



## **MAIA - Models and Methods for an active ageing workforce: an international academy**

Working populations in European Member States are ageing. In short, if most people continue to retire at around 60 years of age, the European labour force will shrink by around three million per year over the period 2020 to 2035 as reported by EU-OSHA. There is a need for a new and more comprehensive policy design to counter the shortage of workers in the future.

Moreover in European production systems there is a growing demand of applications with arm-based robots, exoskeletons, smart and intelligent working tools, immersive virtual reality technology. All these last generation technologies if well applied have a big potential to preserve the productivity, quality and safety of the aging workforce by better powering their great level experience and extraordinary skills.

The main objective of the MAIA Academy is to create a unique research and innovation staff exchange network focused on the ageing problem in manufacturing. MAIA project will provide a multidisciplinary approach to achieve objectives as:

- The study of the aging workforce needs and requirements in European production and assembly systems;
- The development of new design methodology to create assembly and production workspaces elderly-oriented by preserving productivity, quality and safety;
- The development of new analytical models to support assembly and production line design elderly-oriented and validate them with world-wide case studies.
- Design and test of new ergonomics devices in order to support aging workers during tasks, by helping them in reducing muscular fatigue and risk of muscle skeletal disorders
- Design and test of new immersive and virtual reality instruments in order to guide elder workers and support them in the production process.

MAIA will bring together 7 European partners and 6 Third country partners to create a new generation of knowledge towards the creation of age-friendly paradigms, models and methods for manufacturing systems.

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