

Factsheet on food waste reduction and related eco-innovations In Wielkopolska region, Poland

ERDF 2014-2020: 190.9 (in EUR Mio)

The main objectives of ERDF are: i) Strengthening research, technological development and innovation ; ii) Strengthening the competitiveness of small and medium enterprises. It addresses 4 Investment Priorities : IP1a, IP1b, IP3a, IP3b.

This document provides a brief overview of how the challenges and opportunities faced by Wielkopolska Region on food waste and eco-innovations are addressed by the ERDF (or another fund).

1. Situation and key challenges

Wielkopolska Region covers an area of 29.826.51 km² of which 59 % (arable land 50.3%, grassland 7.4%, orchards 0.6%) is rural.

In the Republic of Poland, rural areas are defined as areas located outside the administrative boundaries of cities which means that they are rural communes or rural areas of urban-rural municipalities. The Polish definition is based on the administrative division of the country which largely corresponds to the definition of rural areas according to the OECD or Eurostat methodology.

Wielkopolska is a region of great natural potential, especially in the context of rural tourism and agrotourism, as the protected areas cover about one-third of the surface, and forests constitute one-quarter. The region has an agricultural character, because there is more than 10% of the country's agricultural land and about 11% of arable land in its area. The share of meadows, grazing lands and forests is smaller. The agriculture of Wielkopolska is one of its most important potentials.

The total population is 3.4 million – of which 54,9 % live in cities.

The Wielkopolska Region faces many challenges regarding the environment, resource efficiency and food waste. The expansion of the agricultural area in the previous centuries caused irreversible changes in water relations, and indirectly, also climate change. The introduction of a man-made “artificial grassland,” that is cultivations, caused the Wielkopolska climate to gain the

characteristics of a steppe climate. This is expressed in the groundwater deficit, insufficient rainfall and its uneven distribution per annum. The situation is aggravated by: progressing reception basin drainage, including the wrong one-sided land melioration, drainage and decline of humid biocoenosis and lack of artificial retention, urbanization and increase in the built-up area, resulting in a decrease in retention of land for the surface run-off.

In spite of many threats and unsatisfactory condition of the environment in many areas, compared to Europe, in this field Wielkopolska is a competitive region. This creates opportunities for tourism and recreation, and for healthy agricultural production and attractive place to live.

The sector of agricultural and food processing is one of the main sectors of the Wielkopolska economy. Its positive feature is a rich diversity. However, its weakness is still a low level of concentration, which reduces its competitiveness. This feature can still become a strong point, in the face of the prospect of growth in demand for traditional and regional organic food. In this respect, the agriculture of Wielkopolska can and does successfully compete on the EU markets.

Competitiveness of the region requires new approach. Today the most important thing is to answer the question on what basis it should be built. In the early times of transformation, it was possible to build it on the comparative advantages (lower production costs, cheap labour, unused production capacity). Today, simple provisions in the era of globalization and increasing competition in this dimension are not enough. The beginnings, first examples of transferring production to even cheaper countries, can already be observed. Therefore, in the long-term perspective, the competitiveness will be determined by the added value, which consists of innovations and smart growth, scientific research and academic potential, educational base, social capacity and awareness and appropriate condition of the environment.

Municipal waste, generated by the economic activity of the population, is burdensome on the environment and is collected in controlled landfills. By the end of 2015, there were 36 active landfills in the Wielkopolska Voivodship with an area of 207.3 hectares and 5 landfill sites which have terminated their activity covering the area of 25.6 hectares.

In 2015, the purification plants located in the voivodship gathered 873.1 thousand of tonnes of mixed municipal waste. Compared to the previous year, the amount of mixed waste collected increased by 19,300 tons, i.e. by 2.3%. (Source : Stan i ochrona środowiska w województwie wielkopolskim w 2015 r., opacowanie sygnałne grudzień 2016, Urząd Statystyczny w Poznaniu).

There is no precise data for the collected food waste because it is included in one type of waste: mixed waste, especially from households.

Mixed waste collected during the year	Unit of measure	2015
total	tonnes	873 086.95
total per capita	kg	251.3
from households	tonnes	685 411.61
housewaste per capita	kg	197.3
the share of waste deposited in landfills in the amount of waste collected mixed	%	50.9
waste receiving units in the surveyed year by activity area	no.	137

2. How the Wielkopolska Region will address these challenges towards 2020

Nowadays anti-waste food policy in Poland is about releasing food producers, shops, wholesalers or restaurants from paying VAT on food distribution to organizations with the status of Public Benefit Organization. Tax exemptions are granted to donated foodstuffs (except for alcoholic beverages with an alcoholic strength of more than 1.2% and alcoholic beverages consisting of a mixture of beer and non-alcoholic beverages in which the alcoholic strength exceeds 0,5%), provided they are donated to charitable purposes of the beneficiary charity organization.

The draft national law on the prevention of food waste was developed in 2015 and is still proceed. It defines principles and responsibilities of food vendors in order to prevent food waste and negative social, environmental and economic impacts resulting from food waste. Once the law has been adopted and is in force, the regions will be able to develop and implement their strategic and planning documents.

3. What kind of eco-innovations may offer opportunities to help Wielkopolska Region to address these challenges ?

Regarding the regional economy and demand for the increase in competitive position of SMEs as well as the large food processing companies there is still a need of technological and product innovations which are also favourable to the environment (e.g. by low energy cost technologies or degradable or recyclable material which are used for packaging, efficient use of the raw product for healthy food production). The companies also need some strategy in internationalization of their activity as well as financial support in building their competitive position in the region, country and Europe.

The consumers in Poland, according to the surveys conducted by the EFFECT Erasmus + project (2015-1-PL01-KA204-016599), have the general interest in willing to know more about food waste reduction and have access to tools such as interactive platforms, hosting short guides and info materials e.g. how to plan shopping, an educational games, videos and especially recipes. The application available for smartphones with the recipes how to handle the leftovers to prepare new meals could be of help.

Moreover, there should be bigger implementation of new technologies for the production of bioactive food of a pro-health nature, which use waste products from the standard food processing process as a potato juice - the waste product in the potato starch production process.