KINEXON

CASE STUDY

# How KINEXON Technology Helped the Rhein-Neckar Löwen to Succeed

With lots of high-intensity actions, handball demands a lot from players. Even more so, as athletes need to recover quickly during a game while having little room for breaks between league, international and national-team play. Player-tracking data can help coaches prepare athletes for that tremendous load. To the Rhein-Neckar Löwen, it even presents an opportunity to introduce an „optimal“ training stimulus.

DATA

# Focused Metrics Revolutionize Player Evaluation for Rhein-Neckar Löwen

**The more data, the deeper the insights into a player's health and fitness level. However, to be efficient today, it is best to focus on a pointed number of specific metrics.**

Every new metric can contribute to a more comprehensive picture of a player's fitness level and the load he has to sustain during training and games.

Hence, the Rhein-Neckar Löwen intend to use more and more data over time. That way, the coaching staff hopes to continue improving how they prepare players for the demands of handball and help them reach their maximum potential while preventing injuries.

"The more data we have, the more insights we get into a player's fitness state. However, evaluating the numbers takes time. Therefore, we have picked out specific metrics that hold the most value to us in player evaluation."

**— Florian Schulz, Athletic Trainer Rhein-Neckar Löwen**

However, growing the data set they use alone will not have the desired effect. To be efficient today, arranging the already large number of data available is crucial. Therefore, trainers need to weigh their metrics. The idea behind this: only the pointed use of data gives valuable insights into a player's performance.

**Therefore, the Rhein-Neckar Löwen mainly focus on the following metrics provided by KINEXON:**

- Playing Time
- Jumps
- Accelerations
- Decelerations
- Time Played on Offense
- Time Played on Defense
- Changes in Direction
- Total Distance Covered
- Speed Zones
- Sprints
- Sprint Speed
- Top Speed

INSIGHTS

# Leveraging Metrics for Optimal Training Sessions

**Using the proper set of metrics helps in various ways. Florian Schulz, HBL club Rhein-Neckar Löwen's athletic trainer, starts the process with warmups. There, data gives him valuable insights to optimize the entire process.**

"Metrics can point towards flaws in an exercise or training session. That is why I look how I can re-organize our training approach when players fail to meet our pre-set thresholds."

**– Florian Schulz, Athletic Trainer Rhein-Neckar Löwen**

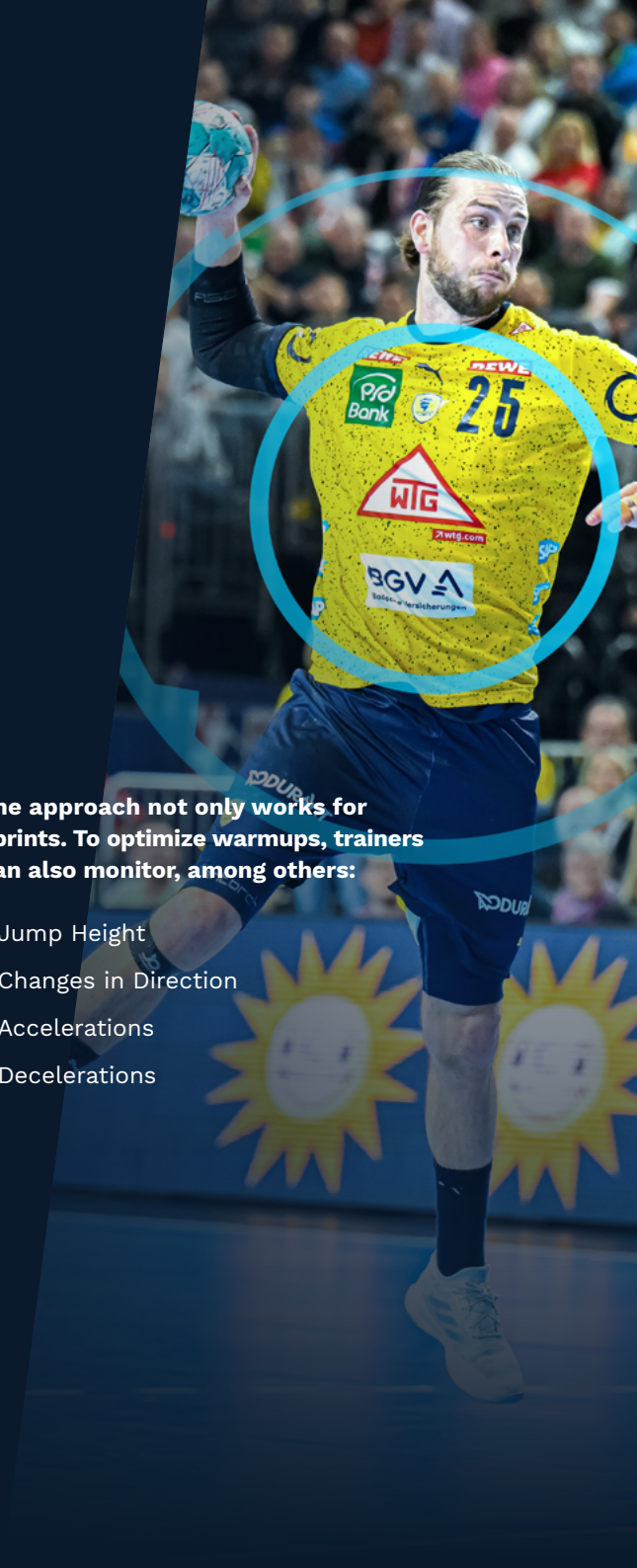
Suppose a sprint is part of a warmup routine, and players strive to perform the challenge to their best while aiming for the default intensity. In that case, metrics provide Florian Schulz and the athletes with direct feedback. Looking at the KINEXON data, Schulz immediately uncovers whether a player actually sprinted or performed a "quicker run".

That knowledge leads to action. For one, the metrics may indicate that the player is dealing with an issue or cannot live up to his fitness standards. Coaches and trainers can then look to speak to him to find out whether something is wrong.

**Metrics-Driven Warmups: Unlocking Optimal Performance and Training Efficiency**

At the same time, players not meeting the set intensity threshold may also point towards the warmup needing adjustment.

Hence, Florian Schulz also uses metrics to challenge his approach. If players fail to hit the intensity target, he re-organizes his plan for the upcoming training sessions. That way, metrics objectively contribute to a more effetive and optimized wayof planning training sessions and individual exercises.




**The approach not only works for sprints. To optimize warmups, trainers can also monitor, among others:**

- Jump Height
- Changes in Direction
- Accelerations
- Decelerations

ACTION

# How Data-Driven Training Prevents Injuries and Sets Clear Targets

**Looking at the suitable data and then using it to optimize workouts and exercise can lead to a crucial part of preparing handball players for the sport: preventing injuries. To keep their athletes on the court, the Rhein-Neckar Löwen filter out individual sweet spots for every player and look for the "optimal" training stimulus.**

Trainers need to take a two-tracked approach. They need to monitor a player's daily and long-term performance – the best way: an Acute:Chronic Workload Ratio (ACWR) diagram. The Rhein-Neckar Löwen use it to map the actual form plus the developments of the parameters above. To get a comprehensive picture, Florian Schulz and his team use the individual values as well as their sum ("overall load").

"The term "optimal" gives a clear-cut idea. However, it used to be too abstract to trigger specific actions. Thanks to KINEXON's data, I now have a better idea of what an optimal stimulus is. That enables us to set clear targets for players."

— **Florian Schulz, Athletic Trainer Rhein-Neckar Löwen**

That way, the ACWR diagram functions as a tool to monitor whether an athlete's training load always ranges between certain thresholds. This so-called "sweet spot" signals the scope within which a player improves physically without putting his body under too much stress. To individualize the data even further, the Rhein-Neckar Löwen monitor the metrics for the team as a whole, as well as for positions and individual players.

The goal: finding that "optimal" training stimulus every sports scientist and athletic trainer is striving for. However, for a long time, "optimal" sounded abstract. It hardly provided clear-cut recommendations for action. Today, KINEXON's player tracking data help Florian Schulz fill the term with life and, more importantly, clear targets.

KINEXON

**KINEXON Sports & Media GmbH**
Schellingstrasse 35
80799 Munich

info@kinexon.com
+49 89 200 61 65 0

**Contact here**