

2022

PLAYER & HIGH PERFORMANCE COACH SURVEYS



**FIFPRO PWM FLASH REPORT
A CALENDAR THAT RESPECTS PLAYERS' HEALTH**

FIFPRO PWM FLASH REPORT - Men's Football

ABOUT

FIFPRO PLAYER WORKLOAD MONITORING (PWM) PLATFORM


Launched in early 2021, the FIFPRO PWM platform is a digital tool tracking the workload status of professional football players from around the world.

FIFPRO PWM is a player-centric, match scheduling and workload monitoring, platform developed and operated jointly by FIFPRO and Football Benchmark. It is part of FIFPRO Player IQ Hub, a player-focused knowledge centre that aims to help shape decisions in the football industry to protect and improve the careers and working lives of footballers.

FIFPRO PWM combines world-leading scientific knowledge with data insights to monitor player workload and match scheduling across different competitions. The platform is an analytics tool that will enable better decisions to be made in relation to future competitive

scheduling, making competitions more sustainable and putting players' health, careers and performance first. The expansive database held within FIFPRO PWM's continuously evolving platform is the primary source of the analysis presented within this mid-season Flash Report on men's football.

The FIFPRO PWM platform is freely accessible at the FIFPRO website and at the Football Benchmark website. Visit the platform to get more details about 350 featured players.

 **The FIFPRO PWM platform is freely accessible at the [FIFPRO website](#) and at the [Football Benchmark website](#).**

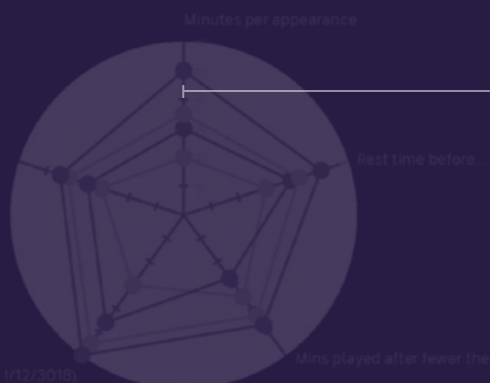
FIFPRO PWM FLASH REPORT

This edition of the FIFPRO PWM Flash Report focuses on the findings of two recent surveys - FIFPRO Global Player Survey and the FIFPRO High-Performance Coach survey. A large variety of questions were asked about workload management, the negative impact of excessive workload and future protections and reforms. The surveys were carried out on a global scale between October and December 2021.

The survey findings are supplemented by workload data coming from the FIFPRO PWM Platform, providing an evidence-based backdrop to the views of players and coaches.

FOOTBALL BENCHMARK

Football Benchmark is a digital data & analytics platform that includes financial and operational performance data from more than 200 European and South American professional football clubs and social media performance metrics of hundreds of football clubs and players. The business intelligence tool also provides market value estimates for 8,500+ male players, covering the best leagues of the UEFA, CONMEBOL and AFC confederations.



THE PLAYERS' FOREWORD

Ours is a profession that performs each day in the public eye. Every second we play on the pitch is recorded and scrutinised, not only by our coaching staff but also by the media, its commentators and the millions of supporters around the world who watch us play. Just as we are fortunate and grateful for the careers we have, we are aware, also, that much of our working lives is never seen and little understood.

We are athletes, not machines. Our bodies and our minds have natural limits. When we push too hard or rest too little, we break. Win or lose, we always need the help of others, from the medical staff at our club to our families and friends at home. And this is why the story running through this Flash Report – backed by clear evidence from players and coaches – should give all of us cause for concern.

The message is clear. Players and coaches are telling us that too many matches, across too many overlapping

competitions, are pushing us to our physical limits. The risk of severe injury and mental strain is growing fast. Back-to-back matches, depriving players of proper rest, are starting to do real harm. Proper breaks between seasons are essential – and under pressure. And as the international calendar stretches and the competitions multiply, players spend more time on the road than ever before, often crossing several time-zones to play their next game. It doesn't have to be this way.

Our industry faces a clear choice: between an endless cycle of matches in an ever-expanding calendar of competitions; or a fresh vision of a humane and sustainable sport that respects the health and well-being of the people at its heart.

We should make that choice with the best evidence available – and that's why you should read this report.

Signed on behalf of players from FIFPRO Americas by

Arturo Vidal
(Chile, FC Internazionale Milano, SIFUP)

&

Jonathan David
(Canada, Lille, UNFP)

Signed on behalf of players from FIFPRO Asia / Oceania by

Maya Yoshida
(Japan, UC Sampdoria, JPFA)

&

Matthew Ryan
(Australia, Real Sociedad, PFA)

Signed on behalf of players from FIFPRO Africa by

Salidou Cissé
(Senegal, AS Nancy Lorraine, UNFP)

THE UNION LEADERS' WELCOME

Welcome to FIFPRO's Flash Report 2022. If you enjoy it as much as we have, you'll find it stimulating, worrying and hopeful as we listen to the voices and insights of the players and coaches.

The FIFPRO Player Workload Monitoring (PWM) helps everyone in our industry to see and understand, perhaps for the first time, the physical and mental strains that follow every professional footballer. By capturing parts of their work that often go unseen – the hasty recovery from back-to-back matches and serious injuries, or the long periods away from homes and families, and what all this means for mental health – the PWM platform provides the evidence and analysis that is needed to transition to a match calendar that protects players and performance.

The strain on players' health reveals the crisis of governance in our sport. A competition model, which values the players as assets but denies them proper rest and recovery, has locked us onto a path that is unsustainable and unaccountable. Reform is urgent, and the work starts here: by listening to the players and what their bodies are telling us.



Jonas Baer-Hoffman
(FIFPRO General-Secretary)



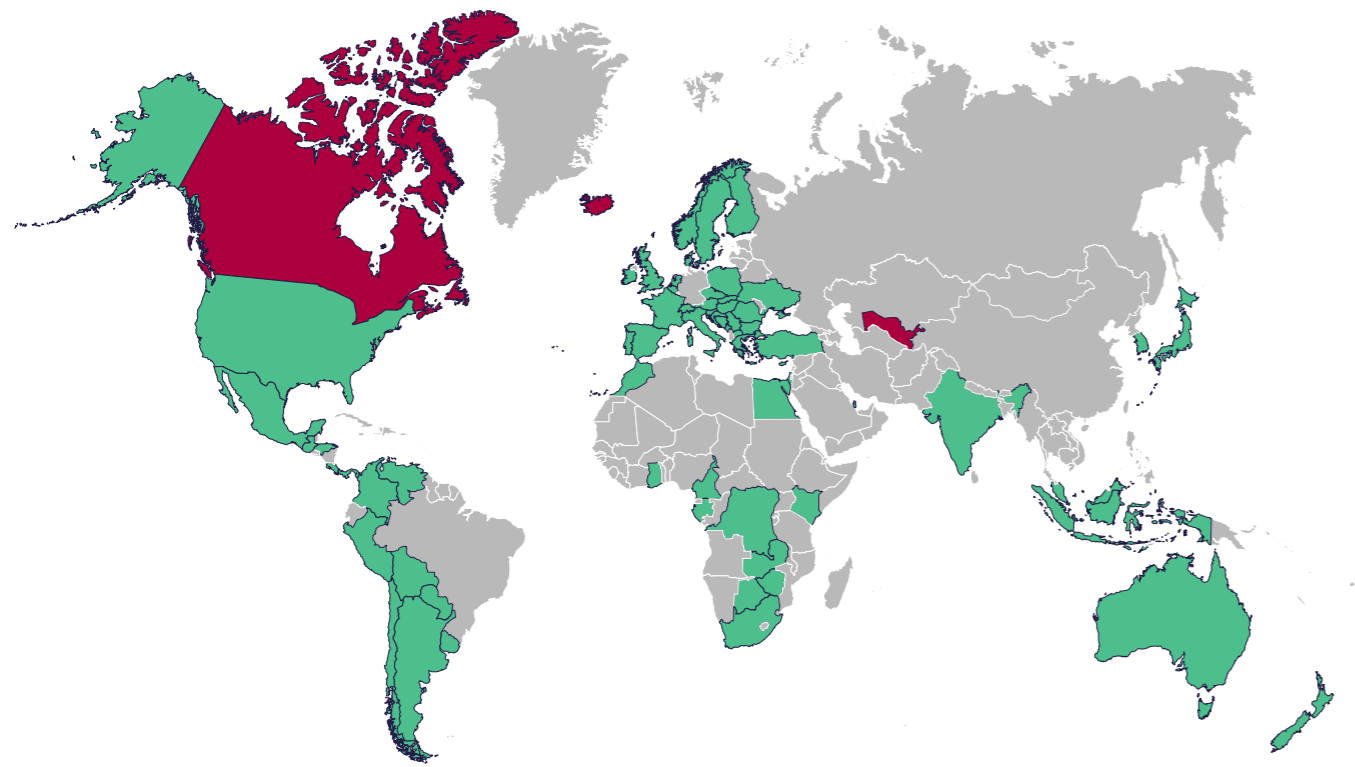
David Aganzo
(FIFPRO President)

ABOUT THE SURVEYS

GLOBAL PLAYER SURVEY

A global survey was conducted among professional footballers by FIFPRO and its national member unions across October and November 2021. Inclusion criteria were: (a) a professional footballer; (b) age 18 or older; (c) male. An expert group defined a series of questions related to workload in men's professional football. These questions were divided into three distinct sections, namely (1) personal characteristics; (2) workload, recovery and well-being issues; and (3) international football competitions. Questions were answered on different response parameters (e.g., yes, no, unsure).

An anonymous electronic survey available in English, French, Italian and Spanish was formulated and distributed to potential participants by FIFPRO and its national member unions. Data was then collected and analysed in November and December 2021. Players participated voluntarily and did not receive any reward for their participation. A total of 1,055 professional footballers completed the survey.



Member Candidate member

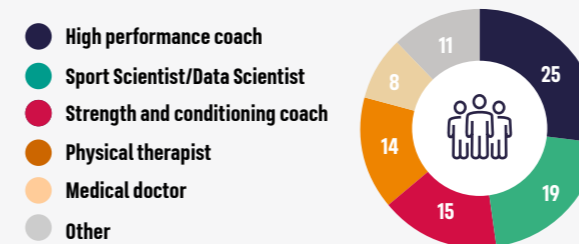
FIFPRO consists of 69 national member players associations.

HIGH-PERFORMANCE COACH SURVEY

The High-Performance Coach Survey was conducted between September and October 2021 with 92 respondents providing their opinions. Respondents included a mixture of high-performance coaches, sport scientists, strength and conditioning coaches, physical therapists and medical doctors. The vast majority have worked across both domestic and international club

football, as well as international team football. The respondent sample includes coaches from every football confederation, with the majority currently based in Europe (UEFA). For the ease of this research all respondents have been classified as high-performance coaches.

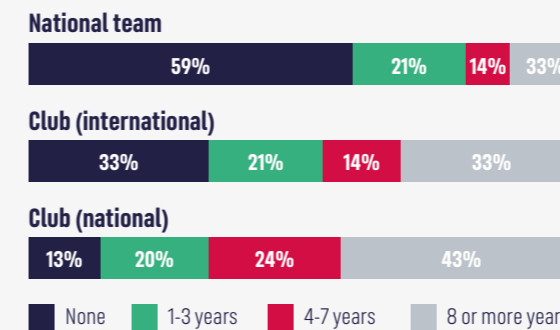
Survey respondents by Function / Position



Source: FIFPRO PWM platform, Football Benchmark analysis

Regarding the professional background of the respondents, most are high performance coaches, but a number of sport scientists, strength and conditioning coaches, physical therapists and medical doctors were also asked about their views.

Work experience of survey respondents by level of competition



Source: FIFPRO PWM platform, Football Benchmark analysis

Most respondents have experience working at club level, while 41% of the experts surveyed have national team experience.

Concerning the duration, most of them have been in a job for 4+ years.

SURVEY INTEGRATION & COMPARISON

The surveys were devised with each specific audience in mind, in order to take account of the certain specificities of each group. To enable efficient comparison, some questions were similar in content across both surveys. In certain subject areas unrelated

to workload, questions and answers have not been displayed here as they were not applicable to either one of the audiences. These questions have been removed for the purpose of this FIFPRO PWM Flash Report.

A UNIQUE SURVEY AUDIENCE:

Professional players have dedicated years of training and development in order to break through the ranks of professional football. Their experience and understanding of their own physical capabilities and awareness of their physical limitations is unique. Consequently, their insight into finding the right balance of official match days, required training and much-needed regeneration time is vitally important and their voices must be heard as we seek to define a sustainable match calendar.

In parallel, high-performance coaches are working on a daily basis with many professional players to help guide their training, conditioning and workload exposure across the season. Complimenting the first-hand experience of the players themselves, most high-performance coaches possess professional qualifications and often even have a medical background. Their views are not purely subjective but follow scientific data and sports science standards, combined with the daily experience of working with various elite athletes.

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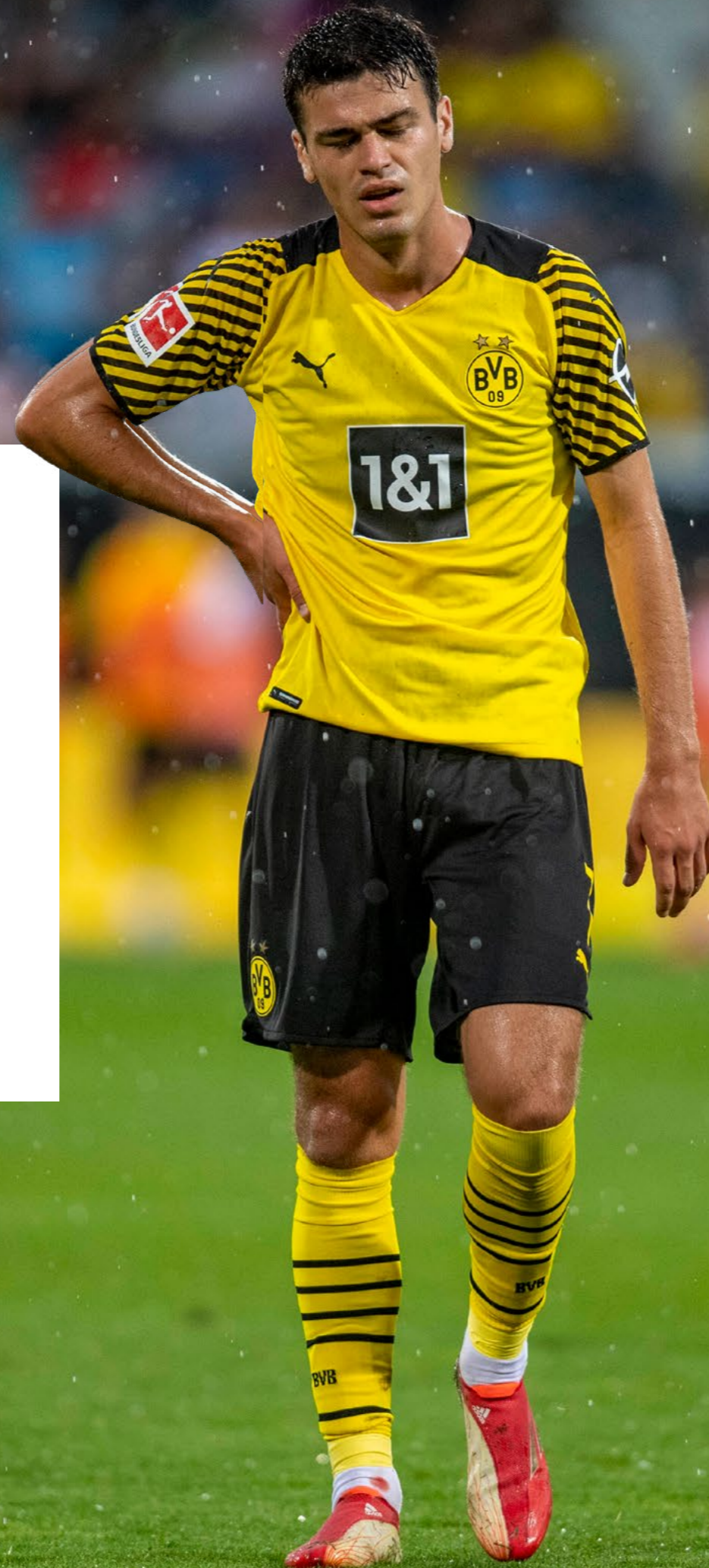
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01

SIX KEY FACTORS FOR A CALENDAR THAT RESPECTS PLAYERS' HEALTH

The combined feedback from professional players and high-performance coaches helps us to understand how we can shift to a competition calendar that respects player workload and enhances performance. The people most affected by overload point to the following key factors.



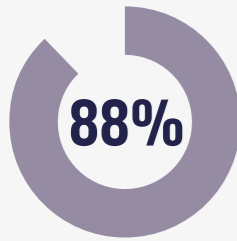
01

SIX KEY FACTORS

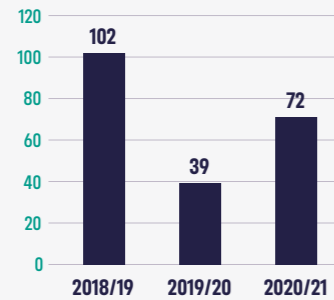
FOR A CALENDAR THAT RESPECTS PLAYERS' HEALTH



1. THE PROBLEM STARTS WITH TOO MANY MATCHES



of High Performance Coaches (HPC) believe players should not play more than **55 matches** per season



FIFPRO PWM Statistical Evidence:

Number of players per season with 55 or more matches (PWM sample, out of 265 players)

What is the experience today? Data from the PWM platform says that a large percentage of elite players are regularly above this threshold.



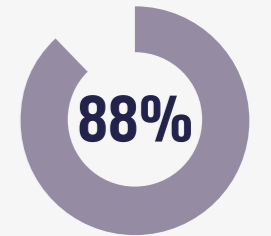
4. PROTECTION IS REQUIRED TO GUARANTEE SEASON BREAKS & REST PERIODS



of players experienced infringements of season breaks



of High Performance Coaches think that 4+ weeks of off-season break are needed



2. THE RISKS TO PHYSICAL AND MENTAL HEALTH ARE REAL



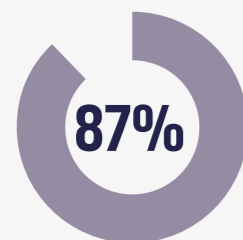
54% of players say they suffered an injury due to schedule overload



82% of High Performance Coaches say they observed mental health issues with players due to schedule overload



3. BACK-TO-BACK MATCHES MUST BE LIMITED



of players are in favour of limiting back-to-back matches



of High Performance Coaches



5. LONG-DISTANCE TRAVEL & EXTREME WEATHER DEMANDS PROPER SAFEGUARDS



47% of players are in favour of less frequent but longer release periods



57% of High Performance Coaches are in favour of less frequent but longer release periods



6. NEW RULES ARE NEEDED FOR A HEALTHIER, SUSTAINABLE WORKLOAD



of players are in favour of additional regulation to protect season breaks



of players feel that their voice is respected in current labour discussions



02

WORKLOAD MANAGEMENT AND EXPOSURE INSIGHTS & PERCEPTIONS BY THE AFFECTED PEOPLE

Excessive workload without adequate rest and recovery periods has detrimental effects on player health, performance, and family life amongst others¹. In this section the player & high-performance coach views on workload management, back-to-back matches exposure and season break requirements are discussed.

¹The emergency calendar introduced in the wake of the COVID-19 pandemic condensed the schedule and made back-to-back matches even more common.



02 / WORKLOAD MANAGEMENT AND EXPOSURE

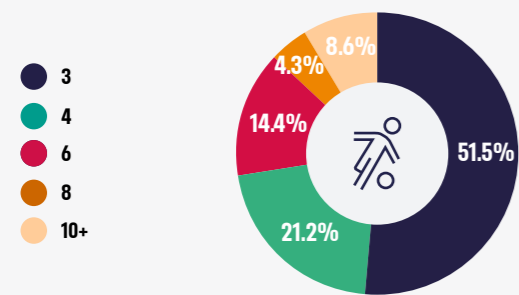
INSIGHTS & PERCEPTIONS BY THE AFFECTED PEOPLE

MANAGING BACK-TO-BACK MATCH EXPOSURE

The term back-to-back matches refers to a sequence of matches played with less than 5 days of recovery time in-between each appearance. Experiencing congested periods (in which matches of high workload are concentrated within a few weeks) without the adequate rest and recovery periods has detrimental effect on the players' training and tactical exercises, recovery, the overall quality of the competition as well as general lifestyle questions too.²

? *What is the maximum number of back-to-back matches (across all competitions, including club and national team) that a player should play consecutively?*

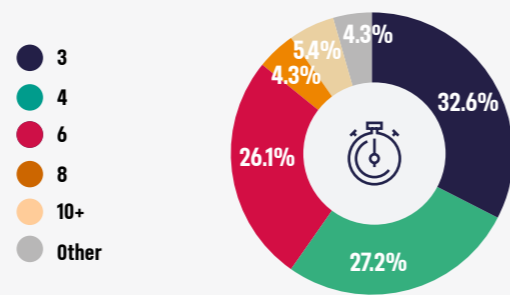
Players' perspective



85% of Global Player Survey respondents

believe that the limit on the number of back-to-back matches should be set at 6 or fewer. More than the half of respondents go even further and would like to maximize it at three games. However, this limit is probably unrealistic to achieve in the current calendar setting.

High Performance Coaches' perspective

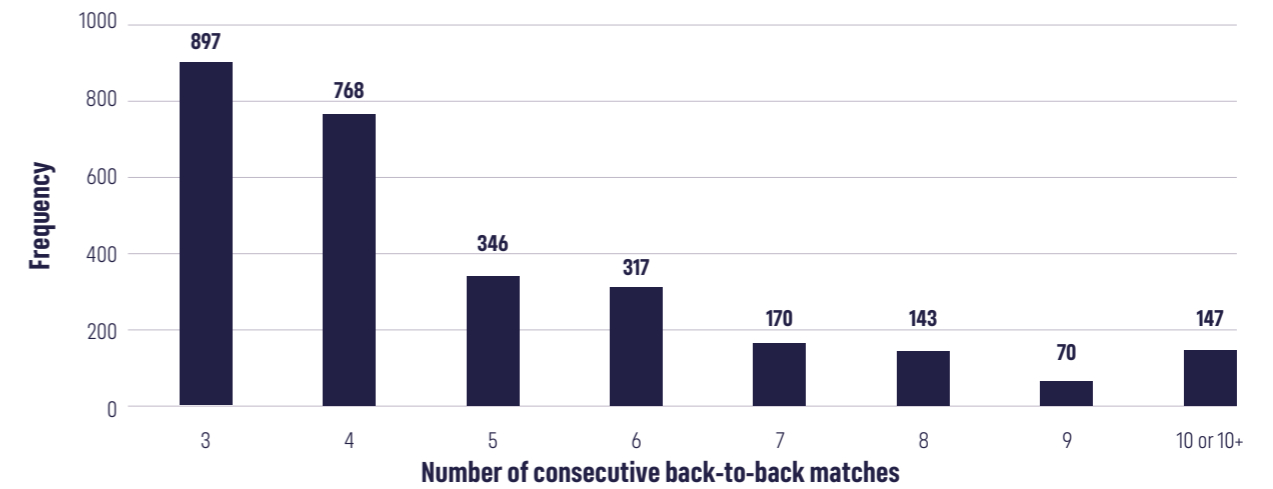


Around 80% of all respondents

agree that the cap on back-to-back matches should be at 6 or fewer, which is aligned with the players' view to a large extent. However, it should also be noted that the largest group of respondents believe that three is the absolute maximum that should be allowed.

The survey results suggest that the majority of players and high performance coaches share the opinion that playing three matches back-to-back should be allowed, but regulations shall be introduced to limit the maximum of such appearances somewhere between 3 and 6.

i FIFPRO PWM Statistical Evidence: Back-to-Back Match Exposure in the current Match Calendar
Frequency of different lengths of back-to-back match runs by players of the PWM sample



Source: FIFPRO PWM platform, Football Benchmark analysis

Data extracted from the FIFPRO PWM platform confirms that three back-to-back matches are indeed quite common in professional football. However, there are a lot of cases when a run of back-to-back games well exceeds even the most extreme limits recommended by players and coaches alike. Extreme cases of 10+ and even 20+ back-to-back matches carry a significant threat of harmful long-term impacts on player health, lifestyle, mental well-being and performance.

Over the course of the past three seasons (2018/19 – 2020/21) FIFPRO PWM data shows that playing several back-to-back matches was quite a common experience for top players. Diving deeper into the dataset on the FIFPRO PWM platform, we could identify 109 players (41% of the full sample) who experienced excessive periods of 10 or more back-to-back matches at least once since 2018.

There are some for whom this was quite a regular experience: for example, Rúben Dias (Manchester City FC, Portugal) had four separate runs of at least 10 consecutive matches without a break.

Focusing on the most extreme cases, six players experienced a run of 20 or more consecutive, uninterrupted back-to-back matches during a single season. Rather tellingly, all of these cases occurred during the 2020/21 season that followed the COVID-19 suspension. The most excessive overload from is attributed to Luka Modric (Real Madrid CF, Croatia) who played 24 matches back-to-back without adequate rest. Similarly to him, players such as Georginio Wijnaldum (20 consecutive back-to-back matches), Dani Olmo (23), Ivan Perisic (22) and many others also had a very busy start to the 2020/21 season. However, it should be highlighted that this phenomenon is not unique to the start of a football season: Marcus Rashford (23) and Bruno Fernandes (21) had long runs in the middle of the same campaign.

² See also FIFPRO Player Workload Monitoring, Men's Football, Annual Report 2021



HARRY MAGUIRE

Central Defender

2020/21 season
Period: 20/12/20 – 21/02/21

Match workload

19 consecutive back-to-back matches
More than 3 times more
than the maximum recommended



100%
of all minutes played
in critical zone



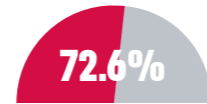
LUKA MODRIC

Central Midfielder

2020/21 season
Period: 30/09/20 – 20/12/20

Match workload

24 consecutive back-to-back matches
4 times more
than the maximum recommended

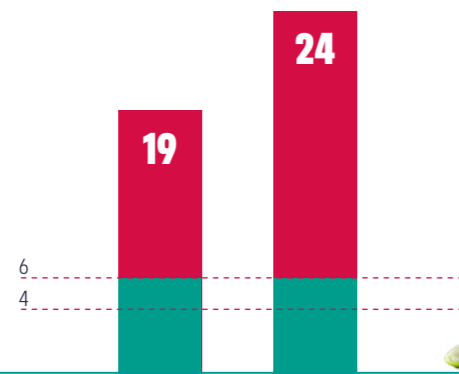


72.6%
of all minutes played
in critical zone



Number of consecutive matches played

FIFPRO: consecutive back to back matches should not exceed 4-6 games at any point in a season



Harry Maguire experienced the most excessive workload of consecutive back-to-back matches out of all players featured in the FIFPRO PWM platform. From 21 December 2020 until 21 February 2021 he appeared in 19 consecutive games and did not have the recommended five days of rest between them once. As captain of the side, he started and played until the final whistle in 18 of those matches and was subbed off only once. In total, Maguire accumulated 1,820 minutes on the pitch during this extraordinary run. One of the domestic cup matches he featured in even went to extra time, putting even more strain on the player.

Maguire competed in multiple competitions: Premier League, FA Cup, EFL Cup and the UEFA Europa League. All in all, he played 19 games in 63 days with an average 3.39 days (or 81.3 hours) of rest in-between. This finding serves as proof as to why the introduction of back-to-back match regulations is fundamental to protect player health and well-being.

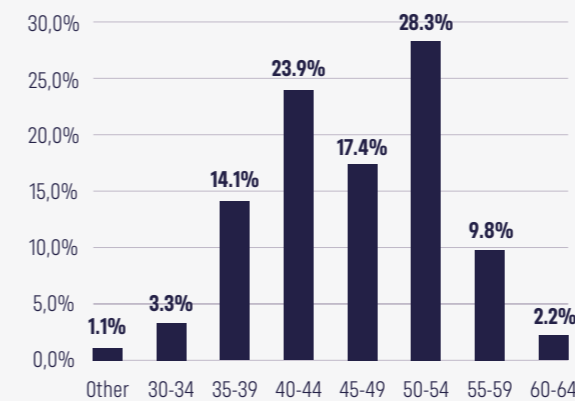
Luka Modric had quite an intensive start to his 2020/21 season. From 30 September onwards the player appeared in 24 consecutive back-to-back matches, a gruelling streak that concluded on 20 December. Out of these 24 games during analysed period, he played 6 for the national team and 18 for Real Madrid CF, accumulating a total of 1,773 minutes on the pitch.

During this period he had 3.45 days (or 83 hours) of rest between games on average. It is perhaps not surprising that he suffered a muscle injury following this congested period and had to be subbed off during a game. In the second half of the season Modric once again had a 10-game streak of consecutive back-to-back matches (from 16 March 2021 until 18 April 2021). In a training session following the last game of this run he once again picked up an injury, which forced the end of another run of games.

MAXIMUM/MINIMUM WORKLOAD AND TRAINING CONSISTENCY

The question what match threshold would establish excessive overload and what amount would establish underload and therefore the lack of playing opportunities is key in the context of developing more sustainable competition calendars. High-performance coaches are working throughout their careers with a number of players in different context and this is what they think constitutes maximum and minimum workload for professional players.

? What is the maximum number of matches (across competitions; club and national team combined) that a player should play per season (taking a season to mean a typical 10-month calendar period that does not include the pre-season reconditioning period) in order to optimize the balance between training, competition and recovery?



High Performance Coaches' perspective

The majority (59.8%) of High Performance Coaches

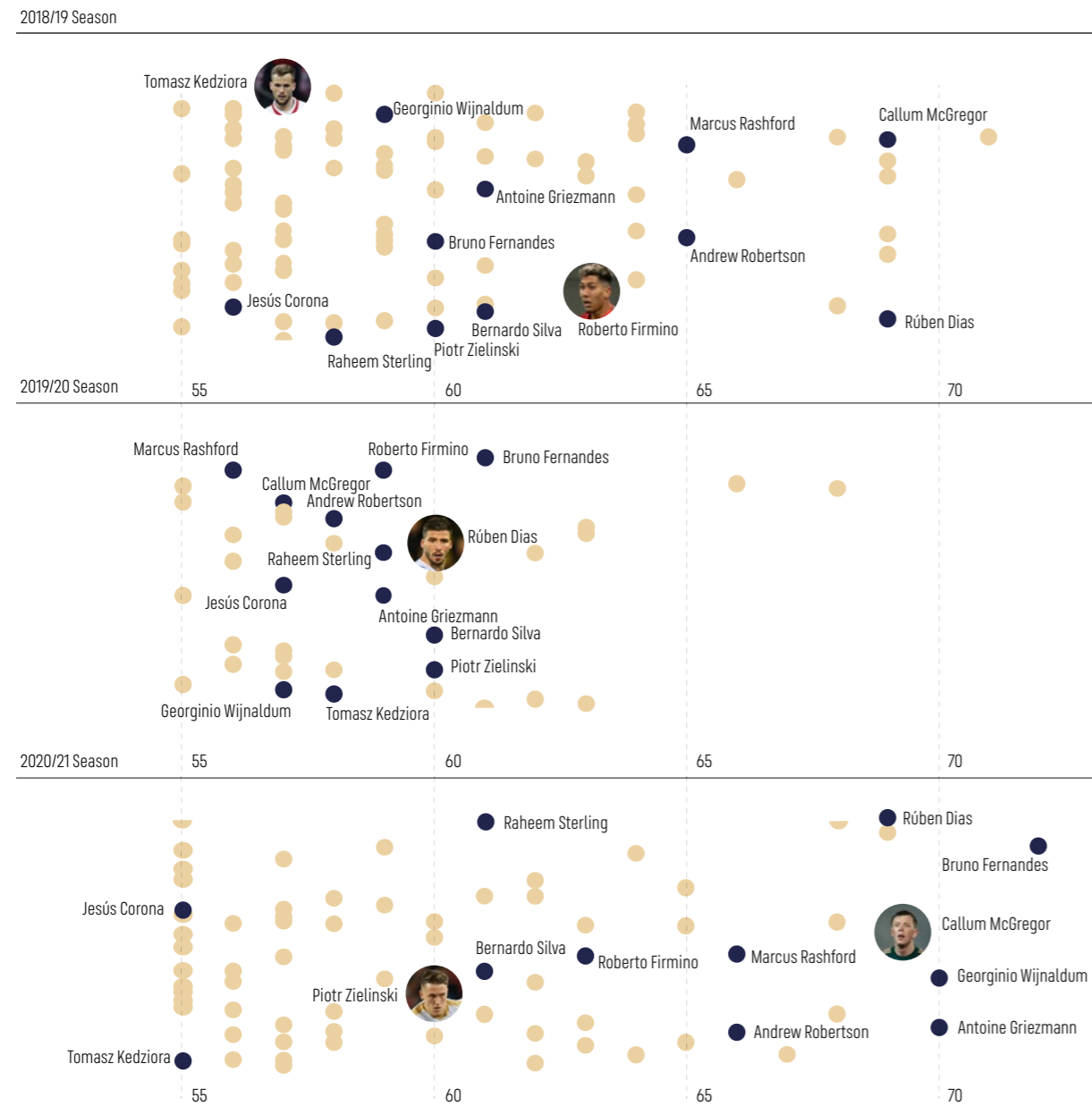
said that the maximum number of matches during a season should be under 50 appearances per season. However, they are united that the maximum number must be under 55 games.

Source: FIFPRO PWM platform, Football Benchmark analysis



FIFPRO PWM Statistical Evidence: Excessive match load

Number of players with at least 55 appearances per season



Source: FIFPRO PWM platform, Football Benchmark analysis

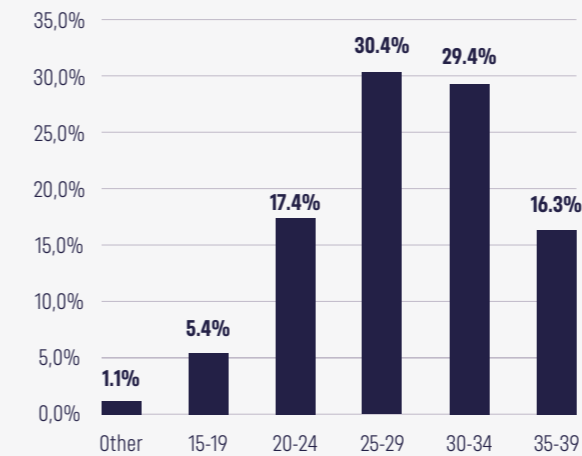
There are 143 players who played 55 or more matches in one of the last 3 seasons. As a consequence of the the global pandemic and its impact on the match calendar, the number of players above this threshold decreased, but this "respite" was only temporary. In the 2020/21 season once again a significant number of players from the PWM sample played at least 55 matches. It should be noted that 13 players of the sample experienced such demanding workload consecutively across multiple seasons (in all three analysed seasons (2018/19 – 2020/21)).³

Comparing the FIFPRO PWM data with the views of the high-performance coaches clearly says that many players are faced with excessive and unsustainable workload demands in the current industry competition framework.

At the same time a vast majority of high-performances coaches believe that the development path of professional players requires a minimum of at least 25 competitive matches per season.

³ The players included in this PWM analysis are: Antoine Griezmann, Georginio Wijnaldum, Rúben Dias, Callum McGregor, Andrew Robertson, Marcus Rashford, Roberto Firmino, Bernardo Silva, Jesús Corona, Raheem Sterling, Tomasz Kedziora, Piotr Zielinski.

What is the minimum number of matches (with at least 60 minutes spent on the pitch) that a player should play per season in order to optimize his development and performances?



Source: FIFPRO PWM platform, Football Benchmark analysis

High Performance Coaches' perspective

More than 75% of High Performance Coaches

believe that players need at least 25 games with at least 60 minutes in order to optimize their development and overall performance.

Similarly to the maximum number of matches, opinions are also divided regarding the minimum number of matches in which the player plays at least 60 minutes.



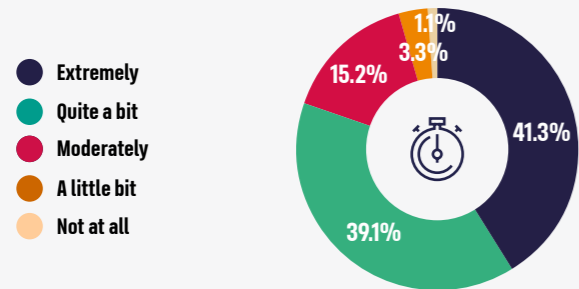
With many of the peak physical demands for players being experienced in matches, it is important to ensure that there is regular exposure to matches to optimise the training programme, and stimulating the players physically, tactically and psychologically.

Matches providing an important feedback loop to the training/preparation cycle, being used as waypoints to ensure players are best prepared to cope with these demands and perform their best.

High Performance Manager
English Championship

Furthermore, match workload has a significant impact on the training and performance programme of footballers. Simply put, the aim of these programmes is to prepare the players for the technical, tactical and psychological aspects of a competitive match. Consequently, the lack of training could result in underperformance and an increased risk of injury.

? How severely does 50 plus matches per season impact on the ability to schedule regular and required training and performance programmes for players?



High Performance Coaches' perspective

The majority (80.4%) of survey respondents

agree that playing 50+ matches in a single season negatively impacts the ability to schedule regular training and performance programmes for players at least to some extent.



If we want to maximize the performance and longevity of a player we need to give adequate time for recovery and preparation. A 4 week off season and at least a 6 week preseason is imperative. Therefore 40-42 weeks would be the maximum length of a season with a maximum of 50 games from all competitions.

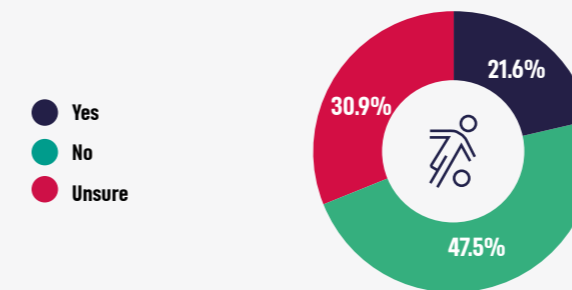
High Performance Consultant

National team from the AFC Confederation

LISTENING TO THE PLAYERS: MANAGING MATCH AND TRAINING LOADS

Many footballers play an increasing number of matches in recent seasons as the fixture list is becoming even more challenging. The workload demands on professional football players are close to unsustainable and as such the integration of their views and experiences is critical to build a more sustainable match calendar that integrates player safeguards.

? Do you believe the voice of players is respected and that the well-being of players is considered by those who develop and regulate the calendar and competition schedules?



Players' perspective

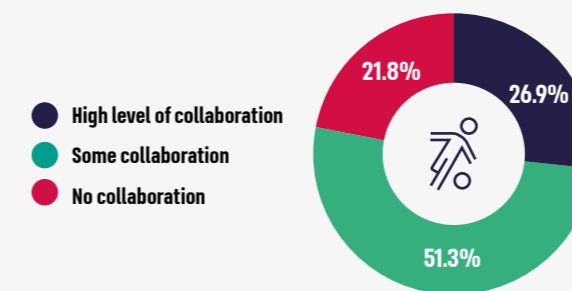
Almost every second player (47.5%) surveyed

believes that their voice should be more respected and taken into account when it comes to the development and regulation of calendar and competition schedules.

Workload management is crucial for players who in addition to their domestic competition duties are also called up to represent their national teams on a regular basis. Due to the different environments these teams compete in, they face different challenges during a season such as irregular match schedule, travel and training loads.

The player survey shows that in many circumstances the coordination and understanding between the player, the club and the national team must improve to optimise player care in a challenging environment.

? How would you describe the level of collaboration between your club and the national team staff in managing your playing and training loads?



Players' perspective

Most national team players surveyed (73.1%)

mentioned that **there is not a high level of collaboration between their club and national teams** when it comes to the management of playing and training loads.

The number of matches a player could appear in vary by country by country and is highly dependent on the following factors: domestic league format (number of teams), number of competitions the team appears in, the team's on-pitch success, performance of the player, national team call-ups, number of friendlies, etc.⁴

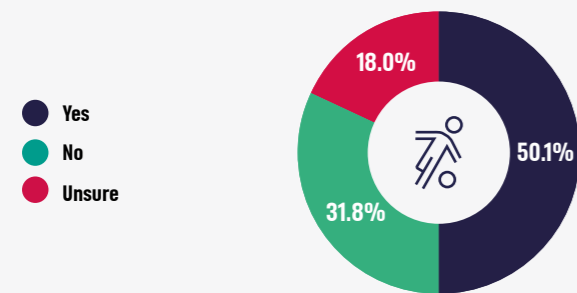
⁴A recent example of when all these factors are at play is the case of Pedri's excessive recent workload: FC Barcelona's teenage star played 78 matches across all competitions in just 12 months (September 2020 - August 2021) due to his importance to his club's setup and his major role in the Spanish national team in two major competitions.

PROTECTION OF SEASON BREAKS

FIFPRO PWM data has already showed in our previous reports that season breaks are fundamental in providing a period entirely outside of the football environment (without training or matches), allowing the players to regenerate. Due to the demands of the intense match calendar, off-season and in-season breaks are sometimes not provided at all or are not as long as they should be to guarantee recovery.

Another major issue is that players are often asked to get back to competitive play right after a break when in reality they should be entitled to a longer period of re-training in order to be sufficiently prepared and decrease injury risk.

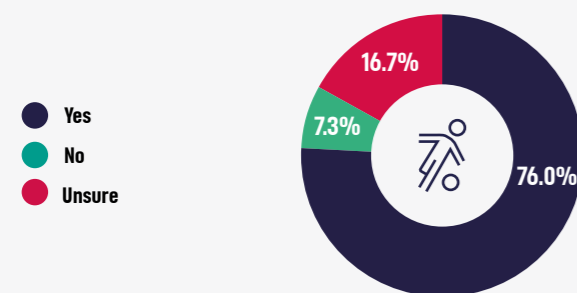
? Do you feel that your off-season and/or in-season breaks are sometimes infringed upon by your club and/or national team?



Players' perspective

Over 50% of players surveyed felt that their season breaks are sometimes infringed upon by their club and/or national team. However, even more worrisome is that only less than a third signalled no complaints in this regard.

? Do you feel that an additional regulation or enforcement mechanism would be helpful in order to protect your break periods and prevent significant infringement upon them?

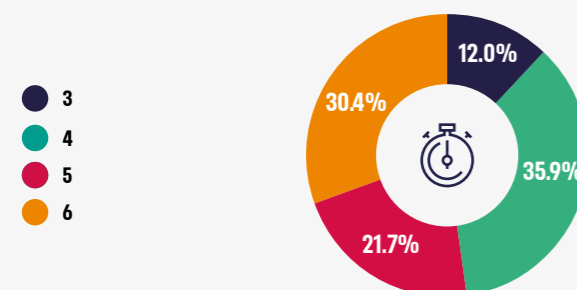


Players' perspective

76%, the overwhelming majority of players asked in the survey believes that additional regulations and enforcement mechanisms are needed to protect the break periods. Only, 7.3% of players believed that this would not be needed.

As competition organizers keep adding matches to the calendar the football season is getting longer and longer, which inevitably leaves less time for a proper off-season break. There must be more safeguards in place that protect this crucial recovery period between two long seasons.

? What is the optimal number of weeks that a player should be given as off-season break?

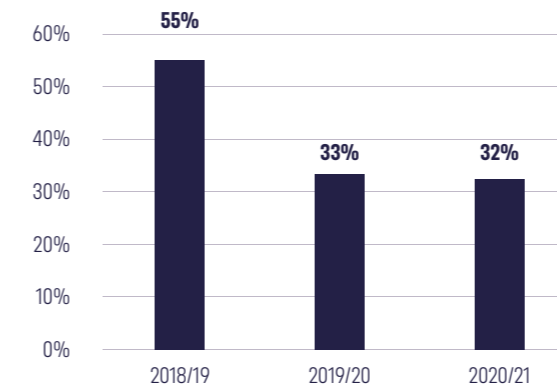


High Performance Coaches' perspective

According to most (35.9%) High Performance Coach respondents, players should be provided with a minimum of 4 weeks of off-season break period. However, it is important to point out that 30% would be in favour of an even longer off-season break with 6 weeks.

i FIFPRO PWM Statistical Evidence: Off-season break length in the past three seasons

Percentage of players with 4 or more weeks of off-season break



Source: FIFPRO PWM platform, Football Benchmark analysis

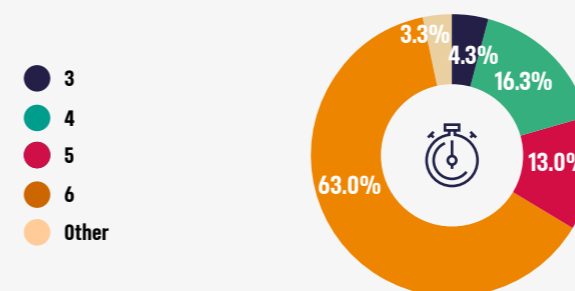
The clear trend is that the recommended 4+ weeks of off-season break is afforded less and less frequently to the players of the PWM sample in recent years.

While in 2018/19 more than the half of the players had at least 4 weeks off, only a third of the sample had met this recommendation when they were preparing for the 2019/20 and the 2020/21 seasons. This is a direct impact of the emergency calendar and match congestion in the wake of the COVID-19 pandemic.

However, as FIFPRO PWM data has not monitored prior seasons to 2018/2019 we cannot make comments when this trend has originally started.

RE-TRAINING PERIOD

? What is the optimal number of weeks needed to prepare players for the start of the football season?



High Performance Coaches' perspective

A majority (63.0%) of those surveyed stated that the optimal number of weeks for re-training period should be 6. Only a handful of respondents were in favour a three-week long re-training period.



We all want to see the best players play at the highest intensity every week. However, athletes aren't robots and the demands of a modern football season are such, that a period of physical and mental recuperation is vital. Following this, a significant preparation period is required to develop the necessary physical resilience, capacity and match preparedness so that we can continue to see new levels of performance.

High Performance Manager
Japanese J1 League

The above facts together with the opinion of the majority of survey respondents imply that enforcement mechanisms are needed to protect the players health and working conditions from a season break point of view.

CASE STUDY

The emergency calendar resulted in significantly shortened season breaks for many players. The previous seasons had a late finish in July-August 2020 and the new seasons started already in August-September. As we have already pointed out in our first Flash Report, 73% of the 265 players in the PWM platform had less than 4 weeks for their off-season break. What is more worrying is that 23% of PWM players had less than two weeks!

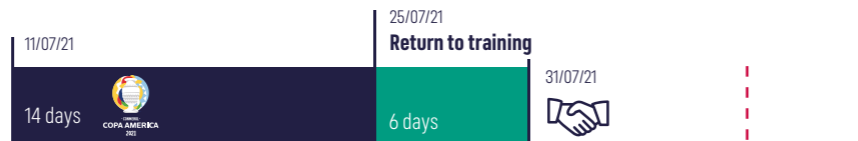
The following visuals shed light on a handful of cases in which a player was not afforded sufficient time off. For this exercise we looked at the summer of 2021 and the preparation for the - currently ongoing - 2021/22 season.



 **NICOLÁS TAGLIAFICO**



Nicolás Tagliafico helped Argentina to secure the national team's first major title since 1993 by winning the Copa América 2021. After the final on 11 July, the player reported for training at AFC Ajax on 25 July (only 14 days of off-season break). He first appeared for the team in a friendly game on 31 July against RB Leipzig. The defender then played his first competitive match of the new season on 7 August in the Dutch Super Cup.



28 days | minimum recommended length of off-season

 **MIKEL OYARZABAL**



Mikel Oyarzabal had a busy summer during 2021. In June-July he played at UEFA EURO 2020, where he reached the semi-final. Shortly after the conclusion of the continental competition he joined the Spanish squad and took off for Tokyo to compete at the 2021 Summer Olympics, where his team was defeated in the final of the tournament. Ultimately, he was afforded only 6 days between the final of the Tokyo Olympics on 7 August and returning to training at Real Sociedad. He played his first competitive game on 15 August, scoring against FC Barcelona on the opening day of the 2021/22 La Liga season.



28 days | minimum recommended length of off-season

 **JORGINHO**



Jorginho ended the 2020/21 club season on a high note as after winning the UEFA Champions League he went on to win the Euros with Italy. After the final on 11 July, he had a short off-season of only 22 days and he reported back for training at Chelsea FC on 2 August 2021. Jorginho played his first game in 21/22 against Villarreal CF in the UEFA Super Cup.



28 days | minimum recommended length of off-season

 **ROMELU LUKAKU**



The Belgian international scored in his last game of the 2020/21 season, when his side was defeated by Italy at UEFA EURO 2020 on 2 July 2021. Despite being rumoured to be transferred, he returned to FC Internazionale on 26 July, spending 24 days as off-season break. He played his first game of the new season for the Nerazzurri on 28 July, when he was subbed in a pre-season friendly. Two weeks later the forward was transferred to Chelsea FC, where he made his debut on 22 August.



28 days | minimum recommended length of off-season

03

PLAYER EXPERIENCE ON HARMFUL IMPACT OF EXCESSIVE WORKLOAD

Excessive workload and continuous competition cycles have negative impacts on players and the game. The most adverse effects harm the body (injury risk, travel fatigue, etc.), players' career (impact of injuries, shortened careers, etc.), their performance (no time for training and conditioning, inability to sustain peak performance, etc.), lifestyle (time for family etc.) and mental health (stress and reduced focus, mental burn-out, etc.)



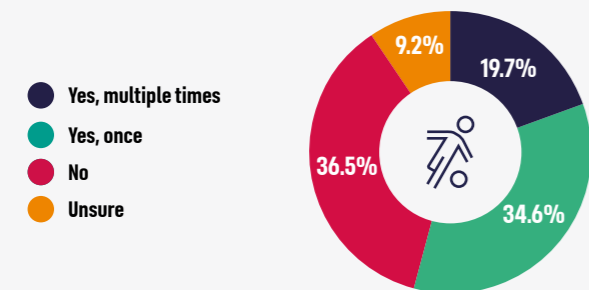
03 / PLAYER EXPERIENCE

ON HARMFUL IMPACT OF EXCESSIVE WORKLOAD

MATCH WORKLOAD & INJURY RISK

Players and high-performance coaches alike confirm that excessive match exposure together with the travel fatigue and lack of relevant training consistency increased risk of injury during the season.

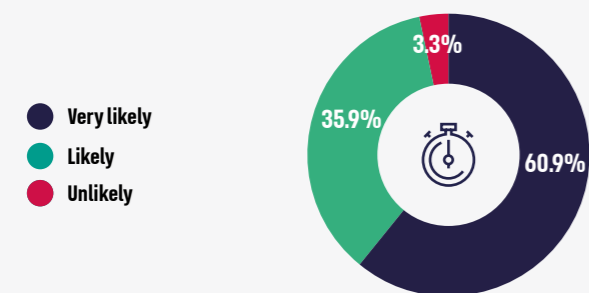
? *During your career, do you believe you have suffered an injury as a result of a condensed or overloaded schedule?*



Players' perspective

At least 55% of players surveyed say that they have picked up at least one injury due to the overloaded schedule. Investigating further, **20% of respondents** confirm that they **have suffered multiple injuries** as a consequence of excessive match workload.

? *How likely is it that playing too many matches per season increases players' injury risk?*



High Performance Coaches' perspective

Almost all (96.8%) respondents agree that match overload increases the chance of getting injured. This could happen in either a match or a training environment, as well.

CASE STUDY

Cost of injury in the English Premier League

As football is a team sport with frequent contact between the players and intense physical demands such as rapid changes in direction, high speed running and tackling, players are continuously exposed to contact and non-contact injuries alike. These injuries not only hinder career development, but also come at a cost in terms of finances and on-pitch performances for both players and clubs in the professional game.

Recent studies indicate that professional players suffer 25-35 injuries per 1,000 hours of match exposure⁵⁶.

According to a research study by Catapult and 21st Club⁶, EPL players on average missed 3.04 (8%) games during 2018/19 season due to injury. In total, little over 800 injuries occurred and 18,230 days were "lost" in such manner. Frequent injuries are very detrimental to the fortunes of a team as a whole: Eliakim E, Morgulev E, Lidor R, et al. concluded in their injury cost study⁷ that a team loses one league point for every 136 days lost due to injury. In a similar manner, a team is expected to finish one position lower in the league table for every 271 days lost to player injuries.

In financial terms, clubs paid an estimated £166m to injured players in 2018/19, which equates to 14% of total fixed wage expenditure across the EPL. Both the Catapult & 21st Club study and the Marsh JLT Specialty report⁸ estimated that the average cost of an injury could exceed £200,000 per season. In addition, the latter study concluded that the costliest months during the season were December and January: incidentally these are the periods where EPL teams play the most matches and have the fewest recovery days.

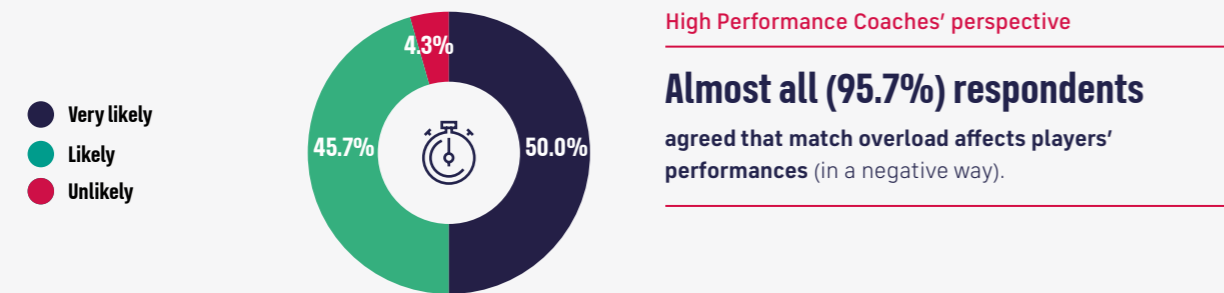


⁵⁶ Catapult & 21st Club Research Report: <https://www.catapultsports.com/blog/catapult-21st-club-cost-of-injury>
⁷ Eliakim, Eyal & Morgulev, Elia & Lidor, Ronnie & Meckel, Yoav. (2020). Estimation of injury costs: Financial damage of English Premier League teams' underachievement due to injuries. BMJ Open Sport & Exercise Medicine. 6. e000675. 10.1136/bmjsem-2019-000675.
⁸ Marsh JLT Specialty Report: The Football Injury Index 2019

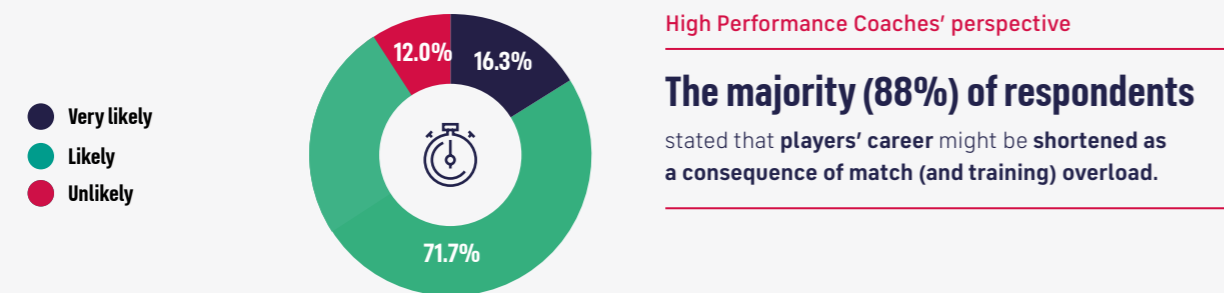
EFFECTS OF OVERLOAD ON PLAYER PERFORMANCE AND CAREER LONGEVITY

As mentioned earlier, overload could be beneficial to a certain extent, but only if it is limited to a relatively short period of time. Such overload allows the players to get in to a competitive match rhythm and improve their skills more efficiently. However, in the long run it can easily lead to burnout and can negatively impact career longevity if appropriate safeguards are not applied.

? How likely is it that playing too many matches per season affects players' performances?



? How likely is it that players' career longevity will be reduced due to the cumulative effect over years of consistently excessive match and training demands?



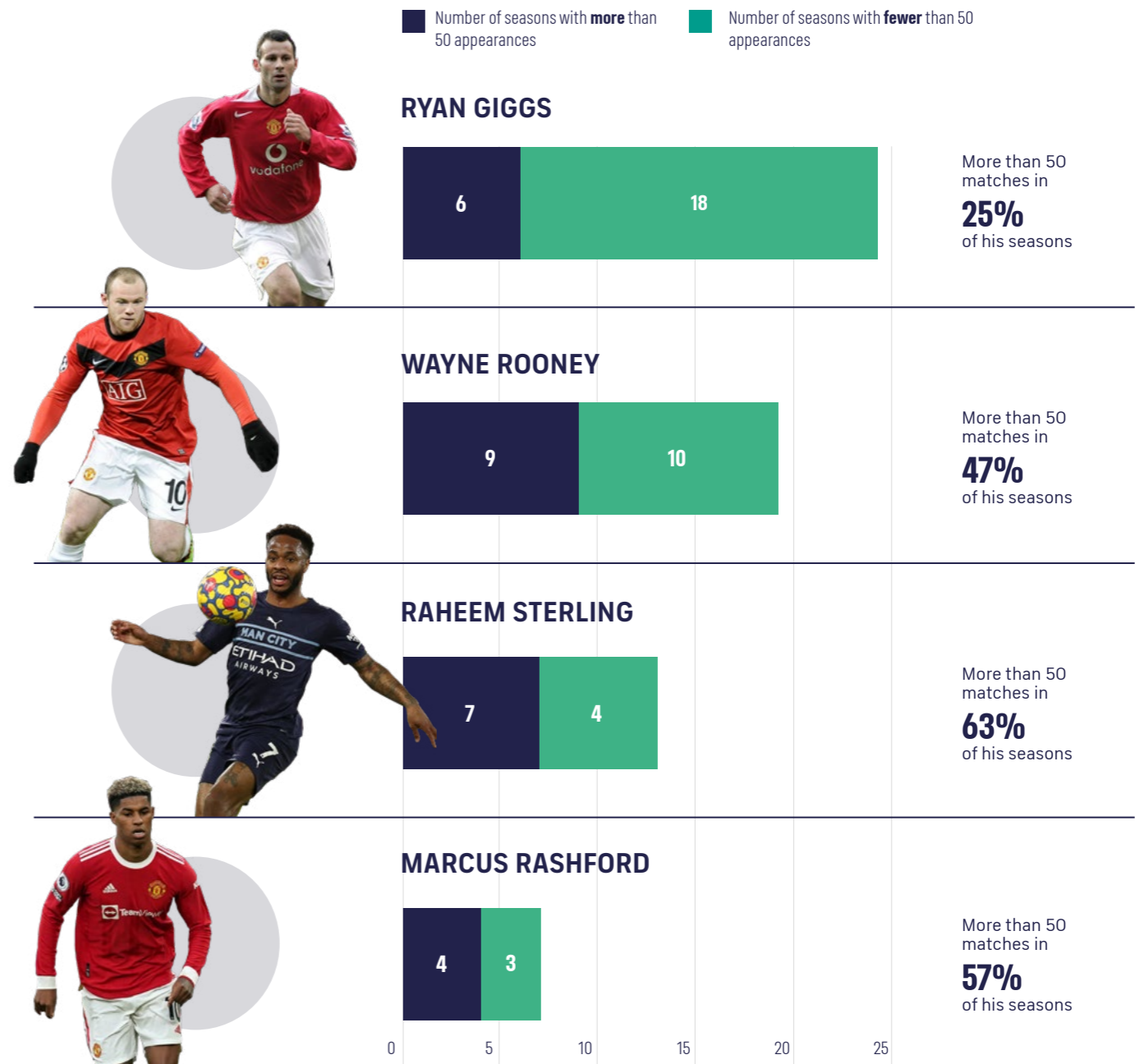
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If we want to provide all football fans worldwide with spectacular matches with a high level of creativity, intensity and decision-making skills, we need to provide the players, during the In-season, with sufficient opportunity for recovery on a physical, mental and spiritual level. We need time to recharge the battery.

High Performance Coach
Dutch Eredivisie

Case study on match overload and career longevity

Number of seasons with at least 50 or more appearances



Both Ryan Giggs and Wayne Rooney played at a consistently high level throughout their 24-year and 19-year long careers, respectively. Even though they were often key figures in their teams, they played in 50+ matches in only less than half of their seasons.

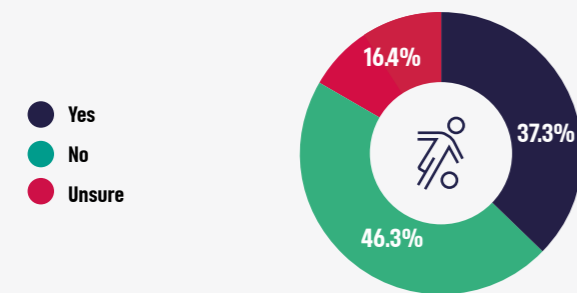
An alternative comparative review with two current elite players from the Premier League highlights that workload at the highest level seems to have increased. Raheem Sterling (Manchester City FC) and Marcus Rashford (Manchester United FC) have already had a similar number of 50+ game seasons, even though they are still relatively young and could realistically play for another 10 years or more.

EFFECTS ON PLAYERS' MENTAL HEALTH & WELL-BEING

Mental health problems describe a mental and emotional state that affects a person's thinking, feeling, behaviour or mood. They cover a broad range of problems such as feelings of distress, anxiety, depression, sleep disturbance or substance abuse.

When it comes to football players, there could be multiple stressors for such problems. These factors include, but are not limited to: severe long-term injuries, stressful relationship with coaches and teammates and overall career dissatisfaction. For retired players post-career employment issues and physical complaints could also lead to mental health problems.

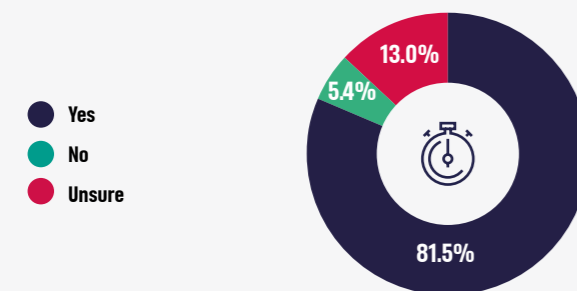
? Have you encountered any effect on your mental health and well-being with excessive workload demands or insufficient recovery periods being significant contributing factors?



Players' perspective

Almost 40% of player respondents stated that the demands of overload affected their mental health.

? Have you encountered any effect on the mental health and well-being of players with excessive workload demands or insufficient recovery periods being significant contributing factors?



High Performance Coaches' perspective

The majority (88%) of respondents stated that players' career longevity might be reduced as a consequence of match and training overload.

OPINION PIECE

FIFPRO CMO – Prof. Vincent Goutteborge

For nearly 10 years, FIFPRO has been conducting scientific research among 3,000 active and retired professional footballers across different continents. FIFPRO's research has shown that 15 to 35% of the players reports mental health problems, especially anxiety and depression.*

The imbalance between workload and recovery is likely to lead to injuries but also to mental health problems. Statistical evidence from the FIFPRO PWM platform suggests that this imbalance is fuelled by the steadily increasing percentage of critical zone minutes that peaked at 53% per player during 2020/21 season. Top players were subjected to an even more demanding schedule and played 70-75% of their minutes in the critical zone.

Equally alarming is the fact that players' time away from football is often not respected: almost half of all off-season breaks on record in the PWM platform did not meet the minimum recommended length of 28 days.

Consequently, the rhythm of match workload coupled by insufficient rest and recovery periods may result in a dip in performance and/or prevent football players from mentally preparing themselves for matches and to concentrate on the pitch.

This kind of working environment is conducive to the development of mental health problems. These are defined as adverse/abnormal thoughts, feelings and/or behaviour that might lead to functional impairments in various context including sport. Examples of mental health problems are psychological distress, burnout, anxiety, depression, sleep disturbance, disordered eating and alcohol/drug misuse.



Prof. Vincent Goutteborge

BIOGRAPHY

Prof. Vincent Goutteborge is a former professional footballer who played for 14 seasons in France and The Netherlands. He is now Chief Medical Officer at FIFPRO. In addition, he is Extraordinary Professor of Sports Medicine at the University of Pretoria and at the Orthopaedic Surgery department of the Amsterdam University Medical Centers. Prof. Goutteborge's work focusses on a wide range of sports medicine domains relevant in professional sports (with an emphasis on football), striving to protect and promote the physical, mental and social health of active and former

professional athletes. Furthermore, he is Chair of the International Olympic Committee (IOC) Mental Health Working Group, co-Director of IOC Programs on Mental Health in Elite Sport, member of the Concussion Expert Group of the International Football Association Board (IFAB), member of the Medical Expert Group of the French Professional Football League (LFP), and member of the South African Sports Medicine Association (SASMA). Prof. Goutteborge is also member of the Editorial Board of the South African Journal of Sports Medicine.

* In 2016 and 2017, FIFPRO released two scientific articles touching on the complex association between injuries and mental health problems: players who suffered from severe injuries were up to seven times more likely to report mental health problems by comparison to those free from injury. Not surprisingly, most of the professional footballers (96%) sampled in that research stated that mental health problems had a direct impact on their football performances.

04

PLAYER TRAVEL COMMITMENTS AND EXTREME WEATHER EXPOSURE

The global nature of football often requires considerable international travel during a season. Excessive travel, including multiple time-zone crosses and extreme changes from one climate to another (e.g. travelling from the Northern hemisphere to the Southern and vice versa) takes a toll on player performance and well-being.



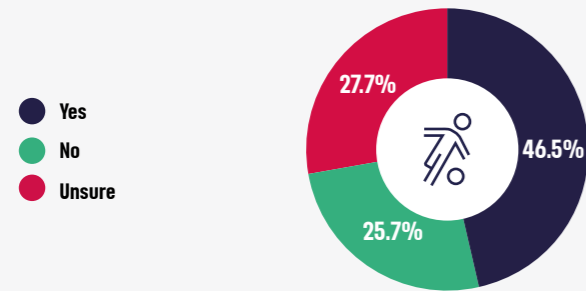
04 / PLAYER TRAVEL

COMMITMENTS AND EXTREME WEATHER EXPOSURE

The global nature of the sport often involves substantial international travel during a season. International player travel across different time zones and varying climate conditions affects players' recovery and performances.

This is especially true for elite professional footballers playing with their national team during the international match windows set by FIFA (at least six windows per season; typically 10 days with three matches per window).

? *Would you be in favour of longer but fewer international windows?*

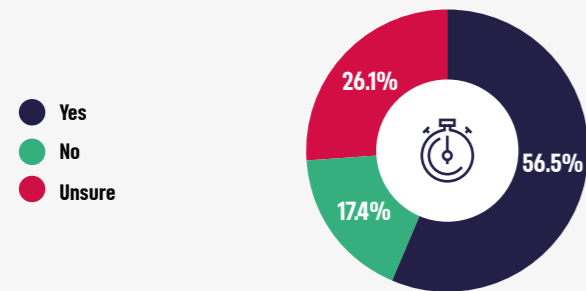


Players' perspective

Almost 50% of Global Player Survey respondents

would welcome the introduction of longer but less frequent international windows. This change in the calendar has the potential to ease travel load for many international players.

? *Do you think that longer but less frequent international match windows would be beneficial for the mitigation of travel fatigue and/or jetlag and thus beneficial for the performances and health of professional footballers playing with their national team?*



High Performance Coaches' perspective

More than half (56.5%) of those surveyed

were of the opinion that longer but less frequent international match windows would be **beneficial** for the mitigation of travel fatigue.



The general public often has a distorted image of what life is really like for the great majority of national team footballers who play abroad. We're not all on an equal footing, although we all share the same desire to reconcile the interests of our clubs with those of our respective federations.

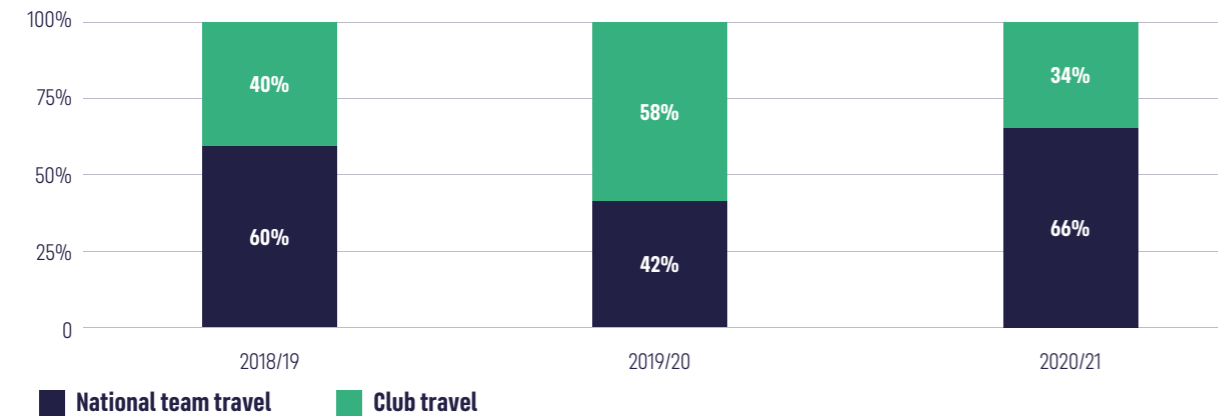
It's important to be aware that these journeys, which to tell the truth I don't make in optimum conditions, worthy of a high-level athlete, add to the fatigue that is part and parcel of an increasingly demanding profession, take their toll on our bodies and sometimes sap the morale of even the most courageous of us.

Saliou Ciss
AS Nancy-Lorraine,
Senegalese international



FIFPRO PWM Statistical Evidence: International travel load

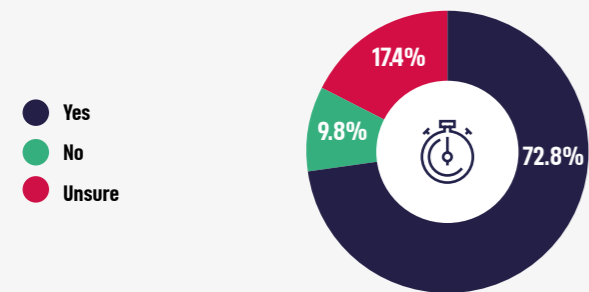
Distribution of international travel load (total distance travelled) over the past three seasons



Analysis of the past three seasons suggests that national team trips are mostly responsible for the international travel load of the players in the FIFPRO PWM platform with the exception of the COVID-affected 2019/20 season. This is especially true for players whose club is in a different confederation to their national team as they experience disproportionately higher

international travel load than the rest of the international players. The average player in the PWM sample had 28 international trips in total related to national team duty since 2018. The average distance travelled per player due to national team commitments equals to 68,197 kms during the past three seasons.

Do you think that playing in different environments (e.g., hot and cold temperatures, low to high altitude) within short time periods (e.g., Wednesday to Saturday) would increase injury risk and/or decrease player performance?



High Performance Coaches' perspective

Close to 75% of High Performance Coaches

think that playing in different environments within a short amount of time **could be detrimental** to player health and their performance.

Regarding potential change to international windows the majority of players and high performance coaches thinks that the new setup could mitigate international travel burden on players during the season. As the PWM data shows, the bulk of the international travel load is due to national team duty as players travel from one continent to another join up with their squad.

Furthermore, this shift to a different schedule of national team windows would also reduce the number of games played in different climate environments within a short amount of time. This would also follow the recommendation of the surveyed high performance coaches.



Accumulated exposure puts us at risk as players, because it can reduce our performance and may also shorten many players' careers. And in that area we must be responsible and all of us who are involved must think together about how it can be reduced. The situation particularly affects South American players, who have to travel long distances to go and play their matches. It's not like Europe, where everything is closer.

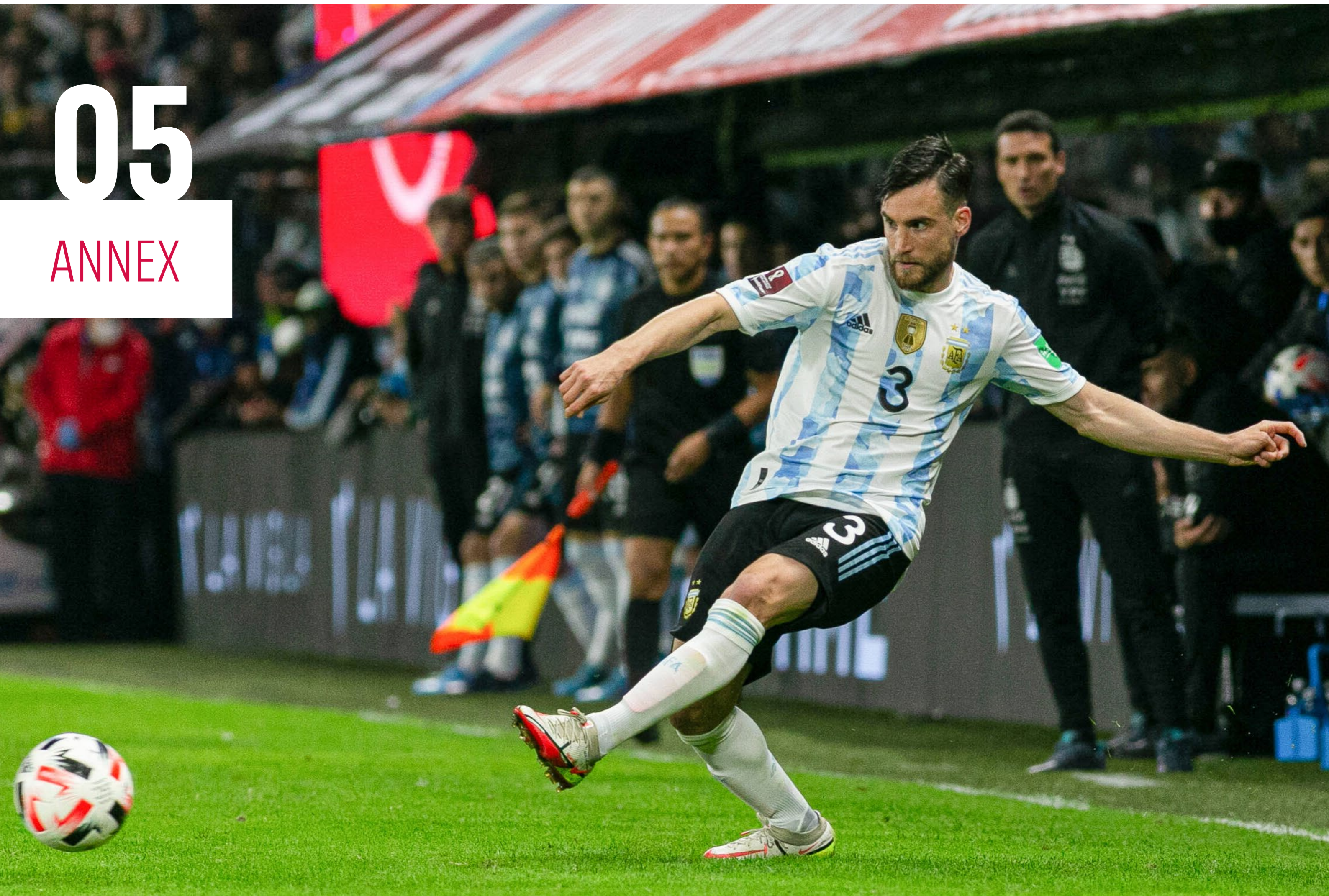
Arturo Vidal

FC Internazionale Milano, Chilean international



05


ANNEX




TERMS & DEFINITIONS


The following terms are used throughout the report to illustrate the workload situation of professional football players. The same principles are applied within the FIFPRO PWM platform.


PLAYER WORKLOAD

 **PLAYER WORKLOAD** – This term refers to all applicable workload indicators such as match workload, rest & recovery and travel. The concepts of overload and underload relate to the imbalance between the load induced on players (match workload and travel log indicators) and their recovery (rest & recovery indicator). It is important to note that it is the cumulative exposure to overload or underload which really impacts on a Players' health, performance and career longevity.


MATCH WORKLOAD


 **MINUTES PLAYED AND APPEARANCES** – The number of minutes spent on the pitch by a player during a match. Includes added time at the end of the first and second halves as well as any extra time required for competitions (where applicable). If a player played any length of time of a match then it is accounted for as an appearance.


 **MATCH TYPE** – Matches played by a player are divided into various categories: domestic league, domestic cup, international club competition, national team matches and friendlies.


 **BACK-TO-BACK MATCH** – An appearance is considered as a "back-to-back" match if the player did not have at least 5 days of rest and recovery time since their last appearance. It is important to note that the cumulative exposure to back-to-back matches ("critical zone"), together with long-distance travel and shortened off-season and in-season breaks can be detrimental to a Players' health, performance and career longevity.

REST & RECOVERY


 **REST TIME** – The period (in hours and days) between the end of a Players' previous match and the start of their next match. This is generally the time allocated to rest & recovery and training. According to FIFPRO's 'At the Limit' study from 2019, players need at least 120 hours (5 days) between games to perform at their best over a season and to manage injury risk.


 **OFF-SEASON BREAK** – The period given to players between two seasons, without training or matches, in order to recover and regenerate. Off-season breaks are mandatory, should last at least 28 days (combination of physically inactive and active weeks) and must take place outside the club and national team environment.


 **IN-SEASON BREAK** – The period (in calendar days) that a player is permitted to take without matches or training, during a season. On-season breaks are mandatory and should last 14 days. However they are sometimes not honoured, particularly given the demanding requirements of the match calendar.


 **RE-TRAINING** – Following the off-season break / holiday period, a minimum acceptable period of time for re-training and preparation must be guaranteed to all players before participation in future competitive matches. The optimal duration of a re-training period depends on various factors including the physical status of the player and the duration of the break itself. However, it is considered that a re-training period lasting at least 4 weeks is needed to work fundamentally on injury prevention and to optimize future performances.

TRAVEL

 **TRAVEL DISTANCE** – The flight distance in kilometres between the departure and arrival location. Only trips made for national team matches or club matches played abroad are considered for analysis.

 **TRAVEL TIME** – The flight time expressed in minutes between the departure and arrival location. Only trips made for national team matches or club matches played abroad are considered for analysis. For every calculation the speed of an average commercial flight is assumed. 20 minutes are added to account for take-off and landing.

 **TIME ZONES CROSSED** – Many matches are played in time zones different to the one the player usually stays in. This indicator sums up the number of time zones crossed during the trip the player takes to and from the location of such matches. An excessive number of time zone crosses can have an adverse effect on the Players' mental and physical well-being as it often takes a while for the body to get accustomed to another time zone and location.

 **EXTREME CLIMATE CONDITIONS** – Cases in which players need to appear in matches played in different climates within a relatively short period of time. Peak performance is difficult to achieve without allowing enough time for the body to get accustomed to a vastly different climate environments. Cases like this often involve players travelling to another continent or between the northern and southern hemispheres.



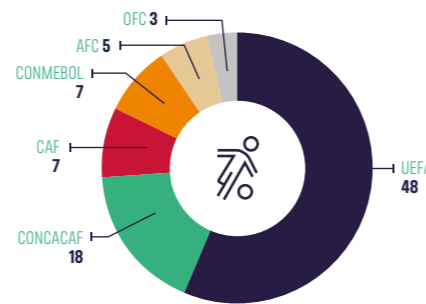
METHODOLOGY

OUR ANALYTICAL APPROACH

In order to put the analysis results of the report into context, it is important to understand the key characteristics of the underlying dataset.

PLAYER SAMPLE

There are currently 265 professional male footballers in the PWM platform, representing a wide range of nationalities. The visual shows the breakdown by the confederation of the players' nationality.



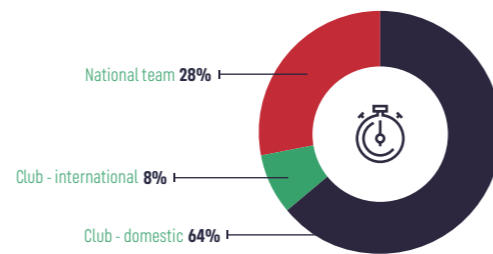
PERIODS ANALYSED

All matches currently featured in the PWM platform took place between June 2018 and January 2022. This selection covers three full football seasons for most players.



MATCHES COVERED

There are currently approximately 54,000 player appearances on record in the PWM platform. This includes all competitive and friendly matches of all players in the sample. Appearances are categorised as either domestic club, international club or national team matches



SEASON DEFINITION

While most competitions featured in the PWM platform follow the autumn-spring schedule (e.g. 2020/21 season), there are some that are organised on a calendar year basis, the so-called "summer leagues" (e.g. 2021 season). In order to make them comparable, the data related to summer leagues was re-categorised to match the autumn-spring schedule seasons closest to them. For example, 2019 season data is referred to as 2018/19, while 2020 season games analysed together with the 2019/20 matches and so on.





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PLAYERS
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