

Automation exposure and human capital investments in European Union countries

Advancing technologies change the way we perform job tasks and transform labour markets. We are witnessing the emergence of new occupations, the decline of others, and significant changes to existing ones. Such processes require individuals, firms and institutions to adapt, blurring the vision of a predictable career path. That evokes the need for lifelong learning, so frequent investments in human capital.

Technology can both automate and support job tasks. In each case, investing in human capital can be beneficial. On one hand, employees exposed to automation may need new or enhanced skills to maintain their position in the labour market. At the same time, companies may be reluctant to train employees whose work they intend to automate. On the other hand, using implemented technologies may require specific skills, compelling companies to upskill their workforce.

Moreover, recent advancements in artificial intelligence have significantly expanded the group of individuals at risk of automation. This group now includes not only workers performing routine tasks but also highly skilled professionals who were previously considered "automation-proof." Consequently, the exposed group has become very diverse, varying not only in qualifications and tasks performed but also in their investments in human capital.

This project aims to enhance the understanding of how exposure to automation technologies impacts human capital investments and to identify motivations and barriers behind them. The project focuses on employees in the European Union, distinguishing between routine exposure and AI exposure. Research findings can prove valuable for organisations and policymakers striving to provide tailored training that minimises the negative impact of technology on the situation and prospects of employees in the evolving labour market.