Media Release

Pushing the Limits of Wind Energy Performance: RTDT wins the ZKB Pionierpreis Technopark 2026

Zurich, May 12, 2026 – RTDT Laboratories wins the ZKB Pionierpreis Technopark 2026, one of Switzerland's most prestigious startup awards. The Zurich-based company prevailed against four other finalists and receives CHF 100,000 for its sensor system designed to optimize wind turbines. Prizes of CHF 10,000 each were awarded to the runners-up GlycoEra and roboa. CCRAFT and Unbound Potential also reached the final round of five deep-tech startups, presenting their technologies live on stage at the award ceremony at Technopark Zurich in front of 350 guests. The Audience Award, valued at CHF 5,000 and decided by a live vote on the evening, went to CCRAFT.

Pushing the Limits of Wind Energy Performance

RTDT addresses a central challenge in wind energy. Its product, "Aerosense," is a sensor system designed as a flexible, self-adhesive patch applied directly to rotor blades. The integrated sensors measure dynamic pressure, vibrations and mechanical loads under real operating conditions.The system captures measurement data directly from the rotating blade and transfers it into a digital twin. Based on this data, operators and manufacturers can analyse airflow behaviour, refine blade design and further develop control algorithms. The system also provides data relevant to reducing material stress and maintenance costs.

The technical requirements are demanding: the sensors must withstand extreme weather conditions and rotational speeds of up to 300 km/h. Power is supplied by integrated photovoltaic cells. Data is transmitted wirelessly and processed in the cloud. RTDT plans to integrate the analysis results into turbine control systems.

"The efficiency of wind turbines is a key lever in the energy transition. RTDT presents a technologically advanced solution that combines sensing, AI-based analysis and control, improving both economic performance and system lifetime. From the initial concept through to complex engineering, the solution represents a pioneering technological achievement," states Lothar Thiele, Chairman of the Jury.

CHF 10'000 each for Biotech innovation and a robotic snake

With runner-up GlycoEra, the jury recognizes a biotech company developing new approaches to treating autoimmune diseases. The startup is working on so-called protein degraders—biological molecules that bind disease-causing proteins and break them down in the liver through a natural mechanism.Unlike conventional therapies that broadly suppress the immune system, this approach allows targeted removal of harmful proteins without affecting healthy functions. In tests, target proteins were reduced by more than 90 percent within a few hours. A Phase 1 clinical study is in preparation.

"Autoimmune diseases remain among the most widespread medical challenges of our time. GlycoEra is pursuing a new approach by selectively degrading disease-causing autoantibodies. This adapter-based principle represents pioneering work that could be applied across multiple disease areas," explained Andreas Plückthun, Professor of Biochemistry at the University of Zurich and member of the jury.

Runner-up roboa is developing a robotic system for inspecting and accessing hard-to-reach environments. The technology is based on a hose that extends forward continuously using air pressure, allowing it to move through narrow pipe systems and complex infrastructure.Cameras and sensors can be mounted at the tip for inspection tasks. The system can also be used to install fibre-optic cables over distances of up to 200 metres. The technology is already in use with infrastructure operators and generating initial revenue.

“Roboa addresses a clear industrial need with a technically elegant solution, from materials through to control. The combination of scalability, practical application and clearly defined use cases was particularly compelling,” said Michelle Tschumi, jury member and Head of Startup Finance at Zürcher Kantonalbank.

Final round of five deep-techs

Unbound Potential and CCRAFT were also among the five startups invited to the award ceremony, presenting their innovations live on stage at Technopark Zurich.

CCRAFT produces high-performance chips based on thin-film lithium niobate (TFLN), a material that converts electrical signals into optical signals with high efficiency. This conversion is required for fast, long-distance data transmission via fibre optics. The technology enables data rates above 400 Gbit/s while reducing energy consumption, with applications in data centres, AI infrastructure and future communication networks.

Unbound Potential is developing a flow battery for storing renewable energy. Unlike existing systems, the technology does not require a membrane. Instead, it uses two immiscible electrolytes that form a natural separation layer. The battery is non-flammable, does not rely on critical raw materials and achieves efficiencies of up to 85 percent, with a lifespan of around 20,000 cycles. It is particularly suited to long-duration energy storage, including in data centres.

Award ceremony focused on perseverance

The award ceremony took place at Technopark Zurich in front of 350 invited guests and was hosted by journalist and “Einstein” presenter Tobias Müller. This year’s event focused on perseverance. In her keynote, “Failing Better – A Few Critical Questions,” philosopher, lecturer, author and “Sternstunde Philosophie” host Barbara Bleisch examined the widely held narrative that failure inevitably leads to success.

The Audience Award, worth CHF 5,000 and chosen by attendees in a tight live voting among the finalists, was awarded to CCRAFT.

About ZKB Pionierpreis Technopark

The ZKB Pionierpreis Technopark is awarded annually by Zürcher Kantonalbank and Technopark Zurich and is considered one of Switzerland’s leading awards for deep-tech startups. For more than 25 years, it has recognized projects that demonstrate exceptional innovation and are close to market entry, highlighting the commitment and entrepreneurial spirit of founders. The winner receives CHF 100,000, while two additional runners-up are awarded CHF 10,000 each. An Audience Award of CHF 5,000 is also presented during the ceremony. Since 2001, nearly CHF 2.5 million in prize money has been awarded to 50 startups, establishing the Pionierpreis as an important driver of innovation and growth for emerging companies in Switzerland. Beyond financial support, the award provides a platform that increases visibility and facilitates valuable industry connections.

More information: www.pionierpreis.ch

Finalists (in alphabetical order)

Ccraft- https://www.ccraft.com/
Glycoera - https://www.glycoera.com/
Roboa - https://www.roboa.ch/
RTDT Laboratories - https://rtdt.ai/
Unbound Potential - https://www.unbound-potential.com/

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