

CLARA is the first interdisciplinary Center of Excellence in Central and Eastern Europe dedicated to integrating AI, machine learning, and quantum supercomputing for neurodegeneration research. It leverages advanced computational tools to analyze large-scale biological and clinical data, with a focus on Alzheimer's disease.

CLARA: Unlocking Complexity. Advancing Brain Health.

At CLARA, we believe that understanding the brain requires more than isolated studies - it demands a symphonic approach that captures the full complexity of cognition, behavior, and neurodegenerative disease. By uniting artificial intelligence, quantum computing, and high-performance simulation, we are redefining how brain health is studied, diagnosed, and treated.

Our vision is to build a global platform that harmonizes research across disciplines, enabling breakthroughs that are actionable, scalable, and accessible. From decoding the intricate dynamics of calcium signalling to mapping neurodegenerative pathways with unprecedented precision, CLARA is more than a research initiative - it is a movement toward transforming brain health for generations to come.

What are main CLARA's building blocks?

- **CLARA Testbed** - an innovative distributed hybrid computing infrastructure integrated with EuroHPC supercomputers and quantum computers
- **Pilot use case** - Evaluating the Calcium Brain Aging and APOE Cascade hypotheses
- **Three research programmes**

44 mil. EUR total budget

23 mil. EUR for new technologies

15 mil. EUR EU Horizon Europe

29 mil. EUR eligible CZ OP JAK

Bringing top researchers together for groundbreaking interdisciplinary work.

CLARA Partners



Over **50 million** people worldwide live with dementia, a number expected to reach 82 million by 2030. The global annual cost, now over **\$1 trillion, is set to double.**

Europe has the expertise to lead in neurodegeneration research but has fallen behind in key innovation sectors like genomics, AI, and quantum computing.

CLARA aims to harness Europe's potential and drive change. Globally.



clara-center.eu

