

PROJECT:

AGINTES

FULL TITLE:

Injected plastic products smart process: nuevo proceso de fabricación **agil** de productos plásticos **inyectados** basado en sistemas **tic**, moldes y bienes de equipo inteligentes. (*Injected plastic products smart process: new agile manufacturing process of plastic products based on ICT systems injected, molds and intelligent equipment*)

FILE NUMBER:

IPT-020000-2010-15

PROJECT LEADER

Industrias Plasticas del Pirineo SL in collaboration with NSOLVER - New Virtual Solutions SL, Aitiip technology center and University of Zaragoza.

CALL:

INNPACTO 2010

DATE OF COMPLETION:

2010 - 2013

OBJECTIVES:

The objective of this project is to define a radically new concept of plastic injection molding, in which the tools will move from being passive elements to become active network elements with embedded knowledge, integrating them into a platform for global control process. This will allow on one hand, improving the efficiency of the entire lifecycle of the production of plastic parts, ie, from materials to human resources employees, through the use of molds and machinery necessary since all the process parameters can be monitored, corrected in real time and stored for later and will be corrected automatically by the system if necessary. This leads to a tool for business that allows full management and control processes with maximum injection intelligent, real-time information.

As a link in the process, the binomial mold-machine will become the link for the flow of knowledge, serving as a vital link in the process line material-mold-machine-human resources. The knowledge embeded in this new process will maintain the know-how acquired by its technicians, store and use it more efficiently, so that the process will become even smarter.

The main benefits expected from this project could be summarized in two main areas:

- Development of a communication network between the different elements involved in the process (material-mold-machine-human resources) so as to achieve an efficient flow of information and a direct control of critical system variables, allowing to act or change process parameters in an "intelligent" way.
- Use of expert systems for optimization and improvement of efficiency in the injection process, by identifying and multilateral communication of the key elements of the process. Will be achieved a steady identification of the operating conditions of the machine, mold and material, so that this information could be transmitted and managed by the expert system.

FINANCED BY:

