



Who we are

The KYKLOS 4.0 Consortium is a well-balanced group of European organizations including research institutes, universities, SMEs, and large enterprises, with complementary expertise. The partners bring together a unique combination of technical-business skills and expertise necessary to form an effective and compact consortium



End users



KYKLOS 4.0

An Advanced Circular and Agile Manufacturing Ecosystem based on rapid reconfigurable manufacturing process and individualized consumer preferences

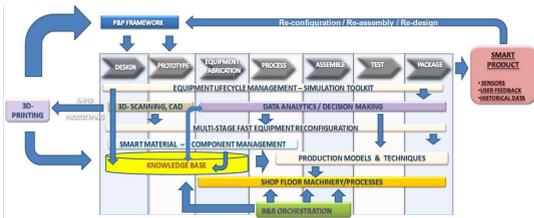
KYKLOS 4.0 Briefly

KYKLOS 4.0 aims at providing a Technology Ecosystem which creates and supports the configurations, methodologies, production techniques, decision and actions at all different levels and stages of the manufacturing value chain to achieve:

- Increased energy efficiency
- Decreased use of raw materials (second use of parts or materials)
- Customer-centricity
- On-demand manufacturing

KYKLOS 4.0 Circular Manufacturing Framework

KYKLOS 4.0 will deliver an advanced configuration variants' framework and state-of-the-art production paradigm, embedding key technologies into a unified platform Ecosystem to manage live product innovation



Meeting Industry 4.0 objectives:

- Operational excellence*
- Mass customization and personalization*
- Increasing efficiency*
- Reducing waste*
- Boosting competitiveness*

KYKLOS 4.0 Objectives

The following set of objectives are set, covering the project's scientific and technological aspects throughout its duration as well as the exploitation of the project's results after its end:

01 Decentralized Interoperable Agent-Based B2B Marketplace Platform	07 Product Data Management
02 Virtual Production Line Orchestration Module & Interoperative Fog Architecture Framework	08 Product Life Cycle Monitoring / Customer Feedback
03 Continuous Deep Learning Toolkit for Operational Metrics	09 KYKLOS 4.0 Production Line "Smartification" System
04 Tailored Circular Manufacturing and Mass Customization Services	10 Additive Manufacturing Simulation Modules
05 Big Data Aggregation and Integrated DSS for Optimizing Production Capacity	11 KYKLOS 4.0 Vulnerability Assessment
06 KYKLOS 4.0 Auditing Mechanisms	

KYKLOS 4.0 Technology & Solutions

KYKLOS 4.0 technology involves a set of intelligent tools for real-time analytics & prediction, and recommendation systems, integrated into the KYKLOS 4.0 configuration environment



KYKLOS 4.0 Pilots

KYKLOS 4.0 will demonstrate the transformative effects that Circular Production System (CPS), Product Life Management (PLM), Life Cycle Analysis (LCA), Augmented Reality (AR) and Artificial Intelligence (AI) technologies and methodologies will have to the Circular Manufacturing framework

Smart Manufacturing Pilots	Circular Manufacturing Pilots
01 Aerospace Pilot (GENERAL ELECTRIC and KANITSD facilities - Israel)	01 Automotive Pilot (DINO facilities - Italy)
02 Electronic Device/Equipment Pilot (VESTEL facilities - Turkey)	02 Shredder Pilot (ASTANDER facilities - Spain)
03 Medical Pilot (PRO MEDICARE facilities - Italy)	03 Food Industry Pilot (FINDOS Cooperative facilities - Greece)
04 Electronic Manufacturer Pilot (CONTINENTAL facilities - Romania)	



KYKLOS 4.0 will facilitate the acceptance and utilization of the developed solutions by the market with:

- *Efficient communication and dissemination strategy*
- *Ensuring compatibility and interoperability with what already exists in the market through standards*
- *Using the standardization system as a tool for dissemination of the project results and interaction with the market stakeholders*

KYKLOS 4.0 Open Calls

KYKLOS 4.0 will organize two Open Calls to engage European SMEs in the design and implementation of highly innovative experiments/prototypes

Several events across Europe are expected to be implemented within the framework of the two Open Calls

Funding will be provided to projects led by small consortia (third parties) and targeting innovative concepts adhering to the larger objectives and vision of the KYKLOS 4.0 project

KYKLOS 4.0 follow us on    

 THIS PROJECT HAS RECEIVED FUNDING FROM THE EUROPEAN UNION'S HORIZON 2020 RESEARCH AND INNOVATION PROGRAMME UNDER GRANT AGREEMENT NO 872570