

STATE-OF-THE-ART TECHNOLOGY REVOLUTIONISES DOWNHILL TRAINING OF THE AUSTRIAN SKIING FEDERATION

By Sabrina Fischer

Lympik's unique solution combines digital timekeeping, GPS tracking and video analysis to enable the most detailed analysis of the entire race course in real time, without much effort or technical know-how.



Fig. 1 - In ski races, a hundredth of a second can be decisive for victory.



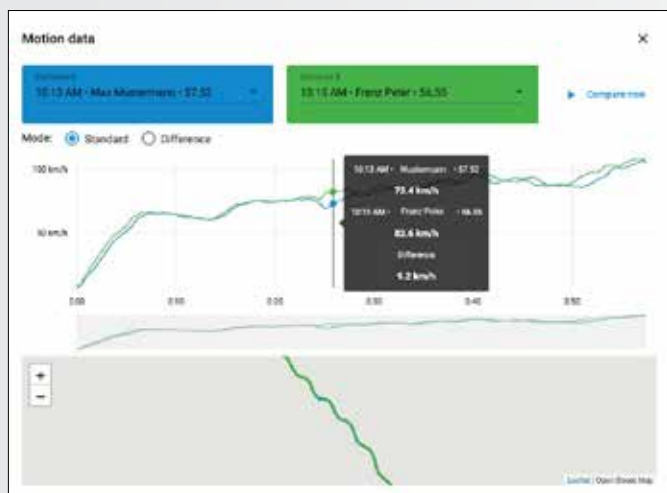
Fig. 2 - Oculus app and Oculus device.

In skiing, tenths or even hundredths of a second can make the difference between winning and losing, which is why all areas - such as optimising the equipment - are fine-tuned and tinkered with. Training is also analysed in detail and, particularly in the final training sessions on the original course, the final and correct adjustment is often decisive for the athletes' success.

The downhill teams of the Austrian Skiing Federation have now made a quantum leap in training analyses. This is made possible by state-of-the-art technology: specifically, a combination of digital time measurement, GPS tracking and video analysis. Previously, only the final times and 3-4 split times were compared during training. With this new solution, it is possible to analyse every detail in minute detail: you can com-

pare the exact line of the riders and the times to see where speed was lost.

The system was developed by Lympik, a young Austrian company. Founder Thomas Peroutka spent many years as a competitive ski alpine athlete himself. "Even as an active athlete, I dreamed of a sensor that would tell me with every swing whether I had gained or lost time." After years of challenging development, this vision became a reality. The downhill teams of the Austrian Skiing Federation have been training with such sensors since 2023. In addition to the coaches, specialists from the technology department of the Austrian Skiing Federation are also present at the race training sessions. They supply the athletes with the sensors, take care of the technical set-up at the start and finish and film the entire training session with a counter-slope camera. After the training session, the videos are uploaded to the Lympik app and the sensor data is automatically fed into



the video as an overlay. Within a few seconds, coaches and athletes can analyse in which curve or section time or speed was gained or lost.

The analyses can be viewed on the smartphone while on the slope. Ten data points are available for every second of the run, with precise information on speed, acceleration and line. "In this way, we can calculate exactly which line is optimal for the prevailing conditions and even make changes to the equipment if necessary," says ... from the Austrian Skiing Federation. The downhill teams of the Austrian Skiing Federation use this solution exclusively. We can look forward to the good results this winter.

Infobox Lympik

Lympik - a new dimension in timekeeping and analysis
Lympik was founded in 2019 and uses modern technology for



Fig. 3 – Oculus Shirt in action.

timekeeping, motion tracking and video analysis to digitalise timekeeping and data analysis in sport with easy-to-use systems and bring it into the 21st century. The company is based in Wiener Neustadt and employs four people. Whether professional training, training centres or permanent installations in sports facilities, Lympik's technology helps to get the most out of sports activities.

KEYWORDS

GPS; TRACKING; GEOMATIC; SPORT TECHNOLOGY; OCULUS; LYMPIK

ABSTRACT

Lympik's unique solution combines digital timekeeping, GPS tracking and video analysis to enable the most detailed analysis of the entire race course in real time, without much effort or technical know-how.

AUTHOR

SABRINA FISCHER
OFFICE@LYMPIK.COM
LYMPIK

AVT

AVT AIRBORNE SENSING ITALIA

TRENTO

www.avt-as.eu
avt.asi@avt.at
www.capturecat.eu



WE FLY ITALY

RILIEVI AEREI:

IMMAGINI NADIRALI e OBLIQUE
IMMAGINI TERMICHE
IMMAGINI IPERSPETTRALI VISIBILE E INFRAROSSO

PRODOTTI E SERVIZI:

ORTOFOTO DI PRECISIONE
DSM • DTM • MODELLI 3D
CAPTURECAT
MAPPE DEI MATERIALI • ISOLE DI CALORE
ANALISI VERDE URBANO • MAPPATURA SPECIE ARBOREE • STATO DI SALUTE DELLA VEGETAZIONE

...E MOLTO ALTRO!

PART OF AVT GROUP