

Date (19-01-24)

### (\*) - Mandatory

• (\*) Relevant topic(s) in work programme (code & name of the topic(s) line(s))

HORIZON-CL4-2024-HUMAN-03-01: Advancing Large AI Models: Integration of New Data Modalities and Expansion of Capabilities (AI, Data and Robotics Partnership) (RIA)

HORIZON-CL4-2024-HUMAN-03-02: Explainable and Robust AI (AI Data and Robotics Partnership) (RIA)

HORIZON-CL4-2023-DATA-01-02: Integration of data life cycle, architectures and standards for complex data cycles and/or human factors, language (AI, data and robotics partnership) (RIA)

HORIZON-CL4-2023-DATA-01-04: Cognitive Computing Continuum: Intelligence and automation for more efficient data processing (AI, data and robotics partnership) (RIA)

HORIZON-CL4-2024-DATA-01-01: Al-driven data operations and compliance technologies (Al, data and robotics partnership) (IA)

HORIZON-CL4-2024-DATA-01-03: Piloting emerging Smart IoT Platforms and decentralized intelligence (IA)

HORIZON-CL4-2023-DIGITAL-EMERGING-01-01: Novel paradigms and approaches, towards Aldriven autonomous robots (AI, data and robotics partnership) (RIA) European Leadership in Emerging and Enabling Technologies

HORIZON-CL4-2023-DIGITAL-EMERGING-01-57: Advanced imaging and sensing technologies (IA)(Photonics Partnership)

HORIZON-CL4-2023-DIGITAL-EMERGING-01-02: Industrial leadership in AI, Data and Robotics – advanced human robot interaction (AI Data and Robotics Partnership) (IA) European Leadership in Emerging and Enabling Technologies

HORIZON-CL4-2023-DIGITAL-EMERGING-01-11: Low TRL research in micro-electronics and integration technologies for industrial solutions (RIA)

HORIZON-CL4-2024-DIGITAL-EMERGING-01-03: Novel paradigms and approaches, towards Alpowered robots—step change in functionality (Al, data and robotics partnership) (RIA)

HORIZON-CL4-2024-DIGITAL-EMERGING-01-04: Industrial leadership in AI, Data and Robotics boosting competitiveness and the green transition (AI Data and Robotics Partnership)

HORIZON-CL4-2023-HUMAN-01-03: Natural Language Understanding and Interaction in Advanced Language Technologies (AI Data and Robotics Partnership) (RIA)

HORIZON-CL4-2023-HUMAN-01-11: Next Generation Internet Fund (RIA)

HORIZON-CL4-2023-HUMAN-01-12: Pilots for the Next Generation Internet (IA)

HORIZON-CL4-2023-HUMAN-01-21: Next Generation eXtended Reality (RIA)

HORIZON-CL4-2023-HUMAN-01-22: eXtended Reality for Industry 5.0 (IA)



HORIZON-CL4-2024-HUMAN-01-06: Explainable and Robust AI (AI Data and Robotics Partnership) (RIA)

HORIZON-CL4-2024-HUMAN-01-07: Collaborative intelligence – combining the best of machine and human (Al Data and Robotics Partnership) (RIA)

## Quick description of the project concept

#### Describe the

- objectives,
- activities.
- type of partners already involved and their skills
- partners requested and their skills

## (\*) Description of the expertise requested/proposed (up to 1000 characters)

Expertise proposed: Al chip/chiplet design, Al-enabled ASIC solutions, semiconductor IP design (neural processor subsystem), memory expertise (in-memory computing, non-volatile technologies), custom Al processor. Al technics for embedded applications (IoT, edge Al), software development (modeling, quantization, firmware/compiler level), hardware-constrained devices, deep learning, CNN, transformers, LLM, generative Al.

Expertise requested: modeling/data science, board design, Al-powered embedded systems development, embedded Al application development (wearables, IoT, drones and robotics, cameras, automotive, datacenters).

## (\*) Keywords describing the expertise requested/proposed (up to 10 words)

Proposed: Al chip/chiplet/IP design, Al software for embedded, deep learning, computer vision, LLM, generative Al

Requested: data science, Al models, board design, Al for embedded systems, Al applications

# **Organisation information**

(*) Organisation and country: Neurxcore, France
(*) Type of organisation:
□ Enterprise × SME □ Academic □Research institute □ Public Body □ Other: Association
Former participation in FP European projects?
□ Yes × No
Web address:
https://neurxcore.com/
Description of the organisation:
Neurxcore is a fabless semiconductor company developing Al processors (neural processors for
deep learning) combining digital and/or in-memory computing (SRAM/Flash) technics to achieve
high-energy efficiency and high throughput. These neural processors are highly configurable,
tunable and can cover computer vision, natural language processing (LLM) and generative Al
applications from IoT/sensors to datacenter.

#### (\*) Contact details

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