Modified cost effective fibre based structures with improved multi-functionality and performance

Fact Sheet

Project Information

MODCOMP

Grant agreement ID: 685844

Funded under H2020-EU.2.1.3.

Overall budget € 9,377,404.11

Project website

EU contribution € 7,980,036.25

Status Closed project

Coordinated by NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA Greece

Start date 1 April 2016

End date 31 March 2020

Objective

Current technological demands are increasingly stretching the properties of advanced materials to expand their applications to more severe or extreme conditions, whilst simultaneously seeking cost-effective production processes and final products. The aim of this project is to demonstrate the influence of different surface enhancing and modification techniques on CF-based materials for high value and high performance applications. These materials are a route to further exploiting advanced materials, using enabling technologies for additional functionalities, without compromising structural integrity. Carbon fibre (CF) based materials have particular advantages due to their lightweight, good mechanical, electrical and thermal properties. Current generation CFs have extensively been used in a multitude of applications, taking advantage of their valuable properties to provide solutions in complex problems of materials science and technology, however the limits of the current capability has now being reached.
MODCOMP aims to develop novel fibre-based materials for technical, high value, high performance products for non-clothing applications at realistic cost, with improved safety and functionality. Demonstrators will be designed to fulfil scalability towards industrial needs. End users from a wide range of industrial sectors (transport, construction, leisure and electronics) will adapt the knowledge gained from the project and test the innovative high added value demonstrators. An in-depth and broad analysis of material development, coupled with related modelling studies, recycling and safety will be conducted in parallel for two types of materials (concepts):

- CF-based structures with increased functionality (enhanced mechanical, electrical, thermal properties).
- CNF-based structures for flexible electronics applications.

Dedicated multiscale modelling, standardisation and production of reference materials are also considered.

**Field of science**

/social sciences/social and economic geography/transport
/social sciences/economics and business/economics/production economics

**Programme(s)**

**Topic(s)**

**Call for proposal**

H2020-NMP-2015-two-stage

**Funding Scheme**

IA - Innovation action

**Coordinator**

NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA

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Participants (16)

**TWI LIMITED**
United Kingdom  
EU contribution  
€ 798 750

Address
Granta Park Great Abington  
CB21 6AL Cambridge

Activity type
Research Organisations

Website
Contact the organisation

**INEGI - INSTITUTO DE CIENCIA E INOVACAO EM ENGENHARIA MECANICA E ENGENHARIA INDUSTRIAL**
Portugal  
EU contribution  
€ 583 086,25

Address
Rua Dr Roberto Frias 400  
4200 465 Porto

Activity type
Research Organisations

Website
Contact the organisation

**THE UNIVERSITY OF BIRMINGHAM**
United Kingdom  
EU contribution  
€ 716 067,50

Address
Edgbaston  
B15 2TT Birmingham

Activity type
Higher or Secondary Education Establishments

Website
Contact the organisation

**THALES**
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NCC OPERATIONS LIMITED
United Kingdom
EU contribution
€ 290 500
Address: C/o National Composite Centre, Bristol & Bath Science Feynman Way, Emersons Green BS16 7FS Bristol
Activity type: Other

OPEN SOURCE MANAGEMENT LIMITED
United Kingdom
EU contribution
€ 346 500
Address: Cowley Road Saint John S Innovation Centre CB4 0WS Cambridge
Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)
Website

INNOVATION IN RESEARCH & ENGINEERING SOLUTIONS
Belgium
EU contribution
€ 253 750
Address: Boulevard Edmond Machtens 79/22 1080 Bruxelles
Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

POLITECNICO DI TORINO
Italy
EU contribution

RISE SICOMP AB
Sweden
EU contribution
€ 611 420
Address
Fibervaegen 2 - Oejebyn
941 26 Pitea
Activity type
Other
Website
Contact the organisation

AERNNOVA ENGINEERING DIVISION SAU
Spain
EU contribution
€ 499 835
Address
Calle Leonardo Da Vinci
Minano Sn
01510 Vitoria Gasteiz
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Website
Contact the organisation

FRENI BREMBO Spa
Italy
EU contribution
€ 160 375,50
Address
Via Brembo 25
24035 Curno
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Contact the organisation
STATE ENTERPRISE YUZHNOYE DESIGN OFFICE NAMED AFTER MIKHAIL YANGEL

Ukraine
EU contribution € 491 564,50

Address
Krivorozhskaya 3
49008 Dniepropetrovsk

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

EUROMOBILITA SRO

Czechia
EU contribution € 148 750

Address
Taborska 922
293 01 Mlada Boleslav II

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Last update: 11 July 2020
Record number: 203255

Permalink: https://cordis.europa.eu/project/id/685844/

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