

# Is there a pilot in the drone?

The answer is "Yes!", and even two! Pascal Zunino, engineer educated at the Grenoble INP (French Polytechnic Institute) and Fabien Paganucci, a graduate in microtechniques and holder of a CAD/CAM CAMAO (Computer Aided Architectural Design) degree.

Their drone won the first ex-eaquo prize of an international competition in 2005, and attracted the biggest player... The two partners then decided to create Novadem to act as a "base camp from which they could launch their project, to make sure that their invention takes off successfully. Pascal Zunino is at the controls



Pascal Zunino & Fabien Paganucci

## > Hovering but rising qualities!

Pascal Zunino: The adventure really began with our entry into this ONERA/DGA international university competition for a miniature drone in 2005, in which our CPX4 project was presented to civil and military professionals in the industry. Our CPX4 attracted the attention particularly of the DGA (Délégation Générale de l'Armement – State organization responsible for armament programmes) as being operational and innovative due to its size and previously unseen ease of use. And the concept continued to develop following contacts with professionals. Finally, with its hovering capability, the drone can also be very easily fitted with sensors or cameras (day/night, infrared) to satisfy specific market needs.

### > Small wing span for maximum applications...

Pascal Zunino: Novadem's activity is to provide innovative solutions in electronic and micromechanical developments. The company concentrates mainly on onboard applications in which weight, dimensions and consumption constraints are major challenges, and is studying all potential markets for a small drope.

Many applications have already been found and confirmed by market studies.

First and foremost are military applications, but there are many others for civil markets such as onboard forest fire surveillance systems, supervision of structures and bridges (construction of viaducts), identification of cracks on power station cooling towers, etc. ...

All these applications use the same observation process (taking pictures or making measurements using sensors or cameras) and the possibility of taking urgent action because the equipment is so easily transportable.



### > First real live application!

Pascal Zunino: The first real flights for a real job were carried out with firemen during operational tests. The preliminary design phase of the project including the market study and the production of a prototype is now nearing its end (at a cost of about 200 000 Euros). A second phase, the drone pre-production series will start very shortly (estimated cost 700 000 Euros).

In the next few months, the company will need to hire people to deal with commercial and technical aspects. It is planning to do all assembly and calibration in the region.

## For further information:

The Novadem Web sit www.novadem.com

#### > ... With first-class sponsors ....

Pascal Zunino: The project was supported by various grants, including the Impulse incubator and the DAP (Dispositif d'Amorçage de

Provence - Provence Start-up Fund). The 40 000 Euros contributed by the DAP was the factor that contributed to materialisation of our project. This enabled us to deposit patent applications (essential for a new company to maintain its technological lead). Market studies were also carried out and financed partly by the Ministry of Research. Finally, Provence Promotion helped to bring us into contact with regional organisations, to benefit from host organizations (company nurseries, incubators) and to participate in exhibitions like Le Bourget... a genuine take-off area!



