

The Earth Prize 2025: Two teenagers from Slovakia and Czechia named European Winners in \$100K global competition for pioneering water purifier



▲ Team PURA - Anna Podmanická and Tomáš Čermák. Image of Tomas by Jana Plavec, Czech Academy of Sciences.

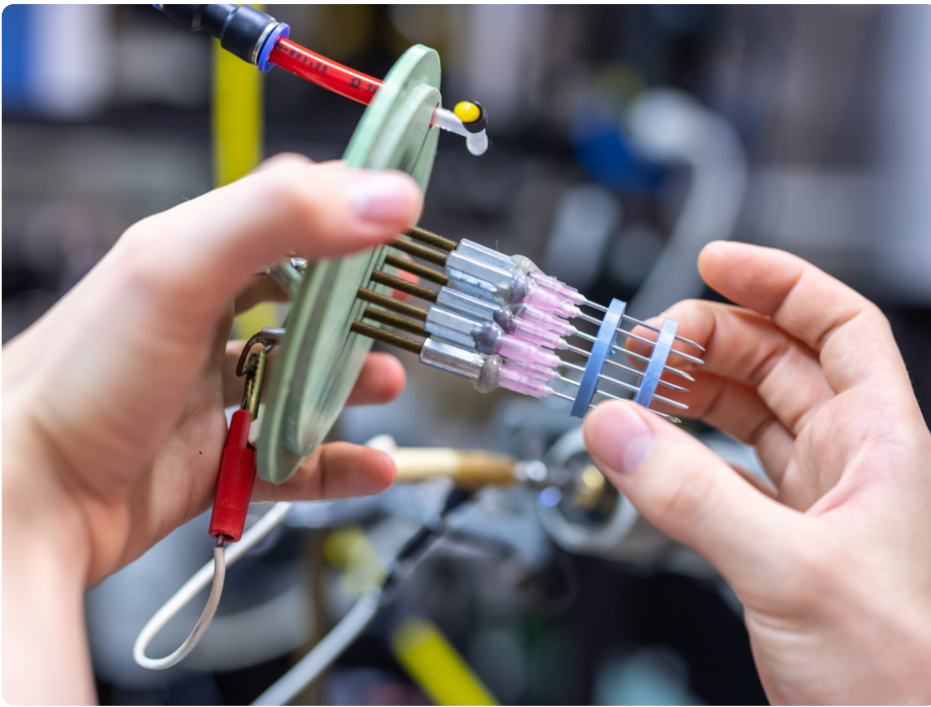
- The Earth Prize is the world's largest environmental competition and 'ideas incubator' for 13-19-year-olds, empowering young people with mentorship and \$100K funding
- Seven Regional Winners have recently been announced, representing the regions of North America, Africa, Asia, Central and South America, Oceania and Southeast Asia, Europe and the Middle East
- Each team receives \$12.5K to develop and implement their idea
- The European winners have developed 'PURA,' a groundbreaking water purification solution using light and plasma to combat pollutants and antibiotic resistance
- PURA is the first winner of The Earth Prize to come from Slovakia or Czechia
- The public vote is now open crown the Global Winner on Earth Day (April 22)

In an effort to combat the antibiotics and pollutants flowing into our water sources from industries like hospitals and farms, two teenagers have been named as the European Winners of The Earth Prize 2025 for their innovative water purification solution, 'PURA'. Notably, PURA is the **first-ever winner of The Earth Prize from Slovakia or Czechia**.

18-year-old Tomáš Čermák from Czechia (autism advocate and first ever high schooler to become a researcher at the Institute of Plasma Physics, Czech Academy of Sciences) and **19-year-old Anna Podmanická from Slovakia** (prize-winning young scientist selected for University of Oxford summer programme) are **harnessing the power of light and plasma** in their solution. Combining Anna's research on water purification through photocatalysis and Tomáš's work using cold plasma (AC corona) to destroy pollutants and antibiotic-resistant bacteria, they created PURA.

While these methods have been studied separately before, **their combined approach is pioneering** - offering a new solution to tackle antibiotic resistance, which is projected to cause 10 million deaths annually by 2050.

Wastewater from hospitals, farms, and industries often contains antibiotics and resistant bacteria, contributing to the spread of resistance. PURA's two prototypes are already removing these residues on a small scale, making them suitable for **household use** and providing families with safer drinking water. Now, with support from The Earth Prize, the team is working on a **next-generation prototype** capable of treating dozens of litres of water, bringing PURA closer to large-scale impact.



▲ Tomas prototype. Image by Jana Plavec, Czech Academy of Sciences.

The long-term vision is to scale the easy-to-integrate technology for use in **wastewater treatment plants** (WWTPs), tackling resistance at its source. This energy-efficient, cost-effective solution could transform water purification and ensure a healthier future.

The team impressed The Earth Prize's expert jury with their final pitch, having excelled in the programme's incubation and mentorship phases, and will now **receive \$12.5K to scale up** their idea into a new prototype. 18-year-old Tomáš Čermák from PURA reflected on the significance of PURA being named the Regional Winner for Europe:

"The news was absolutely incredible! When I realized that out of all the innovative projects, PURA has been recognized as the best in Europe, it truly blew my mind. This recognition and funding enables us to bring our research projects to life, with the creation of a small-scale device being just the beginning. We're now looking to expand our team, engage more students, and gain the support and capital needed to propel PURA into the future."

The Earth Prize aims to empower the next generation with all the tools they need to develop their **eco solutions for real life impact**, including one-to-one mentoring, learning resources and funding of \$100K for the winning teams to scale up. Since 2021, The Earth Prize has

reached over **15,000 young people across 160 countries and territories**, and **awarded \$500K** to the top teams.

Previous applicants have garnered **global media attention** in outlets such as Forbes, Business Insider, EuroNews, Positive.News and UN Today, and continue to scale up their solutions after the competition has ended. For instance, team Delavo (Winners of The Earth Prize 2023), who invented a cutting-edge filter that recycles up to 90% of toxic laundry waste water, partnered with a national manufacturer and applied for a patent to make their solution a reality.

The Earth Prize was started by The Earth Foundation, a Swiss non-profit organization based in Geneva, as a way to **empower and educate young people** to tackle environmental challenges. As young people live through and observe extreme weather events such as the LA wildfires, many are mobilised to act - choosing to create solutions for our planet rather than march in protest.

A recent study showed that **59% of youth** and young adults are **very or extremely worried** about climate change, and more than **45%** said their feelings about climate change negatively affected their daily life and functioning.

"The 2025 winners of The Earth Prize are a true testament to the boundless creativity and passion of today's youth. Their bold solutions tackle the most urgent environmental challenges with the power to transform our world. I invite everyone to engage with these remarkable ideas, support their implementation, and be inspired to take action in their own communities. Together, we can turn these promising innovations into global environmental solutions."

Peter McGarry, Founder of The Earth Foundation, commented on this year's competition.

The Public Vote to decide the Global Winner is now open until Tuesday April 22 (Earth Day): <https://www.theearthprize.org/vote>



Europe Winner: Images

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About The Earth Prize

The Earth Foundation is a non-profit organization based in Geneva, Switzerland, dedicated to inspiring, educating, mentoring and empowering students and young entrepreneurs to address environmental changes with innovative ideas. The Earth Foundation was established as a result of the 2019 rallies organized by students to raise environmental awareness. This passion to fight for climate change inspired the creation of their flagship initiative, The Earth Prize—the world's largest environmental competition and 'ideas incubator' for young people. The competition aims to inspire and empower the next generation of environmental innovators, supporting participants with all the tools they need to develop their eco solutions for real life impact, including one on one mentoring, learning resources and \$100,000 funding for the winners.

To learn more about The Earth Foundation visit: <https://www.earth-foundation.org/>.

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