

Crans-Montana's space race

The Association des Communes de Crans-Montana (ACCM) has joined up with students from the Federal Institute of Technology in Lausanne (EPFL) for an unusual partnership in the field of space innovation. In June 2020, students from the EPFL Bachelor Rocket Team, will be competing in the Spaceport America Cup with their rocket « Bella Lui » – the name of the one of the mountains above the Valais resort. The Swiss Federal Institute of Technology in Zurich (ETH, EPFZ) and its ARIS association, which the ACCM also actively collaborates with, will also be taking part with their rocket « Euler ».

The Spaceport America Cup, which boasts Virgin Galactic and Boeing as strategic partners, will take place in June 2020 in New Mexico, United States. Thanks to this new collaboration between Crans-Montana and the Federal Institutes of Technology, the first tests on the rockets competing on this occasion will be taking place above the resort at the end of 2019. The ARIS association from ETH will also be present in Crans-Montana, working closely with the EPFL Rocket Team on the design of their own rocket.

The aim of the competition : to launch into space and recover a rocket on Earth in precise locations

The American competition is based on a points system, and the aims can be summarized in a few words : to launch then stabilise a rocket at a predetermined altitude, before recovering it with its scientific module at a precise given location.

ARIS, finalists in the competition last year, are planning to present their first supersonic rocket, « Euler », that should reach an altitude of 30,000 feet, while the EPFL Rocket Team are continuing to develop their subsonic rocket « Bella Lui », designed to reach the first level of 10,000 feet with a minimum 4kg of propellant, made from genetically modified yeast. The EPFL Rocket Team hopes in this way to design and develop a sensor destined for space travel and the biomedical field.

As for ARIS, we're no longer talking about innovation, but ultra-innovation, as « Euler » is intended to transport antimatter, a potential future propellant for space vessels, which will perhaps one day enable mankind to become an interplanetary, or even interstellar, species.

Location scouting in Crans-Montana in the 2nd week of December

In order to test their technology, the two teams are expected to be in Crans-Montana scouting for locations during the second week of December. It has however already been agreed that tests will be carried out from the funitel to the Plaine Morte glacier which, thanks to its isolated location, is accessible and suitable for testing. The Lausanne team are also planning « drop tests » in the weeks that follow, if the weather permits. Other technical tests are expected during the first semester of 2020.

Different partners with common interests

This partnership brings a new wave of innovation to the resort of Crans-Montana, and also provides an opportunity for different stakeholders to work together on a shared project. In this context, the ACCM Economic Development Office is delighted to be able to rely on the Crans-Montana Aminona (CMA) ski lift company as a technical partner, providing use of the Plaine-Morte funitel and offering logistical help.

Crans-Montana, a haven for entrepreneurs working in the field of innovation

Bringing together the Institutes of Technology on the same site is one part of a strategy by the resort and its Economic Development Delegate, Rafal Hys, to reposition Crans-Montana as a destination that is not just touristic, but also a host to new economic poles. Redefined as a place for research and high tech development, the resort hopes to attract even more pioneering new businesses in the field of innovation. The goal ? To make Crans-Montana a haven for a new generation of entrepreneurs, in the heart of idyllic landscape.

In order to share the benefits of this collaboration on a cantonal level, the ACCM is in contact with the association Avenir Industrie Valais, which might also be going to the United States in June 2020. The aim of this action is to bring cutting edge industries together in order to discuss potential implementation of futuristic companies in Valais.

Next steps ?

Rafal Hys has ensured that procedures are already underway with the Federal Office of Civil Aviation (FOCA) so that the EPFL Rocket Team and ARIS can proceed to launch test their prototype rockets from the Plaine-Morte. And finally, as ARIS has made no secret of the fact that they would like to see a student in low-Earth orbit by 2029, we could say that one day, we might see Valaisans in space too ...

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