

<p>PROBLEM</p> <p>Marine pollution, including plastic waste and oil spills, is a serious threat to sea life and coastal communities.</p> <p>Current monitoring methods are slow, expensive, and not very effective, which means pollution often spreads before it can be cleaned up.</p> <p>The lack of real-time detection systems makes it hard to take quick action and prevent long-term environmental damage.</p> <p>EXISTING ALTERNATIVES</p> <p>Manual on-site inspections and patrols.</p> <p>One-off water quality testing.</p> <p>Single-source monitoring solutions (e.g., just using a single type of sensor).</p>	<p>SOLUTION</p> <p>A multi-agent AI system that uses AI and machine learning to automatically detect marine pollution.</p> <p>The system uses different agents to collect data from various sources (like satellite images) and then analyzes that data to find and report pollution.</p> <p>The final agent sends real-time alerts to the right people, so they can respond quickly.</p> <p>KEY METRICS</p> <p>The accuracy of model in detecting pollution events</p> <p>The speed at which alerts are sent out after an event is detected.</p> <p>The amount of data successfully processed over time to demonstrate scalability.</p>	<p>UNIQUE VALUE PROPOSITION</p> <p>Unlike traditional methods, our system provides a real-time and non-invasive way to detect pollution.</p> <p>It uses a combination of multiple data sources (like satellite data) for more accurate results.</p> <p>The project is built on an affordable and scalable cloud platform, making it accessible to many organizations.</p> <p>HIGH-LEVEL CONCEPT</p> <p>An AI-powered marine pollution monitoring service that provides real-time alerts.</p>	<p>UNFAIR ADVANTAGE</p> <p>System uses a unique multi-agent design that is highly scalable and can be improved with more data.</p> <p>It's built on a secure cloud platform, making it reliable for real-world use.</p> <p>The model's ability to combine different data types (like sensor and satellite data) gives it a better chance of detecting a wider range of pollution.</p> <p>CHANNELS</p> <p>The Solution will be accessed through a public API that other applications can use.</p> <p>A web-based dashboard will be used to show real-time data and alerts.</p> <p>Use public platforms like GitHub and IBM Cloud to share the project code and its working demo.</p>	<p>CUSTOMER SEGMENTS</p> <p>Government environmental agencies and coastal management authorities.</p> <p>NGOs focused on marine conservation.</p> <p>Research institutions and universities studying marine ecosystems.</p> <p>EARLY ADOPTERS</p> <p>Environmental groups and small marine-focused research teams.</p> <p>They are likely to be tech-savvy and actively looking for innovative ways to monitor pollution.</p> <p>These groups are driven by a strong mission and are willing to try new solutions to improve their work.</p>
<p>COST STRUCTURE</p> <p>Expenses for running the AI models and dashboard on cloud services like IBM Cloud, including computing power and data storage.</p> <p>Costs associated with getting a continuous stream of satellite imagery and sensor data from providers.</p> <p>The ongoing costs for the team to maintain and improve the AI models and the dashboard.</p>		<p>REVENUE STREAMS</p> <p>A monthly or yearly fee for environmental agencies to use the monitoring service and receive real-time alerts.</p> <p>Offering custom solutions and data analysis for specific clients or regions.</p> <p>Selling access to historical pollution data and insights generated by the platform to researchers and organizations.</p>		

