This Côte d'Azur discovered A new nanomaterial

Thirteen years after his first encounter with a new type of carbon, Jean-Philippe Ginestet presents Ginestium. A material that could contribute to the decarbonization of industry.

For laymen, it's science fiction. And yet, the research conducted by Jean-Philippe Ginestet have everything concrete. This French Riviera enthusiast of electronics and physics is currently experiencing a new culmination in his rich career: the presentation indue form of one of his discoveries. Between his fingers, a material that could change the future of the industry. In any case, this is the ambition of this father who lives in the Grasse sector.

A cheaper alternative

Technical Director and Business Manager of Effiblue SAS, he summarizes the adventure that led him, in 2010, to meet a different type. -*With an American scientist who retired near Valbonne, I worked on this question: how to replace palladium? Our goal was to find an alternative to this very expensive material, used especially in electrodes.* -

The experiments led him to create a nanomaterial that he had never come across before. He synthesized it in 2011. The CNRS analyses encourage him to pursue this quest: it is pure nanostructured carbon. "*Except that it does not look like carbon, it would be the first graphene metallic, specified by* the specialist who gave birth to a metal hydride - which contains carbon - and semiconductor.

Its properties? « *Conductivity Very high electrical - 'high adhesion', - resistance to high temperatures and corrosion - and* in particular a *'perfect mirror' surface.*

Jean-Philippe Ginestet discovered this material in 2010, and synthesized it in 2011.
(Photo Franz Chavaroche)

With it, producing hydrogen

Qualities, certainly, but what can Ginestium be used for?

In short, it could playa key role in *the 'deforestation of industry'* by findin gits usefulness in the energy sector.

production of hydrogen, in particular via the photoelectrolysis project of the CINaM (O in Marseille), or how to produce hydrogen only with the sun," says the entrepreneur who also sees his nanomaterial in various applications such as fuel cell electronics, batteries and electrical connectors. The electrical junctions of solar panels, etc. From automotive to telecommunications: the range is wide.

Opportunities that have proved to be his scientific partnerships (2).

Well-kept trade secret

Nerve of war to carry out this great adventure. *"Initially, everything is based on self-financing, which is why thirteen years have passed. Today, this is going faster*, says the inventor who, after his fundraising which ends in the coming months, envisage his production "*within three years"*. An operation that he wants to guard

der 100 % *made in* France.

And precisely, how do we make that? To this question, you find the smile of the scientist: *"Technically, you cannot file a patent on a subject. But the recipe is kept secret, as for Coca-Cola!* •

A fiercely protected process because it makes it possible to produce material with a better yield - both in terms of surface area and cost.

We must continue to experiment

Will we one day see Ginestium supplanting neighboring materials to settle in the antennas and cars of the future? In any case, this is what its creator wants, who, after twenty years of

In the field, continues to search, again and again. Because yes, not everything has already been discovered!

"That's why we have to keep experimenting ," he explains, encouraging the younger generation: " *We don't succeed at the firsttime, far from it! The main thing when you are passionate is to have fun, to try again and again. In the end, we do not risk much! »*

If not lift the veil on what could one day change tomorrow.

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So who is the inventor Jean-Philippe Ginestet?

Giving one's name to a material is precisely not given to everyone! But who is the innovator of Ginestium, Jean-Philippe Ginestet?

On the business card of this resident of the Grasse-Sois sector, one can read "technical director". Or natural evolution for the man who, at the age of 13, marveled at the-possibilities of electronics, physics and informatics. An experienced enthusiast-who likes to solve problems using technical solutions.

One of the many examples that adorn his CV? A portable media player developed between 2005 and 2008. Either the tablet before the chard (1): " *The idea was to to be able to offer a replacement screen in aircraft which had breakdowns of their aircraft inserted in the seats. "*

Designs and drafts four patents

Before that, he was interested in a multimedia data transmission system between a hospital and a mobile fire station. He is also responsible for the design and prototyping of a time-based optical reflectometer- a tool used to verify the integrity of the optical fibre.

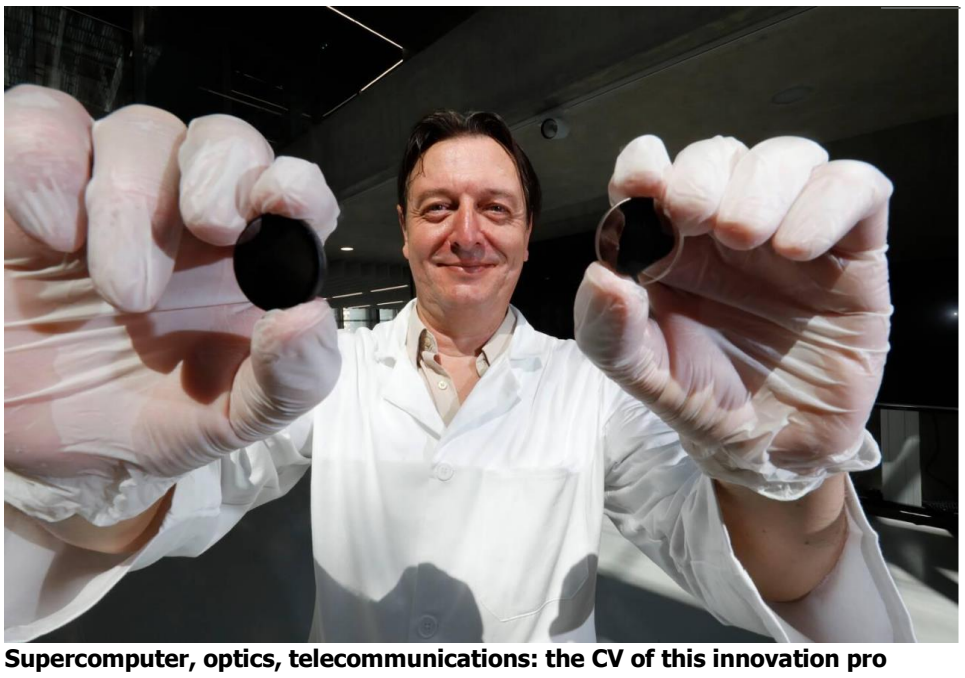
From 2012 to 2018, he oversaw the "supercomputer project" of Synergie-Cad at Garros. "*Here it was a question of finding a way to speed up scientific calculations. via a super computer,"* he explains to Le Commun des mortals. Through a public/private consortium, the project obtains innovation grants, including a grant of nearly €5 million.

Yes, it's heavy.

Not only imagining the contours of the future, but drawing them: this is the mission he has set himself. A four-time winner of innovation awards(at European and national level), he is responsible for the design and draftingof several patents. As you can see, with Jean-Philippe Ginestet, there is always something to dig into.

M. D.

1. Le premier iPad d'Apple a été présenté en 2010.



Supercomputer, optics, telecommunications: the CV of this innovation pro covers a wide spectrum. (Photo by Franz Chavaroche)