H2020 project fact-sheet:

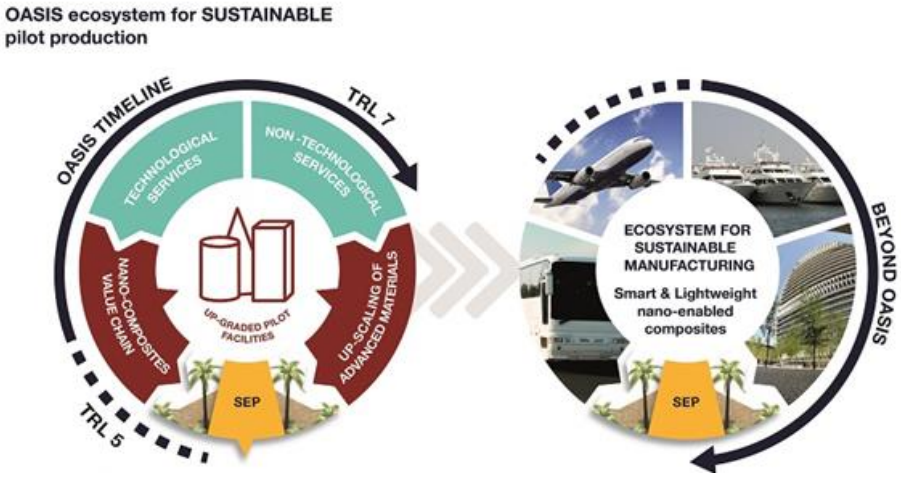
Open Access Single entry point for scale-up of Innovative Smart lightweight composite materials and components

OASIS

Project ambition:

The vision of OASIS is an ecosystem of 12 nanotechnology manufacturing PLs, operating under a common and demanding umbrella of Sustainable Production (OASIS framework). It aims at ensuring a competitive, quality, safe and environment friendly production, of nano-enabled products in compliance with the applicable regulation. It will provide nanomaterials, nano-intermediates, nano-enabled products and services for the development and commercialization support of lightweight multifunctional products based on aluminium and polymer composites.

Its added value will stem from:
- High-level and reliable nano-based solutions supply and development covering the whole development chain.
- A one-stop full package offer including non-technical services for accelerated innovation studies and guaranteed success in industrialisation, market penetration and commercialisation.
- Differentiating offer covering:
    - o a multi-material (aluminium-composites) approach for optimal design
    - o parts' manufacturing processes (HPDC, RTM, HCIM®, pultrusion) adapted for serial production.
    - o main functions expected by the markets: super insulation, improved mechanical resistance, fire-retardancy, conductive semi-products for electronic integration)



Project facts:

Start date: 01/01/2019
End date: 30/08/2022

Duration in months: 44

Project EU funding: € 13.3 M

H2020 Innovation Action

Grant Agreement: 814581

Call: H2020-NMBP-HUBS-2018

Topic: DT-NMBP-01-2018

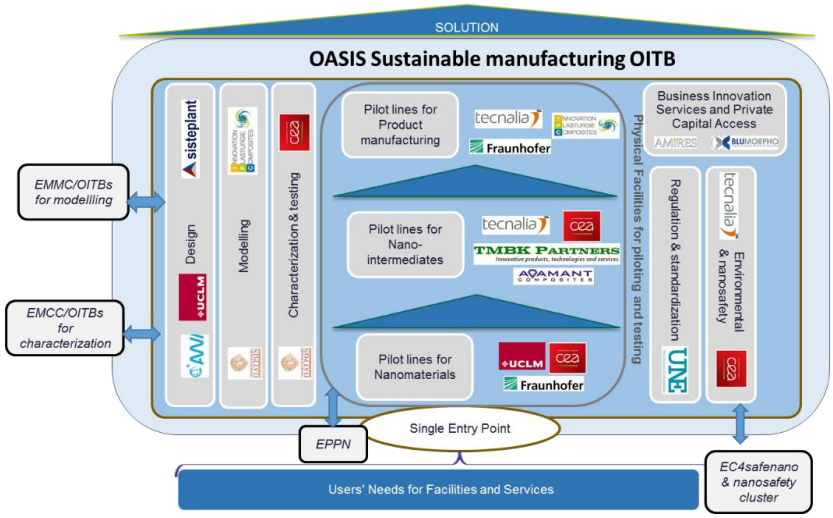
Open Innovation Test Beds for Lightweight, nano-enabled multifunctional composite materials and components

Keywords:
Production technology
Process engineering
Open Innovation Test Bed
Nano-enabled products
Single Entry Point
Open Call
Lightweight
Multifunctional
Smart

Open Access Single entry point for scale-up of Innovative Smart lightweight composite materials and components - OASIS

Project workplan:

The multi-pilot line manufacturing capacity of OASIS will be validated by 6 industrial showcases, where lightweight products (TRL6-7) ensure significant impact in construction, automotive, energy and aeronautic industries. The complete OASIS services to SMEs will be demonstrated by 6-12 democases, which will be selected from identified and potential clients by an open call, to ensure highest possible impact. The OASIS will set up economically sustainable open innovation structure, leveraging the previous investments for the full benefit of European companies introducing new added-value products based on nanotechnologies.



Expected impact:

1. Open and upgraded facilities at the EU level for the design, development, testing, safety assessment, and upscaling of lightweight, nano-enabled and multifunctional materials and components, easily accessible to users across different regions of Europe
2. Attract a significant number of new SME users, with at least a **20%** increase for existing test beds
3. Increased access to finance (for SMEs) for investing in these materials or in applications using them
4. At least **15%** improved industrial process parameters and **20%** faster verification of materials performance for highly promising applications
5. At least **20%** improvement in industrial productivity, reliability, environmental performance, durability, and reduction of life-cycle costs of these materials
6. At least **15%** indirect reduction in energy consumption across sectors using lighter materials in their products and processes

OASIS will maximize its impact addressing relevant markets in terms of use of lightweight and high-performance materials, namely in mobility/transport, construction, packaging and energy. So, the results achieved by the consortium members in the project will provide new business opportunities in those sectors but also in other industrial sectors (sport equipment, medical devices, coatings, paintings, etc.) where materials with new functionalities are required.

Consortium:

Tecnalia	ES
CEA	FR
IPC	FR
Fraunhofer Gesellschaft	DE
UCLM	ES
University of Patras	GR
Alfred-Wegener-Institut	DE
Acciona	ES
TMBK Partners	PL
Sisteplant	ES
Pleione	GR
Airbus	ES
Thales	FR
Ford	DE
Adamant	GR
VDL	NL
UNE	ES
Blumorpho	FR
Amires	CZ
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