

*Spotlight*

## Innovations secure the future viability of intensive farming regions



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Photo: Sarbach

Regional concentrations of livestock and poultry farming are to be found above all in the north-west of Germany. Nowhere else are there higher numbers of livestock and poultry per hectare of agriculturally used land. The degree of specialisation in pig and poultry farming is remarkable. In particular the two districts in Lower Saxony, Vechta and Cloppenburg, that host the highest densities of livestock and poultry populations in Germany, have displayed highly successful economic development in recent decades. They are characterised by formidable economic growth, low levels of unemployment and extremely dynamic population development, supported essentially by the agricultural and food industries as crystallisation point. Today, many hidden champions, who have been able to develop in the upstream and downstream sectors parallel to the dynamic development of animal husbandry, are based in the north-west. These are market leaders operating throughout Europe or worldwide, but who have remained largely unknown among large sectors of the German population. Altogether about one third of the jobs liable to social security contributions in Vechta and Cloppenburg are in the agribusiness sector, above all in abattoirs and meat processing plants. However, the future viability of the growth track taken, which is deemed to be a success model from the economic standpoint, is increasingly being critically scrutinised and discussed.

The environmental challenges are closely linked with the numbers of livestock and poultry that are now kept in the regions. For instance the current Nutrient Report for Lower Saxony documents a substantial nutrient surplus, resulting above all from animal husbandry and operation of biogas plants. Oversupply on agricultural land leads to environmental stresses for soil and groundwater. In addition, emissions result from the regional concentration of animal husbandry that lead to pressures on the environment. Not only the statutory minimum distances to be maintained between animal housing units and residential construction trigger land use conflicts. The extent of the use of antibiotics in animal husbandry and the legitimisation in society of production methods based on intensive animal farming are generally being called into question by the public and in the media. As regards social aspects, the main criticisms are directed above all at the quality of the work and the precarious employment relationships. In order to secure the future viability of the region, various initiatives are already working proactively “on the ground” to develop proposals for resolving urgent challenges, e.g. within the context of the Agrifood State Initiative in Lower Saxony or the Agriculture and Food Forum Oldenburger Münsterland (aef).

The food industry is a sector of the future, with considerable potential for growth. Innovations are the key to successful development of rural areas with intensive animal husbandry. Actively innova-

tive businesses and research institutions are key central actors for initiating necessary transformation processes. For example, within the framework of a joint project, the Universities of Göttingen and Vechta, the German Institute of Food Technologies and the Lower Saxony Institute for Economic Research are currently examining the protein deficit for foods and feeds, which in Europe is largely compensated via soy imports. The aim is to estimate what potentials can be unlocked for more sustainable agriculture and the food sector by using alternative protein sources. To this end on the one hand alternative protein sources on an algae basis are being examined, which as meat analogues can be used directly in human nutrition, and on the other hand the use of alternative protein sources on an algae or insect basis for animal nutrition is being researched. The production networks (pig, poultry) and the social contexts are being analysed in three European intensive animal husbandry regions: North-West Germany (Weser-Ems, Münsterland), Western France (Bretagne, Pays de Loire) and the Southern Netherlands (Noord-Brabant, Gelderland, Limburg).



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