Document 1 - Artificial intelligence is being integrated into efforts by The Ocean Cleanup to rid the world's oceans and rivers of plastic pollution. Robin Latchem, Recycling International, July 28, 2025.

The non-profit organisation has announced a collaboration with Amazon Web Services (AWS) to leverage (= use fully) the latter's advanced AI, machine learning and cloud computing capabilities to accelerate The Ocean Cleanup's goal of removing 90% of floating ocean plastic by 2040.

Recent research has indicated that the Great Pacific Garbage Patch (GPGP) is impeding the ocean's ability to help regulate the climate while also being harmful to marine life. The Ocean Cleanup argues that extracting plastic debris is essential to protect marine ecosystems, preserve biodiversity and prevent its disintegration into microplastics that enter the food chain.

Greater efficiency

AWS's AI-powered detection systems and comprehensive cloud infrastructure will enable precise tracking of plastic accumulation and model debris movement. This will enable more optimised resource management and operational efficiency, significantly enhancing The Ocean Cleanup's ability to detect, track and remove ocean plastic.

Werner Vogels, cto (= Chief Technology Officer) of Amazon.com says: 'This collaboration demonstrates how advanced cloud computing and AI can serve as powerful tools for environmental stewardship (=supervising), not only transforming oceanic data into actionable insights but also creating a blueprint for how technology can address critical environmental challenges across the globe.'

Twin approach

The collaboration will focus on two initiatives:

1. With an advanced artificial intelligence and machine learning platform, The Ocean Cleanup will more effectively identify, track and predict ocean plastic accumulation. AWS will support The Ocean Cleanup in the creation of a 'plastic navigation' system that predicts debris movement and optimises cleanup operations. The solution will allow ships to be steered (=guided) toward optimal collection areas based on near-real-time measurements.
2. AWS will help The Ocean Cleanup improve its marine life detection systems. This automated capability will reduce the need for individuals who provide continuous cleanup monitoring 24 hours a day.

'Innovation and cutting-edge technology have always been at the heart of our approach to achieve our mission to rid the world's ocean of plastic,' says Boyan Slat, ceo and founder of The Ocean Cleanup. 'Our collaboration with AWS has the potential to deliver significant advancement in our capabilities.'

a) *What is the document about? Describe the technology.*
b) *What is the Ocean Cleanup? How will AWS help them achieve their goal?*
c) *Do you think AI can have a positive impact on the environment? Discuss. (150 words)*

Document 2 - Saipan environment forum hears caution on Pacific Garbage Patch cleanup - Mark Rabago, RNZ, June 13, 2025.

An expert says there is pushback from environmental groups when it comes to cleaning up the Great Pacific Garbage Patch.

Bradley Nolan, waste management adviser at the Secretariat of the Pacific Regional Environment Programme (SPREP), spoke at the 32nd Pacific Islands Environmental Training Symposium at the Crowne Plaza Resort Saipan.

He was asked from the floor about efforts to address the massive plastic accumulation zone in the North Pacific - a swirling gyre (= spiral) of marine debris between California and Hawai'i, commonly known as the Great Pacific Garbage Patch.

Nolan, who presented on regional waste management resources, acknowledged the urgency and complexity of the issue, tying it to global negotiations under way for a plastics treaty.

"Article nine of the plastics treaty currently under negotiation talks about legacy plastics and cleaning up the marine environment," he said.

"There are a number of technologies trying to scrape up and clean the patch, and it makes sense to do that - but now we're seeing pushback from some environmental groups."

According to Nolan, a growing number of scientists and green groups have raised concerns that clean-up efforts could destroy an unintended but now-established ocean ecosystem.

"Because that garbage patch has existed so long, it's created a new marine habitat - a floating ecosystem that didn't exist before," Nolan said.

"Efforts to clean it up could cause massive bycatch (=unintentional catch) and harm species that have come to depend on it."

While the "patch" isn't a solid island of trash, it is a dense concentration of microplastics and floating debris, which accumulate due to oceanic gyres. Roughly 80 per cent of that material comes from land-based sources, not ships, he said.

Calling the garbage patch "a significant problem with no simple solution", Nolan said the issue touches on marine biodiversity, waste transboundary movement, and the production of harmful micro- and nano-plastics.

"This is a complex issue - and complex issues rarely come with easy fixes," he said.

In 2023, the Ocean Cleanup, a nonprofit environmental engineering organization, removed about 25,000 pounds of trash from the Great Pacific Garbage Patch.

The Great Pacific Garbage Patch remains a symbol of the global plastics crisis. While innovation in clean-up continues, experts like Nolan stress that prevention - especially at the land-source level - must be prioritised across the Pacific.

The four-day symposium features workshops on hazardous waste, climate adaptation, and the PFAS (per- and poly-fluoroalkyl substances) contamination crisis facing islands such as Saipan and Guam. It concludes on Friday.

a) *Compare and contrast this document with document 1.*
b) *Find the words in the text meaning:*

Resistance, plastics that cannot be reused or recycled, pick up, dangerous.

c) *Sum up Bradley Nolan's take on the issue.*
d) *Do you think the U.S.A. should bear the burden of cleaning the patch more than any other country? (150 words)*
e) *Translate the passage in boldface into French.*