Digital development & innovation

In the last few years, INSEP has developed new digital tools for training and performance:

> Administration of the daily athlete monitoring portal (PSQS)

> Administration of a shared training platform connected to the PSQS and Canal-Sport

> Creation of a video sequencer hosted on a multimedia content distribution platform working with MétaVidéo and Libcast

> Development of new algorithms to detect abnormal biological values for individual longitudinal monitoring, working with the research teams from INSEP and Université de Paris

> Identification of techniques and movements in sports videos, working with INRIA and INSEP's research teams

> Development of a digital training book to create a database for each sport, which trainers will be able to capitalise on to build their training plans

> Development and application of Artificial Intelligence technologies for sports issues.

Digital innovation is also further strengthening INSEP's responses to meet the federations' needs. INSEP is deploying systems to capture training data that can be compared with the health, performance and life data collected elsewhere.

Depending on the quality of their collection, the sports data and their processing provide added value in line with the strength of the models used (statistical, epidemiological, Artificial Intelligence, etc.).

For instance, Artificial Intelligence is an emerging decision-support tool for analysing data for staff, coaches and athletes, saving time through quicker analysis (databanks, videos, etc.) and highlighting key underlying factors.

Artificial Intelligence is combined with standard approaches to improve existing models. Four main areas of interest are being developed:

> Automated recognition and competition analysis for events

> Competition results prediction

> Tools to help detect and estimate athletes' potential and "medal-winning ability"

> Estimation of injury ris

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