

TRANSFORMING THE WASTE FROM SUSTAINABLE FISHING INDUSTRY INTO NEW UP-CYCLED PRODUCTS IN ALASKA

By Kim Assaël

The Alaskan start-up [Tidal Vision – from the Ocean for the Ocean](#) turns seafood waste into salmon leather and plans to spin crab shell fibre into high-tech, antimicrobial clothing.

The Tidal Vision Company, created in Juneau by the former Alaskan fisherman Kasberg, is part of a growing group of seafood industry entrepreneurs moving beyond fertiliser and fishmeal to upcycle the seafood industry's waste in innovative new ways, traditionally used only to produce fertilizers and fishmeal.

Ensuring that seafood remains abundant and healthy is fundamental to Alaska whose Government has a constitutional mandate to manage all fish populations sustainably. The [United States Environmental Protection Agency](#) provides clear guidance on the management of fish wastes. At present seafood processors commonly dispose some two billion pounds of fish guts, heads, tails, fins, skin and crab shells in marine waters. Once there, the decomposing organic matter can suck up available oxygen for living species nearby, bury other organisms or introduce disease and non-native species to the local ecosystem.

In this context, in order to contribute in promoting sustainable fisheries and through the recruitment of a team of scientists and engineers, Tidal Vision developed a [vegetable-based tanning process](#) for salmon skin. The Tidal Vision company launched a line of wallets made from sustainable Alaskan salmon skin leather. The leather smells like regular leather with a textured look topped with a durable glossy finish, smooth and slippery.

The salmon's leather manufacturing involves cutting the leather into sheets that are tanned using nontoxic, vegetable-based oils, then sewed into wallets. The production process of the waterproof aquatic leather 10% sustainable is made via a proprietary process. Marketing of the wallets is being made through the [Kickstarter campaign](#) and through [many video](#) presenting their features.

In terms of sustainability the production of this leather has the advantage to recover the wastes of the fishery industry while protecting the waters of the ocean. It also represents an alternative to the "fast fashion" trend which often contributes to the world pollution.



Tidal Vision's mission extends beyond waste reduction, putting in place other new eco-friendly technologies. For example the company has also been working on a way to extract a compound called [chitin](#) (white, horny substance found in the outer skeleton of insects, crabs, and lobsters and in the internal structures of other invertebrates) from crab shells to make chitosan, which has many uses in agriculture and in medicine. Moreover the refined chitin to make an eco-friendly solution and antibacterial chitosan fibre which can be dyed and woven into hard-wearing and not absorbing odours T-shirts. Chitosan is also useful for a wide range of water treatment applications: for swimming pool and spa clarifying, for beverage fining, for commercial and other industrial water treatment needs.

Another by-product of its extraction process is an 8% nitrogen organic fertiliser, which the company is bringing to market not only because the concentrated organic fertilizer enriches plants with a unique balance of 11 essential plant nutrients, but because it can also naturally condition and stabilize soil's ph. The Company even plans to develop a process to extract an enzyme from fish bones that can speed up revegetation in clear-cut forests. Many other applications are in place like the one using the skins of [invasive fish species](#) that plague other parts of the country.

Tidal Vision sees markets for its materials in the car, shoe, and furniture industries, all of which should help reduce seafood waste and provide higher income for fisheries locally. Its activity allows reducing the amount of fishery wastes discharged into the waters by ensuring our ocean's resources are protected. The Company also supports a circular economy model for sustainable fisheries up cycling the wastes in new useful materials and straightening the economic value of the sustainable fishing.

Many international initiatives, as for example the [Fish 2.0](#) Award are interesting opportunities for sustainable seafood entrepreneurs, putting them in contact with potential investors.

To know more

[Tidal Vision website](#)

[Tidal Vision in Facebook](#)

[Article in sustainablebrands.com](#)

[Article in theguardian](#)

[Article in theplate.nationalgeographic.com](#)

[Article in mothernaturenetwork website](#)

[Fish 2.0 Initiative](#)

[Article in fastcompany.com](#)

[Video in Youtube](#)

