

## **ADDITIVE MANUFACTURING**

- New compounds on PLA, Nylon, Flexible (TPU)... design for FDM technologies
- Filament manufacturing equipment and installation design
- 3D Printing protocols definition for the definition of warping, layer by layer adhesion... phenomenon
- 3D Scanning for 3D printing.

## **FATIGUE ANALYSIS**

- Prediction of failure of rubber compounds
- Fatigue testing of rubber products and samples
- Fatigue prediction through Finite Element Analysis tools
- Product design for fatigue behavior improvement

## **LIGHTWEIGHT**

- Product design for metal components substitution
- Finite element analysis activities
- Testing of lightweight materials
- Design of components containing lightweight solutions
- Compounding of lightweight application oriented materials

## **THERMOPLASTIC ELASTOMERS**

- TPE based thermoplastics modification
- Product design process definition for a thermoplastic substitution
- Tools design for TPE injection molding
- Definition of protocols for the obtention of blends from renewable origin thermoplastics and common thermoplastics
- PLA compounding and formulation design and characterization

## **BIOPLASTICS**

- Renewable origin thermoplastics modification
- Product design process definition for a thermoplastic substitution
- Definition of protocols for the obtention of blends from renewable origin thermoplastics and common thermoplastics
- PLA compounding and formulation design and characterization

## **HEALTH**

- Liquid Silicone Rubber made medical device design
- Cleanroom LSR injection molding under ISO 13485 standards
- 3D printing application opportunities definition
- Dental sector material solution development
- Antimicrobial solutions for invasive medical devices