

The Blue BioEconomy: A BlueTech regenerative revolution in the making

By Wayne Visser

Image: Fish Leather

Blue BioEconomy Tech

The signs of ocean breakdown are clear, but so are the innovation breakthroughs. Last week I spoke at the Blue Wink-E 2025 "Ocean in Loop" conference at Matosinhos City in Porto organised by the B2E Blue BioEconomy CoLab. Here's are a few key takeaways.

Blue Economy Breakdown

- 🐟 Over a third of global fish stocks are overfished, up from 10% in the 1970s
- 🐟 Large fish populations like tuna have declined by 90% since the 1950s
- 💣 38.5 million tonnes of bycatch are discarded annually—often dead or dying
- 🗑️ 11 million metric tons of plastic enter the ocean each year
- 🌊 245,000 km² of marine ecosystems are classified as "dead zones"
- 🧪 The ocean is 30% more acidic than before the industrial revolution
- 🐋 Over 33% marine mammals, sharks and rays are threatened with extinction
- 🛡️ Only about 8% of the ocean is protected - and only 3% is highly protected

Blue Economy Breakthrough

- 🐼 Tompkins Institute have increased Chile's marine protected areas by 40%
- 🪸 Coral Vita is regrowing and replanting corals in the Bahamas
- 🌊 Greenwave is restoring seaweed and shellfish and working to advance blue carbon credits
- 👕 Econyl partners with Gucci, Burberry, Adidas, H&M and others to turn discarded fishing nets into circular textiles
- 🗑️ Polymateria makes marine biodegradable plastics, leaving no microplastics behind
- 🛍️ MarinaTex turns fish waste into bioplastics that are biodegradable in soil
- 💊 PharmaMar uses marine resources to create cancer treatments

-  Provenance uses the blockchain to track, trace and verify sustainability claims in the supply chain
-  Carbios turns the power of enzymes to the biodegradation of plastic waste
-  Win@Sea combines offshore wind with marine biodiversity restoration such as seaweed cultivation

Which innovations and solutions would you add? As Nelson Mandela said:

"It always seems impossible until it's done"

My bestselling book Thriving is available as an ebook, audiobook or paperback.

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