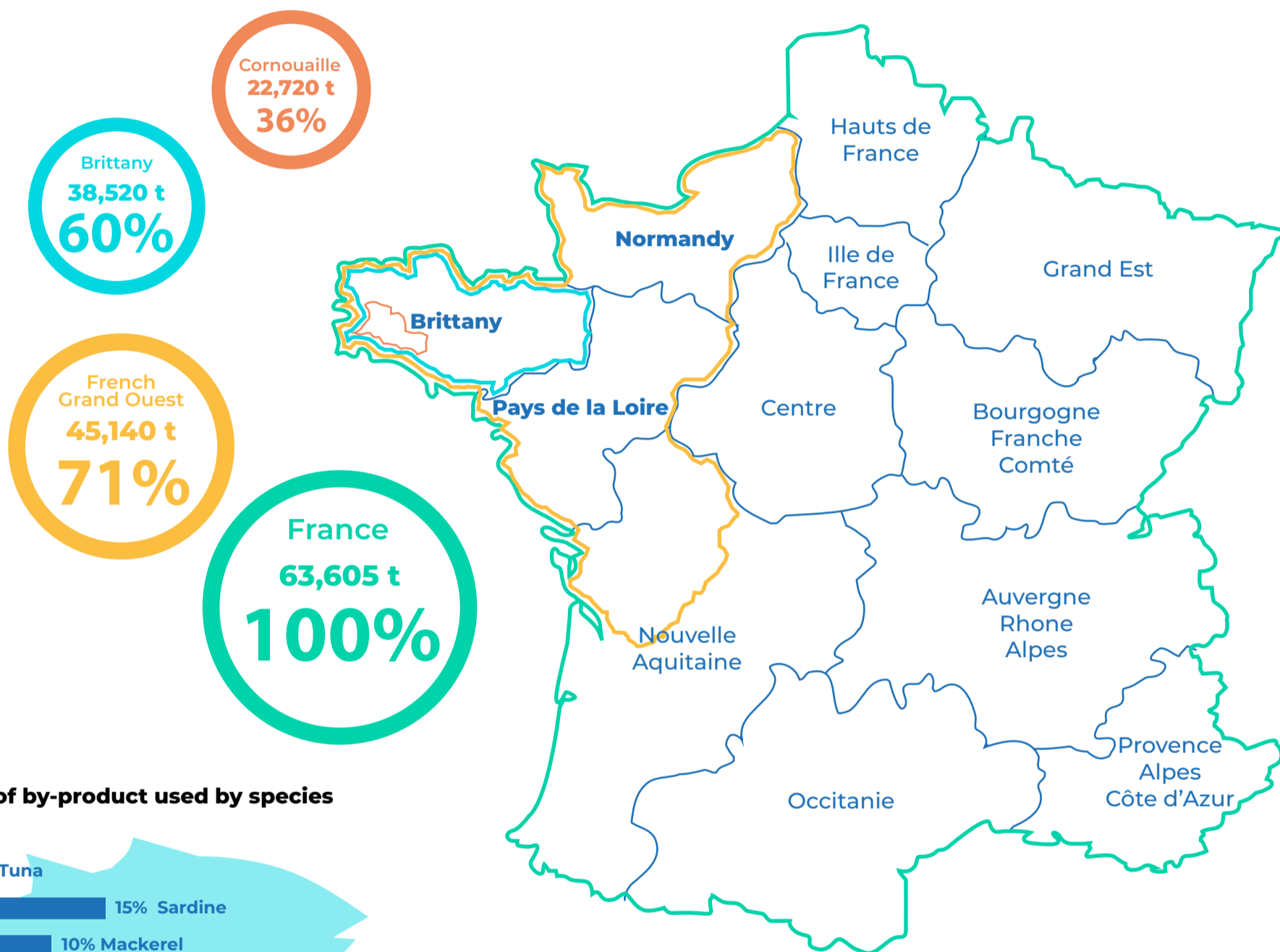




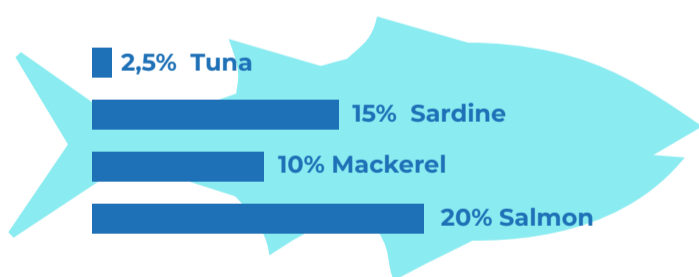
Evaluation of biomasses to be used to produce ingredients for RTE in French Grand Ouest

The processing of by-products can be a very promising economic activity in the French Atlantic Area and especially in Cornouaille that is one of the main French fishing regions (20% of the national fish landing). The fish by-product industry is already well developed there, as Cornouaille is one of the most important regions of France in terms of fish by-products processes. These stakeholders (local communities, fishmongers, businesses, industries...) are already involved in the by-products industry. This fact creates the condition for valorising more by-products in different ways.

Fish by-products processed by fish industries in tons per area, 2015

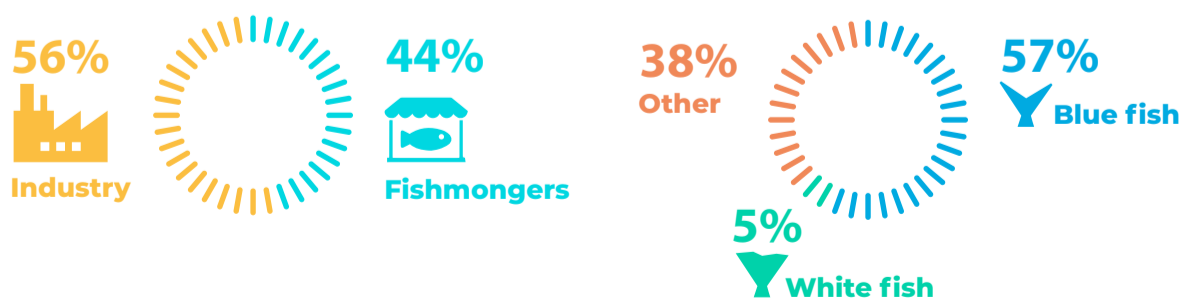


Percentage of by-product used by species



Sources: Gisements et valorisations des coproduits des industries agroalimentaires, RESEDA
 Le Floc'h, P., Bourseau, P., & Le Grel, L. (2014). Valorisation des coproduits marins dans les régions françaises du Grand Ouest. Cahiers Agricultures, 23(2), 120-128
 From Sisco (2017)

By-products processed in Cornouaille for a total of 22,720 tons by stakeholders and by type of product



Source: Bourseau, P. (2011). Gestion Durable, analyse des stratégies de gestion et d'aménagement durable des ports de pêche du grand ouest. Projet PSDR Grand ouest.

Conclusions:

A large quantity of by-product resources is available in Brittany. Fish industries, local communities and industrials have already started to work together to develop a blue circular economy project. However, time and funds are required to achieve this project and become independent due to a high cost for R&D development. Moreover, the competition against other sectors (animal nutrition for example) and the lack of means and engagement from fishermen could stop this initiative.

Source: Abyss Ingredient and Technopole Quimper Cornouaille' SWOT, 2019