

Designação do projeto | Desenvolvimento de compósitos de Matrix Polimétrica não convencionais baseados em Análise Multi Escala e Optimização

Código do projeto | PTDC/EMS-PRO/4732/2014 –LISBOA-01-0145-FEDER-016860

Objetivo principal | Reforçar a investigação, o desenvolvimento tecnológico e a inovação.

Região de intervenção | Norte 54.52%; Lisboa 45.48%

Entidade beneficiária | INEGI, IDMEC, NOVA.ID.FCT

Data de aprovação | 23-03-2016

Data de início | 01-06-2016

Data de conclusão | 1-12-2019

Custo total elegível **IDMEC** | 74136.00 Euros

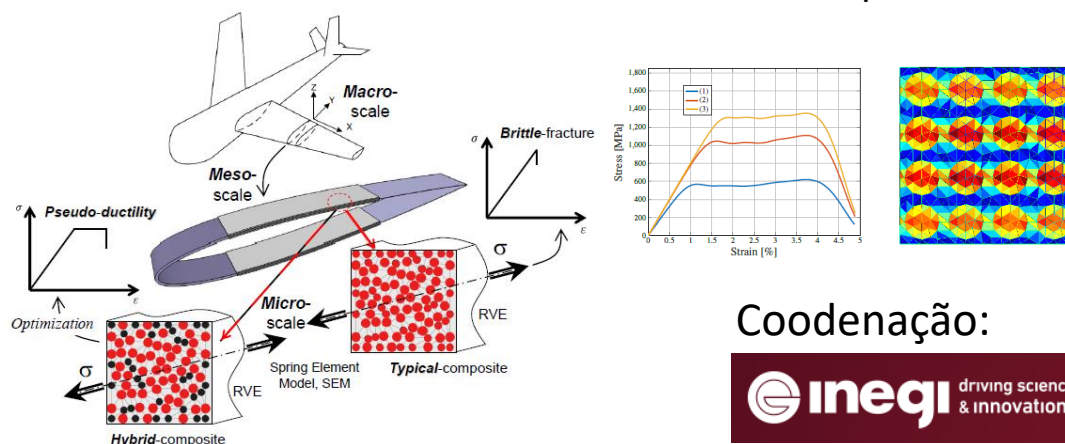
Apoio financeiro da União Europeia | FEDER – 29654.40 Euros

Apoio financeiro público nacional/regional | OE – 44481.60 Euros

Description:

This project has the objective of developing a new generation of polymer composite materials with hybrid fibres based on multi-scale analysis and optimization. In this context, the use of multi-scale approaches, which transfer information between different scales, can provide a deeper physical insight into the material mechanical behaviour and offers the possibility to tailor new composite materials by manipulating their microstructure via numerical simulations guided by optimization methods. Therefore, new optimal design methodologies for composite materials and structures, both in its essential optimal design and also on its capabilities to characterize the material behaviour, including failure mechanisms, are required for this purpose.

The main structural applications addressed are laminated composite structures used in aerospace applications, where the goal is to identify not only the best arrangement of layers, but also the optimal fibre hybridization of the composite material used in each layer.



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FCT Fundação
 para a Ciência
 e a Tecnologia

Coodenação:



Participação:

