ASSURE-ACT: learning robots, workers in charge

Project Idea	Robots that learn on the shop floor and adapt to each worker, while a certified layer guarantees that learning never widens what the robot may do. The worker keeps final authority.
Organization name, town and country	SOVEREIGNPIALPHA France Ltd (SME), Paris, France
Addressed topic(s)	HORIZON-CL4-2027-02-DIGITAL-EMERGING-52-two-stage: New approaches for Human/AI collaboration for the workforce of the future (RIA)

SOVEREIGNPIALPHA France

- Deeptech SME, registered in Paris; research and development in Hauts-de-France (Amiens). PIC 862976506.
- We build measurement, decision and compliance layers for autonomous systems: robot governance, battery lifecycle, critical raw materials.
- Our method: acceptance criteria sealed before every test campaign; failures published with the successes.
- Member of the TEAM2, EuraMaterials, SafeCluster and Systematic Paris-Region clusters.
- **EU-funded projects:** none yet. Consortia in preparation for Cluster 4, 5 and 6 calls in 2027.

The project idea

- **Problem.** AI now adapts robots to each worker, but nothing proves that a robot's authority stays bounded as it learns. From 20 January 2027, learning safety components need a notified body (Regulation (EU) 2023/1230).
- **Idea.** The robot learns and adapts the interaction to each worker. A governance layer checks every action, holds authority down to the actuator, and keeps the worker in charge.
- **Topic fields.** Human-AI teamwork; interfaces that adapt to each worker's needs and abilities.
- **Why it will succeed.** Tested on real public robot data under sealed criteria: 0 authority crossings in 440,000 adversarial trials; tracking error −77.7 % with 0 safety violation; stop in 95 ms at p99 (limit 400 ms). TRL 4–5 to 6.

Competences / type of partners sought

- **Coordinator:** university or research organisation with a manufacturing or human-robot lab
- **Two or three manufacturers** (SME and large) hosting pilot cells
- **Cobot or exoskeleton maker**
- **Human factors and social sciences:** ergonomics, ethics, work, gender and inclusion
- **XR and interface developer**, ideally from earlier XR projects
- **Training provider** and worker representatives

We offer: the governance and certification work package.

Contact details

Contact person	**Dr Stéphane J.-L. Bobé Enguéléguélé**
Organisation:	SOVEREIGNPIALPHA France Ltd
Address:	Paris, France
Phone:	+33 6 01 02 79 97
E-mail	stephane.bobe@sovereignpialpha.tech
B2Match profile	To be added after registration
LinkedIn/Twitter	linkedin.com/in/stephane-j-l-bobé-e-phd-pol-science-mba-ir-and-diplomacy-8ba578125