Plastic is extremely durable, highly flexible and inexpensive to produce. Unfortunately, it is terribly detrimental to the environment. In fact, we use so much plastic that we send a shocking 12 million metric tons of plastic in the ocean each year. Once there, the plastic pollution breaks down into microplastics that find their way into fish stomachs and bird nests, accumulating in the marine food chain. How can we prevent plastic pollution from destroying vulnerable marine ecosystems? This is a pressing problem for Norway, whose inhabitants have earned their livelihood from the sea since prehistoric times. That is why Norwegian companies and research institutions – which have been leaders in the offshore, shipping, fisheries and aquaculture industries for decades – are investing major resources in fighting plastic pollution in the ocean Focusing on materials, ocean cleaning technology, reuse, and changing the value chain, Norwegian companies have come far in developing solutions and technology that can help to combat plastic pollution and plastic in the ocean. Here are some examples. Using offshore technology to collect plastic pollution It is imperative to find effective ways of removing plastic pollution that is about to cause irreparable damage to the ecosystem. Ideally plastic waste should be picked up before it sinks to the seabed or before weather, wind and sun break it down into microplastics. Collecting floating ocean waste is much more complicated than collecting litter on land. Norway, however, has world-leading expertise in constructing and operating installations in harsh offshore conditions. Companies are building on this expertise to devise effective solutions for ocean cleaning and collecting plastic pollution from the water's surface. The company SpillTech, for example, is a specialist in oil spill response systems. It has used its knowledge of oil skimming technology to develop the PortBin range of solutions for collecting floating ocean waste: PortBin fixed, PortBin robot, and TrashTrawl. The devices collect floating waste from port areas, rivers and other small bodies of water. Already in use in ports in Scandinavia and the UK, Spilltech's solutions all help to stop plastic waste reaching the ocean. Clean Sea Solutions, meanwhile, has developed the Clean Sea Robot. This autonomous, electric, aqua drone "sweeps up" plastic waste from the ocean surface with the help of computer vision and remote sensing. The collected trash is stored on board, and when the device is full, it returns to a dedicated docking station to be emptied and recharged for the next mission. The company is also developing a model that can function below the surface for more in-depth ocean cleaning. TE_Solutions_Clean Sea Solutions_Cleaning Drone_hero_cropped.jpg Solution from CLEAN SEA SOLUTIONS AS The autonomous aquatic Cleaning Drone cleans up harmful plastic waste Ocean Industries ... PortBin_resized.jpg The PortBin from SpillTech collects floating waste. Cutting emissions by recycling plastic waste The problem with plastic is that it is extremely simple and inexpensive to produce, making it far too easy to throw away plastic products and packaging after a single use, thus creating enormous amounts of plastic pollution. But what if we could give plastic waste a new life? Devising new, useful applications will create incentives for people to hold onto used plastic instead of dumping it – and keeping it from ultimately ending up as plastic pollution in the ocean. This is the win-win-win approach that Quantafuel is taking. The company chemically recycles mixed plastic waste, transforming it into a raw material for new plastic products. In addition to removing plastic waste from the environment, Quantafuel's process reduces other forms of pollution from incineration and landfills, reduces energy consumption, and promotes the circular economy of plastics.