

Adaptive Automation in Assembly For BLUE collar workers satisfaction in Evolvable context

THE PROJECT

The main objective of this 3-year project is the development and evaluation of a new generation of sustainable and adaptive workplaces dealing with the evolving requirements of manufacturing processes and human variability.

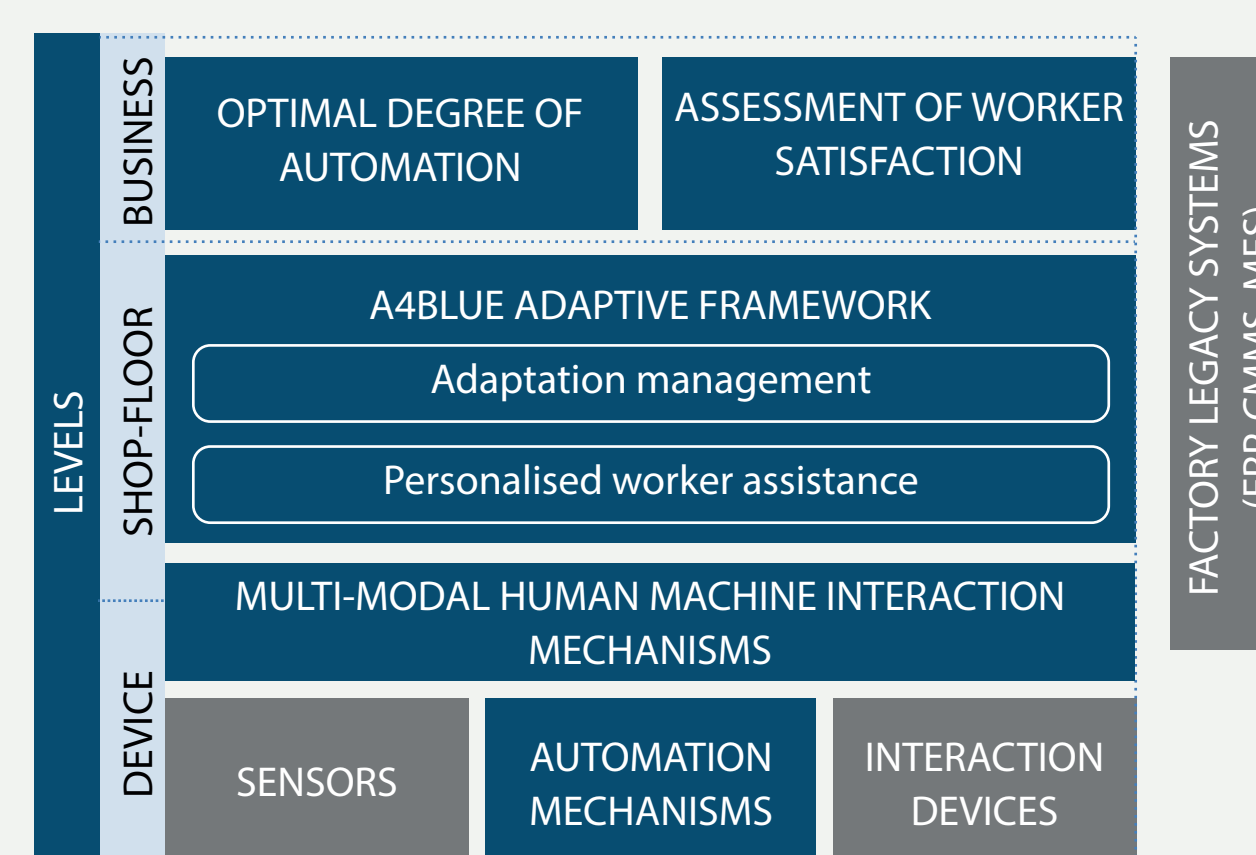
A4BLUE will introduce adaptive automation mechanisms for an efficient and flexible execution of tasks, ensuring a constant and safe human-machine interaction as well as advanced and personalised worker assistance systems including virtual/augmented reality and knowledge management capabilities to support them in the assembly and training related activities.

Furthermore, A4BLUE will provide methods and tools to determine the optimal degree of automation of the new assembly processes by combining and balancing social and economic criteria to maximize long term worker satisfaction and overall process performance.

AIMS & GOALS

To support this objective the main goals to be achieved by A4BLUE are:

- ✔ **adaptability** by providing an open, secure, configurable, scalable and interoperable adaptation management and assistance system;
- ✔ **interaction** by providing a set of safe, easy to use, intuitive, personalized and context aware multimodal human-automation interaction mechanisms;
- ✔ **sustainability** by providing methods and tools to determine the optimal degree of automation of the new assembly processes that combine and balance social and economic criteria to maximize long term worker satisfaction and overall performance.



PROJECT BENEFITS

20% increase in adaptability, e.g. product customisation capability.

10% quality increase in human and automation performance, e.g. quality or productivity.

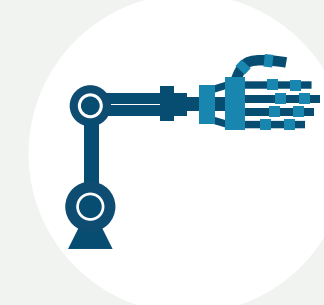
Wide adoption of the new developments in advanced manufacturing systems.

The A4BLUE solution will be instantiated and validated in two real industrial scenarios (AIRBUS and CESA) and in two lab scenarios (IK4-TEKNIKER and RWTH Aachen).

SECTORS



Aerospace



Automation



Industry 4.0



www.a4blue.eu