## **Optibend**



A project by





## Zero defect manfuacturing of home appliances bending workpieces

## Project consortium











The consortium addressed the problem of controlling the material's elastic recovery (also known as spring-back) in a bending machine due to its mechanical characteristics and thickness variation.

The outcome of this project is the improvement of a machine's performance through process monitoring, data acquisition and advanced control strategies so that the workpieces' quality and process robustness is increased.

Subsequently, assuring zero defect manufacturing. In other words, the Optibend project turned a bending machine into a 4.0 Industry bending machine.

Whirlpool helped in the project as the final user and validator, and the production of doors for refrigerators served as a pilot for considering industrial needs related to production and workpiece quality. This solution is currently used in Fagor machines and is also marketed in other industry sectors.







