

Social Research Call

Title:
*Portugal's Labor-Market Shifts and
Employment Effects of Artificial
Intelligence*



Acronym: PULSE-AI

Project leader: Hugo Castro-Silva

Host organisation: IST-ID, Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento

Main purpose of the project: PULSE-AI provides the first Portugal-wide evidence on how firms' adoption of AI is reshaping work: whether it creates or destroys jobs, how it changes their quality and stability, and how it reshapes firms' internal hierarchies — who gets in and who moves up — both inside adopting firms and across local labor markets.

Design/methodology/approach: The project links a representative survey of Portuguese firms' actual AI use to matched employer–employee and firm financial data covering the near-universe of firms. It compares AI adopters with similar non-adopters over time (matched event study) and exploits variation in AI diffusion across Europe (shift-share instrument), at both the firm and local level.

Potential results: PULSE-AI will estimate how AI adoption affects job creation and destruction, contract stability, wages, and firms' hierarchical structure, and how these firm-level changes add up in local labor markets. It will identify which workers, sectors, and regions are most affected, and distill the findings into an accessible policy brief for Portugal.

Social relevance of the research: AI's gains may fall unevenly across workers and places. Portugal is especially exposed: a segmented labor market, high youth temporary employment, wide regional disparities, and skilled emigration. By showing whether AI closes off entry-level opportunities, weakens career ladders, or pushes work toward less stable contracts, PULSE-AI helps target reskilling and regional priorities — with recommendations built together with firm and union representatives, broadening its reach.

Originality/value of the project: Most research infers AI use indirectly — from patents, job postings, or exposure indices — and cannot tell whether firms actually use it. PULSE-AI measures adoption directly, distinguishes AI technologies and purposes, and observes firms' real hierarchical levels, linked to the near-universe of workers and to local labor-market outcomes — the first study of its kind for Portugal.