des·molD

Feature-Based Design and Modelling for Injection-molding Optimization
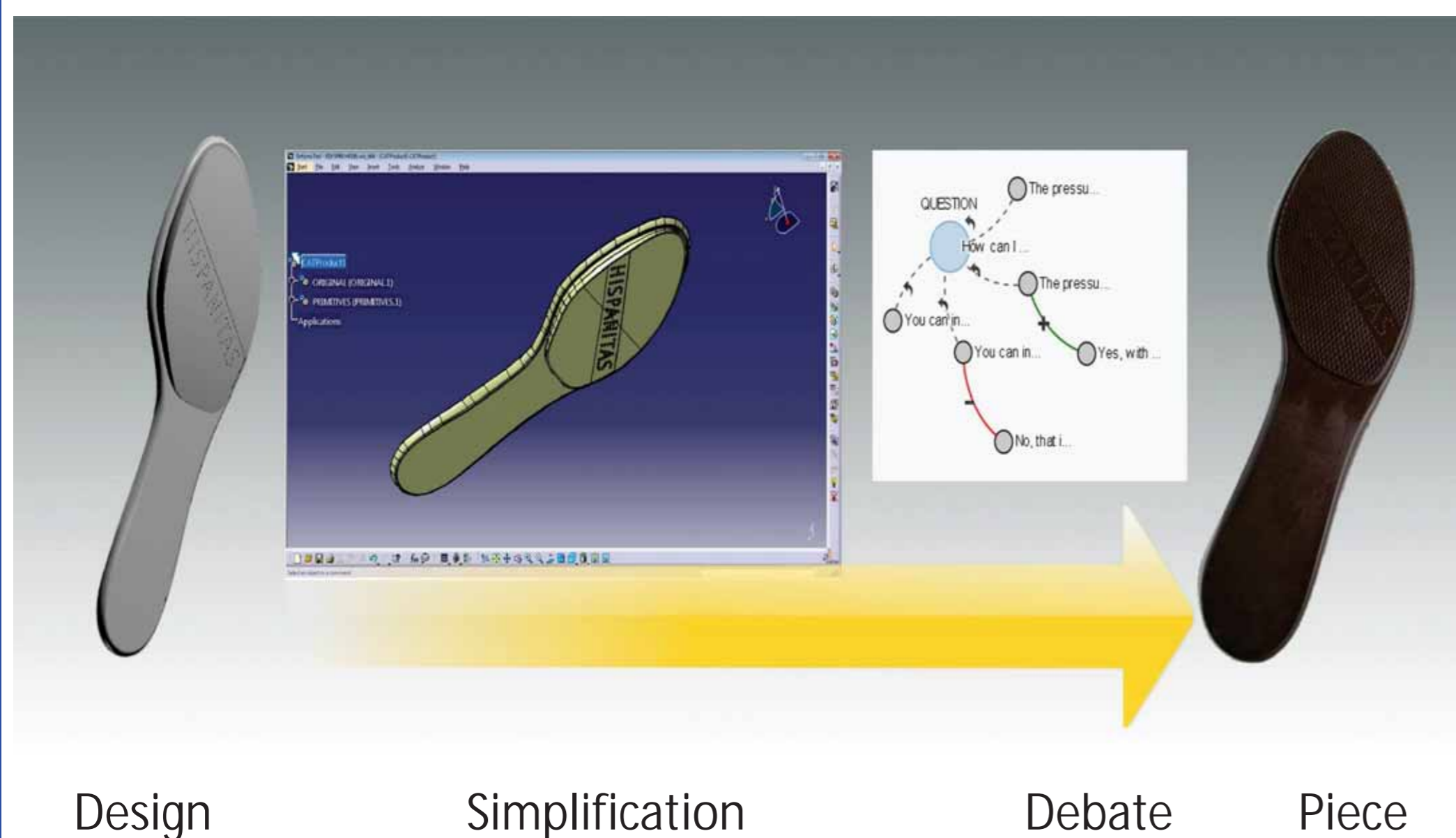**www.desmold.eu**

PROJECT INCENTIVE

❑ The production of plastic parts have moved from highly standardized moulds to more customized demand with small batch production.

❑ Injection companies are handling a strong pressure to deliver in short time high quality plastic pieces.

❑ The characterization of the process to make a mould depends strongly on the geometry of the mould and properties of the injected polymer.

❑ Des-MOLD is born to solve the important problems nowadays have the injection moulding companies, reducing time and cost of their products.

Design   Simplification   Debate   Piece

CONSORTIUM

Coordination by:

eurecat
Technology Centre of Catalonia

Partners:

T··Systems·   Imperial College London   INESCOP INSTITUTO TECNOLÓGICO DEL CALZADO Y CONEXAS

PLASTIA.com   MAZEL   MPT PLASTICA

eurosuole   CRDM ENGINEERING SUCCESS

CONTACT

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OBJECTIVES

❑ Development of:

- ▪ Effective structural feature-based modelling software for moulding optimization.
- ▪ A software module for virtual sensorization of moulds and structural features.
- ▪ An integrated decision support modelling tool for moulding injection optimization and planning.

❑ Demonstrator, indicators of higher productivity (time/cost) and evaluation.

INNOVATION

❑ Construct an intelligent knowledge-based system that uses as a main source, past empirical experiences and simulation data to optimize:

- • At the design time, the geometries of the pieces and moulds according to the desired features.

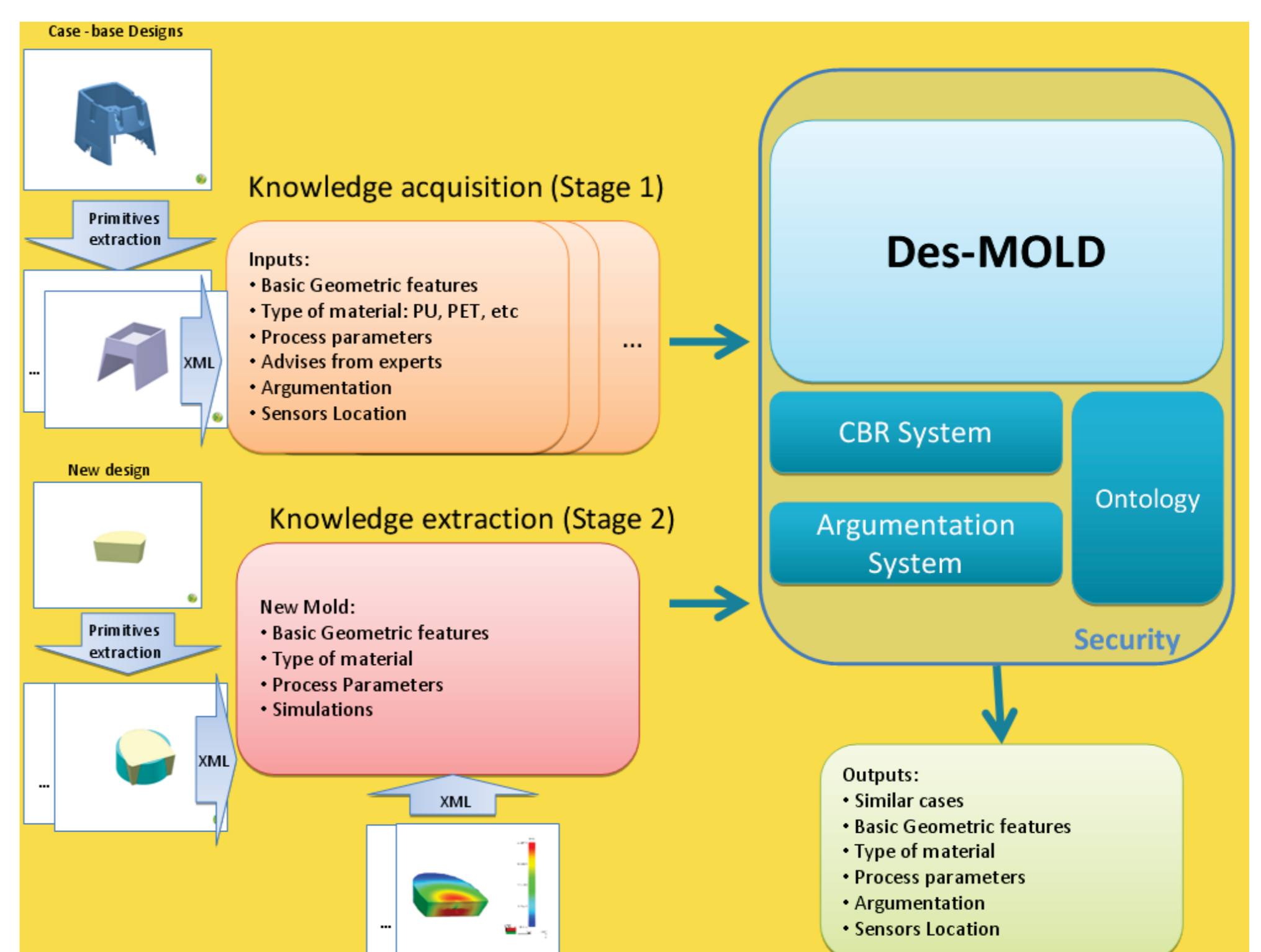- • At production time to monitored the expected process control variables.

PROJECT RESULTS

❑ Prototypes from the developed technology are constructed and validated on 2 different industries (*Shoe and automotive industry*).

❑Reduction in time for injection moulding production between 11% and 50%, depending on the piece produced.

❑Reduction in costs between 9% and 19%, depending on the piece produce.

❑ Reduction in plastic waste material.

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