

The Inno.CNT projects at a glance

SPONSORED BY THE



Federal Ministry
of Education
and Research

Project	Objective
CarboPlate	Improve bipolar plates in PEM fuel cells using CNT composites
CarboFuel	Engineer optimised electrodes for fuel cells, industrial electrolysis with CNTs as catalyst carriers
CarboPower	Substitute classical conductive carbon black by CNTs as electrically conductive material
CarboMembran	Develop CNT-based mixed matrix membranes for ocean water desalination and gas separation
CarboInk	Develop innovative, electrically conductive inks for new solar cells based on CNTs
CarboAir	Use CNTs to modify and improve fibre composites for applications in lightweight construction involving heavy loads
CarboCar	Develop and evaluate function-integrated, CNT-modified thermoplastic components for automotive and aeronautical applications
CarboSpace	Develop CNT-modified materials for use in aerospace engineering
CarboRoad	Manufacture structural components made of CNT-reinforced thermoset fibre/plastic composites
CarboTube	Develop CNT-based injection moulding and extrusion applications, such as thermally conductive tubing, electrically conductive cable sheathing, rocker panels, electronic housings
CarboElast	Develop CNT-modified elastomeric materials that are readily dispersed and processed
CarboBau	Develop ultra-strength concrete and dry mortar systems with the help of CNTs
CarboMetal	Incorporate CNTs in metal matrices to significantly improve material properties
CarboProtekt	Develop new fields of application for CNT-based thermoplastic and thermoset polymer foams
CarboScale	Cost-efficiently manufacture CNTs of various structures on an industrial scale
CarboFunk	Develop processes for functionalizing CNT surfaces
CarboDis	Develop tailored dispersion technologies for CNTs in thermoset, thermoplastic and elastomeric systems
CarboSafe	Identify the potential for the release of CNTs into the workplace and the environment, and examine their eco-toxicological effect, based on suitable measurement technologies

Innovationsallianz Carbon Nanotubes
Information Office
PO Box 11 08 31
40508 Düsseldorf
Germany

Tel.: +49 (0) 1805-133 422* | Fax: +49 (0) 1805-133 423*
E-mail: info@inno-cnt.de | www.inno-cnt.de

* 0.14 €/min. for landline calls from the Deutsche Telekom network in Germany; rates for calls from mobile phones may differ

Innovationsallianz CNT –
Carbon Nanomaterials
Conquer Markets



Inno.CNT
INNOVATIONSALLIANZ
CARBON NANOTUBES

Inno.CNT: New dimensions in materials technology

The Inno.CNT Innovation Alliance aims to exploit the exceptional properties of carbon nanotubes (CNT) for industrial applications. In addition to technological development, the initiative also systematically addresses safety aspects.

Key technology: Carbon nanotubes

Nanotechnology is a key technology of the 21st century and, as such, has already penetrated virtually all branches of industry. One major focus at present is to develop technologies and applications for carbon nanotubes, which possess unique mechanical strength and outstanding electrical and thermal conductivity.

Responsible development of CNT technologies

The Inno.CNT Innovation Alliance seeks to establish a foundation for building up a lead market for CNT technologies and products. In 18 closely networked projects, Inno.CNT concentrates on the development of basic technologies and applications. These include three overarching technology projects that focus on the manufacture, functionalization and dispersion of CNTs. The 14 application projects target topics in the energy and environment, mobility and lightweight construction sectors. Another basic development project addresses the safe handling of carbon nanotubes.

The Inno.CNT architecture and workflow

Eighty distinguished partners from the industrial and academic communities have joined to form Inno.CNT and contribute their specific expertise. The budget for the 18 projects totals EUR 80 million, half of which is provided by

the German Federal Ministry of Education and Research. The term of the innovation alliance is 4 years; the first projects launched their work in April 2008.

