

# Dutch inventor has a device he says will clean plastic trash out of rivers

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Image 1. Young Dutch inventor Boyan Slat (right) unveils the Interceptor in Rotterdam, Netherlands, October 26, 2019. Slat is taking his effort to clean floating plastic from the Pacific Ocean to rivers, using the Interceptor, a new floating device to catch garbage before it reaches the seas. Photo by: Peter Dejong/AP

A young Dutch inventor has come up with a new floating device to catch garbage in the water before it reaches the ocean.

Boyan Slat, 25, is widening his effort to clean floating plastic out of the Pacific Ocean by setting his sights on rivers, using his latest device.

Slat, a university dropout, founded The Ocean Cleanup to develop and use a system he invented when he was 18 years old. It catches plastic waste floating in the ocean.

On October 26, Slat unveiled the next step in his fight: A floating solar-powered device that he calls the "Interceptor," which scoops plastic out of rivers as it drifts past.

"We need to close the tap, which means preventing more plastic from reaching the ocean in the first place," he said, calling rivers "the arteries that carry the trash from land to sea."

## Millions Of Tons Of Plastic Waste To Tackle

Slat's organization has drawn criticism in the past for focusing only on the plastic trash already floating in the world's oceans. Experts say 9 million tons of plastic waste, including bottles, bags, toys and loads of other items, flows annually into the ocean from beaches, rivers and creeks. That's equal to the weight of about 350 Statues of Liberty, and it endangers marine life in the oceans, including whales.

Three of the machines have already been deployed to the Asian countries of Indonesia, Malaysia and Vietnam. A fourth is heading to the Dominican Republic, he said.

Izham Hashim from the government of Selangor state in Malaysia was present at the launch and said he was happy with the machine.

"It has been used for 1 1/2 months in the river and it's doing very well, collecting the plastic bottles and all the rubbish," he said. Slat said he believes 1,000 rivers are responsible for some 80 percent of plastic pouring into the world's oceans and he wants to tackle them all in the next five years.

"This is not going to be easy, but imagine if we do get this done," he told his audience of enthusiastic supporters, who whooped, clapped and cheered his announcements. "We could truly make our oceans clean again."



### The Interceptor's Inner Workings

Slat used his live-streamed unveiling event to appeal for support from countries committing to clean up their rivers. He also sought interest from businesses prepared to inject funding and help with the operation of the devices.

The vessel is designed to be anchored in rivers and has a shaped nose to deflect away larger floating debris such as tree trunks. The Interceptors work by guiding plastic waste into an opening in its front, and a conveyor belt then carries the trash into the guts of the machine where it is dropped into dumpsters. The Interceptor sends a text message to local operators to come and empty it when it is full.

Slat showed off how the Interceptors work by dumping hundreds of yellow rubber ducks into the water at the launch event in Rotterdam's port. The interceptor caught nearly all of them.

### "They Finally Moved Toward The Source Of The Litter"

The machines currently cost about \$775,600, but Slat said the cost will likely drop as production increases.

Jan van Franeker of the Wageningen Marine Research Institute has been critical of The Ocean Cleanup in the past but said the new device looks promising.

"I am really happy they finally moved toward the source of the litter," he said in a telephone interview. "The design, from what I can see, looks pretty good."

Slat argued that not picking plastic out of rivers costs more than the cost of buying and using the machines.

"Deploying Interceptors is even cheaper than deploying nothing at all," he said.

## Quiz

- 1 Which option would Boyan Slat MOST likely AGREE with? Which line from the article supports your answer?
- (A) The "Interceptor" has already solved Malaysia's water pollution problem in a short amount of time: "It has been used for 1 1/2 months in the river and it's doing very well, collecting the plastic bottles and all the rubbish," he said."
  - (B) The "Interceptor" is unlikely to attain its goal but it is worth a try: "This is not going to be easy, but imagine if we do get this done," he told his audience of enthusiastic supporters, who whooped, clapped and cheered his announcements."
  - (C) The "Interceptor" is expensive, which has deterred many potential buyers: "The machines currently cost about \$775,600, but Slat said the cost will likely drop as production increases."
  - (D) The "Interceptor" is more cost-effective than doing nothing at all: "Slat argued that not picking plastic out of rivers costs more than the cost of buying and using the machines."

- 2 Read the following statement.

*The "Interceptor" is changing the minds of people who previously disapproved of Slat's work.*

Which sentence from the article BEST supports the statement above?

- (A) Slat's organization has drawn criticism in the past for focusing only on the plastic trash already floating in the world's oceans.
- (B) Izham Hashim from the government of Selangor state in Malaysia was present at the launch and said he was happy with the machine.
- (C) Jan van Franeker of the Wageningen Marine Research Institute has been critical of The Ocean Cleanup in the past but said the new device looks promising.
- (D) "I am really happy they finally moved toward the source of the litter," he said in a telephone interview.

- 3 Which option provides an accurate and objective summary of the article?

- (A) Boyan Slat has invented the "Interceptor," a new floating device that collects garbage from rivers before it reaches the ocean. The "Interceptor" is already in three Asian countries and is heading to the Dominican Republic next. Slat live-streamed his launch and demonstrated how his "Interceptor" works. Even though Slat has received criticism in the past, the "Interceptor" has received positive feedback so far.
- (B) Boyan Slat invented a machine that cleaned up plastic from the ocean when he was 18. At age 25, he has now created a clean-up device that seems even more promising. The new device is called the "Interceptor" and it scoops up trash from the rivers before they get to the ocean. The "Interceptor" has already received a great deal of praise from supporters and critics alike. Slat is determined to undertake the formidable task of cleaning rivers up in the next five years.
- (C) Boyan Slat was a young adult when he first began inventing machines that could clean trash from the ocean. Now, he is taking on an even bigger project to target the main cause of ocean pollution: pollution in rivers. People have been skeptical about Slat's projects in the past because they have been short-sighted. However, his new device, the "Interceptor," has already proven itself to be effective. Malaysian officials have complimented the "Interceptor" and Slat plans to expand to even more countries in the future.
- (D) Boyan Slat has created a new device that has the potential to solve the world's ocean pollution problem. Instead of cleaning plastic from the oceans themselves, Boyan has focused on getting the trash from the rivers that feed into the ocean. Slat vows that his new device, appropriately named the "Interceptor," will clean-up the rivers within the next five years. Even though it is a lofty goal, Slat and his supporters are committed to making it happen.

Slat wants the "Interceptor" to tackle the source of the ocean pollution problem.

Which two details BEST support the central ideas above?

1. *Boyan Slat, 25, is widening his effort to clean floating plastic out of the Pacific Ocean by setting his sights on rivers, using his latest device.*
2. *Slat, a university dropout, founded The Ocean Cleanup to develop and use a system he invented when he was 18 years old. It catches plastic waste floating in the ocean.*
3. *"We need to close the tap, which means preventing more plastic from reaching the ocean in the first place," he said, calling rivers "the arteries that carry the trash from land to sea."*
4. *Experts say 9 million tons of plastic waste, including bottles, bags, toys and loads of other items, flow annually into the ocean from beaches, rivers and creeks.*

- (A) 1 and 3
- (B) 1 and 4
- (C) 2 and 3
- (D) 2 and 4