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## Australian invention Seabin tackles ocean pollution

04 Apr 2016

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Photography:

Video:

Two Australian boat builders have developed a world-first product to clean the world's oceans, one marina at a time.

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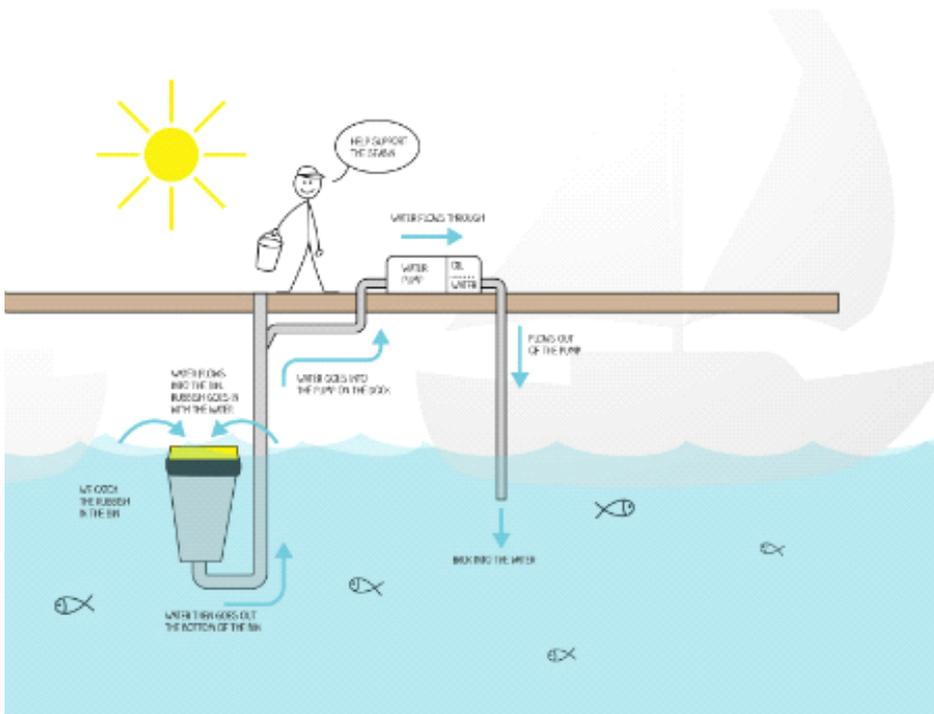
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On his travels around the world, surfing and building boats, Andrew Turton was shocked by the amount of rubbish he saw floating in the world's waterways.

Over a beer with his friend Pete Ceglinski, he asked: if we have rubbish bins on land, why don't we have rubbish bins for the ocean?

This simple question resulted in the Seabin, an innovative, world-first invention that is attracting global attention for its potential to help clean the world's oceans and revolutionise the health of marine ecosystems around the world.

Similar to how a skimmer box works in a swimming pool, the Seabin is an automated rubbish bin that collects floating rubbish, oil, fuel and detergents. It is designed for use in the floating docks of marinas, private pontoons, inland waterways, residential lakes, harbours, ports and yacht clubs.

"It's a little more complicated in the ocean than in a swimming pool, because you're working with tides and waves," says Ceglinski, Seabin's co-founder and Managing Director.

"But it's pretty much the same idea. We've got a bucket-shaped container with a catch bag, a couple of different pumps suck the water into the bucket, the catch bag collects the rubbish and oil, and the clean water passes back into the ocean."

## WORLDWIDE DEMAND

Turton and Ceglinski spent four years designing a prototype of the Seabin in Perth, Western Australia, with seed funding from Australian company Shark Mitigation Systems.

In late 2015, they launched the project on crowdfunding site Indiegogo. The campaign raised more than US\$260,000 in two months and was supported by ocean lovers from around the world. Since then, they've gathered thousands of followers on social media.

"The project just took off. We had people contacting us from Australia, America, France ... the whole world just went ballistic," says Ceglinski.

"At one stage we were receiving 1,300 emails per day from people wanting to order the bins."

In March 2016, Seabin announced an exclusive partnership with Poralu Marine, a leading French manufacturer of pontoons and marina equipment – to develop, manufacture and distribute the Seabins to customers worldwide.

“We’ve been approached by just about all the big marinas around the world,” says Ceglinski. “The city of Paris wants to put Seabins in the Seine, and the city of London wants to put Seabins in a couple of their marinas.”

Shortly after the Poralu Marine partnership announcement, the resort town of La Grande Motte became the first port in France to sign a collaborative research and development agreement with Seabin. The town has also agreed to implement a communications plan to raise public awareness about plastic pollution in the oceans.

Manufacturing of Seabins is due to start in September 2016. The first commercial Seabin will be installed at a marina in Portsmouth, UK, home to Britain's America's Cup sailing team in late 2016.

## GIVING RUBBISH A SECOND LIFE

One of the challenges the Seabin team is working through is what to do with all the rubbish the bins collect.

The amount of waste in the oceans and waterways is overwhelming. A report published in early 2016 estimates that the amount of plastic in the ocean will outweigh fish by the year 2050.<sup>1</sup>

“We only see 30 per cent of the rubbish in the ocean,” says Ceglinski. “Seventy per cent of it sinks. It’s pretty sad.

“We’ve worked out that if we collect one kilogram of rubbish per day, we’ll end up with nearly half a tonne of plastic at the end of the year – and that’s just from one Seabin,” says Ceglinski.

To help address the problem, Seabin is partnering with Parley for the Oceans, a New York-based environmental group that will recycle the plastics collected by the Seabins to make other products. Parley for the Oceans has previously worked with Adidas to create shoes made out of plastic collected from the ocean.

Turton and Ceglinski are also investigating how the Seabin itself might be made more sustainably by using recycled ocean plastics to make the body of the bin.

## FROM MARINAS TO THE OCEAN

Both Ceglinski and Turton are avid surfers who grew up in the town of Byron Bay, New South Wales, famous for its beautiful beaches and lush bushland. Their lifelong love of the ocean drives their passion to keep it clean.

Turton is a boat builder and sailor while Ceglinski started his career in industrial product design before moving to the yachting industry.

When the two men felt it was “time to get serious” about the Seabin, they quit their jobs and set up a workspace on the Spanish island of Mallorca, the hub of yachting in Europe. There are about 2,000 marinas within an hour’s flight from Mallorca’s capital.

Their first goal is to have Seabins in marinas around the world. Marinas have caretaker staff, which will make it easy for the rubbish to be collected from the bins each day.

“It will make these marinas more efficient,” says Ceglinski.

“It means the workers won’t have to spend six hours scooping out plastic and rubbish from the water each day. They can just empty the Seabin once or twice.”

The latest test version of the Seabin relies on electricity to run its pumps. But the team is working to develop a model that harnesses the energy of the sun to filter the water. This development began when they were approached by the Directors of the Balearic Islands in February this year. The group of islands wants to eventually have solar-powered Seabins in all of its commercial ports.

The next stage of the Seabin rollout will be to get the bins further out into channels and bay areas. Finally, the men want to see them in the open oceans, but Ceglinski says they have a little more design development to go before they battle the full force of Mother Nature.

## CLEAN OCEAN DREAMS

Despite creating a product that has won worldwide attention before even being commercially produced, Ceglinski says they don't want to have Seabins in the future.

"We shouldn't have a need for them," he says.

The men want to incorporate education programs to link young people with Seabins in their area. The hope is that by creating awareness about pollution among younger generations, they will become leaders of drastic, positive change.

"We've got a couple of marine biologists who are working with us now to set up data, education and research programs," says Ceglinski.

"Eventually, we want to have an international database from the information captured in these Seabins to understand the path of the rubbish and how much we're taking out of the ocean."

The small Seabin team hasn't slept properly since launching the crowdfunding campaign last September, and their workload is certainly not going to decrease any time soon. But Ceglinski says they're feeling energised by the amount of support they're receiving from around the world.

"We're stoked," Ceglinski says.

"We were both building boats for years and we never gave anything back to the environment. It's really fulfilling to be able to do something positive."

Find out more

| [www.seabinproject.com](http://www.seabinproject.com)

1. Report by the Ellen MacArthur Foundation, launched at the world economic forum.



