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## To reduce manufacturing costs of making automobile structure components

TECNALIA is taking part in the European PROFORM consortium, the aim of which is the development of a new concept for the manufacture of structural parts for the automobile, based on the variable profile forming, together with finishing operations using laser and electromagnetic forming (non-continuous local details along the whole length of the part), thus reducing manufa

Most components of the structure of the automobile are obtained by stamping, given the great variety of shapes that can be obtained with this forming technology. Its main disadvantage is its high cost, both in the tools needed as in the investment (huge presses) as well as its poor flexibility (a change in the shape of the piece means a complete change in the tooling).

Due to the lower cost and higher flexibility of the new installations, the resulting profile is a highly efficient option for the manufacture of structural parts. Nevertheless, its implementation in the automobile sector has been slowed by the limitation in geometries that can be obtained (only straight parts that have constant section throughout). In the PROFORM project a new profile forming technology is developed whereby profiles with curved edges, conical shapes and variable sections can be obtained, thus enabling the lower-cost production of automobile components such as crossbars, beams and reinforcement parts.

TECNALIA Technological Corporation is taking part in the European PROFORM consortium, the aim of which is the development of a new concept for the manufacture of structural parts for the automobile, based on the variable profile forming, together with finishing operations using laser and electromagnetic forming (non-continuous local details along the whole length of the part), thus reducing manufacturing time and cost.

The PROFORM project is a new technology for contour machining that enables the manufacture of surfaces with curved edges, conical shapes and variable sections, thus facilitating obtaining automotive components such as stringers, crossties and

reinforcements at lower costs.

Taking part in the consortium are some twenty partners from 5 countries of the European Union (Italy, Spain the Czech Republic, Germany and France), amongst which are car manufacturers Daimler and Fiat, top-level providers such as Gestamp, as well as a great number of SMEs (small and medium-sized enterprises) in the sector (Gasparini, Ingemat, Onapres, DataM, Actarus, Genta, Tribotech, Eximet, Axyal, Antec, LMB), given that it involves a comprehensive project aimed at increasing the technological capacity of the SMEs (IP for SMEs). Completing the line-up are the three technological centres making up Tecnalia Automoción (Inasmet, Labein and Robotiker), Cirtes and the Hannover Laser Centre, as well as the Universities of Mondragón (the Basque Country) and of Darmstadt (Germany).

## Countries

Spain

## Contributor

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