

Press release

PIONEERS OF THE SKIES: TEAM FLY4FUTURE WINS THE AUTONOMOUS DRONE COMPETITION

Leipzig, September 25, 2024

The Federal Agency for Disruptive Innovation announces today the winners of the SPRIND Funke "Fully Autonomous Flight". From the 14 teams in the first phase, the expert jury, composed of professionals from science and industry, selected nine teams from Germany and Europe during an interim evaluation in April 2024.

From September 16 to 19, 2024, these teams gathered at the decommissioned airbase in Erding, Bavaria, to demonstrate a system capable of flying over a 9 km course without GPS or manual control – in various environmental scenarios and challenged by disruptive factors such as water, fog, or smoke. Twenty-seven waypoints guided the drones through the course – at the final point, the task was to identify and collect a package. The changing weather conditions – rain and strong winds during the first days – further tested the stability and navigation systems of the drones. Despite malfunctions and crashes, the teams persevered.

After three intense test days and the final competition day, the expert jury declared the team **Fly4Future**, a spin-out from the Technical University of Prague, the winner. Fly4Future demonstrated an outstanding level of autonomy and sensor-based navigation without the use of GPS.

Second place went to the Portuguese team Beyond Vision, while third place was claimed by Team **Pathstrider**. More information on the teams can be found on our [website](#).

Each of the drones developed and tested during the Funke competition consists of various interconnected hardware and software components, from sensors and cameras to AI navigation algorithms and communication systems. To ensure success, each system must operate with near-complete reliability. Even with cutting-edge hardware, a drone's performance suffers if the systems are not perfectly aligned.

Why did SPRIND organize this competition? Fully autonomous flight has the potential to transform a wide range of industries and applications. This development could reshape how goods are transported, infrastructure is maintained, and emergency responses are handled. Fully autonomous drones could take on tasks like monitoring pipelines or solar farms, supporting rescue missions, delivering goods, and much more. The wide range of potential applications could reduce the need for human operators in dangerous environments, increase safety, and lower costs.

The SPRIND Funke competition had a total duration of nine months, divided into two phases, with teams receiving up to 150,000 EUR each in support.

About SPRIND Challenges

SPRIND Challenges and SPRIND Funken are innovation competitions in which the participating teams receive quick and unbureaucratic financial support to develop

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solutions for the major social and technological challenges of our time. In the SPRIND Challenges, the teams compete in a multi-stage competition. At the end of each stage, the teams' work is evaluated and only the best remain in the competition and receive further financial support to develop their idea further.

Like its big sister SPRIND Challenges, SPRIND Funke is an innovation competition for people with radically new ideas - but with a much shorter duration. The primary aim of SPRIND Funke is to quickly demonstrate new, ground-breaking technologies.

About SPRIND

The Federal Agency for Disruptive Innovation (SPRIND) was founded in 2019, with its registered office in Leipzig. The sole shareholder is the Federal Republic of Germany, represented by the Federal Ministry of Education and Research (BMBF) and the Federal Ministry of Economics and Climate Action (BMWK). SPRIND fills a gap in the German innovation landscape: it finds new, groundbreaking technologies for the major challenges of our time, while ensuring that the value created by the resulting companies and industries remains in Germany and Europe. SPRIND is financed by funds from the federal budget. It is managed by Rafael Laguna de la Vera and Berit Dannenberg.

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