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## NEW PROJECT RECOVERS NUTRIENTS FROM SEAFOOD PROCESSING

 HEALTHCARE & WELLBEING

### **A Swedish university has developed a new technique for converting waste water from seafood processing into sources of protein.**

During the preparation of seafood, large amounts of water are used and pumped out as waste. For example, around 50,000 litres of water is needed to process each ton of peeled shrimps. The water that is discarded in these processes contains valuable nutrients. These nutrients could be recycled back into the food chain as aquaculture feed. However, there has been no way to extract them from the waste water – until now. The NoVAqua project, coordinated by Professor Ingrid Undeland at Sweden's [Chalmers University of Technology](#), has now developed a way to extract nutrients from processing water.

Using a two-step process, the research team managed to recover up to 98 percent of the protein and 99 percent of the omega 3-rich fats from the water. The process produced a semi-solid biomass and a nutrient-rich liquid. The biomass was then used as a component of salmon feed for salmon, while the liquid was used for glazing frozen fish, to protect it from going rancid during shipping.

According to research lead, Professor Ingrid Undeland, “The backbone of our project is a circular approach. In the past, we had a more holistic view on handling of food raw materials, but today so much is lost in side streams. Furthermore, we are in the middle of a protein shift, and there’s a huge demand in society for alternative protein sources”. The NoVAqua project joins other recent projects

intended to develop such alternate protein sources. These include a range of [lichen-based food](#) and a drink made from [soy pulp](#).

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## **Takeaway:**

One major challenge is to get the seafood industry to manage the water side streams as food, rather than waste. This will mean developing new routines for cooling and hygiene. Sweden is already ahead in this area, as waste waters are partly purified before they go out of the factories. What else needs to be done to make this process cost effective?