
PRESS RELEASE

Now opening the "Graphene Factory"

Directa Plus inaugurated the largest European pristine graphene nanoplatelets production plant. Today, it is introducing the first graphene-based bicycle tyre and rim

Lomazzo, 23 June 2014 – This morning, the "Officine del Grafene (*Graphene Factory*)", the largest European pristine graphene nanoplatelets industrial production plant based on patented and granted technology, was inaugurated at the ComoNExT Science and Technology Park in Lomazzo (COMO).

Directa Plus, the technology company established in 2005 to promote the development, sale and use of innovative processes for the generation of nano materials to be used in existent global markets, inaugurated this new industrial centre. To date, Directa Plus holds 26 granted patents and 19 patent applications related to nanomaterials and in particular to graphene based materials.

The new industrial centre has been designed according to a replicable and exportable modular technological platform, able to mass produce graphene-based materials, focusing its attention on product engineering.

The first module has a 30-tonne per year production capacity and was designed applying a "cradle to cradle" philosophy foreseeing zero footprint, zero waste and limited use of fossil energy.

Graphene Plus (G+™) materials are used in many applications and markets: from air to water treatment to fire resistant fabrics, elastomers and bicycle tyres to even lithium ion batteries (for this last application Directa Plus recently signed a joint-lab partnership with the Italian Institute of Technology).

"Today's result is of great value to Directa Plus, not only as the just reward for the extensive research conducted in recent years starting with our founding partner and Italian-American scientist Robert Angelo Mercuri's initial intuition, but also because it proves that innovation is above all the result of a teamwork that focuses on the individuals – stated **Giulio Cesareo, Directa Plus President and CEO**.

"Directa Plus' upper hand in its approach to graphene materials was that the entire production process comprises several steps that transform 3D graphite microstructures into 2D graphene. Products ready for commercialization are made at each step of the process: from Basic G+ for water treatment and hydrocarbon sorption, to Ultra G+ for LED thermal dissipation; from Liquid G+ ideal, amongst others, for textile applications; to Pure G+, material with great potential already used in tyres" continued **Giulio Cesareo**.

In fact, the first large consumer market product *Powered by G+™* was presented during the event: a bicycle tyre and a carbon-fiber rim made by Vittoria Industries Ltd, world leader in the production of cycling tyres and inner-tubes. This product is the outcome of ATANOR project, a Joint R&D program co-funded by EU, Regione Lombardia and the Italian Ministry of University and Research.

Rudie Campagne, founder of the Vittoria Industries Ltd. group, illustrated the astonishing results achieved by his company that hosts the world's first bicycle tyre compound production plant that incorporates graphene.

*"The addition of graphene significantly reduces rolling resistance with significant improvements to bicycle tyre performance, clearly more lightweight and resistance to punctures and cuts – explained **Rudie Campagne** – Higher performance is also guaranteed by the addition of G+ to the carbon fibre rim matrix: temperature accumulation is reduced under braking, spoke holes are reinforced, lateral rigidity is improved and the rim weight is reduced by about 15%"* concluded **Rudie Campagne**, anticipating the upcoming construction of a joint-venture plant between Vittoria and Directa Plus in Thailand.

Antonio Rossi, Lombardy Regional Minister for Sports and Youth Policies, attended the event representing the President of the Lombardy Region.

"Today's is an example of how cutting-edge technology can successfully service sports. And as a sportsman, I am convinced that technology, if correctly used, can highly benefit the world of competitive sports in terms of higher safety even before performance" stated **Antonio Rossi**.

A practical demonstration of the extraordinary results achieved with the **GENIUS project** (Graphene Eco Innovative Sorbent), an initiative promoted by Directa Plus and co-funded by the Eco Innovation program of the European Union, was held in the afternoon.

"It is extremely gratifying to see how the funds we invested in Directa Plus were successfully used, quickly generating an actual, market-ready product" stated **Didier Gambier, Head of Department of the EU Executive Agency EASME**.

The GENIUS project comes up to launch G+™ into the European market as an eco-innovative technical solution for oil spills clean-up. G+™ is an inert, safe and recyclable adsorbent material, with a high and fast sorption capacity, able to remove hydrocarbons even at low concentrations and recovering almost the totality of sorbed oil thus limiting the production of wastes.

Directa Plus, founded in 2005 and with headquarters in the ComoNext Science and Technology Park in Lomazzo (CO), is a technology company whose goal is to develop, market and use innovative processes for nano material generation. To date, Directa Plus holds 26 approved patents and 19 patents pending related to nanomaterials and in particular to graphene based materials (e.g. pristine graphene nanoplatelets).

Find out more about Directa Plus at www.directa-plus.com and Genius Project at: www.genius-project.com

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