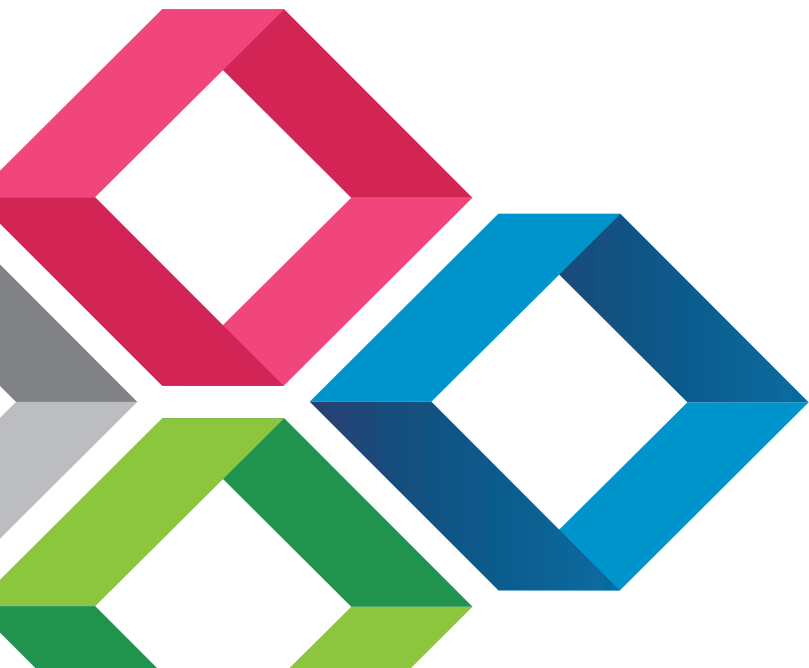## PICKPLACE

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PICKPLACE

FLEXIBLE, SAFE AND DEPENDABLE ROBOTIC PART HANDLING IN INDUSTRIAL ENVIRONMENTS

PICK-PLACE proposes a combination of human and robot capabilities for a safe, flexible, dependable and efficient hybrid pick-and-package (PAK) solution. It includes dynamic package configuration, flexible grasping strategies using an innovative multifunctional gripper, robust environment perception and mechanisms and strategies for safe human-robot collaboration.

Pick and place are basic operations in most robotic applications, whether in industrial setups (machine tending, assembling, bin picking) or in a service robotics domain (agriculture, home).

However, that is not the case when it comes to manipulating parts with high variability (in terms of size, shape and weight, as well as surface properties or stiffness) or in less structured environments.

PICK-PLACE proposes a multifunctional and flexible approach to variable object handling, combining human and robot capabilities to achieve a safe, flexible, dependable and efficient solution.

6 partners

36 months

3.09M€

2 business cases

Flexible product handling to deal with variability of products

T.O. 1: New generation of multifunctional grippers

T.O. 2: Reactive grasp-planning algorithm based on cognitive capabilities

T.O. 3: Robust and efficient bin-picking solution

Dynamic planning to deal with outbound boxes configuration

T.O. 4: Human and robot affordance aware dynamic package planning

Collaborative workspace to deal with high efficiency and high availability of the solution

T.O.5: Dynamic robot planning based on cognitive capabilities

T.O.6: Reliable environment perception system and strategies for safe collaborative scenarios