



E-PLATFORM

“Your partner for nano-enabled Composites Solutions and Services”



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 646307.

NANOSPAIN 2017

Workshop- Nanotechnologies and Advanced Materials Pilot Projects Test-beds for industry and private investments", 8 March 2017

EXECUTIVE SUMMARY



What we do

E- Platform is a joint venture which provides:

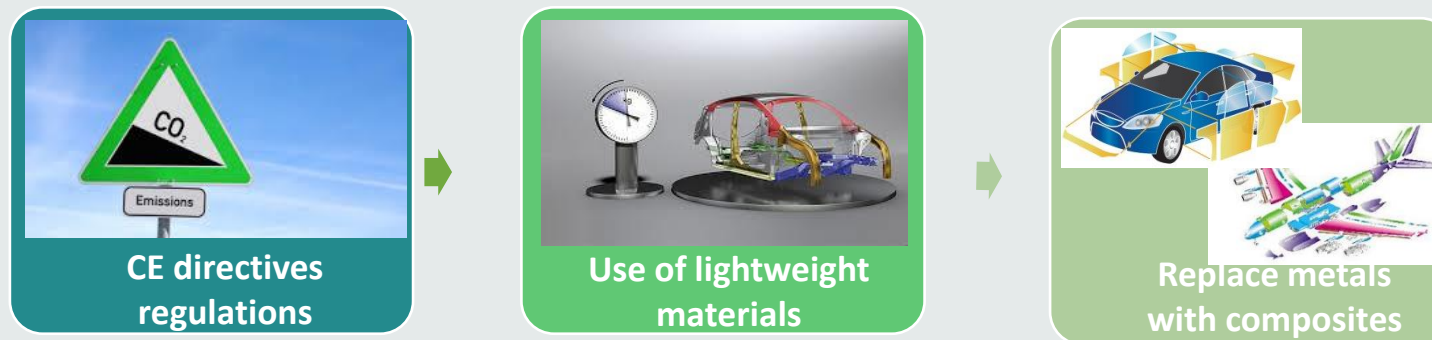
- Nano-enabled advanced composites products with tailorable properties for parts manufacturers, SMEs
- Nano-enabled composites solutions and services

Current Status

- 3 Existing Pilot lines for manufacturing advanced composites
- Nano-enabled functional prepregs have been launched in JEC 2016
- Advanced composites for commercial usage have already produced

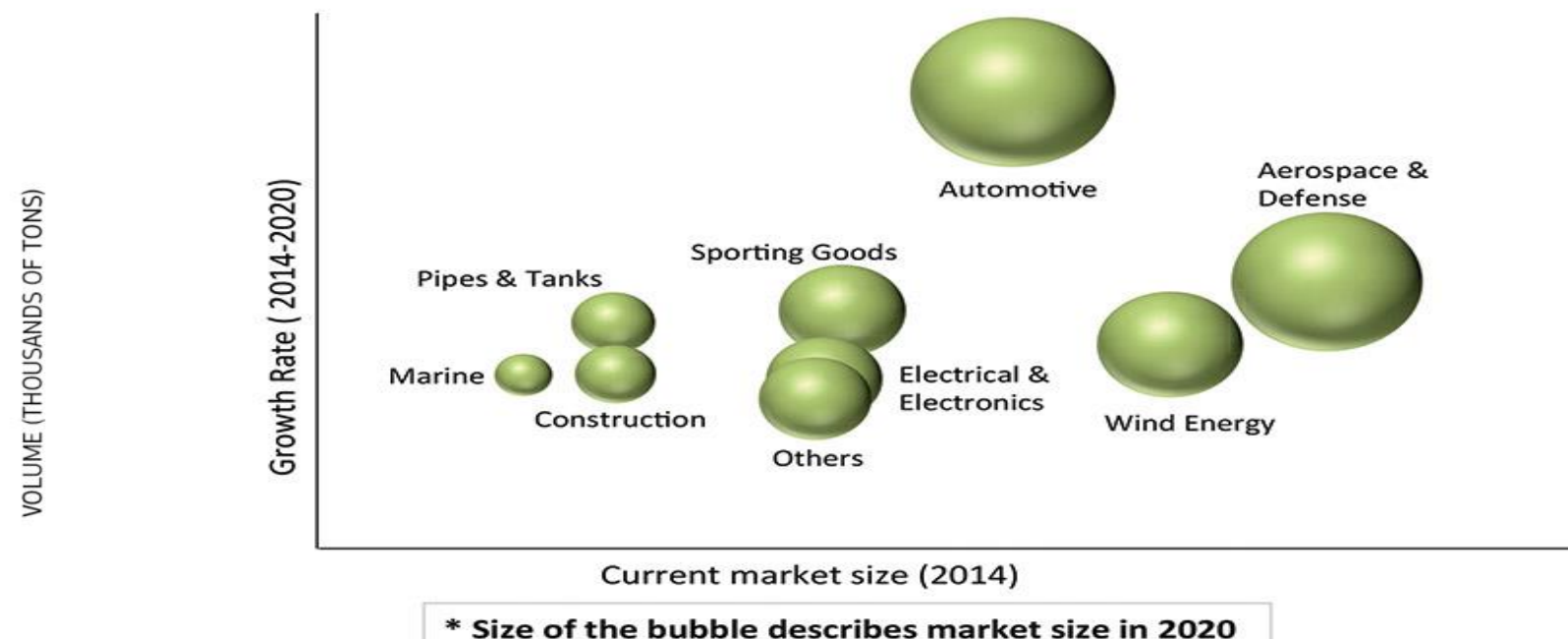
What is next?

- Our business activities will start by 2017
- Nano-enabled composites with desired mechanical electro- and thermoconductivity properties on the market at large scale in 2017



PROBLEM:

1. **Composites: Insufficient properties:** composites do not conduct electricity or heat as metal does
2. **Nanotechnology (CNTs)** cannot easily be introduced into composites supply
3. **Lack of industrial scale** manufacturing of nano-enabled composites products
4. **Not sufficient quantities** are currently produced for the automotive & aerospace industry
5. **High Cost** of intermediate nano-enabled composites products, especially for SMEs
6. **Tailored solution for each application:** different chemical content, production process, etc
7. **Limited accessibility** to SME producers



The market for **carbon fiber-reinforced plastics** composites is projected to grow **9.9%** between 2015 and 2020, mainly due to demand in the aerospace and defense and automotive sectors.

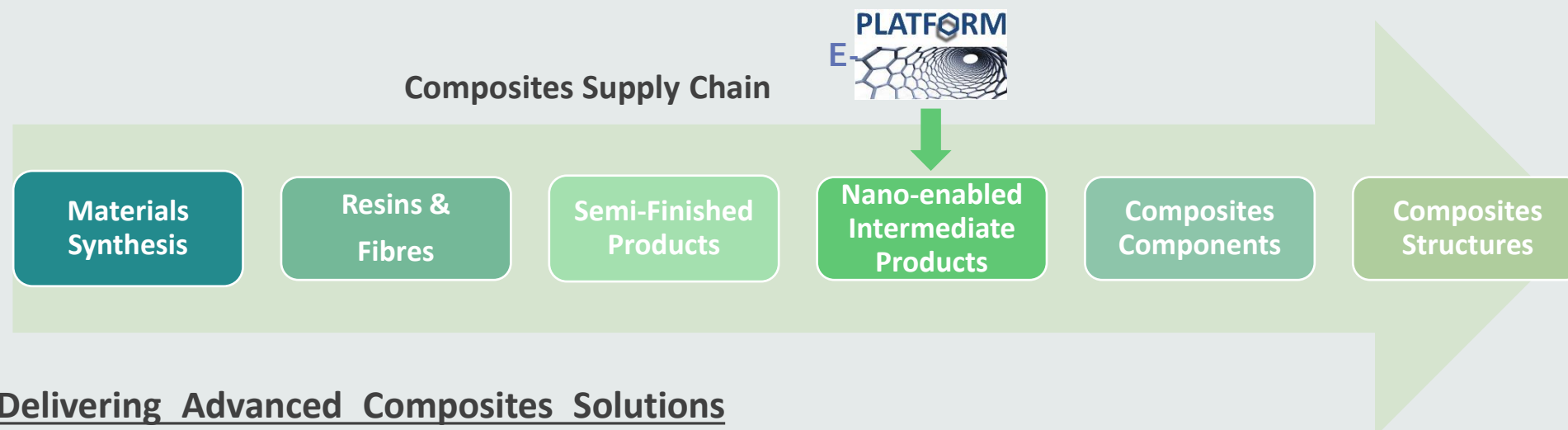
Source: MarketsandMarkets, 2014

- As the cost of carbon fibres is expected to decline, it will penetrate new applications from aerospace to automotive , construction, wind blades applications.
- The trend is for stronger growth of new materials with added functionalities.

OUR SOLUTION



Enhance composites properties using nanomaterials in a cost-efficient way



Delivering Advanced Composites Solutions

for parts manufacturers, SMEs



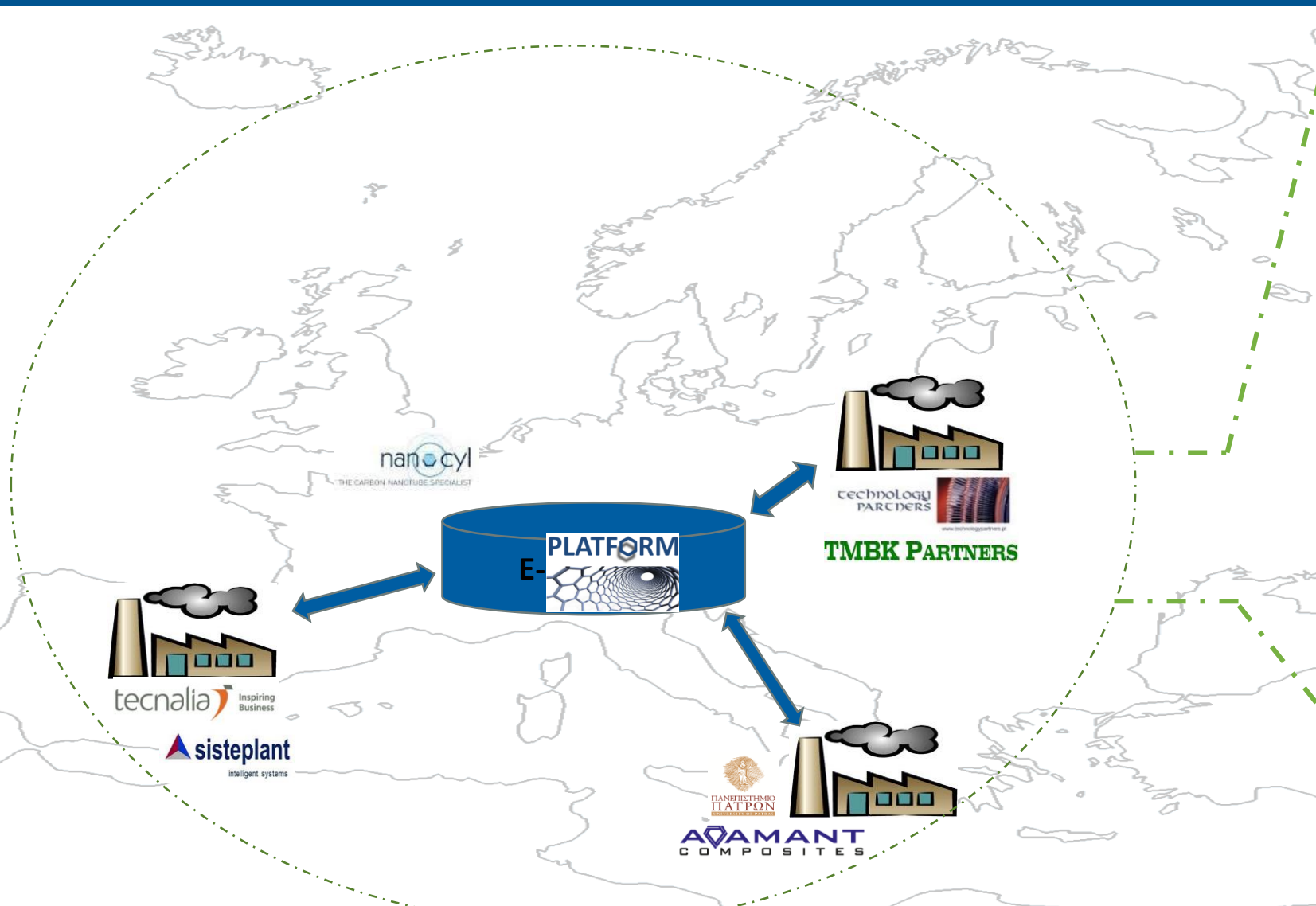
New nano-enabled composites intermediate products with **tailorable mechanical and electrical properties** that are suited to the needs of SMEs and can be incorporated in their parts production.



Better Performance:

- ✓ Increased electrical performance
- ✓ Increased damage tolerance
- ✓ Increased fatigue resistance

THREE PILOT PLANTS LINKED BY AN E-PLATFORM



MAIN COMPETENCIES

- World-class and proven **R&D expertise**
- **State-of-the-art equipment** in all three pilot plants
- **Unique technological expertise** in nano-enabled composites processing techniques
- **Highly skilled engineers**
- **No need for equipment investment** as you can use ours!

E- PLATFORM: PRODUCTS & SERVICES

One-stop shop: Not just another composites material company



Intermediate products:
based on three of the most
promising semi-finished
products using carbon
nanotubes.

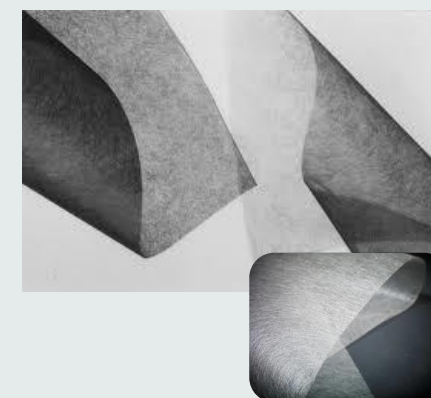
Buckypapers



Prepregs



Veils



Separate or combined for tailored solutions



E-PLATFORM: PRODUCTS & SERVICES

One-stop shop: Not just another composites material company



Intermediate products: based on three of the most promising semi-finished products using carbon nanotubes.



R&D Services: Our engineers and specialist will deploy their R&D skills and knowledge to answer to SMEs' needs



Renting Facilities: SMEs will have access to any of the three pilot lines, so as to integrate the nano-enabled products in their materials, manufacturing processes and/or products



E-learning seminars and workshops: devoted to those SMEs that may want to become one nano-enabled product producer

KEY BENEFITS



We provide

Functionalized composites via nanotechnology:

- ✓ **Lighter solutions:** weight reduction 20-50%, in comparison with steel, aluminium, etc
- ✓ **Lower costs** than the current composites in the market
- ✓ **Cost effective** nanomaterials manufacturing
- ✓ **Tailored Solutions**

You benefit

- ✓ Possibility to offer **new competitive products** with **unique characteristics**
- ✓ **Seamless integration** in your own materials, composites manufacturing processes and/or products
- ✓ **Saving money** by reducing cost of purchase
- ✓ **Reducing the time and effort** of manufacturing tailored nano-composites: in-house R&D and engineering services
- ✓ **Reducing risk:** high quality of raw materials and manufacturing processes



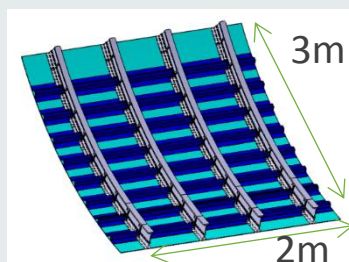
INDUSTRIAL USE CASES & PROJECTS



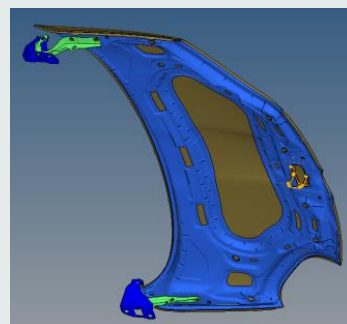
Already 2 industrial use cases:



Aeronautical Industrial Use Case:
Fuselage Skin Demonstrator



Automotive Industrial Use case:
Bonnet Engine Design



Projects completed:



SARISTU: proposed technologies screened with aeronautical procedures to enable improvements in damage tolerance and electrical isotropy.

Large demonstrators were produced



ELECTRICAL: proposed solutions tested with enhanced electrical conductivity



COMPETITION



Companies offering nanotechnology related products and services:

- Small laboratories (non industrial scale)
- US well-established companies
- Companies focused on a specific nanotechnology

Unlike the competitors, e- Platform offers a **holistic solution** including leading technology knowhow of all promising nano-enabled technologies for composites combined with state-of-the-art R&D services and renting facilities!



COMPETITIVE ADVANTAGE



One-stop shop: from consulting, learning, renting facilities, R&D services and manufacturing of nano-enabled composites with tailored properties

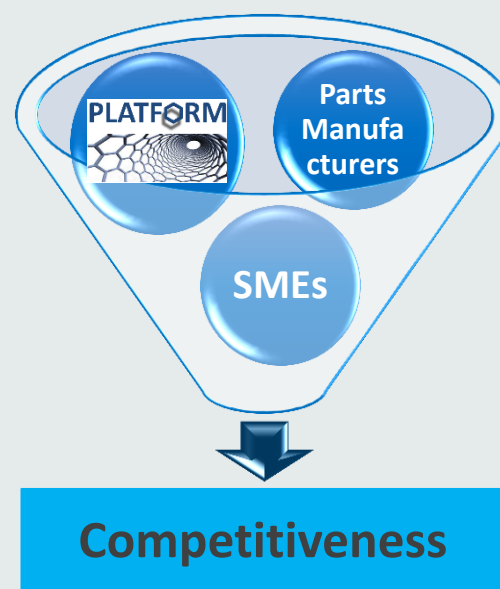


First company in Europe for industrial scale manufacturing of continuous nano-enabled products



Faster time to market and increase competitiveness

**Trust Our Expertise
&
Let us manufacture advanced composites
tailored to your needs!!!**



THANK YOU!



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