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~ One innovation at a time ~

Social Background and Motivation
With an astonishing one in five chance of wild-caught fish being caught illegally worldwide (6), communities that depend on fishing for an income are cheated, and sea life is devastated. To contribute to the amelioration of the problem of IUU (Illegal Unreported and Unregulated) fishing, we introduce our product, the TrackRaft.

Target Customer
IUU fishing is a problem that affects countries globally. This disturbs the economy greatly and is a growing matter in international affairs and a concern to federal governments. Our product will be marketed primarily towards the governments of coastal countries, where IUU fishing is most at large. The TrackRaft enables governments to catch IUU fishermen more effectively, further enforcing the security of the economy.

Product Details
The TrackRaft is made up of 12 hollow aluminized steel pipes crossed to form a raft-like shape, of which 8 are 1 meter and 4 are half a meter long. A boat-tracking program, contained inside an aluminized steel box, is built inside the raft. The properties of aluminized steel allow the TrackRaft to float on water and also enables our product to resist corrosion. In addition, this product incorporates a radar that can reach up to 100 km in radius to detect objects in the water, in order to fulfill its main purpose, which is to find boats. The TrackRaft receives data of sea lanes for licensed boats, which will assist in discerning between licensed and illegal boats by finding boats that are not following the designated course. Furthermore, the TrackRaft has 4 motors that help it maneuver on the surface of the sea. In the case of an emergency, these motors are able to move our product and the radar system is able to pick up on any ships coming its way so it can get out of the path of an oncoming ship. The constant movement of the TrackRaft keeps IUU fishermen from avoiding the trackers, furthering the TrackRaft's abilities to contribute to ending IUU fishing. When an illegal boat is detected, the TrackRaft sends a signal that notifies the receiver of the location of the boat, using GPS (Global Positioning System) as well as images of the boat in question, taken by the TrackRaft's camera.

Energy System:
Our product self-charges for maximum efficiency. Rather than returning to port to be charged with energy, the TrackRaft uses solar energy to power its activities as a renewable energy source to increase sustainability, as well as to ensure our product is environmentally friendly. The solar panels produce 28.35 kWh (10), enough to power a 28V TrackRaft. Moreover, our product requires little energy, due to its conservation of energy by floating on the ocean, partially submerged. Two solar panels lay on top of the TrackRaft, laying at a 45-degree angle to provide the energy needed, each measuring 60 by 90 cm.

Competition
Currently, intelligent drones are our primary competitor, because they are automated as well. A single drone can monitor 10,000 square kilometers per day, alerting authorities when there is a boat that the drone is 95% sure is illegal (4). Although the drones are effective, our product is more cost-effective as well as energy-efficient, therefore more sustainable. Since the TrackRaft is self-charging, it monitors the surrounding area at all times, enabling tighter security. Our product does not operate under an AI (Artificial Intelligence) system, rather, a complex program to lower the cost, so it is more accessible to undeveloped and developing nations. By floating on the surface of the water, the TrackRaft is less noticeable compared to our competitors, catching ships unaware, thus making IUU fishing ships easier to catch.

Marketing Strategy
Since TrackRaft is designed to contribute to the ending of IUU fishing, a target market of those with authority is necessary to enforce regulation on those fishermen who are behaving illegally. Thus, we must advertise to governments worldwide. In order to reach most governments, we are advertising through the United Nations Environment Program (UNEP) website.

Financial Plan
As West Africa is most affected by illegal fishing, we will be making and testing TrackRafts in their factories. By using solar panels, motor-generated propellers, a radar system, and a programmable GPS chip, our TrackRaft will cost 115,000 yen a unit. With little maintenance needed, our unit cost will be 108,000 yen. We plan on hiring 10 programmers to work on our product and program the GPS chip for our technical needs such as sending information to our consumers. They will be paid 1,500 yen per hour. We will promote our product through UNEP's online

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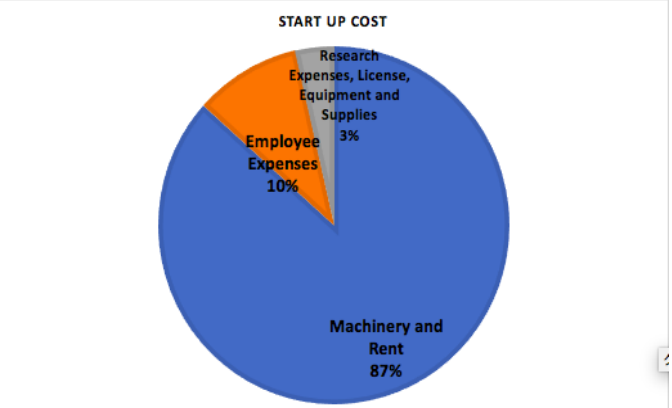
advertisements which will cost us 660,000 yen in the first year and will gradually increase as we reach out to more UN organizations. We believe that by introducing our product from West Africa our product will become more widespread and increase in demand each year.

Funding

To establish a staunch and reliable source of funding for the TrackRaft, the team at facian will be looking into a wide range of methods for funding.
We hope to receive our funding from venture funders who are interested in preventing illegal fishing and preserving marine biodiversity. We also plan on receiving additional funding by setting up a crowdfunding page such as Kickstarter and GoFundMe to start-up our product.
We strongly believe that our product, the TrackRaft, is a sustainable solution that will contribute generously to the ending of IUU fishing.

Amount in JPY (per 1000 JPY)	Year 1	Year 2	Year 3
1.Revenues	2,300,000	3,450,000	8,050,000
Product/Service	2,300,000	3,450,000	8,050,000
Unit Sold	20,000	30,000	70,000
Unit Price	115	115	115
2.Production Costs	-2,154,960	-3,232,440	-7,542,360
Unit costs	108	108	108
3.Expenses	-4,560	-4,889	-5,219
Staff Salaries	3,900	3,900	3,900
Sales and Marketing	660	989	1,319
4.Profit/Loss before tax	140,480	212,671	502,421
5.Income Tax	-42,144	-63,801	-150,726
6.Net Profit/Loss	98,336	148,869	351,695
7.Start-up cost	-79,800	-38,550	-38,550
8.Free Cash Flow	18,536	110,320	313,145
9.Cash balance	275,889	582,179	1,480,406



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