities and threats of smallholders when integrated in global agrifood configurations (CHALLIES & MURRAY 2011, FOLD & GOUGH 2008, LEE ET AL. 2010), or the impacts of quality standards on (agricultural) production organization (DANNENBERG & NDURU 2013, GIBBON ET AL. 2010).

In a similar way, the GPN approach emphasizes the complex intra-, inter- and extra-firm networks that constitute all production systems and explores how these are structured both organizationally and geographically (COE & HESS 2011). Accordingly, GPNs are defined as „an organizational arran-gement comprising interconnected economic and non-economic actors coordinated by a global lead firm and producing goods or services across multiple geographic locations for worldwide markets" (YEUNG & COE 2015, S. 32). This perception takes into account the relevance of supranational organizations, government agencies, trade unions, employer associations, NGOs, consumer groups and other non-economic actors. Furthermore, the GPN analysis is closely linked to a multi-scalar perspective considering the mutual relations and interactions on different scales (from the local/regional to the global).

According to HENDERSON ET AL. (2002), the configuration of GPNs depends on three analytical dimensions which are value (creation, enhancement, capture), power (corporate, institutional, collective) and embeddedness (societal, network, territorial). These categories are not only arranged in the dynamic proceedings of firms and institutions, but also in specific economic structures (e.g. branches, networks). As already indicated in the GVC literature, the GPN approach tends to analytically scrutinize the relations and governance structures within and between production networks. However, the main focus shifts with a stronger link to extra-firm interactions to highlight the relational and multidimensional character of GPNs. In order to contribute toward the development of a more dynamic theory, YEUNG & COE (2015) frame an advanced conceptualization, referred to as 'GPN 2.0'. Thereby, the authors seek to analyze why and how three competitive dynamics – optimizing cost-capability ratios, sustaining market development and working with financial discipline – interact with firms and non-firm actors under uncertain market conditions.

It may be a little surprising that empirical agrifood research drawing explicitly on GPNs has been rather limited. In this regard, few existing studies explore either distributions of power in global agrifood networks (HENDERSON 2005, HENDRICKSON ET AL. 2008, LEVY 2008) or forms of cultural embeddedness since food plays an important role

concerning lifestyles and self-identity of people (HASSLER & FRANZ 2013). Thereby, some questions come into focus including local interpretations of agrifood networks, culinary knowledge or cultural meanings of places and spaces. In particular, the geographical origin of food could have significant impacts on value creation and network organization.

This point of view seems to become increasingly considerable as indicated by distinctive approaches of reterritorialization of agrifood networks. With regard to the changing character of food quality features, SONNINO & MARSDEN (2006, S. 183) state: "A key characteristic of the new supply networks is their capacity to re-socialize or re-spatialize food, which comes to be defined by its locale (i.e. either the locality or even the specific farm where it is produced). By drawing upon an image of the farm or the region as a source of 'quality', alternative food networks 're-localize' food." Some of the driving forces behind these re-localization processes are the increasing concerns with food safety and healthy nutrition as well as social and ecological issues (e.g. fairer treatment of famers, creation of sustainable production circuits). The emergence of alternative food networks implies the relevance of cultural geographical approaches with a primarily focus on perceptions, imaginations and representations which are depicted in the next chapter.

3. Agrifood and Imagination

Traditionally, human geography is concerned with the relationship between society and space, whereby several paradigm shifts have taken place du-ring the last decades. For long periods of time, a claim to objectify space and place has been pivotal in geographic research. With a series of cultural turns affecting social sciences, however, new re-search agendas have come into focus. In this regard, geographies which exist in our heads are of increasing importance. Such a constructivist perspective emphasizes the knowledge about what other places, landscapes and environments are 'like' even without having direct first-hand experience. Central to the study of this idea of space is the importance of 'representation' which is defined as "the cultural practices and forms by which human societies interpret and portray the world around them" (CLOKE ET AL. 2005, S. 610).

The social construction of spaces and places is therefore a result of subjective meanings and discoursive struggles. In this sense, discourses are regarded as powerful representation systems based on verbal expressions and other social practices. They consist of a bulk of statements collectively building dynamic networks of connotation which are embedded in specific historical and social frameworks. Thus, discourses can be considered as 'complex social debates' shaping our daily life by means of metaphors, images and the media. Consequently, subjects of discourse analysis are supra-individual patterns of thinking, talking, self-percepting and acting as well as social processes in which imaginations and everyday practices are produced and continually changed (MATTISSEK & GLASZE 2014).

Some explanations outlined above have a lasting effect on studies dealing with agriculture and food production. For example, several authors focus on provenance of food products while analyzing 'country of origin'- or 'region of origin'-effects (ILBERY & KNEAFSEY 2000, RIPPON 2014, TREGEAR ET AL. 2007, VAN DER LANS ET AL. 2001). Food production and retailing are therefore explored in consideration of geographical indications and cultural meanings. Typical high-valued foods of a specific geographic origin are Parma ham, Roquefort cheese, Budweiser beer or Champagne. In this respect, it is argued that the origin of a product works not only

as a form of information cue, but also as a branding tool (VAN DER LANS ET AL. 2001). Like brand names, 'made in…' labels have the potential to alter consumer perceptions of products whose attributes may otherwise be very similar to competing offerings (BAKER & BALLINGTON 2002).

With the right kind of product and market, an individual firm can capitalize on a pre-existing strong image or reputation of a specific geographical area. This is even more important as some consumers develop deep, emotionally rich associations between food and place (SKAGGS ET AL. 1996). These consumers may be affected by complex phenomena such as pride, tradition, nostalgia or exoticism while creating close links between food, identity and culture. It is obvious that foods of a distinctive regional (and often rural) origin claim supposedly 'authentic' characteristics as additional quality features (KNEAFSEY & ILBERY 2001). Referring to this, food quality is directly linked to individual perceptions of the local environment, culture or tradition of a particular place or region. However, because of a lack of clear and strict indication rules, firms have considerable freedom for implementing branding strategies. They can switch production to different places, manipulate brand associations and extend or develop into new areas as market and competitive circumstances dictate (TREGEAR & GORTON 2005). The configuration of agrifood networks consequently depends, to some extent, on meanings and imaginations based on provenance of products.

As already mentioned above, the prospect of generating further added-value is a key driver of highlighting the provenance of food. In many cases, food specialities of a specific geographic origin foster the construction of (positive) imaginations, which are usually honored by higher prices (VOTH 2011). One argument is that conscious food consumers appreciate the meanings and connotations of specific producer areas as an intrinsic quality feature for which they are willing to pay. Accordingly, provenance actually represents a mere symbolic value based on imaginations, but being transformed into a monetary value at the final point of sale. However, in order to generate this added-value, the organization of production net-works must be shaped in a specific way mainly characterized by regional linkages and direct contacts between producers and consumers. Referring to this, LEE (2011, S. 374) goes even further and argues that "value is itself socially constructed in and through the social experience of its consumption and production and in the transactions and exchanges involved in its circulation." Thus, the different meanings of value depend on its concrete environmental, social and practical contexts.

These non-economic fields are also important as a source of collective power influencing not only the spatial organization of agrifood networks, but also the content and substance of discoursive practice. Powerful discourses on issues like quality, security, transparence, animal welfare, provenance and regionality play a dominant role in agrifood networks by increasing pressure on key actors along the value chain. Taking into account such socio-political impacts, LEVY (2008) refers to production networks as contested arenas, in which actors struggle over the construction of economic relationships, governance structures, institutional rules and discoursive frames. The emergence of heated public discourses on areas of intensive agriculture and livestock production raises demanding challenges for a major part of the involved producers. Therefore, it seems reasonable to introduce the term 'discoursive power', even if close relations to collective power become obvious.

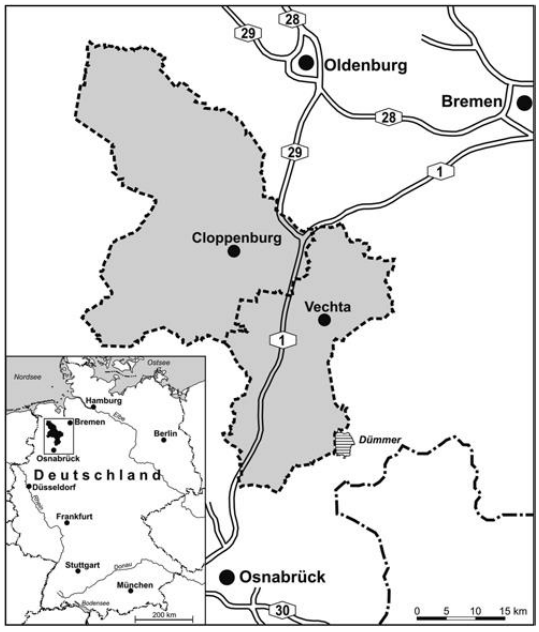
Beside categories of value and power, the embeddedness concept is also crucial to explore the linkages between global production networks and

imaginations of specific places and spaces in the agrifood sector. Being embedded into a given socio-cultural environment is a decisive factor for strengthening of immaterial and trustful relationships between economic actors. Thus, shared values, conventions and behavior patterns foster a common sense of unity, while belonging to a successful and dynamically developing region may be regarded as a prestigious asset. Furthermore, and with special regard to agrifood production, a strong territorial embeddedness is likely to shape consumers' imaginations and quality perceptions (BORN & PURCELL 2006). Therefore, a strategic focus of particular (and often described as 'sustainable') food producers lies on the creation of regionally based food networks – including production, processing and retailing – which are geographically distinctive and recognized as such by the actors involved (KNEAFSEY 2010). But in theory, the scale of a regional food network is not clearly determined because regions are constructed differently through various socio-politic, economic and bio-physical relationships.

4. The Oldenburger Muensterland – an Area of Intensive Livestock Production

As a prime example for intensive agriculture, the Oldenburger Muensterland (OM) in Lower Saxony, Northwest Germany, has achieved a certain degree of prominence (*see figure 1*). Including the districts of Cloppenburg and Vechta, this originally poor region has undergone a remarkable process of economic development which is based to a large extent on conventional livestock production and its up- and downstream areas (e.g. feed production, stable construction, food processing). The rurality of the OM becomes evident, among others, by the low population density of 132 inhabitants per square kilometer (*see table 1*) providing a first clue for the disproportionate economic importance of agrifood production. Although the regional GDP per capita of around 32.400 EUR lies slightly below the national average of 33.570 EUR, the unemployment rate of the OM (4.6 %) is considerably lower than in Germany overall (6.8 %). The positive trend on the labour market which is close to full employment has also a favourable effect on the regional demographic development since the districts of Cloppenburg and Vechta have shown the youngest population throughout Germany in 2011 (GERMAN FEDERAL STATISTICAL OFFICE 2013).

Figure 1: Location of the Oldenburger Muensterland, Lower Saxony



Source: Tamásy 2014: 204

As already mentioned, the agrifood sector is a key driver of regional economic development, whereby a range of primary producers, processors and traders ensure that a large share of added value remains in the Oldenburger Muensterland. Due to unfavourable natural conditions (e.g. poor sandy soils) limiting the cultivation of grain, fruit and vegetables, regional farmers are more or less constrained to specialize on livestock production. In this respect, the pork industry – in addition to poultry farming – is one of the most important pil-

lars within the regional agrifood-system. After the latest agricultural census in 2010, the OM has a stock of about 2.3 million pigs (Cloppenburg: 1.24 million; Vechta: 1.06 million) which comply 27.3 % of all pigs in Lower Saxony (respectively 8.7 % throughout Germany). Taking into account the districts of Emsland and Osnabrueck (Lower Saxony) as well as Borken, Coesfeld, Steinfurt and Warendorf (Northrhine-Westphalia), the OM builds the core of a greater livestock region showing about 8.2 million pigs (BÄURLE & TAMÁSY 2012, S. 38; *see figure 2*).

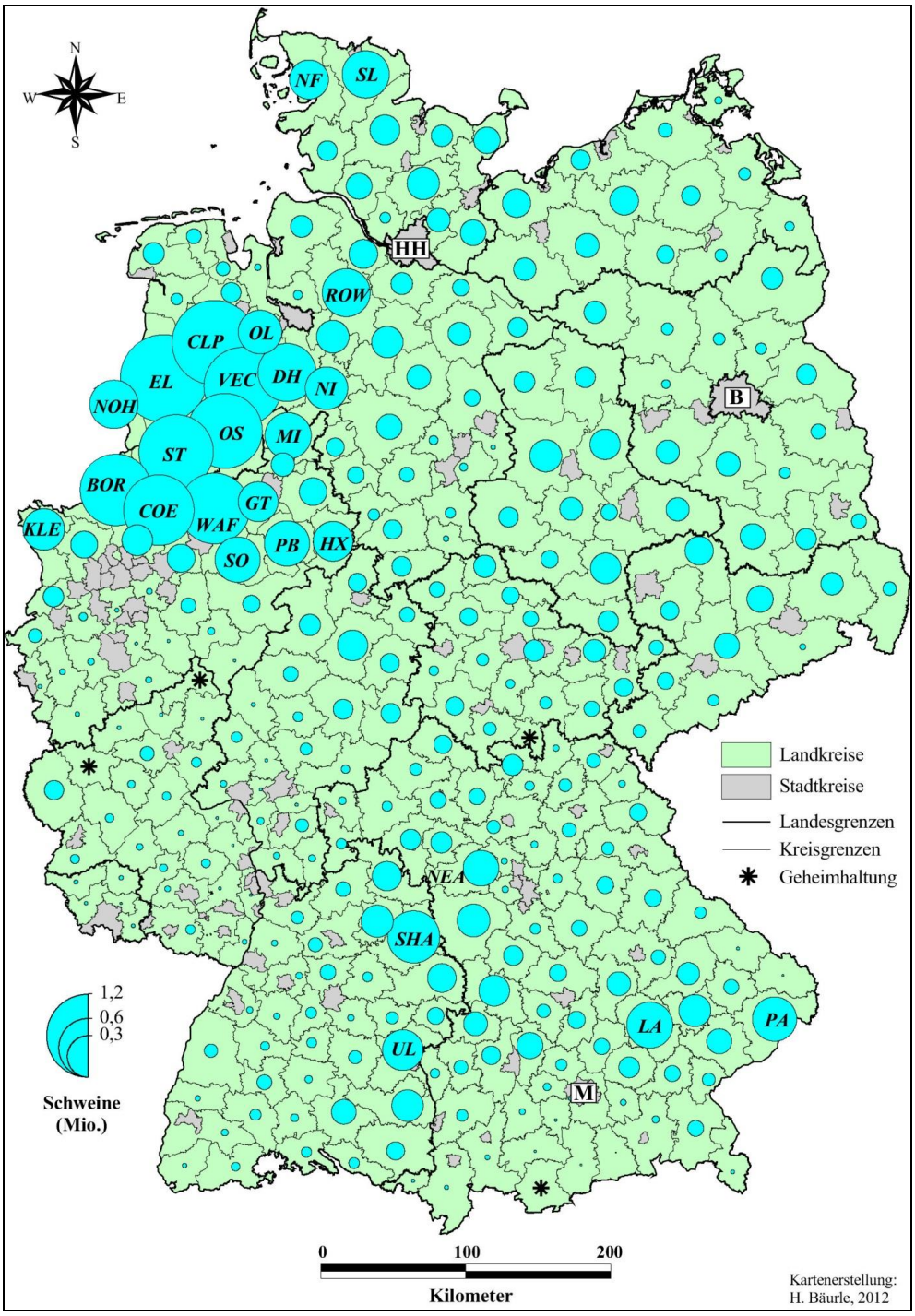
One characteristic feature of pig farming in the Oldenburger Muensterland is the high deficit of piglets. This means that pig farmers must buy in addition about 1.5 million piglets per year, with Denmark and the Netherlands being by far the most important markets. These transnational supply relationships are usually managed by professional livestock traders which are either organized as private companies or as producer cooperatives. The OM region also features a strong basis of slaughterhouses and meat processing firms which are characterized by different capacities, specialization levels, customer structures and internationalization strategies. In this regard, it is remarkable that four of the national 'top ten' slaughterers (Vion, Danish Crown, Böseler Goldschmaus, BMR) drive own production facilities in the OM. These (and other) firms are mainly located in the district of Cloppenburg where slaughterings have doubled between 2001 and 2014 reaching a total number of about 8.7 million slaughtered pigs. In the same period, the district of Vechta shows a relative constant level of slaughter volumes comprising around 1.2 million in 2014 (LOWER SAXONY STATI-STICAL OFFICE 2015b). Hence, the regional performance of pork production has been very uneven in recent years.

Table 1: Structural data of the Oldenburger Muensterland

	District of Cloppenburg	**District of Vechta**	**Oldenburger Muensterland**
Area	1.418,33 km²	812,54 km²	2.230,87 km²
Population	160.176 (2013)	134.188 (2013)	294.364 (2013)
Population density	112,9 (2013)	165,1 (2013)	132,0 (2013)
GDP	4.61 billion EUR (2012)	4.93 billion EUR (2012)	9.54 billion EUR (2012)
GDP per capita	28.780,84 EUR (2012)	36.793,50 EUR (2012)	32.408,85 EUR (2012)
Unemployment rate	5.4 % (2013)	3.7 % (2013)	4.6 % (2013)

Source: Lower Saxony Statistical Office (2015a)

Figure 2: Figure 2: Pig stocks in Germany on the district level (2010)



Source: Bäurle & Tamásy 2012, S. 38

By now, the Oldenburger Muensterland is well-known as one of the most prospering rural areas throughout Germany (BERLIN-INSTITUT FÜR BEVÖLKERUNG UND ENTWICKLUNG 2009). However, the current and even more the future trajectory of regional development seems to be risky. Because of several problems that result from intensive livestock production, the OM is more and more in the 'line of fire' of a critical public discourse. The media especially contributes to a negative regional image which is mainly created through stigmatizing buzz words like 'swine belt', 'manure belt' or 'mass livestock farming'. There is thus a risk that the region will be increasingly perceived as an unpleasant area with a lack of life quality. Therefore, it remains to be seen whether the OM continues to

perform positively, especially in terms of sustainability.

5. Network Configurations of Pork Production

The spatial organization of the pork industry has considerably changed in the era of globalization. This is clearly illustrated by the fact that pork production and distribution nowadays take place in specific network configurations which are characterized by increasing complexity and market integration. Thus, the focus of the following considerations lies on the analysis of these networks with the Oldenburger Muensterland as intersection point in a globalizing pork industry. Based on 39 guided expert interviews with key actors along the value chain, the empirical results describe a multi-scalar organization of production networks shaped by various actors, new markets, political influences and changing consumer demands. This chapter is therefore divided in two parts – regional networks and globalizing networks – in order to explore the tensions and interdependencies between different scales.

5.1 Regional Networks

Notwithstanding the fact that pork production has become more and more globalized, it needs to be noted that certain linkages are still regionally anchored. In this study, however, the regional scale is not strictly limited to the boundaries of the Oldenburger Muensterland. The underlying concept of space rather follows a relational and variable understanding and therefore considers functional relationships to adjacent districts such as Emsland and Osnabrueck, but also to Northrhine-Westphalia. The analysis of regional economic relations is thus derived from Northwest Germany as a greater livestock 'hot spot' of international standing, where the importance of pork production is far higher than the average in other regions of Germany.

Nevertheless, because of its enormous density of pig farmers, livestock traders and pork producing firms (slaughterers, cutters, processors) the Oldenburger Muensterland has an outstanding position within Northwest Germany. Over many years, the increasing intensification of agriculture has gone hand-in-hand with the evolution of a close meshed network of pork production including numerous actors along the value chain. Such a cluster-like structure implies a benefiting availability of customers and suppliers as one slaughterer refers to the OM region as an 'environment of good raw material supply' (pork producer 3). This means that slaughterers can rely on a strong base of pig farmers while the latter have also many opportunities to sell their pigs to slaughterhouses (e.g. Vion, Danish Crown, Boeseler Goldschmaus, BMR, Brand, Steinemann). These regional market potentials are intensively used, mostly with intermediation of private livestock traders or producer cooperatives. Furthermore, the flourishing evolution of regional agrifood networks has been essentially fostered by two interrelated factors, that is to say a positive investment climate and a high degree of soci-etal embeddedness.

First, the pragmatic and business-friendly orientation of public agencies creates favourable investment conditions for pig farmers and pork producers. In this regard, it is observable that key actors along the value chain, not least on the level of primary production, feature a remarkable entrepreneurial spirit and willingness to take risks. In face of a rapid structural change, pig farmers tend to enlarge their agricultural business in order to be profitable and competitive in the long term. Another crucial factor for encouraging the propensity to invest is the high level of competition among the producers. The dynamic growth of the pork sector in the Oldenburger Muensterland is there-

fore a result of numerous, mutually reinforcing economic activities.

"We have know how, people know to do their job. We have the firms on-site and therefore the advantage of favourable investment opportunities. Feed is also relative cheap due to high competition. (…). People 'fire up' each other and that's the reason for major investments in recent years. And if one sees that it works, then it will be done" (pig farmer 6).

Second, while a major part of the involved pork producers was already born in the Oldenburger Muensterland and thus had been familiar with typical regional conventions since their earliest days, it is evident that business relations are strongly embedded in social structures. Due to the social proximity between business partners, these network relationships are characterized by trust, shared values and common behavior patterns fostering face-to-face contacts and informal arrangements. The initiation of business transactions and information exchange is consequently much easier and more effective. All in all, most regional pork producers show a strong identification with the OM which is underlined by the actors' (self-) awareness to be a cornerstone of regional economic success. Nevertheless, some individual voices issue a warning about complacency or even arrogance and claim a return to modesty (pig farmer 2). Apart from that, the business practices of regional actors are substantially shaped by their emotional affinity to the OM and its people and also to the products which are created re-gionally.

"I would say a social binding certainly plays a key role for the people. (…). I can only understand a farmer, if I have already fed pigs or milked cows at Christmas time. It is only in this way, that I am able to recognize the emotional affinity to his products" (livestock trader 6).

Despite the evolution of common conventions it should not be underestimated that, for example, power shifts could affect the quality of network relations in a negative way. Especially, the increasing concentration process at the slaughterer level indicates remarkable power asymmetries between pig farming ('green side') and pork production ('red side') leading to precarious unilateral dependencies in some cases. However, in order to counteract this trend, there are already approaches of horizontal collaboration between livestock traders based on close personal contacts (pork producer 2, livestock traders 1, 2 and 6). Another crucial feature of the pork industry in the Oldenburger Muensterland is constituted by a shifting orientation on global markets as described in the following section.

5.2 Globalizing Networks

Recently, one of the most decisive developments of the pork sector has been without any doubt the rapidly growing internationalization. The increasing liberalization of markets especially after 1989/90 could be regarded as the starting point of pork production and retailing becoming a global business. Thereby, the integration of the Oldenburger Muensterland into globalizing processes is not only limited to the distribution of final and intermediate products, but also to the supply of 'raw materials' in form of piglet trading. This is due to the fact that there are substantial differences in the relation of piglet production and existing fattening capacities be-tween the EU member states. In particular, Germany is characterized by a strong imbalance of supply and demand with the consequence that pig fattening farmers are compelled to import piglets from Denmark and the Netherlands. Meanwhile, every fifth fattening pig in Germany was born in one of these two countries which are 11.4 million piglets in total (AMI 2015).

The expansion of Danish and Dutch piglet suppliers into the German market is directly related to the massive enlargement of fattening farms in Northwest Germany. On this topic, GRESHAKE

(2011) provides a differentiated overview including company data on transnational piglet trading. The data show that individual strategies of livestock trading organizations vary to a greater or lesser extent. In general, it can be said that private trading companies put a stronger focus on piglet import than producer cooperatives. However, this does not seem to be the case in the Oldenburger Muensterland since GRESHAKE (2011, S. 22) assumes that about half of all piglets in the region are originally from Denmark and the Netherlands. This means that numerous cooperatively organized livestock traders are also engaged in piglet imports on a large scale in order to meet the demand of the big fattening farms in Northwest Germany. In contrast to the past, the farmers now need larger piglet sections of consistent origin with a defined health status and good fattening traits. These high demands can be met by piglet producers from Denmark and the Netherlands in particular (HAXSEN 2010, S. 84). Because of the enormous overflow of piglets in these two countries, the price level is also rather low. As a consequence, transnational trading relations have been deepened over time as few livestock trading cooperatives could even recruit members from the Netherlands (livestock trader 2).

The internationalization of the pork industry also continues to proceed by exports of final and intermediate products. In 2012, German pork exports reached a total volume of 2.77 million tons with Italy being the most important market (328.835 t) followed by the Netherlands, Poland, the UK and Denmark (AMI 2013: 79; *see table 2*). The importance of pork exports for the Oldenburger Muensterland is reflected by the fact that several slaughter and cutting companies have increased their export rates to more than 40 %. It is remarkable that the companies differ clearly concerning strategic focus, evaluation of market potentials and forms of marketing. Of greater importance in this regard is the implementation of sales offices in key export countries. These dependences are usually staffed with experienced specialists knowing the characteristics of the corresponding markets. The cultural proximity between sales representatives and (potential) customers including the ability to speak the respective language is regarded as a decisive success factor. Slaughter companies also set up special sales offices for several countries which are closely connected both geographically and culturally (e.g. Scandinavia, the Baltic region). The establishment of sales offices is admittedly rather a 'privilege' of larger firms as higher trade volumes und more sophisticated customer networks necessitate a local presence in order to coordinate the complex supply flows and to penetrate deeper into the market. Moreover, larger firms mostly have greater financial and personal resources for running sales dependences abroad.

Table 2: Foreign trade in pork at federal and provincial (Lower Saxony) level

Germany	Volume (tons)	Lower Saxony	Volume (tons)
Italy	328.835	Italy	69.904
Netherlands	306.638	Poland	51.414
Russia	243.326	Netherlands	50.246
Poland	215.238	United Kingdom	45.300
China	174.994	Denmark	33.831
United Kingdom	174.904	Austria	21.035
Denmark	151.371	Russia	18.029
Hongkong	142.685	Czech Republic	16.976
Austria	129.723	Sweden	14.977
Czech Republic	122.666	South Korea	13.642
France	108.339	Ukraine	10.930
Hungary	66.399	Hongkong	10.790
Belgium	65.960	Greece	10.447
Sweden	65.803	Belarus	7.467
Romania	52.704	France	7.118
Ukraine	44.108	Finland	5.937
South Korea	38.381	Ireland	5.300
Greece	34.841	China	5.171
Belarus	34.777	Hungary	5.019
Ireland	23.135	Croatia	3.929

Source: AMI 2013, S. 79; Lower Saxony Statistical Office 2013

Italy as the most important export country is considered a typical agent market (pork producers 8 and 9). Special contacts are of great importance especially in South Italy, where the pork sector seems to be partly obscure. In other respects, it may be difficult to get access to any distribution channels. The agents' networks of relationships are consequently regarded as their 'main capital'. But the hiring of intermediaries is in some cases also disadvantageous because of relative high commission payments and dubious practices of some agents (pork producers 8 and 11). While pork exports to Italy have been stagnating for several years, the Polish market has experienced a substantial growth which is due to its structural problems implicating enormous import needs for both live hogs and pork products. Along with the increasing affluence of the Polish population, the pork consumption per capita has been continuously rising. For similar reasons, the other new EU member states from East-Central Europe (e.g. Czech Republic, Hungary, Romania, Bulgaria) are also the focus of pork exporting firms by now, even though trading volumes are comparatively low.

At EU-level, the United Kingdom and Sweden are also notable target countries which have suffered a clear structural shock in pork production due to strict political guidelines and animal welfare requirements. That is why self-sufficiency rates in both countries amount only to 56 % respectively 75 % entailing substantial import dependencies (AMI 2013, S. 145). In the case of the UK, demand for bacon products is strongest which offers good value potentials also for pork producers from the OM. Some of these firms are already well represented in the UK market (pork producers 5, 9 and 11). Sweden, on the other hand, seems to be a

"rather complicated market that requires many different cuttings and certain measures for salmonella prevention" (pork producer 9). However, the positive trend in exports to Scandinavia should continue in the medium to long term (pork producers 3, 6, 7 and 9). Additionally, Greece is another interesting target country which offers increasing value potentials predominantly in terms of specific pork bellies for gyros production. Like Italy, Greece is also regarded as a typical agent market, even though larger companies tend to appoint their own specialists, for example, in Athens (pork producer 11).

In contrast to the traditional EU markets, pork exports into third party countries have been developing significantly stronger for years. As in many other industries, the pork sector is also characterized by shifting trading relations and commodity flows in favour of emerging markets. Meanwhile, third party business plays a key role by contributing to complete valorization of fattening pigs including specific parts such as ears, snouts, noses, trotters or tails. These products which are rather unappetizing for Europeans enjoy high demand in East Asia and particularly in China. In this manner, pork exporters are able to generate financial revenues which would have been inconceivable without third party markets. Experts consider this added-value as 'the pig's fifth quarter'.

„The Russian and Asian markets are clearly structured differently. And we will permanently need these markets to achieve an optimal valorization of the individual parts of the pig. Basically, we need the 'fifth quarter'. We need the added-value from third country exports" (pork producer 6).

Even the majority of pork exporting companies from the Oldenburger Muensterland evaluates the Chinese market as the most promising in future although trading volumes have been rather low in 2012. But it must be recognized that pork exports to Hongkong are usually also designated for China. The country is meanwhile accessible for direct exports leading to a multiple increase of German pork deliveries to China between 2009 and 2012 (from 7.061 t to 174.994 t; AMI 2013, S. 79). However, market cultivation is quite difficult because of bureaucratic barriers on both the German and Chinese sides. Before pork producers obtain full approval, numerous in-depth examinations of production plants will be conducted by Chinese public officials and veterinaries. Then the question arises which market cultivation strategy is most suitable. It applies also here that the creation of cultural proximity may be decisive for doing business successfully (pork industry expert 4, pork producer 6). While larger companies tend to set up sales offices in order to ensure a deeper market penetration (as in many European countries), small and medium-sized enterprises rather prefer either to arrange sales cooperation with Chinese partners or to export directly without any investment risks.

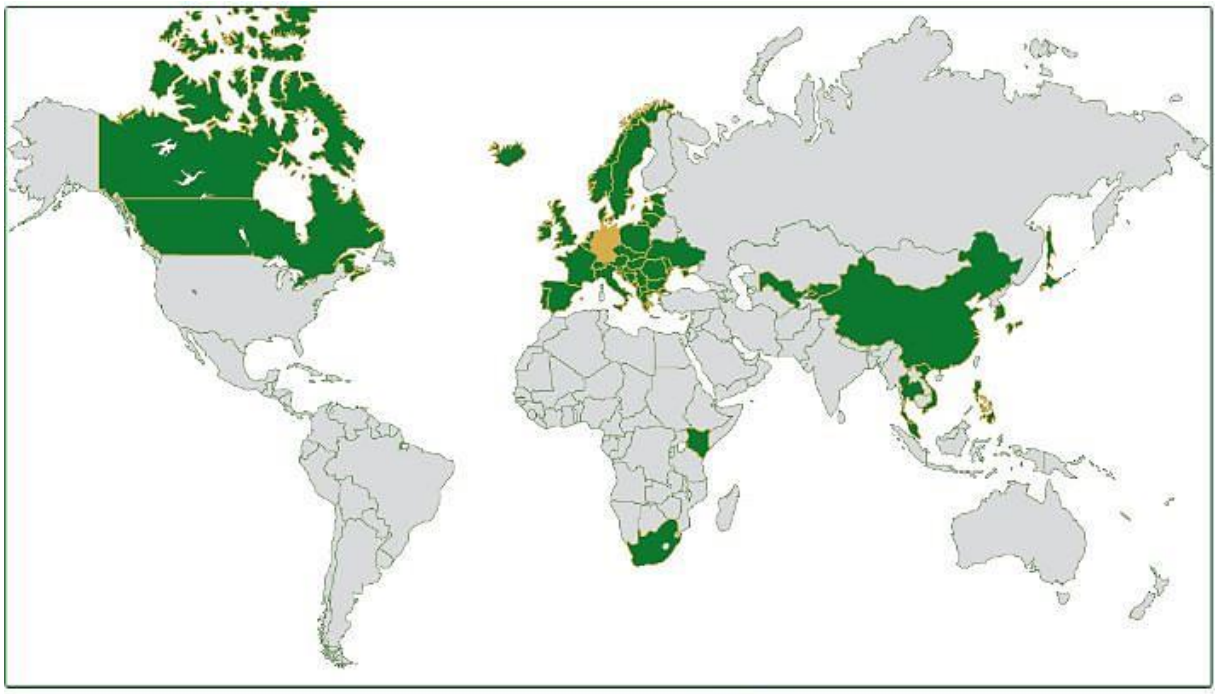
Although being complicated as well, the markets of South Korea and Japan are further targets of expansion. In fact, the Japanese market does not yet play a significant role in terms of total export volumes, but offers great value opportunities in the high price segment (e.g. specially processed loins). The capacities to meet sophisticated costumer demands and to fulfill high requirements of food security are the main prerequisites for operating in Japan (pork industry expert 4, pork producers 5 and 9). In this respect, it is interesting that pork products of pure German origin seem to be highly popular. However, some experts are rather sceptical about the Japanese market due to hard competition including pork exporters from Denmark and the United States (pork industry expert 1). The same is true for South Korea which is famous for its pork bellies in different variations (e.g. *Samgyeopsal*). Thus, the Korean market is al-

so extremely competitive, particularly since the national pork production has been boosted over the last years. Numerous pertinent outlooks, however, indicate that South Korea will probably be one of the most important third party countries in the future.

By contrast, the situation in Russia is completely uncertain. For a long time, Russia was the most important third party market which has received more than 240.000 tons of German pork still in 2012. At the beginning of 2013, however, Russian agencies imposed a ban on imports for chilled pork from Germany due to disregards of hygiene requirements and inadequacies within the federally organized German veterinary system. This argumentation meets with incomprehension among representatives of the German pork industry underpinned by a slaughterer from the Oldenburger Muensterland who refers to "an arbitrary political decision that has nothing to do with product qualities" (pork producer 3). Hence, the Russian import ban serves as evidence for strong political impacts on network configurations in pork production.

In order to become relatively independent of such-like distortions as in Russia, it is important for export-oriented companies to find alternative markets. That is why several third party countries are of growing interest which is particularly true for South Africa, the Philippines, Malaysia and Australia. As a predominantly Islamic country, the appearance of Malaysia may be surprising at this point. But due to the fact that nearly every fifth Malaysian is of Chinese origin, the local appreciation for pork products should not be underestimated. Therefore, it is evident that particular third party countries include considerable growth potentials for pork distribution as exemplarily illustrated by the export markets of Boeseler Goldschmaus, a medium-sized slaughter company near Cloppenburg (*see figure 3*). In general, it becomes clear that the approaches and strategies of foreign market cultivation vary to a large extent and there seems to be no single 'blue print'. Foreign direct investments aiming at own pork production facilities, however, are rather unlikely as several representatives of slaughter and cutting companies have mentioned (pork industry expert 5, pork producers 10 and 11). Beside the high investment costs, it would be difficult to build up both know how and technical infrastructure including the agricultural base for live hog supply. If at all, only Toennies, the German market leader, is apparently able to build up production plants abroad.

Figure 3: Export markets of Boeseler Goldschmaus, Garrel (District of Cloppenburg)



Source: Boeseler Goldschmaus 2014

6. Provenance and Imagination in Pork Production Networks

Relevant studies have found that the image of a country or a region can play a key role for the marketing of food specialities produced there (FEAGAN 2007; ILBERY & KNEAFSEY 2000; KNEAFSEY 2010; TREGEAR ET AL. 2007; VOTH 2003). In order to generate visible marketing effects it is necessary to modify the configuration of production networks as ERMANN (2005, S. 55) illustrates with reference to COOK & CRANG (1996): "While products are increasingly regarded as symbols of identity and distinction, their meanings affect the relations of production in a reflexive manner." These meanings are of various nature and in a sense depend on imaginations derived from product provenance. Food producers and retailers are therefore compelled to develop specific strategies which possibly entail a reconfiguration of production networks. Thus, for example, producers of regional specialities may prefer suppliers from the surrounding area (depending on their meaning of regionality).

The empirical findings of this study confirm that issues of product provenance are related to spatial and organizational modifications of production networks. The probably most obvious manifestation of such a shift refers to the strategic focus of some slaughters, cutters and processors merely buying and distributing pigs of pure German origin. This strategy is labelled as '5xD' which means that the pigs must be born, fattened, slaughtered, cut and processed in Germany. The large proportion of additionally bought piglets from Denmark and the Netherlands is therefore excluded (*see chapter 5*). It is quite clear that the '5xD' concept is only approachable to pig farmers which refuse to import piglets. The preconditions for participation in '5xD' are more favourable if pig farmers run self-contained systems (i.e. integration of piglet breeding and pig fattening) due to effective mechanisms of traceability and monitoring. Such farmers rather

tend to contract in producer cooperatives for distributing fattening pigs.

„We have originally said: '5xD' goes well with regionality. But the positive effect is actually that '5xD' is much more important for exports than for domestic business, since Chinese and Koreans place greater value on this concept" (pork producer 5).

Taking into account the actual focus on domestic consumers, it is all the more surprising that '5xD' seems to enjoy greater appreciation outside Europe than over here. Especially since East Asian markets show clear increases in pork exports, it remains to be seen how important a guaranteed German provenance and thus associated imaginations will be in future.

In order to place German pork products on the global market, the export organization 'German Meat', a voluntary coalition of pork producing companies, performs a special function in the field of promotion. A major factor thereby is that 'German Meat' aims to display quality products 'made in Germany' especially within the framework of company visits, fairs, exhibitions or other business meetings on location. The considerable number of acquired third party markets in recent years suggests that these promotion activities have been very successful. Highlighting the specific qualities of German pork at the same time contributes to a positive image of German pork producers which are regarded as very trustworthy and reliable (pork industry experts 3 and 6, pork producers 2, 3, 5 and 11). Hence, the organization 'German Meat' is extremely valuable for the export business and the configuration of global networks of pork production.

In the course of an increasingly globalizing pork sector, the issue of national provenance is discussed more and more frequently in terms of regionality. The above mentioned quote regarding '5xD' already includes a broader understanding of regionality reaching up to the national scale. This argument is apparently widely spread among the actors of the pork industry and has been articulated on the 'green' as well as on the 'red' side (livestock trader 1, pig farmers 4 and 7, pork producer 5). In contrast, there is a broad consensus on the irrelevance of subnational spaces for export business. According to this, regional provenances would have no impact on demand neither in the EU area nor in third countries. It seems to be negligible if pork products are from Baden-Wuerttemberg, Northrhine-Westphalia, Lower Saxony, the Black Forest or the Oldenburger Muensterland. Remarkable consequences are only expected if epizootic diseases occur in several regions which might be suspended for pork exports afterwards. A well-known example is the suspension of Northrhine-Westphalia and Rhineland-Palatinate for the Japanese market in 2009 due to the outbreak of swine fever in wild boars.

The discourses on provenance and regionality even encourage several actors to understand the whole EU as a regional construct. The argument here refers to the idea of a united Europe and to the fact that transnational borders seemingly become less important due to increasing mobility of people and goods.

"We strive after more Europe all the time und we have already all these rules from Europe. So, why are our products not labelled as 'regional' on a European level? (…). The world has certainly become smaller while more and more people are on the move"(pig farmer 8).

Even though it is correctly pointed out that nowadays geographical distances can be bridged more easily, this statement comes under attack by considering the 'qualitative substance' of what regionality means. This includes, among others, trustful and partner-like collaborations, transparent systems of traceability and also identity-forming fea-

tures enabling the creation of emotional bonds between suppliers, customers and products.

"It is a matter of cooperation: who works with whom and how do the actors work on their stage? That is also why people demand for regionality. (…). It is certainly important, where the raw materials come from and how much effort is made by producers and laborers. And if processors identify themselves with their suppliers and build a form of partnership which is stable in the long term, then one could also speak of regionality, but in a more qualitative sense" (pork producer 3).

The claims expressed herein refer both to the traceability of production (economic, socio-cultural, environmental) and to the creation of emotionnal bonds which are difficult to achieve via large-scale relations. However, it is not useful to define a narrow geographical demarcation (by a determined kilometer radius, for example) when following ERMANN (2005, S. 66) who interprets regionality as a 'discoursive orientation'. In this sense, regionality can only be described and analyzed qualitatively. Due to this comprehensible, but vague understanding there is a lot of scope for constructing regionality in practice.

This is also true for the Oldenburger Muensterland as various pork producing firms put on scene their regional orientation by portraying selected pig suppliers and farm locations on corporate websites. But more important than the mere documentation of traceability is the building of trust and emotions. This can be achieved, for example, by means of photographic illustrations of farmers and their families. Conscious of the market effects thus caused, a representative of a slaughter company argues:

"Regionality is rather an issue of trust; that is to say the farmer is known, the company is known, you know where the product is from. It does not depend so much on a sharp geographical demarcation"(pork producer 6).

Many companies represent and, to some extent, celebrate themselves while showing likeable pictures of their suppliers and highlighting partner-like relationships. However, the strategic use of imaginations based on provenance, for example, by promoting specific connotations and characteristics of the Oldenburger Muensterland, is not a big issue. This is probably because of detrimental attributions and perceptions in public discourses leading to a negative regional image. Thus, the region is frequently stigmatized as 'manure belt' or place of 'mass livestock farming', especially in the media. Consequently, there is a great deal of scepticism about the value of regionality with a clear focus on the OM.

"I don't think that we are able to win anything by promoting the Oldenburger Muensterland because the region has been too much brought into disrepute by media reports"(pork producer 3).

Basically, the marketing potential of regionality for pork products seems to be much more promising in South Germany.

"We also like Black Forest ham because we associate beautiful landscapes, dark forests and pleasant aromas"(livestock trader 6).

7. Conclusion

The empirical findings show that pork production networks are based on interrelation patterns which are in part still regionally anchored, but also spread around the globe to an increasing extent. The Oldenburger Muensterland in Northwest Germany can be seen as a core region and starting point for globalizing processes in the pork sector. Thus, a lot of regional slaughter and cutting firms are very successful in pork exports not only in the EU, but also in third party countries. The latter

have become particular attractive because of the existing demand for certain 'by-products' which are not saleable in the European market. Additionally, several EU countries (including Germany) are characterized by a high degree of market saturation as demand for pork products has decreased in recent years. Nevertheless, the European market is still dominant in terms of foreign trade with Italy, Poland and the Netherlands being the most important target countries.

The marketing success of pork products, like in many other food sectors, increasingly depends on 'soft criteria' such as provenance, regionality and imagination as contemporary public discourses suggest. The idea behind this trend is that the emphasis on the country/region of origin may evoke special emotions and connotations among consumers leading to the constitution of selective and partly distorting images. Therefore, provenance and regionality contain a symbolic value which can potentially be advantageous at the point of sale. This is also true for the pork sector as some special products have impressively testified (e.g. Parma ham, Black Forest ham).

In recent years, however, firms put their focus more and more on the promotion of pork 'made in Germany' which obviously still has a remarkable brilliance, particularly on a global scale. German pork is thus primarily regarded by its customers as high quality and secure, while German suppliers seem to be exceedingly reliable and efficient. As empirical findings show, the label 'made in Germany' is especially a selling point in China, South Korea and Japan, where 'German standards' are apparently more appreciated than in other countries. Therefore, some slaughter and cutting companies put the '5xD' concept into practice aiming a transparent and strictly controlled production system with a clear focus on 'German quality standards'.

The involved firms are partly located in the Oldenburger Muensterland which creates a kind of dilemma in terms of provenance and traceability. In this respect, the emergence of contested and largely negative discourses on the OM (e.g. 'manure belt', 'mass livestock farming') is without any doubt an unsettling factor for regional pork producers. In order to resolve this uncertainty, the accentuation of German provenance proves to be a welcome strategy as the exact geographical origin is more or less dis-guised (and thus also the related imaginations and perceptions). According to experts, it has also to be added that most pork consumers are not really interested in attributes like provenance or regionality (which are also not visible in many cases) as opposed to the price. Therefore, pork producers from the OM would not have to fear any disad-vantages due to their location in an area of intensive livestock production. Basically, however, it is difficult to make long term forecasts on this issue embedded in the tension field of globalizing and regionalizing forces. A lot depends on political (and social) requirements on traceability and indication of provenance in the pork sector.

8. References

AGRICULTURAL MARKET INFORMATION COMPANY (AMI) (2013): Market balance sheet livestock and meat 2013. Bonn.

AGRICULTURAL MARKET INFORMATION COMPANY (AMI) (2015): Market report: German piglet imports. Bonn. Available from: http://www.ami-informiert.de/ami-maerkte/ami-fleischwirtschaft/ami-meldungen-fleischwirtschaft/meldungen-single-ansicht/article/deutschland-importierte-2014-erstmals-mehr-als-11-millionen-ferkel.html (13.08.2015)

BAKER, M.; BALLINGTON, L. (2002): Country of origin as a source of competitive advantage. In: Journal of Strategic Marketing 10 (1), S. 157-168.

BÄURLE, H.; TAMÁSY, C. (2012): Regionale Konzentrationen der Nutztierhaltung in Deutschland. ISPA-Mitteilungen 79. Vechta.

Berlin-Institut für Bevölkerung und Entwicklung (ed.) (2009): Land mit Aussicht. Was sich von dem wirtschaftlichen und demografischen Erfolg des Oldenburger Münsterlandes lernen lässt. Berlin. Verfügbar unter: http://www.berlin-institut.org/fileadmin/user_upload/Land-mit_Aussicht/LmA_final.pdf (20.06.2013)

Born, B.; Purcell, M. (2006): Avoiding the local trap: scale and food systems in planning research. In: Journal of Planning Education and Research 26 (2), S. 195–207.

Boeseler Goldschmaus (2014): Company figures and data. Available from: http://www.goldschmaus.de/ (07.04.2014)

Challies, E.; Murray, W. E. (2011): The Interaction of global value chains and rural livelihoods: The case of smallholder raspberry growers in Chile. In: Journal of Agrarian Change 11 (1), S. 29-59.

Cloke, P.; Crang, P.; Goodwin, M. (eds.) (2005): Introducing human geographies. Second edition. London.

Coe, N. (2012): Geographies of production II: A global production networks A-Z. In: Progress in Human Geography 36 (3), S. 389-402.

Coe, N.; Hess, M. (2011): Local and regional development: A global production networks approach. In: Pike, A.; Rodriguez-Pose, A.; Tomaney, J. (eds.): Handbook of local and regional development. London, S. 128-138.

Cook, I.; Crang, P. (1996): The World on a Plate: Culinary Culture, Displacement and Geographical Knowledges. In: Journal of Material Culture 1, S. 131-153.

Dannenberg, P.; Nduru, G. (2013): Practices in international value chains: The case of the Kenyan fruit and vegetable chain beyond the exclusion debate. In: Tijdschrift voor Economische en Sociale Geografie 104 (1), S. 41-56.

Dolan, C.; Humphrey, J. (2004): Changing governance patterns in the trade in fresh vegetables between Africa and the United Kingdom. In: Environment and Planning A 36 (3), S. 491-509.

Ermann, U. (2005): Regionalprodukte. Vernetzungen und Grenzziehungen bei der Regionalisierung von Nahrungsmitteln. Wiesbaden.

Feagan, R. (2007): The place of food: mapping out the 'local' in local food systems. In: Progress in Human Geography 31 (1), S. 23-42.

Fold, N.; Gough, K.V. (2008): From smallholders to transnationals: the impact of changing consumer preferences in the EU on Ghana's pineapple sector. In: Geoforum 39 (5), S. 1687-1697.

Fonte, M. (2010): Food relocalisation and knowledge dynamics for sutainability in rural areas. In: Fonte, M.; Papadopoulos, A. G. (eds.): Naming food after places. Surrey, S. 1-35.

Gereffi, G.; Christian, M. (2010): Trade, transnational corporations and food consumption: A global value chain approach. In: Hawkes, C.; Blouin, C.; Henson, S.; Drager, N.; Dube', l. (eds.): Trade, food, diet and health: Perspectives and policy options. Oxford, S. 91-110.

Gereffi, G.; Humphrey, J.; Sturgeon, T. (2005): The governance of global value chains. In: Review of international political economy 12 (1), S. 78-104.

German Federal Statistical Office (2013): 2011 Census Germany. Wiesbaden.

Gibbon, P.; Ponte, S.; Lazaro, E. (2010): Global agro-food trade and standards: Challenges for Africa. Houndmills et al.

Goodman, D. (2010): Place and space in alternative food networks: connecting production and consumption. In: Goodman, M.; Goodman, D.; Redclift, M. (eds.): Consuming space: placing consumption in perspective. Farnham, Burlington, S. 189-211.

Greshake, F. (2011): Ferkelvermarkter rüsten auf. In: Schweinezucht und Schweinemast (SUS) 1/2011, S. 20-23.

Hassler, M.; Franz, M. (2013): The bridging role of intermediaries in food production networks: Indian organic pepper in Germany. In: Tijdschrift voor Economische en Sociale Geografie 104 (1), S. 29-40.

Haxsen, G. (2010): Interregional and international competition in German piglet production. In: Landbauforschung – vTI Agriculture and Forestry Research 2 (60), S. 79-86.

Henderson, J. (2005): Global production networks, competition, regulation and poverty reduction: Policy implications. Manchester. Available from: http://www.competition-regulation.org.uk/conferences/mcr05/henderson.pdf (11.04.2012)

Henderson, J.; Dicken, P.; Hess, M.; Coe, N.; Yeung, H. W.-C. (2002): Global production networks and the analysis of economic development. In: Review of International Political Economy 9 (3), S. 436-464.

Hendrickson, M.; Wilkinson, J.; Heffernan, W.; Gronski, R. (2008): The global food system and nodes of power. Columbia. Available from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1337273 (11.04.2012)

Huter, J. (2005): Schattenseiten erfolgreicher Regionen – Das Beispiel Oldenburger Muensterland. In: FES (ed.): Regionalbewusstsein und Regionalentwicklung. Handlungsperspektiven für Regionen in Sachsen-Anhalt und Niedersachsen. Bonn, S. 57-69.

Ilbery, B.; Kneafsey, M. (2000): Registering regional speciality food and drink products in the United

Kingdom: the case of PDOs and PGIs. In: Area 32 (2), S. 317-325.

Ilbery, B.; Kneafsey, M.; Söderlund, A. (2001): Quality, imagery and marketing. Producer perspectives on quality products and services in the lagging rural regions of the European Union. In: Geografiska Annaler, Series B 83 (1), S. 27-40.

Kneafsey, M. (2010): The region in food: important or irrelevant? In: Cambridge Journal of Regions, Economy and Society 3 (2), S. 177-190.

Kneafsey, M.; Ilbery, B. (2001): Regional images and the promotion of speciality food and drink in the west country. In: Geography 86 (2), S. 131-140.

Lee, R. (2011): Ordinary economic geographies: Can economic geographies be non-economic? In: Leyshon, A.; Lee, R.; McDowell, L.; Sunley, P. (eds.): The SAGE Handbook of Economic Geography. London et al., S. 368-382.

Lee, J.; Gereffi, G.; Beauvais, J. (2010): Global value chains and agrifood standards: Challenges and possibilities for smallholders in developing countries. In: Proceedings of the National Academy of Sciences (PNAS), December 2010. Available: from: http://www.pnas.org/content/early/2010/12/08/0913714108.full.pdf+html (11.04.2012)

Levy, D. L. (2008): Political contestation in global production networks. In: Academy of Management Review 33 (4), S. 943-963.

Lower Saxony Statistical Office (2013): Foreign trade in pork and live hogs. Hannover.

Lower Saxony Statistical Office (2015a): Structural data at the district level. Hannover.

Lower Saxony Statistical Office (2015b): Slaughter figures at the district level. Hannover.

Mattissek, A.; Glasze, G. (2014): Discourse analysis in German-language human geography: integrating theory and method. In: Social and Cultural Geography. (Published online, DOI: 10.1080/14649365.2014.961532.)

Morgan, K.; Marsden, T.; Murdoch, J. (2006): Worlds of food. Place, power, and provenance in the food chain. New York.

Mose, I.; Schaal, P. (2012): Probleme der Intensivtierhaltung im Oldenburger Muensterland. Lösungsstrategien im Widerstreit konkurrierender Interessen. In: Neues Archiv für Niedersachsen 2/2012, S. 50-69.

Murdoch, J.; Miele, M. (1999): 'Back to nature': Changing 'worlds of production' in the food sector. In: Sociologia Ruralis 39 (4), S. 465-483.

Pike, A. (2011): Placing brands and branding. A socio-spatial biography of Newcastle Brown Ale. In: Transactions of the Institute of British Geographers 36 (2), S. 206-222.

Rippon, M. (2014): What is the geography of Geographical Indications. Place, production methods and protected food names. In: Area 46 (2), S. 154-162.

Skaggs, R.; Falk, C.; Almonte, J.; Cardenas, M. (1996): Product-country images and international food marketing: relationships and research needs. In: Agribusiness 12 (6), 593-600.

Sonnino, R; Marsden, T. (2006): Beyond the divide: rethinking relationships between alternative and conventional food networks in Europe. In: Journal of Economic Geography 2 (6), S. 181-199.

Tamásy, C. (2014): Intensivierung der Landwirtschaft im Oldenburger Münsterland. Nutztierhaltung im Fokus der Nachhaltigkeit. In: Standort – Zeitschrift für Angewandte Geographie 38 (4), S. 203-207.

Tregear, A.; Gorton, M. (2005): Geographic origin as a branding tool for agri-food producers. In: Society and Economy 27 (4), S. 399-414.

Tregear, A.; Arfini, F.; Belletti, G.; Marescotti, A. (2007): Regional foods and rural development: the role of product qualification. In: Journal of Rural Studies 23 (1), S. 12-22.

van der Lans, I.; van Ittersum, K; de Cicco, A.; Loseby, M. (2001): The role of the region of origin and EU certificates of origin in consumer evaluation of food products. In: European Review of Agricultural Economics 28 (4), S. 451-477.

Voth, A. (2003): Aufwertung regionaltypischer Produkte in Europa durch geographische Herkunftsbezeichnungen. In: Europa Regional 11 (1), S. 2-11.

Voth, A. (2011): Apfelweinregionen in Europa. Beispiele der Regionalentwicklung durch Aufwertung eines regionalen Produktes. Vechta.

Yeung, H. W.-C.; Coe, N. (2015): Toward a dynamic theory of global production networks. In: Economic Geography 91 (1), S. 29-58.