

football medicine & performance

Issue 45
Winter 2023/24

In this issue

Anterior Cruciate Ligament (ACL) Surgery:
an Interview with surgeon,
Andy Williams

**Lateral Collateral Ligament Injuries of the
Knee - The Precursor
to Hamstring Injury**

**How Periodisation
can Influence Anterior
Cruciate Ligament
Rehabilitation in
Soccer Players?**

**Prevention and rehab
of hamstring injuries**

**Is Your Department
Scoring Goals or Just
Hitting the Post?**

**Nutrition Strategies to
Reduce Illness in Football**

Legal • Education • Recruitment • Wellbeing
www.fmpa.co.uk





IS YOUR DEPARTMENT SCORING GOALS OR JUST HITTING THE POST?

FEATURE / MARTIN BUCHHEIT

Type 3, 2 Performance, Montvalezan, France
High-Performance Consultant (Including City Football Group).
Former Head of Performance at PSG, Lille OSC and Olympique de Lyon

The Role of Key Performance Indicators in Elite Performance Settings

In high-performance corporate environments, Key Performance Indicators (KPIs) are essential tools for evaluating employee performance. KPIs serve as critical metrics that reflect the overall health and progress of an organisation⁶. These indicators offer a transparent measure of efficiency and output, providing valuable insights into the success of a business at various levels, from the overall company to individual departments and employees. KPIs facilitate goal setting and performance evaluation, enabling organizations to recognize high achievers and identify areas needing improvement. The adaptability of KPIs to emerging trends further enhances their utility, motivating employees through clear and achievable goals. Moreover, KPIs are integral to aligning the efforts of individuals, teams, and departments, fostering a cohesive working environment that drives the organization toward its critical outcomes.

The Risks of Operating Without Adequate KPIs

Navigating elite sports without clear KPIs is like driving without a dashboard: you are in motion but lack insight into your speed, direction, or potential hazards. Without KPIs, assessing progress or performance in sports becomes guesswork, like estimating remaining fuel without a gauge. This issue is stark in football. When a team is on a losing streak, the immediate, often simplistic reaction is to blame the most visible factors: “The players aren’t running enough,” or “The fitness coach isn’t doing their job,” or “We’re losing because of injuries, so the medical staff must be inadequate.” Yet, this is like blaming a car’s empty tank while overlooking the engine or brakes. Without KPIs, diagnosing problems becomes superficial, leading to misplaced blame and overlooked improvement opportunities. KPIs provide a holistic view, essential for making informed decisions and nurturing a culture of continuous enhancement in the fast-paced realm of elite sports⁵.

The Predicament of Staff Evaluation in Elite Football

In elite sports, staff performance evaluations are often overly reliant on team outcomes, which may not accurately reflect the staff’s contributions or the effectiveness of their interventions. This approach often underestimates the specific roles and impacts of various practitioners, resulting in evaluations that are inconsistent and, at times, unduly influenced by likeability and interpersonal skills rather than technical expertise. In such scenarios, being a “nice guy or woman” and one’s charm can overshadow the actual performance and contributions of the staff.⁴ Such an approach not only fails to recognize the individual merits of the support staff but also overlooks the interconnectedness and interdependencies within performance support teams.

Challenges of Implementing KPIs in Elite Football

The application of KPIs in elite sports, particularly in the context of professional football, presents unique challenges that

set it apart from the corporate sector. Unlike the structured environment of corporate entities, the sports realm often lacks clearly defined objectives for staff assessment, making the establishment of KPIs a complex undertaking⁵. This complexity is further intensified by the nature of team sports, where quantifying support staff's influence on team success and individual player well-being becomes increasingly challenging. This difficulty arises from a myriad of variables involved, encompassing not only genetic and physiological factors but also many tactical and contextual factors that are beyond the control of club staff, such as luck and unforeseen events in gameplay. These elements collectively contribute to the unpredictable nature of sports performance, adding layers of complexity to staff evaluation⁵. This complexity deepens when contrasting athlete specific KPIs, like fitness benchmarks^{6,7}, with those for staff evaluation. The significant gap in applying and understanding KPIs for staff, as opposed to athletes, and the weak correlation between traditional sports science metrics and team success (2) call for a nuanced approach to defining and applying KPIs in sports.

Characteristics of Effective KPIs

As shown in the infographics, effective KPIs should:

1. Reflect Contribution to Organisational Success:

Clearly show how the staff or department is advancing the organization's goals.

2. Inform Decision-Making and Performance:

Serve as a basis for making informed decisions and driving performance improvements.

3. Prioritise Key Indicators:

Focus on the 3-6 most vital indicators that truly reflect key aspects of performance.

4. Be Quantifiable:

Be expressed in a clear metric, enabling objective measurement and comparison.

5. Have Defined Frequency:

Include a set frequency for assessment to ensure regular monitoring and timely responses to changes.

Multi-Level KPI Implementation

Implementing KPIs in an elite sports organization requires a multi-level approach, considering the different layers within the organization. In our recent investigation⁵, we particularly emphasize the importance of departmental and staff-level KPIs. This focus is crucial because it highlights how each position or job within a department contributes to the department's overall success and, consequently, to the success of the entire organization.

- **Organisation/Club Level:** KPIs at this level reflect the overall success and strategic direction of the club or organization.
- **Department Level:** These KPIs focus on how each department contributes to the broader goals of the organization, ensuring departmental activities align with the overarching objectives.
- **Individual Staff Level:** Individual KPIs measure the contribution of each staff member, focusing on their specific roles and responsibilities.

Discovering Key Performance Indicators in Elite Sports

Our recent research, "**Beyond the Scoreboard: Redefining Performance Staff Assessment in Elite Sports Organisations**" published in November 2023 in Sports Performance & Science Reports⁵, ventured beyond the established understanding of how KPIs function, focusing instead on identifying the most pertinent metrics for monitoring and evaluating staff performance in elite sports settings. Recognizing that the effective use of KPIs hinges on their relevance and specificity to the sports context, we surveyed 51 practitioners from elite sports organizations⁵. The survey, developed with expert input, aimed to distill a set of practical, applicable KPI suggestions.

Detailed Findings and Examples from the Study

Overall findings

- Among the 51 practitioners surveyed, 87% set objectives for their teams or departments.



- The primary motivation for using KPIs was to gauge the impact of practitioners and departments, notably the Multi-Disciplinary Team (MDT).
- Most KPIs were tailored to specific departments and staff.
- The main challenges in implementing KPIs included difficulty in definition (60%) and lack of support from higher-ups and key stakeholders (26%).
- In terms of staff performance evaluation, a significant 85% of practitioners favored a more process-oriented approach, with a preferred rating of 70-80% for process-driven evaluations.

Communication and Collaboration (Department KPI)

- The KPIs with the highest preference among practitioners about communication were "The overall collaboration process with the coaching staff for player reintegration after injury" (rated as of very high relevance by 75% of the practitioners surveyed) and "Clearly established communication lines and responsibilities between all the staff" (71%)
- Ownership: This KPI is co-owned by the MDT and the technical staff, necessitating collaboration and alignment between both parties.
- Metrics: This can include the existence or not of certain processes, qualitative assessments of communication lines and their effectiveness, feedback from staff and players, and the frequency of successful collaborative projects.
- Frequency of Evaluation: Regular evaluations, such as bi-monthly or quarterly, are recommended to ensure ongoing effective communication and collaboration.

Player Availability and Return to Play (Department KPI)

- Practitioners held the second highest preference for MDT overall KPIs related to "Overall player availability" with 66% very high relevance.
- Ownership: Shared among the MDT, coaching staff, and players. Each group plays a vital role in ensuring player availability and effective return to play (RTP). Indeed, practitioners tended to favor a collective responsibility approach, with the preferred option being a "50% MDT/50% coaching staff" split (43%).
- Metrics: Include player availability rates for training and matches, duration, and success rate of RTP protocols, and player feedback on the RTP process.
- Frequency of Evaluation: Ongoing monitoring with detailed reviews at key milestones in the RTP process and at the end of each playing season.

Holistic Player Management, Individual Development, and Prevention Plans (Department KPI)

- The paper also stressed the relevance of “Creating individual player profiles with practical information” (60%), “Offering individual injury prevention routines following screenings” (58%)
- Ownership: Primarily owned by the MDT, in collaboration with players who provide personal insights and feedback.
- Metrics: This could involve progress tracking in individual development plans, adherence to prevention and nutrition protocols, and assessments of physical, mental, and nutritional health.
- Frequency of Evaluation: Regular check-ins, such as monthly or quarterly, and as needed based on the individual player’s circumstances.

Personal Growth and Interpersonal Communication (Staff KPI)

- The personal traits KPIs with the highest preferences were “Willingness to progress and grow personally” (75%), “Ability to provide and receive critical and productive feedback to/ from co-workers in the department” (73%), “Strong inter-personal skills - build and maintain relationships” (71%) and “Quality of global communication with colleagues in the same discipline” (69%).
- Ownership: Primarily owned by individual staff members, with support

and monitoring from departmental heads.

- Metrics: This could involve self-assessment tools, feedback from peers and supervisors, and professional development milestones achieved.
- Frequency of Evaluation: Annually or semi-annually, aligned with personal development plans.

Table 1 represents the initial phase in developing a detailed KPI matrix for a Multidisciplinary Team (MDT) in elite football, blending insights from our research⁵ with my extensive 20-year experience in the field, both as a full-time staff member and a consultant. Crafting this matrix and generating consistent reports is a substantial endeavor, encompassing the formulation of intricate metrics, statistics, and comprehensive data aggregation and reporting mechanisms. While this paper focuses on collective KPIs, it is crucial to acknowledge the significance of individual KPIs as well. Though not discussed here, individual KPIs are equally vital and should be implemented to ensure a holistic and nuanced approach to performance evaluation and enhancement.

Implementing Effective KPIs in Elite Sports Clubs: Coordination and Action

The adage “It’s impossible to read the

label from the inside of the bottle” suggests that internal staff may lack the objectivity to assess and set KPIs effectively. Hence, hiring an external consultant to coordinate KPIs is often preferred. Nonetheless, a well-trained internal staff member, possibly mentored by an external consultant, can also fulfill this role proficiently, especially when confidentiality, like medical data privacy, restricts the sharing of sensitive information externally. This coordinator, whether internal or external, would be responsible for:

- 1. Maintain Objectivity:** Ensure an unbiased approach in setting and assessing KPIs.
- 2. Possess KPI Expertise:** Have the necessary skills to develop KPIs that are relevant, measurable, and aligned with the club’s strategic goals.
- 3. Handle Data Collection and Monitoring:** This involves gathering and analyzing data, including specific metrics like player injury rates, distributing questionnaires for feedback, and tracking KPI effectiveness to reflect real-time performance.
- 4. Ensure Regular Reporting:** Provide consistent updates to the club’s management, ensuring transparency and enabling continuous evaluation of the KPIs.



KPIs	Sub KPIs	Ownership	Metrics	Frequency of assessment
Communication	Communication within MDT	100% MDT	Channels in place Processes Organisation Feedback from staff and players Ratings by an independent person	Bi-monthly or quarterly
	Communication outside MDT	Shared with Technical staff	Channels in place Processes Organisation Feedback from staff and players Ratings by an independent person	Bi-monthly or quarterly
Player availability	Overall Player Availability (simple metrics)	Shared with Technical staff and players	% available for training % available for match Number of players unavailable per match	Weekly
	Overall Player Availability (advanced metrics)	Shared with Technical staff and players	Injury rate and burden /1000hrs of training and match exposures Ratings by an independent person	Annually
	Lay-off times and RTP durations	Shared with players	Days lost per injury, per context and mechanism of injury, per muscle group	Annually
	Re-injury rate	Shared with Technical staff and players	Rate per injury, per context and mechanism of injury, per muscle group	Annually
	RTP approach & content	100% (at least first phases)	Evidenced-informed Structured documents for sharing and collaboration Clear benchmarks and milestones Ratings by an independent person Player feedback on their experience	Annually
Holistic Player Management	Individualised performance training plans	100% (up to what coaches permit)	Evidenced-informed Structured documents Liker scale rated by an independent person	Bi-monthly or quarterly
	Individualised prevention program	100% (up to what coaches permit)	Evidenced-informed Structured documents Ratings by an independent person Adherence to programs Player feedback on their experience	Bi-monthly or quarterly
	Nutrition and overall hygiene education plans & interventions	100% MDT	Evidenced-informed Structured documents Ratings by an independent person Adherence to programs Player feedback on their experience	Bi-monthly or quarterly

Table 1: Example of department KPIs. Benchmarks for these KPIs can be found in existing literature or are derived from custom-made databases created by external consultant experts.

Utilization of KPIs by Decision Makers

The second key aspect is how club decision-makers utilize KPI insights. These individuals or teams must leverage the data and analysis from the coordinator to make informed choices. Essential factors include:

- 1. Actionable Insights:** KPIs should offer practical recommendations, not just data, enabling tangible performance enhancements.
- 2. Feedback Loop:** Establishing a continuous dialogue between decision-makers and the KPI coordinator ensures KPIs adapt to the club's changing needs and challenges.
- 3. Informed Adjustments and Strategic Decisions:** Decision-makers must be ready to make informed changes in areas like staff training, resource distribution, or strategic direction, guided by a deep understanding of KPI implications for club performance.

Conclusion: Elevating Performance Evaluation in Elite Sports

This editorial underscores the pivotal role of Key Performance Indicators (KPIs) in revolutionizing evaluations of departments and staff within elite football. Our research highlights the critical importance of robust communication, transparent decision-making structures, progressive personal traits, and objective metrics such as player availability. By incorporating these elements with external guidance into a well-structured KPI framework, clubs can achieve a system of evaluation that is not only more objective and comprehensive but also inherently fair.

References

- Buchheit M & Carolan D. The Noble Ranks of Performance Roles – Who's a king – who's a duke? *Sport Performance & Science Reports*, 2019, May, #60, V1
- Buchheit M, Gormley S, Hader K and McHugh D. The Performance Science Index: relationships with estimated market value and relative overall sporting performance of a selection of elite football (soccer) teams. *Sport Perf & Science Reports*, Nov 22, 177, v1.
- Buchheit M, King R, Stokes A, Lemaire B, Grainger A, Brennan D, Norman D, Mäkinen A, Ruggiero H, Shelton A, Sammons G, Bridges M, McHugh D, Delaval B, and Hader K. Return to play following injuries in pro football: insights into the real-life practices of 85 elite practitioners around diagnostics, progression strategies, and reintegration processes. *Sport Perf & Sci Reports*, #180, Jan 2023
- Buchheit M & Perry GM. EGOals. Exercising your EGO in high-performance environments. Amazon printing, October 4, 2021.
- Buchheit M, Schuster L and King R. Beyond the Scoreboard: Redefining Performance Staff Assessment in Elite Sports Organisations. *Sport Performance & Science Reports*, 2023, November, #210, V1
- Cardinale M. Key performance indicators. In: NSCA's Essentials of Sport Science. Champaign, IL: Human Kinetics, Inc, 2022.
- Clubb J, Allen S, Yung K. Selection of Key Performance Indicators for Your Sport and Program: Proposing a Complementary Process-Driven Approach. *Strength and Conditioning Journal* ().10.1519/SSC.000000000000813, October 30, 2023. | DOI: 10.1519/SSC.000000000000813

TIPS 5 KEY PERFORMANCE INDICATORS

- 1 REFLECT CONTRIBUTION TO ORGANIZATIONAL SUCCESS**
Clearly show how the staff or department is advancing the organization's goals
- 2 INFORM DECISION-MAKING AND PERFORMANCE**
Serve as a basis for making informed decisions and driving performance improvements
- 3 PRIORITIZE KEY INDICATORS**
Focus on the 3-6 most vital indicators that truly reflect key aspects of performance
- 4 BE QUANTIFIABLE**
Be expressed in a clear metric, enabling objective measurement and comparison
- 5 HAVE DEFINED FREQUENCY**
Include a set frequency for assessment to ensure regular monitoring and timely responses to changes

martin buchheit