**PRESS RELEASE**

**Drawing microplastics out of the oceans: Irish environmentalist named as a finalist for the Young Inventors Prize 2023**

* **Fionn Ferreira's microplastic removal solution uses a unique mixture without requiring filters or chemicals**
* **The latest prototype removes over 85% of microplastics in a single pass**
* **The microplastics collected can be outsourced for future recycling possibilities, making the process environmentally friendly**

**Munich, 23 May 2023** - According to the United Nations (UN), there are more than 51 trillion microplastic particles in the seas, and this crisis of plastic waste accumulation is a pressing global issue that has deeply affected Fionn Ferreira, a 22-year-old Irish chemist. His concerns for the environment and about plastic pollution **fuelled his passion for ocean conservation and ultimately drove him to develop an innovative solution**. As a chemistry master's degree student and teaching assistant at the University of Groningen in the Netherlands, he created a **way to remove microplastics from water using a unique mixture**.

**Ferreira has been named as one of three finalists for the second edition of the Young Inventors Prize**, which the European Patent Office (EPO) established to inspire the next generation of inventors. The prize recognises young innovators aged 30 or under who have developed technological solutions to tackle global problems and help reach the United Nations Sustainable Development Goals (SDGs). Ferreira’s invention contributes to UN SDG 6: Clean Water and Sanitation, as it supports the sustainable management of water resources, wastewater and ecosystems.

**Law of magnetising plastic**

Fionn Ferreira's method to remove microplastics from water is simple yet effective. His invention uses ferrofluid, a magnetic liquid mixture, which binds to microplastic particles, separating them from water and allowing for their removal using magnets. The latest prototype, supported by Robert Downey Jr.'s Footprint Coalition, **removes over 85% of microplastics in a single pass and can be used safely in drinking water.** The process does not require filters and produces zero waste. It retains nearly all the magnetic liquid while removing microplastics.

The collected microplastics can be outsourced for future recycling possibilities, **making the process environmentally friendly.** Ferreira is currently working with the University of Texas in scaling his invention to a commercial model.

**From beaches to breakthroughs**

Hailing from a family of boat builders in County Cork, Ferreira was **inspired to create his invention when he noticed the amount of plastic by the sea near his home,** *"I was utterly horrified by the massive amount of plastic that has amassed on the shore. The severity of the situation was overwhelming, and I felt an intense sense of urgency to comprehend the grave risks it poses. The fact that these plastics disintegrate into minuscule fragments, ultimately infiltrating our food chain and water, is having a devastating effect on our health. This is a stark reminder of the dire consequences of our actions".*

Ferreira founded Fionn & Co. LLC to perfect his invention, partnering with Stress Engineering Services to fine-tune, build, and test his design. Currently pursuing a master's degree in chemistry, Ferreira teaches tutorials in Concepts of Chemistry and Engineering as a teaching assistant at the University of Groningen. He is also developing several children’s television series and working on his first children’s book with hopes of inspiring and igniting young people’s interest in becoming inventors.

As Ferreira explains, “*the pursuit of a microplastic-free future is a noble and essential cause that demands our attention and action. Everyone who commits to this cause is doing immeasurable good for our planet, and there is no limit to the good that can be achieved when we work together*”.

**The Young Inventors Prize winner will be announced at the European Inventor Award 2023 hybrid ceremony on 4 July 2023 in Valencia (Spain). This ceremony will be broadcast online** [**here**](https://inventoraward.epo.org?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press&mtm_group=press)**.**

Find more information about the invention’s impact, the technology and the inventor’s story [here](https://new.epo.org/en/news-events/european-inventor-award/meet-the-finalists/fionn-ferreira?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press&mtm_group=press).

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**About the Young Inventors Prize**

The European Patent Office established the Young Inventors Prize in 2021 to inspire the next generation of inventors. Aimed at innovators aged 30 or below from all around the world, it recognises initiatives that use technology to contribute toward the United Nation's Sustainable Development Goals. The winner will receive EUR 20 000, the second and third placed finalists will receive EUR 10 000 and EUR 5 000, respectively. An independent jury comprising former finalists of the European Inventor Award selects the finalists and winner. The EPO will confer the prize at the European Inventor Award 2023 hybrid ceremony on 4 July. Unlike the traditional Award categories, the Young Inventors Prize finalists do not need a granted European patent to be considered for the prize. [Read more](https://new.epo.org/en/news-events/european-inventor-award?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press&mtm_group=press) on the Young Inventors Prize eligibility and selection criteria.

**About the EPO**

With 6,300 staff members, the [European Patent Office (EPO)](https://www.epo.org/?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press&mtm_group=press) is one of the largest public service institutions in Europe. Headquartered in Munich with offices in Berlin, Brussels, The Hague and Vienna, the EPO was founded with the aim of strengthening co-operation on patents in Europe. Through the EPO's centralised patent granting procedure, inventors are able to obtain high-quality patent protection in up to 44 countries, covering a market of some 700 million people. The EPO is also the world's leading authority in patent information and patent searching.