AIMEN

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Organisation profile

AIMEN is a research centre specialized in materials, joining technologies and processing of materials by laser. Its mission is to contribute to the development and strengthening the competitive capacities of the companies. Promotion and management of R&D&I activities, technology services of high added value and training actions are part of AIMEN's activity. The centre is located in Galicia, the Northwest of Spain. Currently, AIMEN has 235 employees out of which 15 hold a PhD, 20 are enrolled in PhD studies, and around 100 hold a Master degree. As a Technology Centre with a constant working relationship with SMEs, AIMEN is in a privileged position to detect technology shortcomings of the Spanish industry. This is specially the case in materials and joining technology, where AIMEN has more than 40 years of experience in providing services to the industry.

In order to fill the gap of the detected deficiencies, AIMEN has developed a work programme focused on the following knowledge areas:

- Joining Technology
- Materials Processing through Laser technologies
- Development of New Materials
- Characterisation Techniques

Within each of these areas of expertise, various working fields are currently being developed by means of R&D&i projects and technology services. Their objective is to acquire and transfer the scientific-technological know-how, necessary to improve the competitiveness of our industrial sphere and promote regional development and employment growth.

Main Green Cars activities: Products and Projects

AIMEN is working on the development of new manufacturing paths that enable new concepts of high resistance/light weight panels and profiles for the automotive sectors. These products will be based on full biomass composite materials, ultrahigh strength steels or aluminium metallic matrix composites. The desirable characteristics are moderate production cost, recyclability, sustainable production and biodegradability. Areas of particular interest are the processing of the materials (fillers treatments and mixing process), joining and even biodegradability of products.

Another research field is based on the development on engineered surfaces, e.g. laser modified. The objective is to provide a functional service: wear resistance, low friction, while improving their resistance to corrosion and low machinability requirements (near net shape). Functionally graded surfaces or materials are sought to contribute to weight reduction and low friction of moving parts.