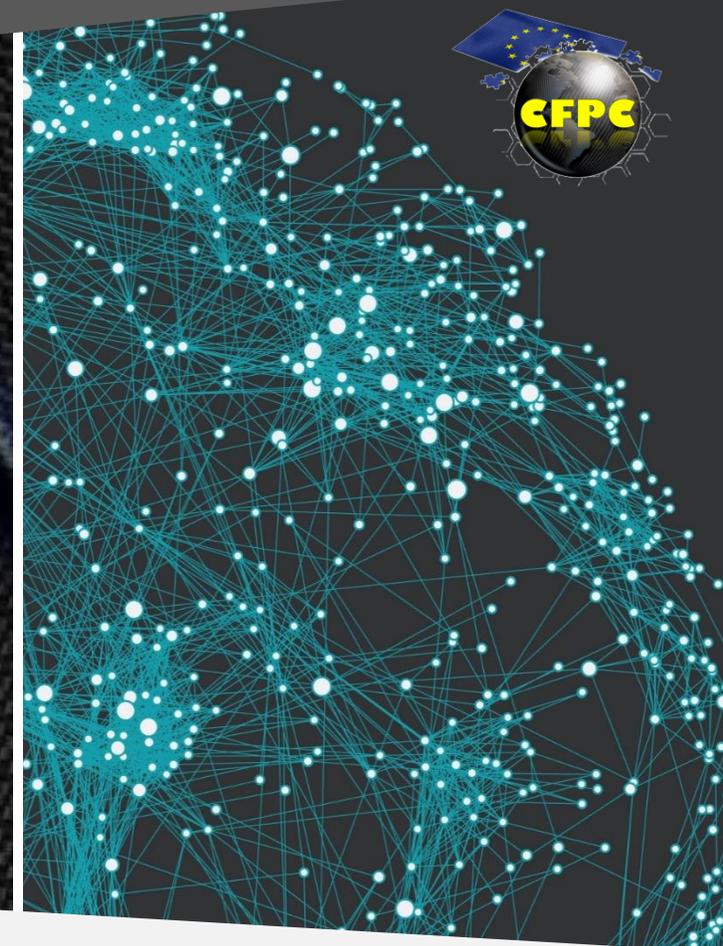




CARBON FIBRES & ADVANCED HIGH PERFORMANCE COMPOSITES CLUSTER (CFPC)



Carbon Fibres & Advanced High Performance Composites Cluster (CFPC)

The Cluster activity under H2020 aims to bring together EC funded projects to enable the sharing of ideas, results and concepts, contributing to the EU Strategic Research Roadmaps and to use the synergistic effect to improve the dissemination and exploitation of the project results and enhance their impact.

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Five projects, which initially formed this cluster, relate to the sustainable production and recycling of carbon fibres (CF) and carbon fibre composites.

CARBOPREC, **FIBRALSPEC** and **NEWSPEC** investigate CF precursor development where cheaper CF and independence from international monopolies are some of the main aims. **EUCARBON** aims at independence from non-European suppliers. **REFORM** deals with the recycling of CF composites.

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EXCELLENCE AT THE SERVICE OF
EUROPEAN COMPETITIVENESS FOR
HIGH PERFORMANCE COMPOSITES





OBJECTIVES

Specific objective of the CFPC Cluster is to build a **high-level expert group** to debate the following **topics**:

- Development of alternative precursors for high-performance fibres such as carbon fibres.
- Optimization of precursor characteristics to further improve carbon fibre performance properties.
- Implementation of pilot/industrial facilities capable to manufacture innovative carbon fibre and high-performance composite products.
- Focus on more efficient and sustainable raw materials and processes based on Life Cycle Assessment and Life Cycle Cost studies.
- Development of modelling and simulation tools to provide further understanding of properties and phenomena towards the optimisation of fibre reinforced composite products and related manufacturing processes.
- Development of fibre reinforced polymer composites (FRPC) and products thereof
- Development of European research and industrial network for advanced high-performance composite products

TOPICS & ACTIVITIES

The focus is on carbon fibres & advanced high performance composites to support upscaling and industrial exploitation, together with impact of the European economy.

In this context, the following themes are considered:

- **Carbon Fibres & more**
- **Matrix & Modification**
- **Hybrid materials**
- **Smart structures**
- **Textiles & Preforming**
- **Surface & Interface – Functionalization**
- **Manufacturing/Processing**
- **Market, Application, SMEs, Industry**
- **Pilot & Upscaling**
- **Green & Low Cost (LCA, LCC)**

A wide range of application fields including lightweight materials such as composites, hybrid and functionally graded materials, composites for energy technologies (storage, conversion) and climate changes, will be discussed together with material end-users.

The CFPC will support horizontal actions towards:

- **European Policy & Strategy**
- **Characterization, Modelling & Design**
- **Safety & Standards**
- **Dissemination and Networking**

PROJECTS



MEMBERS



CLUSTER STRUCTURE

The CFPC is an **open group** and a **self-driven initiative**. Membership will be widened to include projects relevant H2020 that include fibres and composites in their core description.

Working Groups (WG) are established in order to cover a wide range of topics.

The CFPC will be managed by an **Governing Board (GOVB)** and WG Leaders and Vice Leaders consisting of project members and Experts supported by the EC.

