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RESEARCH CENTER FOR ASSISTIVE INFORMATION AND COMMUNICATION SOLUTIONS – AICOS

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PROJECT SPEC SHEET (EN)

RAICC – RESPONSIBLE AI CALL CENTER

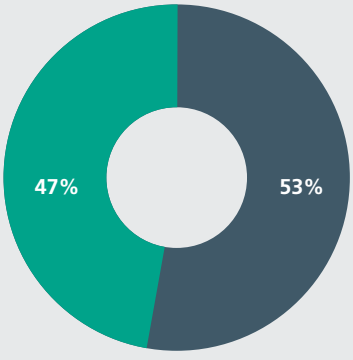
Project no: 25476 (COMPETE2030-FEDER-03033600)

Supported by: Sistema de Incentivos à Investigação, Desenvolvimento e Inovação Empresarial – I&D&I Empresarial – Operações em Copromoção

Partners: Daredata (Coordinator), Tekprivacy, NOS Comunicações, NOS Inovação, Universidade de Coimbra, Fraunhofer Portugal, Instituto Superior de Engenharia do Porto, Universidade do Porto, INESC TEC, BrightFactory, Universidade Nova de Lisboa

Execution Period: 01/09/2025 – 31/08/2028

Total eligible cost: 10.011.131,23 €
EU Funding: 5.361.660,14 €



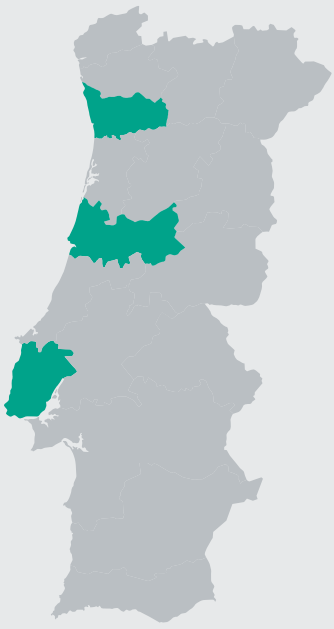
Project summary and goals

The project is a 36-month initiative called Responsible AI Call center (RAICC), led by DareData, with the goal of developing responsible AI products for call center operations and validating them in NOS's real operational environment. Its core idea is not just to automate interactions with LLM-based agents, but to do so with strong guarantees around privacy, compliance, explainability, robustness, and operational control.

RAICC is a consortium of 12 entities, including companies and research organizations. The project is positioned as applied R&D that should produce deployable systems, not only research prototypes, and it targets operational maturity up to TRL 8/9 through staged validation in the NOS call center.

The project plans four main products: Gen-OS, AVD.AI, PRA.SaaS, and NetSpeak. Gen-OS is the central platform, designed as an operational layer for generative AI agents with supervision, observability, incident handling, knowledge management, and human-in-the-loop intervention in critical flows. The other products cover responsible AI development support, privacy-risk assessment for call transcripts, and natural-language interaction with routers through specialized language models.

Scientifically, the project combines LLMs, SLMs, multi-agent systems, dialogue-flow discovery, narrative understanding, privacy-preserving processing, and responsible AI evaluation. A major emphasis is placed on improved model cards, synthetic data for testing and auditing, adversarial robustness,



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explainability, and structured methods for understanding call-center conversations.

General objectives

The project aims to develop innovative, responsible AI products that can be applied across various sectors, using the NOS call center as a primary test bed. Its three main general objectives are:

- To promote applied AI research and development in Portugal with scalable potential nationally and internationally.
- To develop tools that ensure AI solutions are fully aligned with the European AI Act and other relevant data protection regulations.
- To drive the technological evolution of call center operations, significantly improving efficiency, operator productivity, and customer experience.

Specific Technical-Scientific Objectives

The consortium has defined eight highly specific technical and scientific goals to support the development of their final products:

- OTC 1 (Robustness & Explainability): Develop methods to analyze AI robustness and explainability, resulting in an "enhanced model card" that includes automated performance metrics in adverse scenarios, vulnerability analysis, and explanations for incorrect predictions.
- OTC 2 (Auditing & Synthetic Data): Create synthetic data generation and meta-learning tools to evaluate, test, and audit the AI models developed during the project for predictive performance and responsible use.
- OTC 3 (Narrative Processing): Build systems to automatically extract narrative elements from collected discourse, producing knowledge graphs that map emerging conversational narratives.
- OTC 4 (Interpretability Tools): Develop interpretability tools specific to call centers to reveal communication trends and identify issues with human agents, AI models, or established protocols.
- OTC 5 (Unstructured Data & Operator Assist): Use LLMs to structure voice-to-text call transcripts, extract relevant insights, and build AI agents that assist human operators both in real-time and post-call via LLM brokering mechanisms.
- OTC 6 (Security Framework): Establish a comprehensive security structure for deep learning AI systems, including threat modeling, attack simulations, automatic defensive strategies, and reusable YAML profiles for continuous lifecycle protection.
- OTC 7 (AIOps Platform): Develop an operational platform (Gen-OS) for generative AI agents focused on continuous performance, observability, governance, and security.
- OTC 8 (Natural Language Router Control): Train Intelligent Language Models (Small Language Models or SLMs) that allow users to interact with network routers using natural language queries, automatically translating them into technical commands or API calls.

Photos, videos and other dissemination materials