



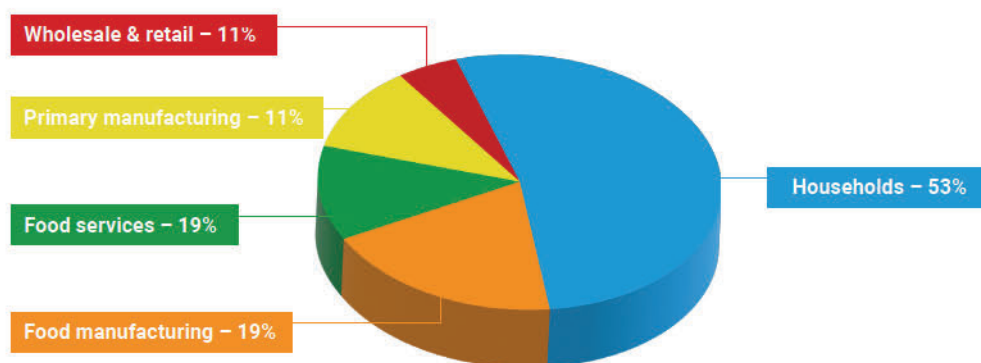
Case Study 10

Valorisation of former foodstuffs from retail

Abapor, ETSA Group, Portugal

Food loss and food waste are a global challenge. According to the United Nations Food and Agriculture Organization (FAO), about a third of all food produced around the globe is lost or wasted at some point in the food supply chain, from farm

to fork. In the EU, this amounts to around 87.6 million tonnes of food every year, roughly 173 kg per person. The sources of food waste are illustrated in Figure 1 below:



Abapor, part of the ETSA Group, Portugal, collects former foodstuffs containing animal products from modern retail and traditional markets across Portugal. The collections are unpacked and

manually segregated into several products with various sustainable applications, giving maximum value from these materials which would otherwise end up as waste.

“Around 20.000 T of food waste per year is re-used and around 1.000 T of packaging waste is recycled.”



Valorisation of former foodstuffs is illustrated in Figure 2, the food waste hierarchy.

* Estimates of European Food Waste Levels - Fusions, 2016

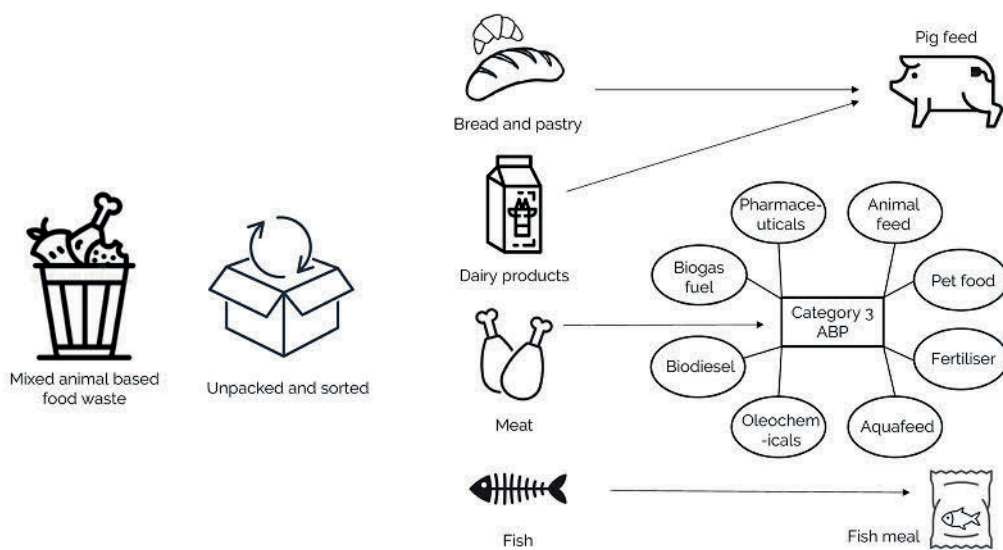
Abapor provides a collection service for former foodstuffs containing products of animal origin to the major retail groups and local markets across the country. Products collected include packaged meat, fish, dairy products, bread, pastry and derived products thereof.

Regular collections are made from chilled collection points and transported to the Abapor processing facility in Coruche, 100 km from Lisbon, in refrigerated trucks. Here they are unloaded and stored in a refrigerated building awaiting handling. The chilling undertaken at the collection, transport and processing facilities

guarantees the preservation of the products to enable them to be utilised most sustainably.

Any packaging is removed and the products are separated by type. Meat products are sent to ETSA's Category 3 animal by-product (ABP) processing factory for production of animal fat and processed animal protein, whereas fish products are sent to fishmeal plants. Dairy products, mainly milk and yoghurt are unpacked and shipped to authorised pig breeding farms for pig feed, as are bread and pastry. This is illustrated in Figure 3:

Figure 3: Segregated Food Waste Types & Application



Any deteriorated products are removed and sent to the adjacent Category 1 ABP processing factory while removed packaging is sent for recycling or disposal by a third party. Full traceability of all the resulting products is guaranteed by the group's traceability monitoring software.