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**Neuroscience in shooting and team sports – Neuroshooting and Team Flow**

Cognitive performance indicators have a direct impact on current performance. The EEG systems of Innoria Ltd. give the user a real-time biofeedback on the process of shooting or the mental cohesion of a sport team, including analytical action tracking and brain activity.

In shooting it was found that before shooting, an alpha phase activates and in low SMR range a top-performance peak frequency is detected.

EEG-pattern for the highest score shots is identified, and every best shot has an objectively recognizable pattern.

The time-related data line of this index is examined by an AI algorithm which can detect the most characteristic moment of the data line: the point of shooting.

The Team Flow system is capable of analysing and visualizing mental status segments of team members compared to each other based on real-time EEG data.

Via evaluation of data and correlation of patterns, the most inconsistent team member and the level of team cohesion can be identified. The system makes it possible to increase the team cohesion as such via inbuilt exercises to stimulate and train certain brain activities.

Team Flow system tests were run on the semi-professional hand ball team of Debrecen, and the shooting project was carried out with professional shooters – among others - at the Crossbow Europe Cup.