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PROJECT WEB-SITE:
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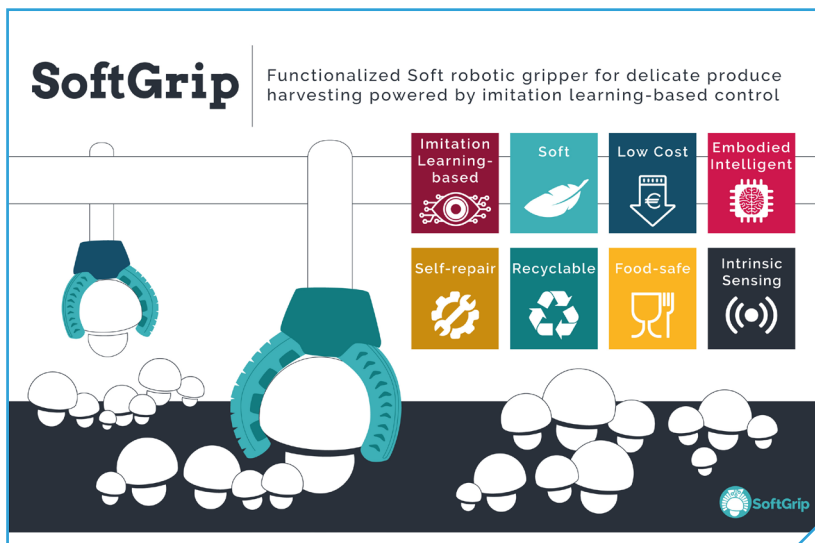
SOFTGRIP

**FUNCTIONALIZED SOFT ROBOTIC
GRIPPER FOR DELICATE PRODUCE
HARVESTING POWERED BY IMITATION
LEARNING-BASED CONTROL**

Call [H2020-ICT-2018-20 / H2020-ICT-2020-2](#)
Duration [1 January 2021 – 31 December 2023](#)
Project ID [101017054](#)

OBJECTIVES

The SoftGrip project will introduce a self-actuating soft gripper for the autonomous picking of delicate white button mushrooms. The versatility of the proposed solution will enable the adoption of the technology by other fresh-food industries experiencing similar stringent handling requirements. The project aims for low-cost, intelligent soft robotic grippers with embedded actuation, tactile sensing, recyclable materials and advanced fabrication techniques. It will develop a set of fast-computed modelling algorithms to enhance real-time model-based control schemes and advanced learning capabilities. SoftGrip will develop a learning-by-demonstration framework that will allow the robot to capture human picking skills, extensible to other similar tasks.



EXPECTED IMPACT

Enable a step change in efficiency, helping mushroom growers cut down on costs by >30% and increase their yields by >20%;

Increase job quality through the work environment and safety improvement by reducing the strenuous part of mushroom harvesting;

Answer fundamental questions on skill transfer through meta-learning techniques;

New technologies for delicate yet effective manipulation;

In the long-term, it will lower the barriers of robotics deployment open-up new opportunities for adoption of robotic solutions in the agri-food sector.