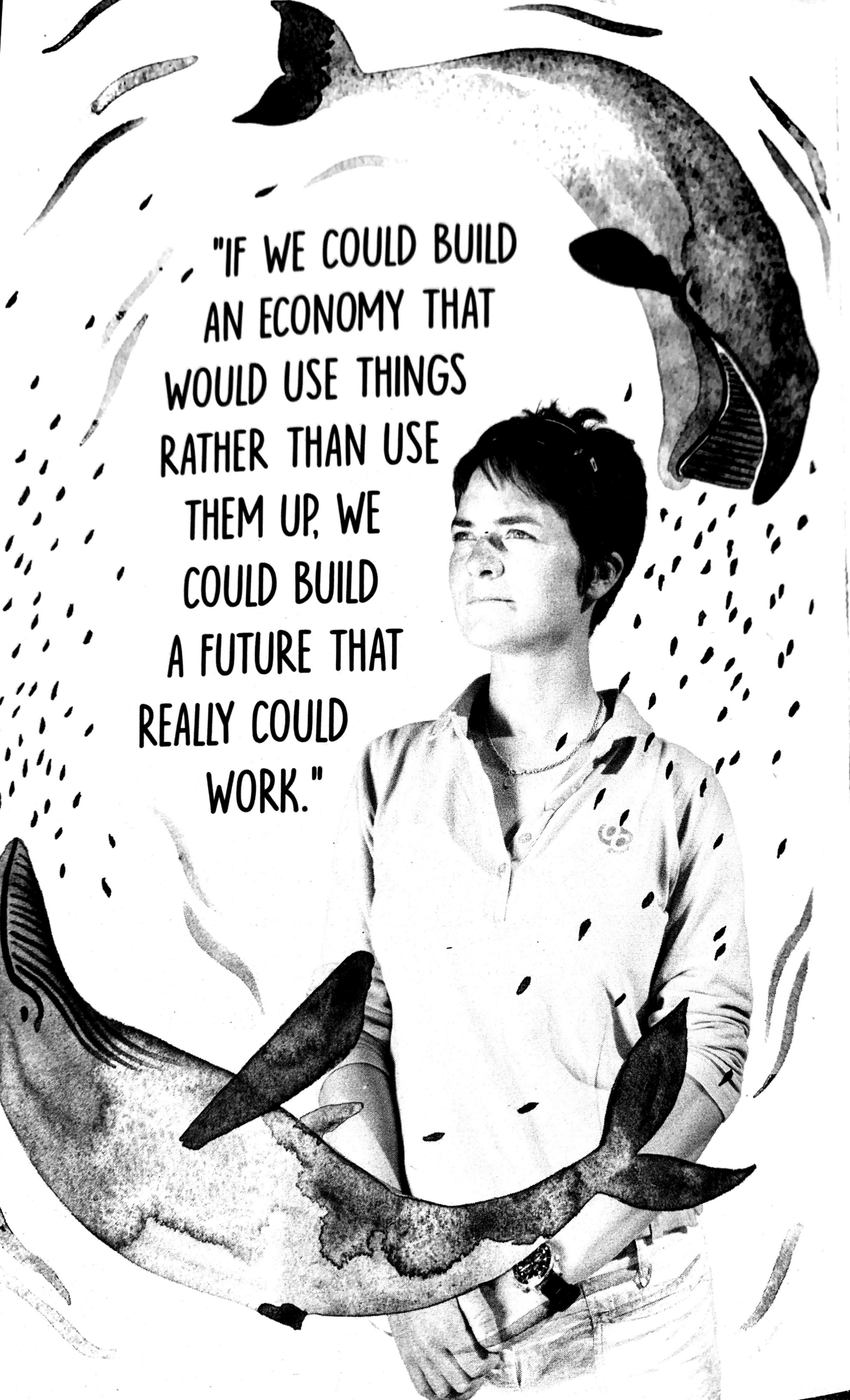
"IF WE COULD BUILD AN ECONOMY THAT WOULD USE THINGS RATHER THAN USE THEM UP, WE COULD BUILD A FUTURE THAT REALLY COULD WORK."

ELLEN MACARTHUR

FROM SAILOR TO SUSTAINABILITY CHAMPION

There was an eerie silence as Ellen wandered around the abandoned buildings. Beneath the craggy mountains and blue skies, everything here was rusty red – from the cranes, chains and barrels around the harbour, to the corrugated-iron rooftops. The skeleton of a ship lay on the shore. Behind the crumbling pier stood an old factory with towering tanks where whale oil had once been stored. It was hard to imagine this ghost town bustling with hundreds of workers unloading bus-sized whale carcasses off ships and on to the docks.

It was December 2005, and record-breaking sailor Ellen MacArthur was in Grytviken, an old whaling

station on the remote island of South Georgia in the southern Atlantic Ocean. With no regular flights or ferries, the island and its neighbours, the South Sandwich Islands, are hard to reach. Today, no one lives on South Georgia, but in the early 1900s this far-flung place was the centre of the worldwide whaling industry, with 500 men and their families living and working here, mostly from Britain. Ellen had wanted to visit these islands since she'd first caught sight of them four years earlier during the round-the-world race which made her famous.

Ever since the age of four, when she first set foot on her Auntie Thea's boat, Ellen had been obsessed by sailing. She saved up her school lunch money by eating only beans and mash every day so she could buy her first dinghy. She played with this in the garden until a family friend let her keep it on his pond. In her teens, she sailed in her spare time and started to compete in races – and win. As well as sailing, she adored animals and wanted to become a vet. Unfortunately, while studying for her A levels she became ill with glandular fever, and her grades were not good enough for the course that she wanted to do. So after leaving school she decided to work in a boatyard and focus on sailing instead.

In 2001, Ellen made history when she came second in the Vendée Globe solo round-the-world race, aged just 24. The Vendée Globe has been described as the ultimate test in sailing, as competitors race the 28,000 miles without stopping, and without any help from others. Conditions can be very tough, with icy cold temperatures, huge waves and violent storms, and of the 138 sailors who have attempted the challenge, only 71 have reached the finishing line. Ellen was the youngest person ever to finish the event. But second place wasn't good enough for her and so, in 2005, she set sail again, this time racing only against the clock, and became the fastest person to sail around the world, completing the journey in 71 days and 14 hours.

Back on dry land, Ellen was looking for a new challenge when she was asked to help make a film about albatrosses on South Georgia. She jumped at the chance. During the Vendée Globe race, she had passed a lonely island in the Southern Ocean – Marion Island – and been surprised at how green and lush it was. She'd been followed by the giant sea birds for days afterwards and had loved seeing them flying behind her boat.

After her incredible ocean adventures, the trip to South Georgia was the first proper break Ellen had

taken in many years. But the story she was there to tell was a sad one – the albatross is close to extinction due to huge numbers being caught and killed on the long fishing lines of industrial fishing boats. This, and the dismal sight of the empty whaling stations, got Ellen thinking about how mankind affects the natural world and about how we use and destroy the Earth's precious resources.

Hundreds of years ago, our oceans were full of whales. But then they became a resource for humans – something to be used, just like trees, minerals and petroleum today. In the nineteenth century, whale oil produced from blubber was used for lighting in streets and homes, while whalebone was used in making the corsets that were fashionable at that time. By the beginning of the twentieth century, virtually all the whales in the northern hemisphere had been killed, but Europe still used a lot of whale oil – now mostly for margarine and soap – so the whalers came down to the Southern Ocean. Over the next 60 years, hundreds of thousands of whales were processed on South Georgia, until the mid-1960s, when there were so few whales remaining that the industry shut down.

Seeing the abandoned whaling station reminded Ellen of how she'd managed her own resources while

living for months on board her boat during races. She remembered how she had carefully planned exactly what she would take for the entire journey, from every meal she would eat to how much toilet paper she would use, taking the minimum amount of everything. During each trip, she would waste nothing, switching off lights and computer screens when she wasn't using them. Yet on land people gave no thought to what they used each day. Ellen suddenly saw that the Earth was like a boat travelling around the sun. The Earth's resources were limited, but still humans took whatever they wanted, not understanding that one day there would be none left to use.

Ellen was so concerned about what she'd discovered, she decided she had to do something about it as soon as she returned home. As a child, she had loved problem-solving and finding out how things work. Now she started to learn everything she could about sustainability – or how to use the Earth's resources without using them up – and thinking about how things might be done differently with the future of the planet in mind. She spoke to experts on how countries buy and sell to each other and to experts on renewable energy, such as wind and solar power; she studied sustainable homes, visited an organic farm and a factory where

they made electric cars. The more she learned, the more Ellen saw that so much of the planet's resources are wasted, but that this needn't be true.

In the natural world, materials flow: the sun's energy and the soil's nutrients make plants grow; plants are eaten by animals, which are eaten by others; and when plants and animals die, they decompose and their nutrients return to the soil. So it goes on in a circular motion. But humans have a linear way of doing things: we take, we use and we throw away. When a new gadget becomes available, or a new clothing style comes into fashion, we buy the new and send the old to landfill. And with each new thing we are using up a little bit more of our planet's limited resources and often producing toxic waste. Ellen wondered whether humans could follow nature's example – could we all live in a circular economy where things are designed to be easily reused or recycled instead of being thrown away?

In 2008, Ellen's friend Francis Joyon beat her round-the-world sailing record by two weeks, and Ellen was asked many times whether she would try to reclaim her record. But although she had never been able to imagine a day when she would not compete in sailing competitions, now Ellen was surprised to realise that she had found something more important to her than

sailing. Though the decision to stop racing was the hardest she had ever made, she needed to take on a new challenge. She would use her fame to make a real difference to the world.

In 2010, Ellen set up the Ellen MacArthur Foundation, which carries out important research into environmental problems and works with businesses, government and educators to understand the idea of a circular economy and help them change their damaging ways of working. Within two years, she found herself speaking to world leaders at the World Economic Forum. Since starting the foundation, her team has grown from Ellen and a couple of friends to over 100 staff.

In a circular economy we will do things differently. Items like phones, washing machines and televisions will be rented and their parts and materials will always be returned to the factory to be made into new things. Already there are websites where you can rent outfits to wear instead of buying them, which means the clothes are kept in use much longer. One day, perhaps no one will own a car any more, but simply pay to use one when they need it. And imagine if we could collect all food and human waste and convert it into fertiliser and fuel that we could use.

Ellen thinks that young people will play an important part in making these changes happen. In the early days of her foundation, she went to a conference where a group of 16-year-olds had blown her away with their presentation on sustainability. From that moment, she knew that the most important thing for her team to do was to teach young people about the circular economy and to ensure that the next generation has the skills to rethink, redesign and reshape the future.

Looking to the past gives Ellen hope. When her great-grandfather was born, there were only 25 cars in the world and no one had ever flown in an aeroplane. By the time he died, there were over 100,000 flights a day, and mobile phones and the internet had just come into use. This showed her that great change can happen very quickly. Because of this, Ellen believes passionately that the changes *she* is working towards will be possible in the lifetime of today's children. And perhaps one day they will look back on our current way of using resources as we now look back at the whaling industry.

Ellen believes that humans are good at taking on challenges, and that history shows we can achieve anything we set our minds to. Ellen has always set herself bigger challenges than most people, though

changing the way we use the planet's precious resources must be the greatest she has ever faced. But, as with the sailing races that made her one of the world's best-known and most admired sportspeople, this battle is one she is determined to win.