



Revolutionising sustainable DNA-based data storage

Interoperable end-to-end platform of scalable and sustainable high-throughput technologies for DNA-based digital data storage.



EIC Pathfinder Challenge 2022



€5.04 million funding



36 months (2023-2026)

PEARL-DNA unites 6 industry and research partners



In a world driven by data, the need for innovative and sustainable data storage solutions has never been more pressing.

50% of data generated is discarded due to storage limitations

4x more data will be generated in 2025 compared to 2019

100% of the world's data can be stored in just one bottle of DNA

The challenge

The world is running out of data storage. At the same time, current technologies for digital data storage have hit various technological and sustainability limits.

Our mission

PEARL-DNA will develop and assess a chain of novel, end-to-end connected technologies that will push DNA-based data storage beyond the state of the art.

Our technology

PEARL-DNA will develop and assess a complete end-to-end chain of innovative solutions – contributing to improving speed, accuracy, energy efficiency and costs associated with DNA digital data storage. We're pioneering error correction, compression, and data standardization modules, alongside a cutting-edge storage container system. This system will ensure a maintenance-free, long-term preservation of DNA without any energy requirements.

