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Leading Player in Home-
Appliances Industry

Established in 1955

The leading home-appliances
brand in Turkey

We Work, Produce
and Innovate Globally

**28 Production Facilities,
28 R&D Centers Worldwide**



H2020 Experience

12 FP 7, 26 H2020

Global home-appliances brand
sold in more than 100 countries

R&D Staff

1700 +



Europe's full range premium
home-appliances brand

Description of your research interest

Within the scope of the European Union Framework program, the company works with more than 500 universities, research institutes and companies from more than 20 countries in projects carried out in different fields such as innovative materials technologies, digital production technologies, energy technologies, food technologies, circular economy, sustainability and Marie S.Curie. Arçelik is the flagship of Turkish private sector in FP programs.

Experience: More than 220 H2020 proposal, 26 granted Project

Target Call: HORIZON-CL4-2022-TWIN-TRANSITION-01-01 - Rapid reconfigurable production process chains (IA)

Novel Smart Reconfigurable Production for Household Appliance based on PLM

Business Context:

There are a lot of cabinets and stock keeping units in household appliance production. Project will aim at developing smart household appliances manufacturing-based system that will *strictly change* the current way how *customer requirements and product efficiency*. This technology-based business approach will allow globally operating European companies to **efficiently deliver innovative reconfigurable products** to a *globally distributed network* of customers with strongly *differing regional requirements/regulations* regarding *product design, functionality, and customer demands*. This approach will shorten time-to-markets and delivery times, decrease reconfigurable cost, and increase production efficiency.

Project will aim at providing a set of new technological and methodological solutions such as **product life management system, supply chain management, understanding of customer's expectations and smart manufacturing**. In this context, technology providers will be able to develop collaborative tools to facilitate the design of products supported by new forms of interaction and visualization that can provide ubiquitous collaboration throughout the value chain of product manufacturing. Project will be able to design services based on apps for mobile devices which integrate the customer in the product development and the process of order fulfilment. Such services have been successful implemented in online shops. Project will integrate customers' into product development and order-fulfilment via mobile devices and apps. Products can be configured according to market's expectation.

AI or Big data analytics can be used in different decision making steps:

Better understanding customer expectations (market analysis), Demand management for different regions, Calculation of reconfigurable products' deliverable and lead time (beginning to formation of demand to shipping)

Arcelik will be use case provider and role of Arcelik will be system requirement identify, system integration and validation.

Novel Smart Reconfigurable Production for Household Appliance based on PLM

Key Benefits/Contents

Strong industrial involvement towards developing the first engineering platform for customer- driven innovation with PLM and decision support tools

Robust networks in Europe; shorter and more predictable delivery times as advantage in comparison to low cost countries

Stable and important role in a well-organized, customer-oriented network

Dissemination Potential

Today, with over 30,000 employees throughout the world, 12 brands (Arçelik, Beko, Grundig, Blomberg, ElektraBregenz, Arctic, Leisure, Flavel, Defy, Altus, Dawlance, Voltas Beko), sales and marketing offices in 43 countries, and 22 production facilities in 8 countries, Arcelik offers products and services to many different regions of the world.

Arçelik operates sales channels in 146 countries, produce 20 million appliance annually.

Arçelik will deploy this application to own factories and spread it throughout the company.

Beside household appliance production, this methodology will be able to spread other different sectors.

KPIs

- Time to market reduction of 45% in region dependent innovation with respect to current time to market
- Reduce number of delayed deliveries by 25%.
- Through knowledge re-use, modular system design, and customer involvement in the design process achieve a first-time-right rate of 90%
- Reduce configurable cost by %20

Consortium - required partners

No	Expertise	Type	Country	Role in the project
01	PLM Software Provider	Any	Any	Technology Provider
02	Product Development and Order-Fulfilment App Developer	Any	Any	Technology Provider
03	Customer Management Feedback Tool Provider	Any	Any	Technology Provider
04	Supply Chain Network Modelling and Optimization Expert	Any	Any	Technology Provider

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R&D

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