

Wide-area Litter Visualization System Using Satellite Imagery

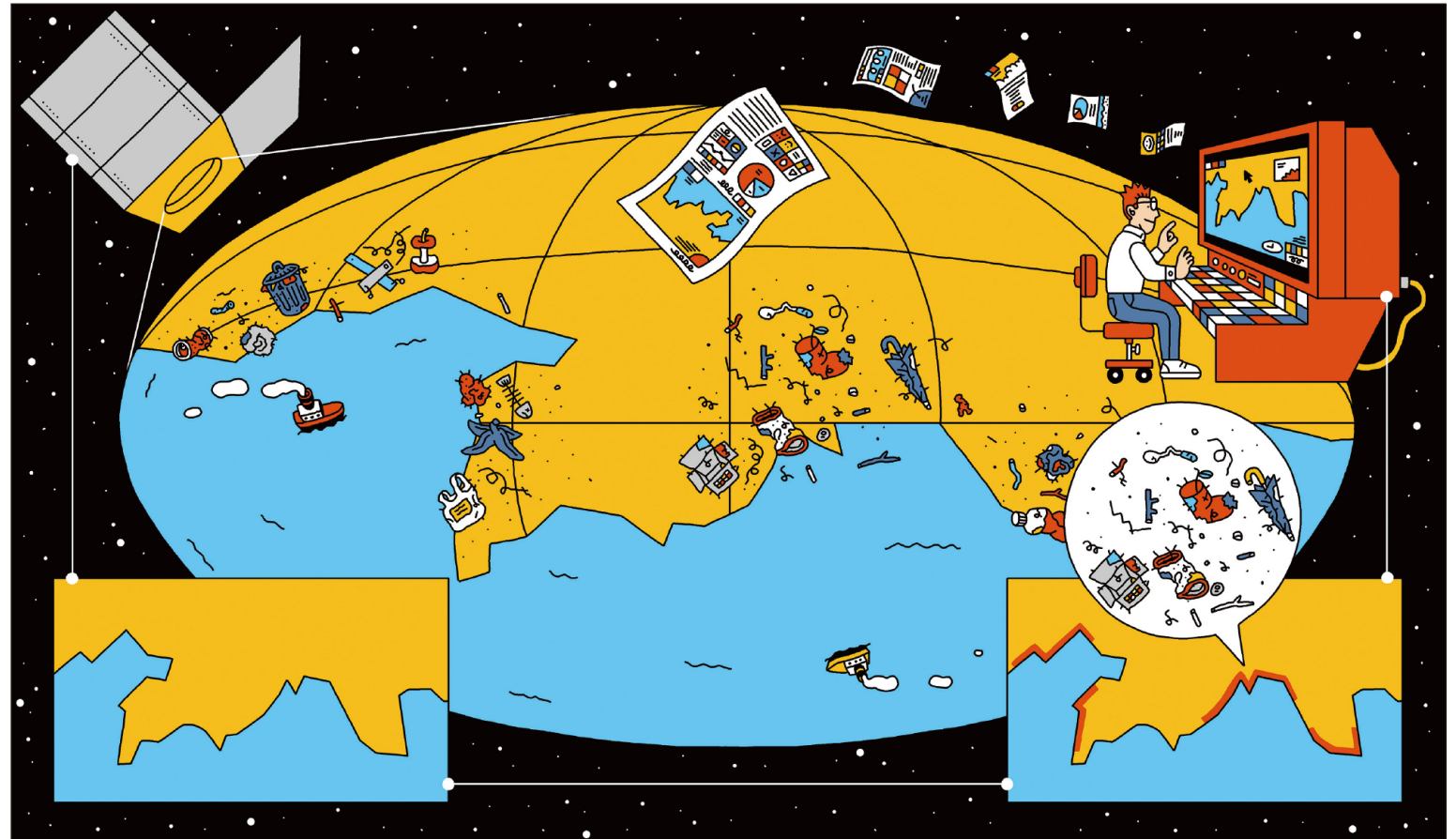
TEAM

Amanogi, Corp.

SERVICE VISION

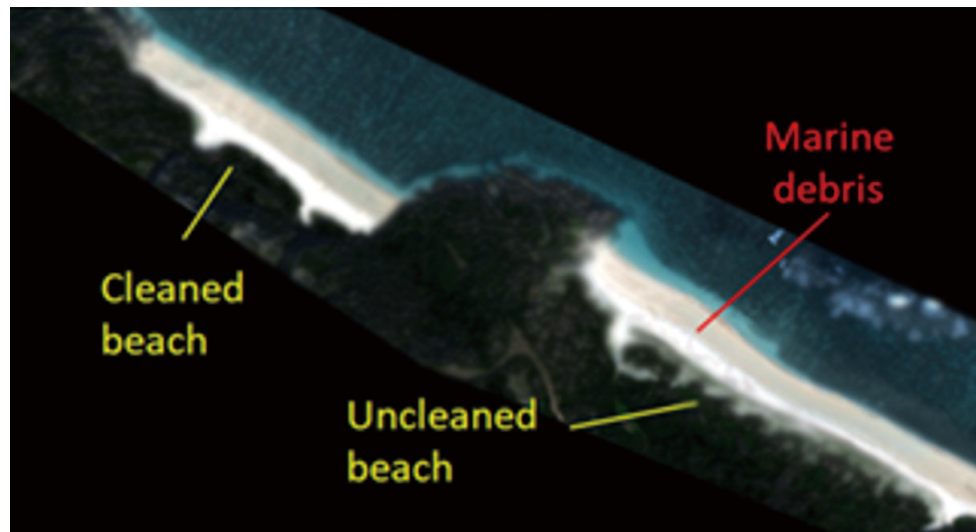
In order to take action against marine debris, it is first necessary to understand the actual situation of marine debris. In particular, a wide-area survey is indispensable for studying measures related to waste management at the municipal level. However, it is not realistic to do this with raw manpower.

This service uses images taken by satellites to diagnose marine debris over a wide area without relying on human maritime tactics. Detailed, long-term, and autonomous marine debris information is acquired remotely and analyzed using AI to visualize debris drifting along a wide-area coastline on a 100-km scale.



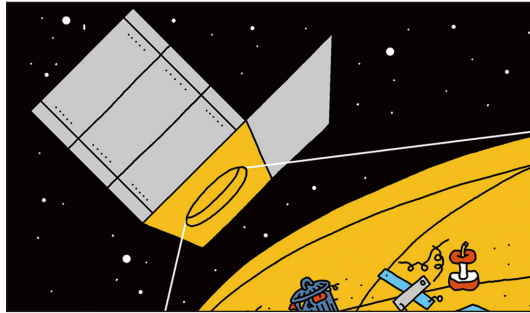
SERVICE FEATURES

Using images taken by satellites, the system remotely and autonomously acquires marine debris information over a long period of time, and using AI-based analysis, visualizes debris drifting along a wide area coastline on a 100 km scale.



A satellite image of a beach (left) and the identified the location of marine debris (light blue area) using AI analysis.

SERVICE OVERVIEW



Satellite Image Collection

Satellite imagery of the area to be surveyed is collected. The satellite images used are updated daily to every few days, allowing for real-time situational awareness.

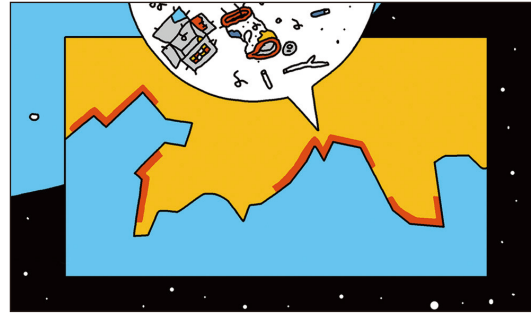
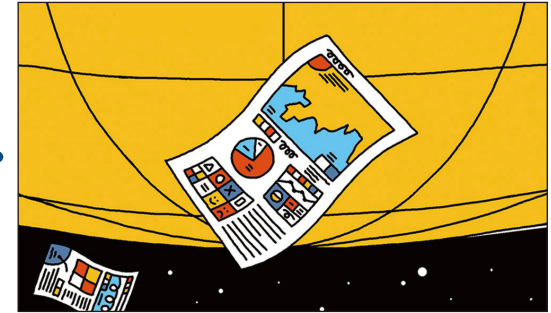


Image Analysis Using AI

Collected images are analyzed by an algorithm built using proprietary machine learning to visualize litter drift-prone areas along the entire coastline.



Preparation of Report

A report summarizing the location and condition of beach litter accumulation in the surveyed area will be prepared.



Direct survey of the coast using drones or by field investigation can be conducted as needed. Surveys with historical satellite data, weather-related data, and litter cleanup history can also be combined.

PROCESS and SCHEDULE



- ※ The standard process takes 3 months from the start of discussion.
- ※ Ongoing surveys can be conducted on an annual basis.



Standard Plan ▶ 4,500,000 JPY

Survey coverage of up to 200 km / 1 implementation of satellite photography

TEAM



Amanogi, Corp.

Location : 1-1-13, Kitamagome, Ota-ku, Tokyo, Japan

Representative : Yu Kudo, CEO

Website : <https://amanogi.space/>

Business Description

- Design, development, prototyping and sales of precision machinery and equipment for space, modeling, video and audio, etc.
- Research and development of data analysis and visualization technology, and development and sales of software.
- Education business, etc.

Inquiries about this service

Project Ikkaku Secretariat (in Leave a Nest)

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Web site is here.



<https://ikkaku.lne.st/>



ABOUT PROJECT IKKAKU

Project Ikkaku was launched in 2019 by the Nippon Foundation, JASTO, and Leave a Nest with the goal of realizing businesses that reduce marine waste in society.

The project adopts a process that promotes the development and commercialization of innovative technologies through the collaboration of "hyper-interdisciplinary teams" including venture companies with new technologies and unconventional ideas, as well as academic institutions, town factories, large corporations, and small and medium-sized businesses. With support from the Nippon Foundation, a number of services have been developed over a three-year period through 2021.

From April 2022, we will continue to work with the participating teams as a stand-alone project to promote the social implementation of businesses that reduce marine waste.

