



# ADVANCED ROBOTIC TECHNOLOGY FOR HANDLING SOFT MATERIALS IN MANUFACTURING SECTORS

An industrial-end-user driven project that provides an innovative robotic system for the handling of flexible and deformable materials within labor intensive production processes.



## SOFTMANBOT SYSTEM OVERVIEW

Robotic manipulation of deformable materials is inherently challenging due to the high dimensionality of the state of the material. These applications require the control of the contact forces, shapes, and precise position of the components. The SOFTMANBOT project proposes a holistic robotic handling ecosystem, as an integrated, scalable and yet installation-specific solution for the semi-automated manipulation of soft materials in production processes.



## OUR AMBITIONS

- To design a modular and interoperable architecture
- To develop a robotic perception platform
- To develop a multi-sensor planning and control system
- To design and develop intelligent, dexterous and low-cost grippers for deformable object handling
- To deliver an environmental (LCA), economical and social evaluation.



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