

PIG AND MAN

— reviving an ancient co-existence

Saving biodiversity and food diversity: Researchers in the TREASURE project tap local pig breeds and develop quality labels

The role models comes from the Wild West, or to be more precise, from the Spanish Wild West. Here, along both sides of the southern Portuguese border, and in the Andalusian hills, the famous Ibérico pigs range free and eat acorns. They don't only represent one of the world's finest hams, but also demonstrate that traditional pig breeding can offer a rich future to regional farming chains. 'The Ibérico pig has real market power,' explains Dr. Meta Candek-Potokar, a researcher at the Agricultural Institute of Slovenia in Ljubljana, pointing to the three million high-value Spanish pigs creating a EUR 1 billion revenue every year. To her mind, the Ibérico and other successful pork food chains based on traditional breeding and feeding in the EU should multiply soon. Many other local breeds in countries like Italy, Portugal, Spain, France, Germany, Croatia, Slovenia, Lithuania and Serbia have the potential to become famous meat brands for the consumer in search of better quality. Dr. Meta Candek-Potokar says that the slogan 'Eat less, but better' should be a driver for future traditional pork meat markets.

Many varieties have more to offer than industrial meat chains

Agro-scientists and breeding associations have known for a long time that Europe has much more treasure and variety to offer; other than the meat marketed through "industrial" mass-production chains. If only the scientific knowledge of local pig breeds, and the specific knowledge regarding their suitability for the reation of sustainable production chains, from breeding and growing to slaughtering and marketing — the pork food chains — was better. A network of scientists in agriculture and meat production saw the need for more research in order to establish high-value market developments in this sector. Starting in the Mediterranean regions that bear a wealth of variety in terms of local breeds, they enlarged their network to other EU countries , pursuing the goal of creating more sustainable pork chains and a better market penetration of these high-value pork products.

This was how the idea for the TREASURE project was born. Until 2019 the EU will fund the investigation with EUR 3.4 million, while promoting a reassessment of traditional genetic animal resources in order to find a future perspective for SMEs, farmers and meat consumers. 'To have an umbrella trademark for new local pork chains would be a big leap forward,' explains TREASURE coordinator Dr. Meta Candek-Potokar. It is one of the prime goals of the measures to maximize the impacts of the project.

The most promising breeds are widely unknown

Twenty-five partners are cooperating with the project, ranging from geneticists, nutritionists, meat scientists, and agro-economists, to consumer and marketing researchers and farmers' associations. To create sustainable value chains based on local pig breeds, knowledge gains, characterisation of genotypes and phenotypes, analyses of their products and their market potentials will be achieved; this will eventually inspire the development of innovative traditional product lines, such as 'traditional' burgers, low-nitrate salami sausages and reduced-smoke bacon.

The most promising breeds are widely unknown, but they attracted the attention of the TREASURE researchers nevertheless, they include names such as: Mangulica, Gascon, Krškopolje, Black Slavonian, Cinta Senese etc. (the complete list available at project web site www.treasure.kis.si).

They all are candidates with full potential. The scientists started characterizing not only their genotypes and phenotypes, but also studying their growth performance, body composition in terms of fat, muscle and bones, their feeding and environmental impact and the quality of their products. To finally make it to the market with a new pork food chain, 'It's not enough to only save biodiversity,' says the Dr. Meta Candek-Potokar, 'it's also necessary to ensure the development of a full production chain, with the involvement of many players, from breeding to feeding, from slaughter to points of sale in butcher shops, su permarkets or in top gastronomic locations.'Not only that, but because each breed

is different, successful developments that can compete with industrial markets depend on a full range of factors, such as eco-systems, feeding conditions, meat processing environments, consumer preferences and markets that vary in culture, geography and traditions. One hurdle might also be encountered due to the bad reputation meat has gained in recent years in general, but specifically pork— not least due to concern about its healthiness, but also welfare and environmental aspects of pig production and the big price decline in long-distance mass markets, Dr. Meta Candek-Potokar, who graduated as animal and food scientist is Head of the Sustainable Agriculture programme at the Agricultural Institute of Slovenia, says.

The researcher does not advocate stopping meat-eating in general: ‘Men and pigs have a long history together.’ She believes, looking back at the beginning of wild-boar domestication ten thousands of years ago, that ‘it delivered the protein sources for the growth and development of human being.’ Rather than avoiding meat, she encourages discussions on quality, and the prices that consumers are ready to pay for high-quality products. Different consumer attitudes are also studied in the project, which indicate the viability of traditional pig breeding whose extensive free-range systems make it more welfare friendly. Traditionally raised animals usually live longer, referring to specific feeding and slow growth of these pigs breeds which ensures better product quality and renders them more resilient.

Dr. Candek-Potokar summarised the first 18 months of the four-year project by saying, ‘The machine gains speed.’ As well as conducting scientific analysis, TREASURE also

What the project is for

- By making it economically profitable for farmers to keep local pig breeds and sell their products, the diversity of farmed pigs will be maintained in Europe
- Alternative pork products with distinctive regional qualities will be available to consumers, following existing successful examples, such as Iberian ham
- To innovate on traditional pork products, by making changes such as decreasing salt or smoking to boost their healthful qualities and fulfill consumer expectations
- Food diversity will be strengthened, as regions around Europe will keep valuable local traditions and breeds of pig and so continue to produce pork, rather than rely solely on imports
- Traditional pig breeds will be studied using modern genetics and population genomic approaches

promotes sustainable start-ups, where farmers and breeding associations in the consortium will be able to play a role. The CommBeBiz Award that

TREASURE has the ambition to develop a new trademark

TREASURE has won includes a coaching package to set up an action schedule and a business plan. Besides the visibility that comes with the award, the prizewinners are looking forward to the mentoring offered by the CommBeBiz partner, ebn innovation network, at its Business Innovation Centres (BICs), where they can elaborate the development of a trademark that should reach a wide audience by excelling as a European brand for the best meat and products quality from traditionally raised pigs. ‘Resulting in an umbrella brand would be the greatest milestone for the project partners,’ says the coordinator. Akin to certified eco-labels, the pork label would guarantee consumers the regional identity, traditional way of production and sustainably produced high-value meat products treasured in European local pig breeds.

Local pig breeds will be fed and managed on local resources. Consumer thoughts on specific traditional pork products from these breeds will be investigated, with the aim of selling high quality foods with unique branding in regional markets, restaurants and hotels, to locals or visitors interested in tasting superior local meats. Quality of the pork products and sustainability of their production system will be critical to attract consumers and sell profitably for the farmer.

“ Meta Candek-Potokar
The pig for ages has delivered the protein sources for the development of human being ”



TREASURE in brief: The Bio Diversity and the Food Diversity will be maintained