

CNRS at VivaTech 2024: basic research tackles the key challenges of tomorrow

- CNRS, a driving force on the global innovation landscape, will participate in **the VivaTech trade fair** for the fifth time this year, and for the second time in close collaboration with the SATT Network.
- The research institution will showcase **10 startups stemming from** its member laboratories whose innovations offer a response to the major challenges facing today's society in the sectors of **health, sustainable development, aerospace and the digital revolution**.
- A **rich programme combining presentations by experts, researchers and prominent figures from the economic world** will offer the public an overview of the strategies behind scientific research and technology transfer, with a special focus on **artificial intelligence**, one of the main themes of VivaTech 2024.

A key player in deep tech, CNRS will once again participate in VivaTech, the largest European trade show of the year devoted to innovation, on May 22-25, 2024. Experts and partners of the institution as well as representatives of startups from laboratories under CNRS supervision will be on hand at this new edition to dialogue with the public and present outstanding new technologies in the realms of health, sustainable development, aerospace and the digital revolution.

This 100% tech event will be a unique opportunity for professionals and the general public to get an immersive overview of the powerful innovation mechanism in operation at CNRS, from the laboratory to the startup, from basic research to the market.

Spotlight on breakthrough innovations stemming from basic research

For its fifth year at VivaTech, CNRS has decided to spotlight ten high-potential startups developing groundbreaking technologies in areas of research that address more directly than ever the societal and technological challenges of today and tomorrow:

- **In the field of health**, visitors will be able to discover the startup **Vect-Horus** and its VECTrans® Technology Platform. The only system of its kind in Europe, VECTrans® enables the development of vector molecules targeting specific receptors, a breakthrough innovation that opens the gates to the

development of medicinal drugs for the central nervous system. **Hephaïstos Pharma** will present its immunotherapy treatment for incurable and metastatic cancers, and **Tafalgie Therapeutics** will unveil its first pain treatment whose mechanism of action is derived from a secreted endogenous protein that can modulate pain signals with no dependency or tolerance build-up.

- **Sustainable development** is also a key sector for startup creation at CNRS. **Naïo Technologies** will exhibit its agricultural and viticultural robots designed to relieve humans from laborious tasks and reduce the use of weedkillers. **Lactips** will demonstrate an innovative material derived from the milk protein casein: the only thermoplastic polymer that biodegrades in just a few days, leaving no microplastic residue in any environment, and that is also water-soluble (even at 10-15°C). **Mecaware** will be on hand with a solution for the extraction of metals in a closed loop, free from inputs that impact the environment, without producing any effluent and with no special energy requirements.
- **In the aerospace sector**, the startup **Ion-X** will present its ion thrusters for satellites. **Aldoria** will offer a look at its orbital information system (with 4 synchronously rotating telescopes) that provides a comprehensive understanding of the space environment in near real time.
- **Lastly, the theme of the digital revolution** will be illustrated by two startups: **Biomemory** with its DNA Drive, a revolutionary digital storage medium that can store data with 1-million higher density than any SSD or magnetic tape, and **QPerfect** with its high-fidelity quantum simulator, which can be used by software manufacturers and developers to test and optimise their platforms and applications.

Giving the floor to experts and entrepreneurs

- **A rich programme of roundtable discussions** will enliven the first three days of the fair, bringing together CNRS researchers and representatives of the innovation ecosystem. What can be done to derisk technologies? How do you make a smooth transition from the startup to the factory? What indicators should be used to reconcile innovation and societal impact? A wide range of topics will be addressed during these interactions, offering the public an update on the issues related to the social and professional repercussions of innovation. In particular, **generative AI**, a key theme at VivaTech this year, will be the subject of a special roundtable highlighting CNRS's expertise in the area and the diversity of innovations made possible by this leading-edge research.
- **A pitch session** jointly organised with the SATT Network (Sociétés d'Accélération du Transfert de Technologies / Technology Transfer Acceleration Companies) will enable about ten AI-based startups to present their activities to a panel of investors, offering these entrepreneurs an opportunity to gain visibility in a step towards potential funding.

Back to the roots of innovation

Behind any innovation, there is almost always a researcher who has taken risks and brought the results of his/her work to the market. A core goal for CNRS is to find ways of using basic research to benefit society by promoting the emergence of innovative startups with a strong societal impact. The institution also strives to bolster its links with the economic world by facilitating the transfer of technology and know-how to strategic industrial sectors.

Innovation at CNRS in figures:

- Nearly **100 start-ups** launched each year stemming from CNRS laboratories.
- More than **1,400 companies** now in operation stemming from CNRS laboratories.
- **6th place** in the ranking of top patent filers (INPI 2022).
- One of Clarivate's **Top 100 Global Innovators™ in 2024**
- **A series of support programmes** to help researchers derisk emerging technologies (prematuration), create startups (RISE) and drive their development (RISE+ and RISE-UP), in addition to the maturation programme provided by the 13 SATTs located throughout France.

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