

## **The energy from the wind at high altitude, the strange history of research**

It is estimated that the energy of the wind at high altitude can satisfy all the energy needs of humanity.

Who is really looking for systems for capturing wind energy at high altitude? the large energy companies of oil, gas, wind generators.

25 years ago, a Harvard professor, Clayton Christensen, coined the expression "disruptive innovation", that is, innovation that can overwhelm and wipe out entire existing businesses for greater performance or lower cost of new technologies.

In an article entitled Future emerging technologies written by 32 professors and published on Sciencedirect, low material costs, a higher capacity factor and advantages that increase in the case of offshore application are highlighted for high-altitude wind capture projects.

Are we sure that the search for wind at high altitude is really in the objectives of the large energy companies?

But let's get to the history of research over the past twenty years. The wing, in which everyone believed, a fantastic application of the physical principles of the motion of fluids that allows us to defy gravity with wonderful flying machines has a small flaw, it cannot bear to be kept on a leash.

To work, the wing must move quickly and the long cables that bind the generators to the ground as you get up at a height drastically reduce the possibility of creating energy as written in the aforementioned article.

Many have tried with the wing, Google has financed the Makani company to create an incredible flying machine and like Google many others have delegated research to universities and small groups but unfortunately there have never been any large companies that have studied, summarize , in-depth research results.



And now the good news, a research by the University of Freiburg opens a new path, not the wing in its traditional version but the rotary wing, that of the helicopter to simplify.

The research states that the rotary wing for capturing wind at high altitude proves to be easier to control and is able to produce an amount of energy equal to that of the traditional generator, a result in itself quite interesting.

Below is the design of what was proposed in the research of the University and the proposal of a start-up that optimizes the application.

Maybe the world can change if we really resume research.

Windtime

