

# SMART-GRIP

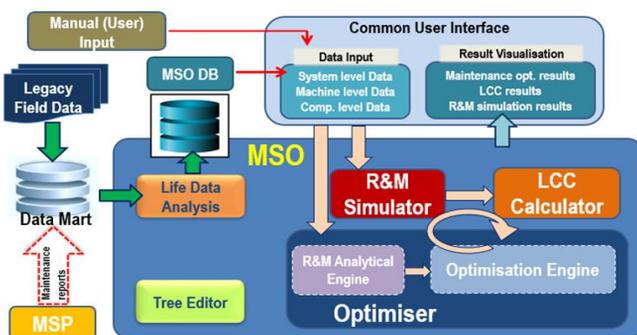
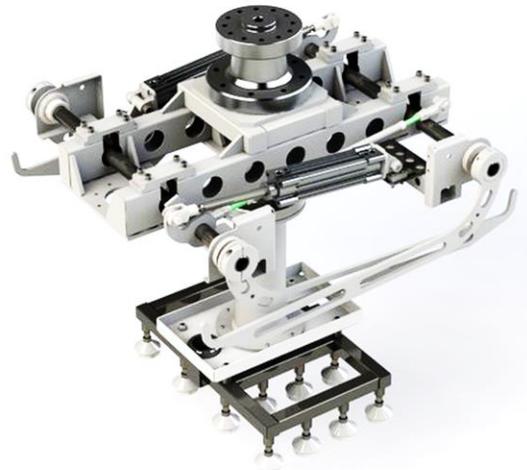
Integrated Software suite for component matchmaking and MAintenance planning for RoboTic GRIPpers



SMART-GRIP proposes a SW Suite to assist users in taking decisions regarding maintenance related operations, based on data collected from the field and integrated with life cycle costs parameters (determined by novel reliability and maintainability models and techniques), and supporting potential customers in selecting adequate robotic grippers tailored to their needs from the production equipment catalogue proposed by an equipment provider.

The SW Suite will integrate the Matchmaking (MM) tool and the Maintenance Schedule Optimisation (MSO) tool. The MM tool selects robotic grippers based on mature and tested practices of the equipment provider, while the MSO tool selecting the best maintenance strategies and policies and calculates an optimal maintenance schedule through minimising the life cycle cost (LCC) and maximising the operational availability.

SMART-GRIP targets the manufacturing and robotic grippers' sectors. The SW Suite will be integrated with the Market4.0 marketplace platform and offered to potential customers/users as external web applications (i.e. SaaS). These external web applications are offered with free access to the matchmaking tool, and contract-based access to the MSO tool.



The project's expected benefits are the following:

- (MSO) Reduction of system's downtimes and overall LCC (-20%)
- (MSO) Increase of system availability
- (MM) Reduction of response time to market demands with immediate to very short delivery times (-20%)
- (MSO/MM) Optimising and reduction of production/working hours (-40%)

SMART-GRIP involves 4 EU partners: **WEP** (SME, Italy), project's leader, specialised in providing SW solutions, UIs/APIs development, and more; **BME** (Academy, Hungary), highly specialised in reliability modelling and simulation, maintenance planning, and scheduling; **Ce.S.I.** (SME, Italy), simulation service provider, specialised in machine tools design, simulation and analysis; **RIVAS** (SME, Spain), robotic grippers and industrial automation provider, specialised in providing solutions in robotics and industrial automation in multiple sectors.



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