

# Circular Design for the Regeneration of the Seagrass Beds

**Organisation:** Falmouth Harbour

**Student:** Alexander Holden-Crowther

**Course:** 2nd-Year Environmental Science BSc

**Date:** 20th June – 15th July 2022

**Falmouth Harbour is a statutory port authority, created in 1870. Their purpose is to safely manage Falmouth Harbour and facilitate sustainable prosperity for the Port.**



Image kindly provided by Falmouth Harbour

## Project



- Falmouth Harbour were keen to develop their understanding of the feasibility of using recycled ocean plastics for buoys and floats.
- Alexander conducted research on Advanced Mooring Systems (AMS), particularly on the use of plastic floats or buoys along marine chains to lift them off the seabed and prevent damage to marine ecosystems, such as seagrass, and the feasibility of making such floats from recycled plastic.
- A key finding was that marine plastic waste may not be suitable to create a buoy or float and that, currently, there are limited opportunities for end-of-life use for buoys.
- Alexander reported on the opportunities and risks of the project, as well as recommendations for the business, and set up actionable and measurable “next steps” for further research.

## The Impact



The project has contributed to Falmouth Harbour’s organisational knowledge to help develop potential circular economy solutions for plastic waste streams, as well as more environmentally sustainable Advanced Mooring Systems.

“This helped develop our organisational understanding of the circular economy and raised awareness of the potential changes required to our practices to be able to positively contribute to it.”

**Vicki Spooner**, Environment & Quality Systems Manager, Falmouth Harbour