



Cofinanțat de
Uniunea Europeană



PRESS RELEASE

Date: 22.10.2025

Multi-core architecture with hardware-implemented real-time operating system - mMCA_nHWRTOS

- Project Launch -

Beneficiary: POWERTRACE S.R.L. in partnership with "Ștefan cel Mare" University of Suceava

MySMIS Code: 337817

Project Title: "Multi-core architecture with hardware-implemented real-time operating system - mMCA_nHWRTOS."

The PURPOSE of the project is the commercial development and implementation of an innovative multi-core processor (mMCA_nHWRTOS) with a hardware-integrated operating system using FPGA technology, designed to deliver high performance and flexibility in embedded applications through:

- ✓ Researching and developing an optimized hardware architecture for parallel processing;
- ✓ Validating functionality in a laboratory environment and implementing it in real-world conditions;
- ✓ Establishing an efficient production line and a competitive commercialization strategy;
- ✓ Developing strategic national and international partnerships to maximize technological and commercial impact.

The specific objectives of the project are:

1. Developing the innovation capacity of POWERTRACE SRL by implementing a complex R&D program that includes optimizing the mMCA_nHWRTOS processor architecture.
2. Increasing the competitiveness and sustainable development of POWERTRACE SRL by developing a new product line based on the researched technology and strengthening its position in the embedded processing systems market.

Project results:

1. New or significantly improved processes resulting from bringing research outcomes to market – target: 1;
2. New or significantly improved products resulting from bringing research outcomes to market – target: 1;
3. Newly hired researchers within the SME/partnership lead (SME) – target: 1 FTE (Full-



Time Equivalent).

4. Development and large-scale validation of a prototype model for the new or significantly improved solution developed during the R&D activities and investment stage (laboratory testing and test analysis benchmarked against the real system) – target: 2.

Total value of the project:

- 14,104,716.79 RON, of which the non-reimbursable amount is 10,847,214.35 RON.

Project implementation duration:

- 55 months (02.07.2025 ÷ 31.12.2029).

Project financed through:

- North-East Regional Programme 2021-2027 Priority PRNE_P1 A more competitive, more innovative region

Call: Support for developing the innovation capacity of SMEs, through R&D projects and SME investments necessary for developing innovative products and processes.

PR/NE/2024/P1/RSO1.1_RSO1.3/1 - R&D PROJECTS AND SME INVESTMENTS

Additional information about the project can be obtained by phone at 0737.774.955 and by email at eugendodiu@powertrace.ro.

