

2021

FLASH REPORT

PLAYER WORKLOAD & RECOVERY DURING THE EMERGENCY CALENDAR

FIFPRO Player Workload Monitoring (PWM)

Men's football report

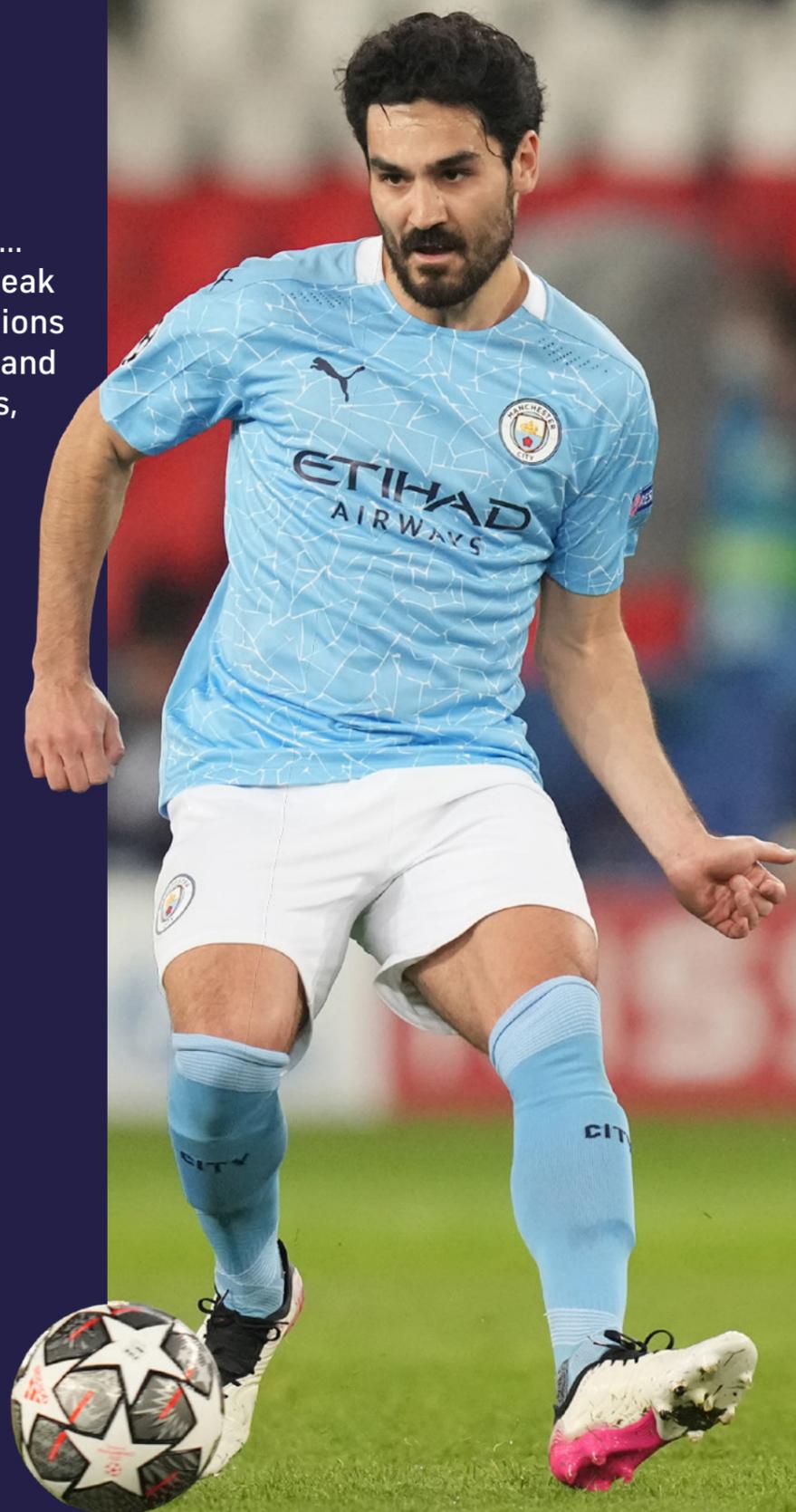


THE PLAYERS' VOICE

"With all the Super League stuff going on... can we please also speak about the new Champions League format? More and more and more games, is no one thinking about us players?"

Ilkay Gündogan

Manchester City FC
22 April 2021



"We've seen this for a number of years, whether it was the Club World Cup, the Nations League or commercial tours ahead of a new season - there is generally little regard for the impact the calendar has on players' health and their performance."

These players want to play but they want to play at the highest level they can and frankly value is not just created by the quantity of matches but the quality of them."

Jonas Baer-Hoffmann

FIFPRO General Secretary
28 April 2021 (Sky Sports)



ABOUT

FIFPRO PWM PLATFORM

FIFPRO PWM is a player-centric, match scheduling and workload monitoring, platform developed and operated jointly by FIFPRO and KPMG 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 rich database held within FIFPRO PWM's continuously evolving platform is the source of the analysis presented within this Flash Report.

The FIFPRO PWM platform is freely accessible at [FIFPRO's Player IQ Hub website](#), and at the [KPMG Football Benchmark website](#). Please visit the platform to see information on all of the 265 male players featured within this report. The platform also contains workload data and analysis on 85 female players.

FIFPRO PWM FLASH REPORTS

The Flash Reports draw on FIFPRO PWM's data findings to provide scientific mid-season analysis on player workload and match scheduling. This edition focuses on the impact that the global pandemic and resulting disruption to the footballing calendar have had on player workload and recovery. The focus of the analysis is on the period since May 2020, namely the 'emergency period'.

The report includes an overview of the competition calendar during this period and a multi-level analysis covering players across various different competitions. The analysis is based on the appearances and workload of 265 selected players from the FIFPRO PWM platform.

KPMG FOOTBALL BENCHMARK

KPMG 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 5,800+ players from the best European and South American leagues.



The detailed description of all terms and definitions used in this report is on [Page 38](#).

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KEY FINDINGS

WORKLOAD & RECOVERY IN THE EMERGENCY PERIOD

Players and coaches suffer from a fragmented and congested match calendar. FIFPRO PWM demonstrates that the implementation of player safeguards to manage workload and recovery are critical in order to protect player health and performance as well as competitions.

Football regulatory authorities have failed in recent years to respond to the concerns of players in order to build an integrated match calendar that balances competitions and protects mandatory rest and recovery periods for players. Recent developments in international football have shown that player health and player workload often are considered secondary to other sporting or commercial interests. The design of future international match calendars and additional regulatory safeguards with the support and insights of the players will be important cornerstones in shaping a sustainable football industry for the next decade.

PLAYER WORKLOAD PARAMETERS IN THE EMERGENCY PERIOD:



1. PLAYERS AT DOMESTIC LEVEL PLAYED 42% OF THEIR GAMES IN THE CRITICAL ZONE

The workload spent in the critical zone increased by more than 10 percentage points from pre-COVID-19 levels (from 32% to 42%) for players not playing international club or national team competitions.



2. UP TO 80% OF MINUTES WERE PLAYED IN THE CRITICAL ZONE

Players with significant participation in international club and national team competitions played up to 70% or 80% of their minutes in the critical zone.



3. BACK-TO-BACK MATCHES WITH 4 DAYS OF REST ARE THE NEW NORMAL

An average rest time of 4 days including travel periods between matches leaves almost no time for physical and mental recovery, nor for necessary training and conditioning work.



4. ALMOST NO OFF-SEASON BREAKS AND RUSHED RE-TRAINING DUE TO ONGOING COMPETITIONS

Comparative data shows that the necessary off-season breaks were too short and that the fragmented match calendar left many players without necessary off-season breaks.



FIFPRO made a series of recommendations about measures to protect player health and performance in the 'At The Limit' report published in 2019.



THE EMERGENCY CALENDAR IN PROFESSIONAL FOOTBALL



THE EMERGENCY CALENDAR IN PROFESSIONAL FOOTBALL

The global pandemic caused major disruptions in the men's and women's football calendars worldwide and the consequences of these disruptions become even more evident in the season that follows. Changes in the calendar have affected domestic championships, local cup competitions and international club and national team competitions alike all over the world.

The term 'emergency calendar' is used to describe this unprecedented pandemic-induced period in professional football. The following section showcases the impacts of the emergency calendar on match scheduling and player workload, focusing on five selected clubs from five different confederations.

The emergency calendar's disruption to the usual rhythm has put a huge strain on many players, even those who do not play for both their club and national teams.

The period referred to in this analysis is from 1st May 2020 to 31st January 2021, comprising the first nine months of the 'emergency calendar'. For certain clubs, the impact of the suspension due to COVID-19 and the changes in the calendar are assessed at both the domestic and international level, and there is also a section dedicated to player workload management considerations. For the players, the focus is on their often crowded individual match calendars and key workload indicators during this period.



MANCHESTER UNITED FC UEFA, ENGLAND, ENGLISH PREMIER LEAGUE



WORKLOAD INDICATORS OF THE EMERGENCY CALENDAR (1ST MAY 2020 – 31ST JAN. 2021)

48 matches played in total

in **6** different competitions

with **4.3** days average rest between matches



DOMESTIC IMPACT	<ul style="list-style-type: none"> Due to the COVID-19 disruption Manchester United FC re-started in-person training after a 69 day hiatus A very compressed schedule followed the restart of the English Premier League, with the competition finishing on 26th July 2020 This delay led to a significant shortening of the off-season break before start of the 20/21 season
INTERNATIONAL IMPACT	<ul style="list-style-type: none"> UEFA Europa League matches were suspended in March 2020 and resumed in August 2020. Remaining knockout round matches were mostly played as one-leg ties in neutral venues in Portugal The club finished their campaign at the semi-final stage on 16th August, three weeks after the end of the domestic season Due to this delay only 33 days passed between the last competitive match of the 19/20 season and the first match of the 20/21 season. In comparison, the difference was 90 and 82 days in the previous two summers
PLAYER WORKLOAD MANAGEMENT	<ul style="list-style-type: none"> The emergency calendar forced the club to reduce the time allowed for player rest and recovery. The off-season breaks, pre-season conditioning and the re-training period, were all shortened, while in-season breaks were cancelled Players missed essential components of injury prevention and had almost no time for physical and mental recovery Like all EPL clubs, Manchester United FC did not benefit from the new five-substitute rule introduced to specifically mitigate risks of player fatigue and overload

KEY PLAYER IN FOCUS: HARRY MAGUIRE

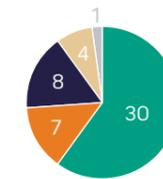
England / Centre-Back / 28

50 total appearances

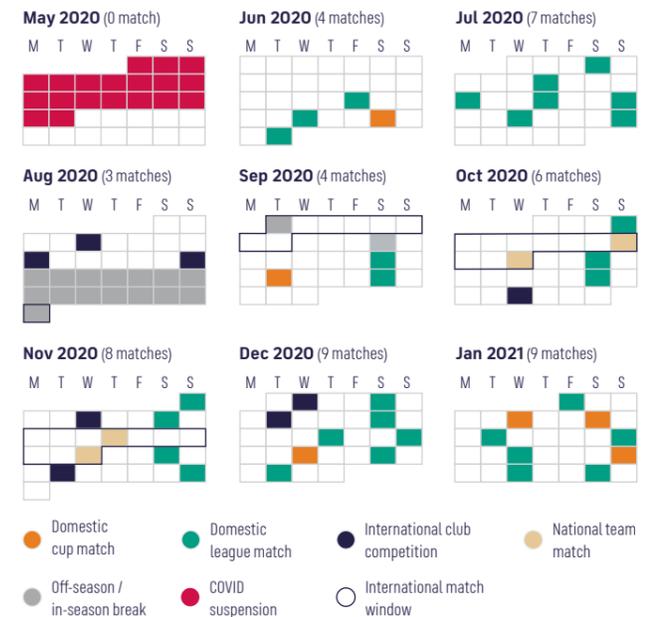
4,816 minutes played (96.3 per app)

4.5 days between matches on average

8,807 km international travel



Manchester United FC's captain has not missed a minute's play in the Premier League since his arrival at the club in 2019. The England defender is one of the players with an extremely high workload during the emergency calendar as a result of playing in several different competitions.



Empty, white cells on the calendar indicate days without a match appearance during the season.
Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

CLUB ATLÉTICO RIVER PLATE CONMEBOL, ARGENTINA, PRIMERA DIVISIÓN



WORKLOAD INDICATORS OF THE EMERGENCY CALENDAR (1ST MAY 2020 – 31ST JAN. 2021)

22 matches played in total

in **3** different competitions

with **5.6** days average rest between matches



Category	Impact/Management
DOMESTIC IMPACT	<ul style="list-style-type: none"> The 2019/20 Superliga season ended in early March 2020, just before the pandemic hit. Immediate consequences were therefore quite limited, although a domestic cup did have to be cancelled The new league season could not be launched as planned due to the pandemic uncertainty. A much shorter competition, the Copa Diego Armando Maradona, was introduced in late October instead to avoid a long break in play The next 'traditional' league season is planned to start in the summer of 2021
INTERNATIONAL IMPACT	<ul style="list-style-type: none"> The main international club competition, the 2020 Copa Libertadores, had to be suspended in the middle of March 2020. After various postponements play eventually only resumed in September 2020 The tournament finally concluded on 30th January 2021. Unlike in Europe, clubs could play in their home stadiums (behind closed doors). River Plate reached the semi-final stage
PLAYER WORKLOAD MANAGEMENT	<ul style="list-style-type: none"> After a long COVID-19 suspension, the players could only return to training in mid-August 2020, with safety protocols in place, giving them just over a month to prepare for the Copa Libertadores ties. The club also benefited from the new five-substitute rule in domestic and international competitions The dynamic development of the pandemic was a challenging health and safety situation, impacting players in both their training and playing environments

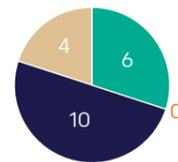
KEY PLAYER IN FOCUS: FRANCO ARMANI Argentina / Goalkeeper / 34

20 total appearances

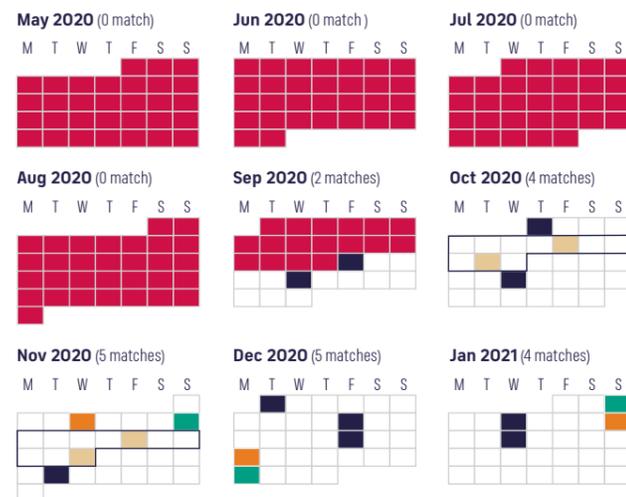
1,955 minutes played (97.8 per app)

6.1 days between matches on average

21,025 km international travel



The experienced goalkeeper had a long break from competitive play due to the pandemic and could not play for his club until September 2020. His minutes in play decreased due to the regular Argentinian league being delayed.



Empty, white cells on the calendar indicate days without a match appearance during the season.
Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

AL AHLY SC CAF, EGYPT, EGYPTIAN PREMIER LEAGUE



WORKLOAD INDICATORS OF THE EMERGENCY CALENDAR (1ST MAY 2020 – 31ST JAN. 2021)

37 matches played in total

in **4** different competitions

with **4.7** days average rest between matches



Category	Impact/Management
DOMESTIC IMPACT	<ul style="list-style-type: none"> The Egyptian Premier League was suspended in March 2020 and only resumed in August. Due to this postponement it only finished at the end of October. This had a knock-on effect on the next season. Instead of the usual July or September start, the 20/21 season only kicked off in December The domestic cup was also impacted, with knockout matches returning in October after a 9-month suspension. The 2019/20 FA Cup thus ran for almost 14 months in total. Al Ahly won the final on penalties
INTERNATIONAL IMPACT	<ul style="list-style-type: none"> The 2019/20 CAF Champions League (CCL) had originally been scheduled to be played with a revamped schedule with the final in May. The pandemic led to significant delays, with semi-finals and the final eventually played only in October and November. Al Ahly beat fellow Egyptian club Zamalek in the final The team travelled to Qatar in February to take part in the FIFA Club World Cup, adding a further three matches to their already busy schedule
PLAYER WORKLOAD MANAGEMENT	<ul style="list-style-type: none"> Al Ahly players could resume training sessions after a hiatus of more than four months and had six weeks dedicated to conditioning before the resumption of the Egyptian league in early August The five-substitute rule was introduced in Egypt, however, there was no off-season break for Al Ahly; only eight days passed between the CCL final and the start of the 20/21 domestic season In December 2020, COVID-19 also hit the club's preparations as four key players and the head coach were tested positive

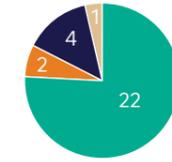
KEY PLAYER IN FOCUS: AYMAN ASHRAF Egypt / Centre-Back / 30

29 total appearances

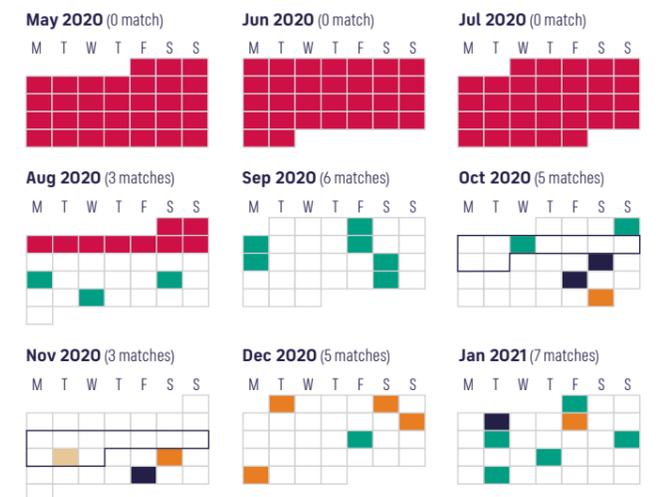
2,652 minutes played (91.4 per app)

6.0 days between matches on average

22,592 km international travel



The long-serving defender of Al Ahly had a very intense schedule in the Egyptian league, as well as several Champions League and national team appearances, meaning he had practically no break before the 20/21 season.



Empty, white cells on the calendar indicate days without a match appearance during the season.
Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

ULSAN HYUNDAI FC AFC, SOUTH KOREA, K LEAGUE 1



WORKLOAD INDICATORS OF THE EMERGENCY CALENDAR (1ST MAY 2020 – 31ST JAN. 2021)

41 matches played in total

in **3** different competitions

with **5.6** days average rest between matches



Category	Impact/Management
DOMESTIC IMPACT	<ul style="list-style-type: none"> The K League 1 usually starts in March, but due to COVID-19 the 2020 season had to be delayed until May. However, the league was one of the first to resume play after the pandemic-induced break. The competition was shortened by 11 rounds The 2021 league season has been planned to be flexible, with teams playing 2 or 3 times against each other (27 or 38 rounds in total). The five-substitute rule is likely to be introduced, however if teams do not field enough under-22 players, then they can still only use three substitutes The FA Cup also started late, but could still finish on time by scheduling more matches than usual for July
INTERNATIONAL IMPACT	<ul style="list-style-type: none"> Ulsan took part in the AFC Champions League (ACL), which runs from March until November in a regular year. The 2020 edition was suspended between March and September. Ulsan beat Persepolis FC in the final in December This win booked a place for Ulsan at the FIFA Club World Cup, which took place in Qatar in early February
PLAYER WORKLOAD MANAGEMENT	<ul style="list-style-type: none"> Although the league was shortened, Ulsan players still had to complete a 22-game season without a break from May to September, with only three substitutions allowed The FA Cup final was played over two legs (1), only three weeks prior to the resumption of the ACL. Participation at the tournament in Qatar led to an extremely intense and congested playing period: 9 games in 26 days, including one that went to extra time (2.8 days of average rest time) In February, Ulsan returned to Qatar again to play two games at the Club World Cup, shortening the off-season break and re-training period

KEY PLAYER IN FOCUS: CHUL HONG

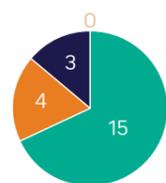
Korea PR / Left-Back / 30

22 total appearances

1,675 minutes played (76.1 per app)

8.8 days between matches on average

7,703 km international travel



The defender started the emergency period at Suwon Bluewings but transferred to Ulsan Hyundai in July. His workload mostly comprised of domestic games but he also took part in the AFC Champions League campaign in December.



Empty, white cells on the calendar indicate days without a match appearance during the season.
Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

TIGRES UANL CONCACAF, MEXICO, LIGA MX

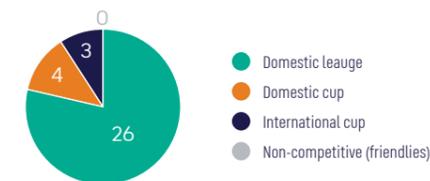


WORKLOAD INDICATORS OF THE EMERGENCY CALENDAR (1ST MAY 2020 – 31ST JAN. 2021)

33 matches played in total

in **3** different competitions

with **6.6** days average rest between matches



Category	Impact/Management
DOMESTIC IMPACT	<ul style="list-style-type: none"> Liga MX traditionally starts in July and ends in May, with the season broken down into two separate championships (Apertura and Clausura). However, the Clausura had to be terminated in March, with no team being crowned champions The 2020/21 season started as per the usual schedule with teams back in training in June Similarly, the 2019/20 edition of the Copa MX (domestic cup) competition was suspended in March and the final was only played in autumn. Importantly, the 2020/21 cup season was cancelled to make room for the league
INTERNATIONAL IMPACT	<ul style="list-style-type: none"> The CONCACAF Champions League (CCL), which usually runs from February until early May, was also halted in March with the remaining seven matches re-scheduled to December. All games took place on neutral ground in Florida (USA) as one-leg ties The pandemic led to the cancellation of another tournament, the 8-team Leagues Cup, which would have featured Mexican and US clubs However, Tigres participated at the FIFA Club World Cup in February, travelling to Qatar to play two matches
PLAYER WORKLOAD MANAGEMENT	<ul style="list-style-type: none"> During the lockdown, Tigres players were able to keep training 'virtually' for some time, using home workouts with the help of the club's fitness coaches, until they were allowed to return to normal training in mid-June Player workload was eased by the introduction of the five-substitute rule in time for Apertura 2020/21 There was only a very short in-season break between Tigres' CCL matches in December and the return of domestic football on 10th January

KEY PLAYER IN FOCUS: LUIS RODRÍGUEZ

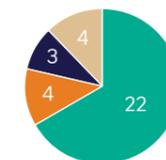
Mexico / Right-Back / 30

33 total appearances

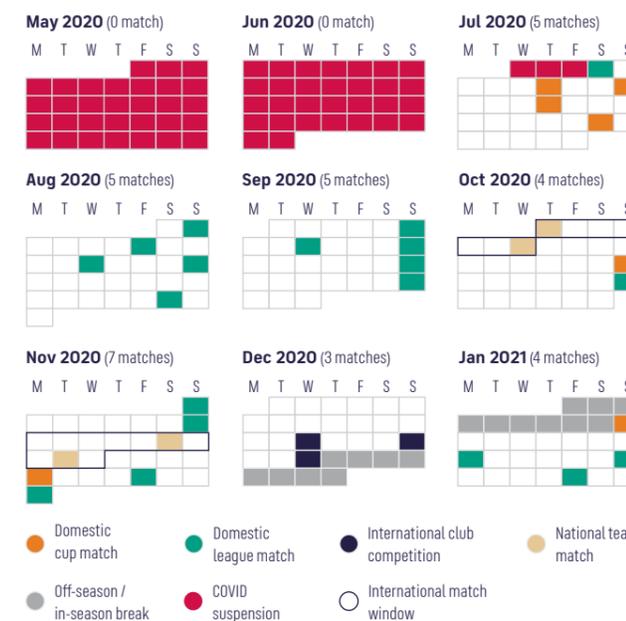
2,896 minutes played (87.8 per app)

6.5 days between matches on average

41,221 km international travel



As well as being almost ever-present at club matches, Luis Rodríguez also played four times for the national team. These appearances for Mexico contributed to him travelling more than 40,000 kilometres internationally during the emergency period.



Empty, white cells on the calendar indicate days without a match appearance during the season.
Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

PLAYER IMPACT I BACK-TO-BACK MATCHES



PLAYER IMPACT I BACK-TO-BACK MATCHES

The disruption to the usual rhythm caused by the emergency calendar has put a huge strain on many players. Even players who only play domestic football are experiencing a sharp increase in cumulative back-to-back matches. Those players who were already at their limit before the emergency period, and who play for clubs and national teams with commitments to several competitions simultaneously, are being left very exposed.

This section assesses the rest and recovery times afforded to players and provides a detailed insight into the density of the match schedule during the emergency calendar. The following analysis is based on data of 265 selected players who are currently featured in the FIFPRO PWM platform.

THE CRITICAL ZONE: CUMULATIVE WORKLOAD FOR PLAYERS

The term 'critical zone' refers to matches that potentially put too much strain on players (see 'Terms & Definitions' for more details) and results in too little time for recovery over a long period. Matches played in the critical zone occasionally are considered to be acceptable (even optimal) for the performance and development of an athlete. However, if critical zone appearances become a frequent occurrence and players have to regularly participate in back-to-back matches without adequate rest and recovery periods, this can have detrimental effects on the players' health and performance.

THE IMPACT OF CRITICAL ZONE MATCHES ON PLAYERS

- Matches played in the critical zone greatly elevate the chances of a player becoming fatigued, resulting in an inability to perform at their peak and a higher chance of injury
- Playing several matches in the critical zone without mandatory rest and recovery periods increases mental stress and makes it much harder for players to recover both physically and mentally

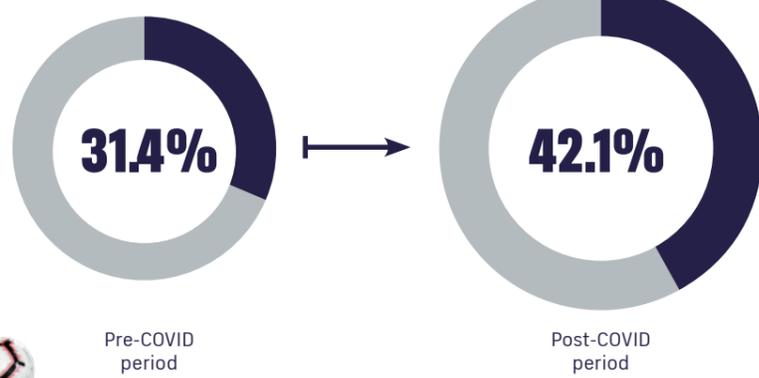
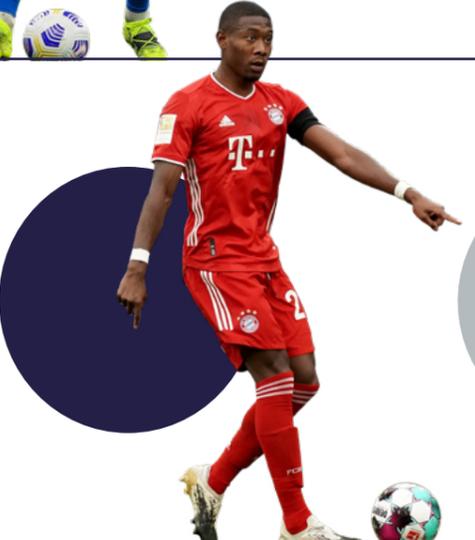
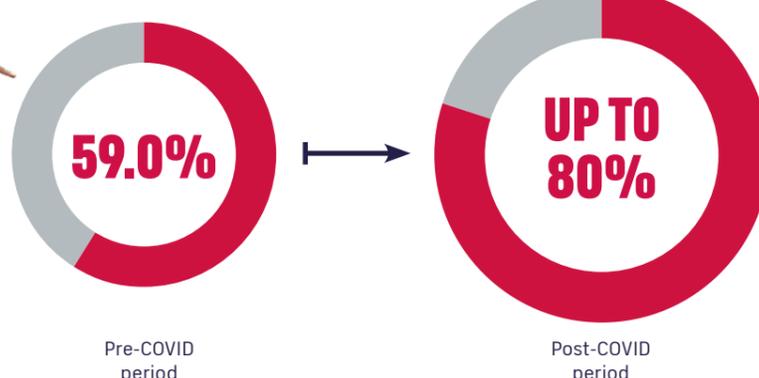


- In the current match calendar, the impact of back-to-back matches is often further compounded by international travel. Many critical zone matches have taken place after travelling to another country, with the player spending many hours on a plane and often travelling between time zones¹
- Cumulative matches in the critical zone over a long period of time is a sign of a fragmented and congested match calendar without proper safeguards for players, ultimately risking their health and performance

¹ This poses a specific challenge for players in regions with long distances to travel for international club matches, such as the AFC (Asia) region, as well as for players who represent their country in national team competitions but play professional club football far away (often this applies to non-European players who are working and playing for clubs in Europe).

The evidence shows that the overall workload of players on the FIFPRO PWM platform has increased significantly due to the emergency calendar after the COVID-19 outbreak. Not all players are affected equally; they are exposed to different workload demands and might experience different periods of particularly stressful playing periods. In general terms it is possible to identify three distinct playing groups in the emergency period:

REPETITIVE WORKLOAD IN THE CRITICAL ZONE BY DIFFERENT PLAYING GROUPS

Definition of playing group	Change in the share of critical zone appearances after the COVID-19 outbreak	Key findings
<p>PLAYERS MOSTLY EXPOSED TO DOMESTIC WORKLOAD²</p> <p>Players whose match schedule is mostly made up of domestic games; those in this group played a maximum of two national team or international club competition matches in the analysed periods</p> 	 <p>Pre-COVID period: 31.4%</p> <p>Post-COVID period: 42.1%</p>	<ul style="list-style-type: none"> The COVID-19 outbreak has led to a more intense match calendar, even for those footballers who almost exclusively play in domestic competitions. Even without national team commitments or international club matches, many footballers could now be faced with an increased workload over a long period of time Compared to the "pre-COVID-19" nine-month period, the critical zone percentage has increased by more than 10 percentage points for players of this profile This is a concern because many players in this situation are clearly not accustomed to such a sharp increase in workload and may not have access to the proper recovery treatment
<p>PLAYERS FREQUENTLY PLAYING INTERNATIONAL COMPETITIONS</p> <p>Players who played domestic games and at least fifteen national team or international club competition matches in the analysed periods. These players are mostly key members of their respective clubs and/or are regulars in their country's national team</p> 	 <p>Pre-COVID period: 50.6%</p> <p>Post-COVID period: 52.6%</p>	<ul style="list-style-type: none"> Footballers who regularly play twice a week due to their team's international commitments don't experience sufficient rest and recovery due to the numerous club and national team competitions they have to serve, and because their mandatory off-season holiday periods are often cut short The critical zone appearance percentage was already quite high for this group before the pandemic (50.6%), but the more intense emergency calendar schedule led to an increase to 52.6% It should be noted that the impact was probably alleviated by the introduction of the five-substitute rule in most competitions. This meant that many players could be substituted earlier or more often, potentially decreasing the critical zone percentage for those players
<p>PLAYERS WITH THE MOST MINUTES PLAYED³</p> <p>The twenty players in our FIFPRO PWM platform with the most minutes played across all competitions. Players with this profile generally make it far in international competitions (e.g. David Alaba, Romelu Lukaku), play a lot of national team games (e.g. Lionel Messi) and are ever-present in their teams (e.g. Harry Maguire). They are international players at the top of the professional game</p> 	 <p>Pre-COVID period: 59.0%</p> <p>Post-COVID period: UP TO 80%</p>	<ul style="list-style-type: none"> The average critical zone percentage across the top 20 players with the most minutes played pre-COVID-19 and the top 20 in the emergency calendar ("post-COVID-19"), show that the most overworked group of footballers now spend, on average, over 60% of their match appearances in the critical zone For some players in this group the exposure to matches in the critical zone and limited rest and recovery between matches is higher than 70%. These players are only afforded proper rest & recovery time for less than one-third of their games on a continual basis With this in mind, it is even more worrying that the critical zone percentage for those players actually increased during the emergency calendar period

² Even though this result is based only on approx. 40 players from the PWM sample, it is still indicative of overall trends.
³ Even though this result is based only on a small player sample from the PWM platform, it represents an extremely impactful and important playing group for football competitions.

Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

INDIVIDUAL PLAYER LEVEL ANALYSIS

Players of the FIFPRO PWM platform whose share of appearances in the critical zone was the highest during the emergency period from each confederation are showcased in this section.

Interestingly, the five players presented here represent different playing positions. Among them, Samir Handanovic, FC Internazionale Milano's Slovenian goalkeeper, had the highest number of his matches in the critical zone, surpassing the 80% threshold. This means that in the dense, back-to-back match schedule he only had sufficient rest before a fifth of his appearances.

As the scatter charts show, top players from other regions also had an exceptionally high number of back-to-back matches, all experiencing a significant increase in their critical zone appearance percentage since the start of the pandemic.

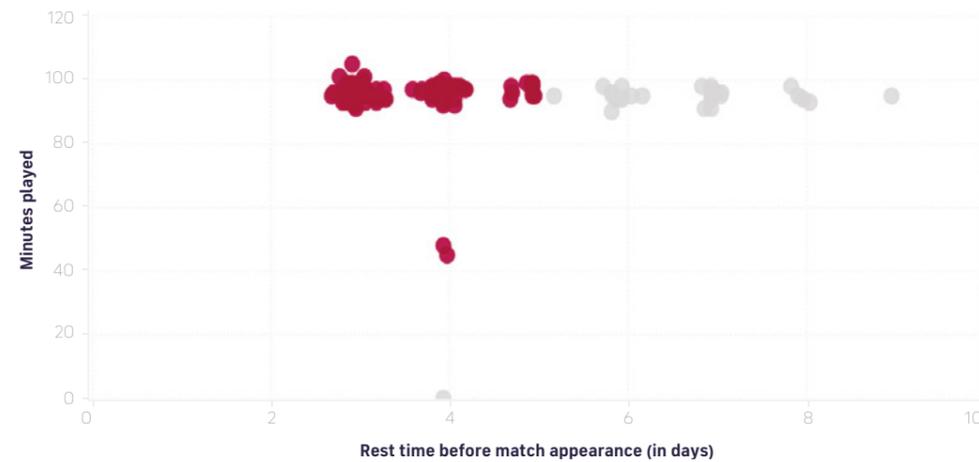
● match in critical zone ● not in critical zone



UEFA SAMIR HANDANOVIC

Serie A / Internazionale Milano / Goalkeeper / 36 years old

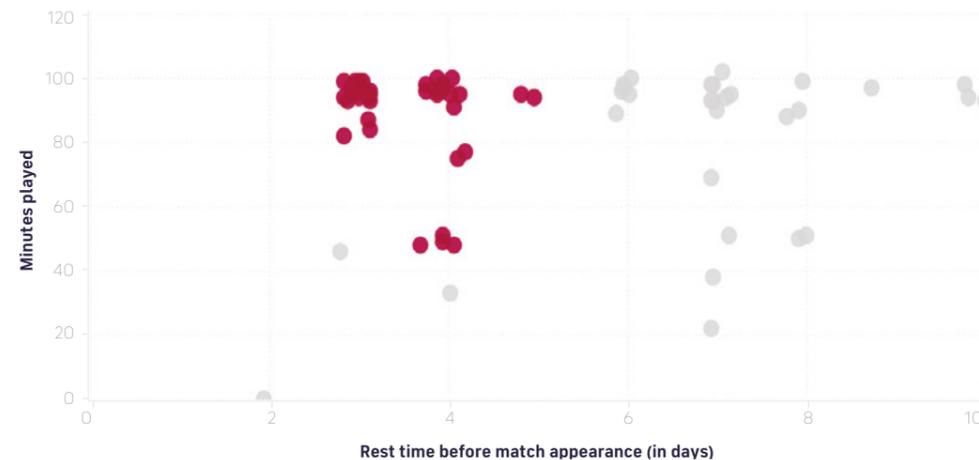
81.3% share of appearances in the critical zone



CAF KHAMA BILLIAT

South African Premier Division / Kaizer Chiefs / Forward / 30 years old

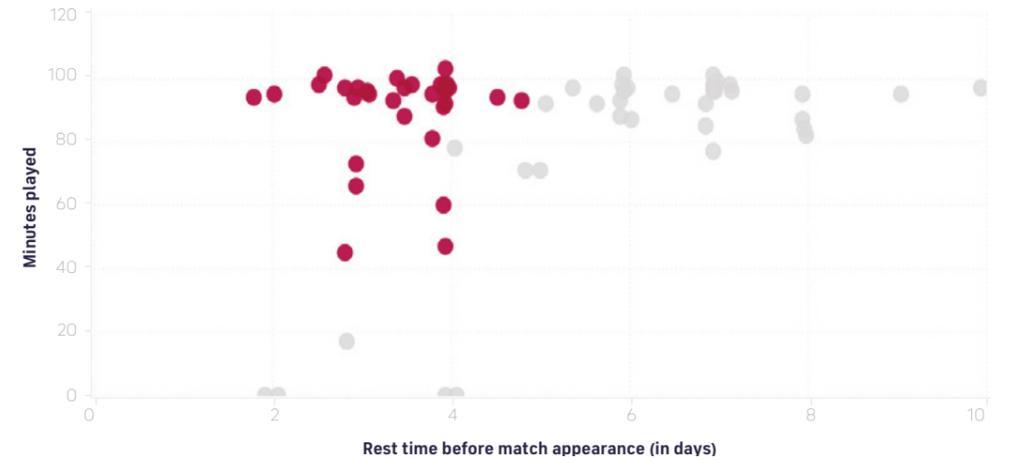
72.0% share of appearances in the critical zone



CONMEBOL ROSMEL VILLANUEVA

Primera División / Caracas FC / Central Defender / 28 years old

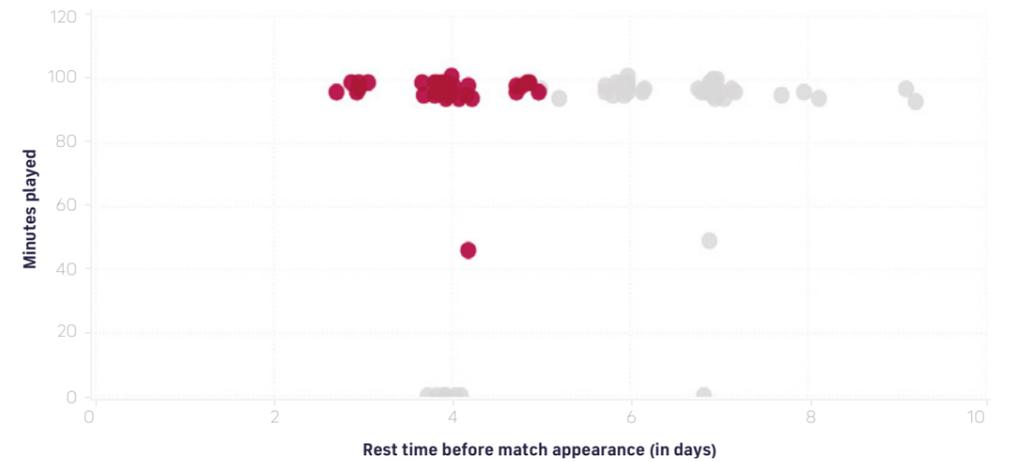
62.5% share of appearances in the critical zone



AFC TOMOAKI MAKINO

J1 League / Urava Red Diamonds / Central Defender / 33 years old

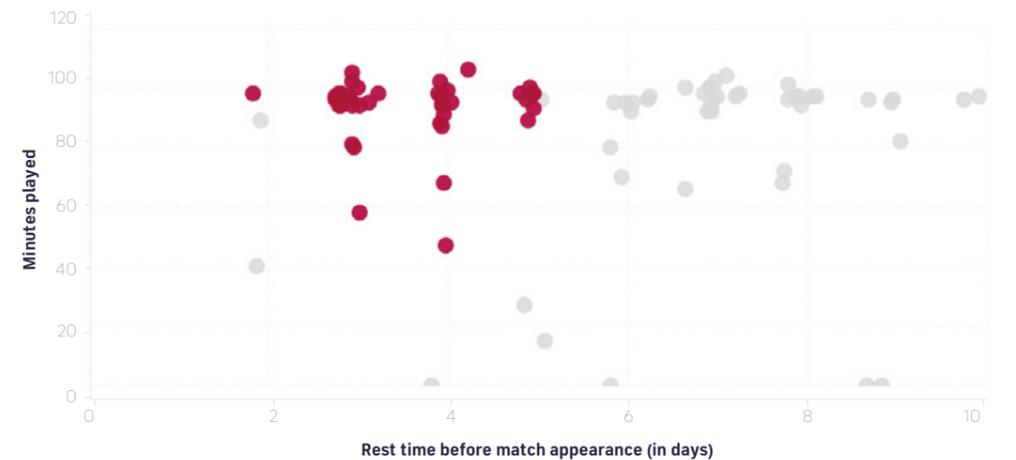
52.0% share of appearances in the critical zone



CONCACAF DIEGO ROSSI

MLS / Los Angeles FC / Winger / 23 years old

63.6% share of appearances in the critical zone



PLAYER IMPACT II SEASON BREAKS



PLAYER IMPACT II SEASON BREAKS

Mandatory, protected season breaks are essential in order to allow players to recover physically and mentally during and after a stressful season. The fragmentation of the current match schedules and continuous competition formats make it impossible to ensure minimum mandatory rest requirements for players. The emergency calendar is further accelerating the negative effects on performance and careers.

OFF-SEASON BREAK IN THE EMERGENCY CALENDAR

- The emergency calendar brought a peculiar discrepancy between leagues that previously had similar off-season periods. Those that decided to curtail their season as a result of the COVID-19 uncertainty had a considerable break in play: no domestic matches took place between mid-March and summer/September. However, this was different to the structured off-season breaks players require under normal circumstances
- On the other hand, the leagues that did re-start could do so only from late May onwards. In many cases they had more than 10 rounds of matches left to be played, which most of them ultimately achieved in under two months. This breakneck pace led to a packed schedule in the summer months, often in high temperatures (with mandatory drink breaks being introduced)
- The delayed end to the season meant that most players did not have enough off-season rest. Fearful

of the cascading impact of even more delays, most competition organisers pushed for launching their next season according to their "usual" timeline in August/September. As a result, **most players had even less rest than in previous years, often far below the recommended rest periods for professional players.** Furthermore, shortened re-training periods after the off-season put additional stress on players and increased the workload problem for players

- The situation was even worse for players who were involved in international club competitions after the conclusion of the domestic seasons and early qualification rounds of international club competitions
- In addition, the first national team window was scheduled for early September, requiring many elite players to play additional minutes, and take additional international travel, while also missing re-training periods. These players had only a couple of days of rest away from football, and sometimes none at all, before they had to play for their national teams.



Due to the delayed completion of the previous club season, the looming start of the new one and two national team windows scheduled early on, there was no space for the required off-season break for most elite players in Europe.

Example of a European player calendar

	Off-season break						
2020	APR	MAY	JUN	JUL	AUG	SEP	OCT
Domestic club competitions	COVID-19 suspension		2019/20 leagues & domestic cups			2020/21 leagues & domestic cups	
International club competitions	COVID-19 suspension				2019/20 UCL & UEL knock-out rounds	2020/21 UCL & UEL qualifying rounds	2020/21 UCL & UEL group stages
National team competitions	COVID-19 suspension					UEFA Nations League	UEFA Nations League

A MARATHON OF GAMES

"For me, the feeling is that I'm in the 60th game of the season and not in the ninth. We've had a marathon of games. Generally, when you get to a Champions League final, you have a holiday, but we [...] didn't have time to rest."

Kylian Mbappé
Paris Saint-Germain FC
26 October 2020



FIFPRO estimate that every player should have at least **5 weeks** of off-season break away from football between seasons and **4 weeks** of pre-season training to properly prepare for the new season. These criteria were not met after the delayed end to 2019/20: many players virtually did not have any break at all before the 2020/21 campaign.

NIKLAS SÜLE



11 days days between two seasons



⊘ No off-season break (holiday)

⊘ Insufficient pre-season training

Played in the UCL final, then two German Nations League matches in September, before the start of the domestic season 12 days later.

KYLIAN MBAPPÉ



13 days days between two seasons



⊘ No off-season break (holiday)

⊘ Insufficient pre-season training

Played all minutes in the UCL final, then had a Nations League match with France on 5th September. First domestic league appearance on 20th September.

PÉTER GULÁCSI



16 days days between two seasons



⊘ No off-season break (holiday)

⊘ Insufficient pre-season training

Played the UCL semi-final in Portugal, then had two Nations League matches with the Hungarian national team in early September.

BRUNO FERNANDES



20 days days between two seasons



⊘ No off-season break (holiday)

⊘ Insufficient pre-season training

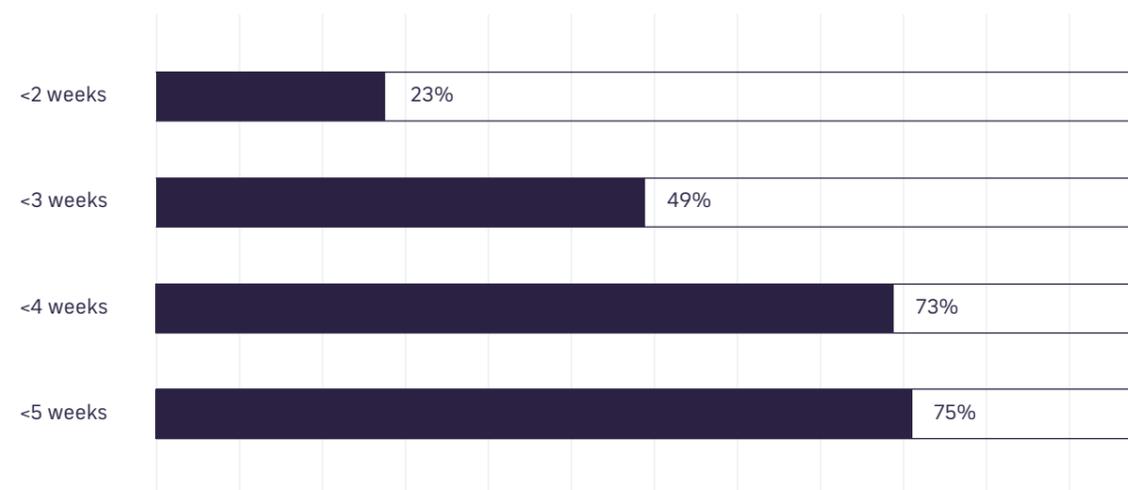
Played the UEL semi-final in Germany with his club, then appeared in Nations League matches with the Portugal team.

PLAYERS WITHOUT ENOUGH BREAK IN PLAY BEFORE CURRENT SEASON

Another way to delve deeper into the topic of insufficient season breaks is to identify the number of players who did not have enough weeks off for recovery. Only the players from "winter" leagues (scheduled from approx. August to May) were considered, because the COVID-19 disruption had less impact on the "summer"

leagues (Spring to Autumn) as they had just finished their off-season in preparation for the 2020 season when the pandemic hit. The 265 male players appearing in the FIFPRO PWM platform are the basis of this analysis.

Share of players with less than x weeks of off-season break before the 2020/21 season



Players are supposed to have a mandatory 5-week period between seasons, taking place outside of the club and national team environment (the off-season break). This would more or less ensure that they can re-charge both physically and mentally before another demanding season.

- The results show that a large majority of players were not just stripped of the advised 5-week break before the 2020/21 season, but a large number of players didn't even receive a 4, 3 or even a 2-week break
- The data also shows that this group of players didn't have enough off-season rest before the 2019/20 and 2018/19 seasons either. However, the main reason for this was the packed national team schedules for those summers: FIFA World Cup qualifiers, Under-21 European Championship, African Cup of Nations, Copa América, Gold Cup, etc.

- There were no national team games or tournaments in the summer of 2020, but the COVID-19 disruption still cut summer "vacations" short for most professional players once again. Crucially, we can see that almost a quarter (23%) of players currently tracked in the FIFPRO PWM platform had fewer than 14 days for rest & recovery in the off-season before 2020/21. This extreme level of workload for many professional players is surely not sustainable. What does the immediate future hold? It seems likely that due to the intense competitive calendar until the 2022 FIFA World Cup in Qatar, this problem will continue

THE COMPETITION LANDSCAPE UNTIL THE FIFA WORLD CUP QATAR 2022

The emergency calendar has further accelerated the density of matches, especially on the international scene. The current competition landscape in the emergency period creates an ongoing cycle of competitions that denies sufficient rest and recovery for players.

In this chapter, we aim to showcase the timeline of the competitions and their overlapping calendars for the period leading up to end of 2022 starting from the outbreak of the pandemic. As consequence of the global health crisis together with an already packed calendar, organizers increasingly find fewer and fewer available time slots in the competition calendars to reschedule matches, often resulting in the reduction of off-season and mid-season breaks.



“There are not enough rest and season break periods in elite football between now and the next World Cup that could guarantee the proper recovery for players.”



Kylian Mbappé

Total no of potential matches

164



Luis Suárez

Total no of potential matches

154



- Pre-season
- COVID-19 suspension
- Season breaks
- Competitive / Final tournament matches
- National team windows

PLAYER IMPACT III

WORKLOAD RECORDS AT A GLANCE



PLAYER IMPACT III

WORKLOAD RECORDS AT A GLANCE

The following section highlights cases in which players had exceptionally high workload. The topic is analysed from two aspects for every major football confederation: 1) leading players by most minutes played in the critical zone, and 2) the shortest average rest time between matches. The data relates to the period between May 2020 and January 2021, encompassing all appearances of these players during the emergency calendar affected by the global COVID-19 outbreak.



WORKLOAD RECORDS BY MINUTES PLAYED IN THE CRITICAL ZONE

Top five players from each major confederation by critical zone minutes played (FIFPRO PWM platform sample)

	Player name	Club	League	Nationality	Position	Age	Mins. played in critical zone	Total mins. played	Share %
AFC	Sho Sasaki	Sanfrecece	J1 League		CB	31	1 427	2 992	48%
	Tomoaki Makino	Red Diamonds	J1 League		CB	33	1 275	2 393	53%
	Yasir Al-Shahrani	Al Hilal SFC	Saudi Pro League		FB	28	1 095	2 457	45%
	Baghdad Bounedjah	Al Sadd SC	Qatar Stars League		CB	29	1 042	2 426	43%
	Mohammed Al-Breik	Al Hilal SFC	Saudi Pro League		FB	28	802	2 214	36%
CAF	Ali Maâloul	Al Ahly SC	Egypt Premier League		FB	31	1 725	2 705	64%
	Khama Billiat	Kaizer Chiefs	SA Premier Division		FW	30	1 507	2 173	69%
	Tarek Hamed	Zamalek SC	Egypt Premier League		DM	32	1 387	2 718	51%
	Mahmoud Alaa	Zamalek SC	Egypt Premier League		CB	30	1 364	2 242	61%
	Thulani Hlatshwayo	Orlando Pirates	SA Premier Division		CB	31	1 336	2 683	50%
CONCACAF	Johan Venegas	Deportivo Saprissa	Liga FPD		FW	32	1 854	2 981	62%
	Alexander López	LD Alajuelense	Liga FPD		AM	28	1 601	3 162	51%
	Diego Rossi	Los Angeles FC	MLS		FW	23	1 328	2 092	63%
	Daniel Lovitz	Nashville SC	MLS		CB	29	1 272	2 156	59%
	Brad Guzan	Atlanta United FC	MLS		GK	36	1 264	2 153	59%
CONMEBOL	Germán Cano	Vasco da Gama	Brazilian Serie A		FW	33	2 041	3 268	62%
	Mauricio Isla	CR Flamengo	Brazilian Serie A		CB	32	1 560	2 656	59%
	Bruno Piñatares	Barcelona SC	Ecuador Serie A		CB	30	1 417	2 438	58%
	Marcos Andres Lopez	Universidad Católica	Ecuador Serie A		FB	28	966	1 872	52%
	Franco Armani	River Plate	Argentina Primera		GK	34	883	1 955	45%
UEFA	Samir Handanovic	FC Inter Milan	Italian Serie A		GK	36	3 740	4 546	82%
	Harry Maguire	Man. United FC	Premier League		CB	28	3 531	4 816	73%
	Gianluigi Donnarumma	AC Milan	Italian Serie A		GK	22	3 237	4 478	72%
	Francesco Acerbi	SS Lazio	Italian Serie A		CB	33	3 144	3 936	80%
	Bruno Fernandes	Man. United FC	Premier League		AM	26	2 996	4 315	69%

The table above shows the male footballers on the FIFPRO PWM platform who have had the highest match workload based on the number of minutes played in matches that fit the 'critical zone' definition. High values in this regard indicate a significant number of back-to-back games without sufficient rest.

There are two important aspects: the absolute number of minutes played in the critical zone and the percentage of the player's total match workload they represent. In both aspects, players in Europe (UEFA) have the highest values. Three representatives of the Italian Serie A and two players of Manchester United FC make up the top five for the confederation. All of them have exceptionally high (above 69%) critical zone timings, far above the overall average, highlighting the gruelling schedule faced by elite players.

The situation is somewhat better outside of Europe, with top five rankings that are quite varied and several leagues and nationalities represented. We can still see examples of extreme workload, but not as high as the figures of the UEFA top five.

Interestingly, 20 out of the 25 footballers presented here are goalkeepers or defenders (centre-backs or full backs). Players in these positions are less likely to be rotated or substituted early.

WORKLOAD RECORDS BY SHORTEST REST & RECOVERY BETWEEN APPEARANCES

Top five players from each major confederation by shortest rest (FIFPRO PWM platform sample)

	Player name	Club	League	Nationality	Position	Age	Average rest time between apps. (days)	Total appearances
AFC	Tomoaki Makino	Red Diamonds	J1 League		CB	33	5,18	25
	Chanathip Songkrasin	Consadole	J1 League		CB	27	5,25	18
	Roy Krishna	Mohun Bagan	Indian Super League		FW	33	5,48	14
	Sho Sasaki	Sanfrecce	J1 League		CB	31	5,53	31
	Mohammed Al-Breik	Al Hilal SFC	Saudi Pro League		FB	28	5,54	27
CAF	Sifiso Hlanti	Moroka Swallows	SA Premier Division		FB	30	3,91	15
	Khama Billiat	Kaizer Chiefs	SA Premier Division		FW	30	4,89	25
	Thulani Hlatshwayo	Orlando Pirates	SA Premier Division		CB	31	5,28	28
	Ayman Ashraf	Al Ahly SC	Egypt Premier League		CB	30	5,99	29
	Ali Maâloul	Al Ahly SC	Egypt Premier League		FB	31	6,01	29
CONCACAF	Brad Guzan	Atlanta United	MLS		GK	36	4,62	22
	Samuel Piette	CF Montréal	MLS		DM	26	4,72	22
	Daniel Lovitz	Nashville SC	MLS		CB	29	5,13	22
	Lucas Cavallini	Whitecaps	MLS		CB	28	5,34	16
	Johan Venegas	Deportivo Saprissa	Liga FPD		FW	32	5,83	33
CONMEBOL	Mauricio Isla	CR Flamengo	Brazilian Serie A		CB	32	4,94	31
	Óscar Cardozo	Club Libertad	Paraguay Primera		CB	37	5,10	31
	Marcos Andres Lopez	Universidad Católica	Ecuador Serie A		CB	28	5,19	20
	Rosmel Villanueva	Caracas FC	Venezuela Primera		CB	28	5,19	16
	Germán Cano	Vasco da Gama	Brazilian Serie A		FW	33	5,24	35
UEFA	Franck Kessié	AC Milan	Italian Serie A		CM	24	4,10	50
	Paul Pogba	Man. United FC	Premier League		CM	28	4,18	47
	Callum McGregor	Celtic FC	Scottish Premiership		CM	27	4,24	47
	Hakan Calhanoglu	AC Milan	Italian Serie A		AM	27	4,24	44
	Harry Kane	Tottenham Hotspur	Premier League		FW	27	4,26	44

A slightly different way to identify an exceptionally high workload is to calculate the average rest time afforded to players between appearances. The off-season and on-season breaks and the COVID-19 suspension were not taken into account in this calculation, with only matches during the season being included.

It is clear from the table that, apart from a few outliers, all players based in the European leagues had far shorter rest & recovery periods during the emergency calendar than those in other regions of the world. Interestingly, two AC Milan players from the Italian Serie A are part of the UEFA top five ranking: both Kessié and Calhanoglu were involved in international club competitions, an intense domestic schedule and many national team matches, often involving exhausting international travel commitments.

At the other end of the spectrum, players in the FIFPRO PWM sample based in Asia generally had longer rest times between games, with even the player with the shortest downtime taking over 5 days on average. This is largely due to several national team windows being postponed and international club competitions being cancelled or delayed.

Like the critical zone analysis, 14 out of the 25 players presented here are either full-backs or defenders, and there is just one goalkeeper. The reason for this is that goalkeepers are less likely to be substituted, meaning that when they eventually do get a break during a season, they miss a match entirely.



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.

GLOBAL PLAYER AND COMPETITIONS (FIFPRO PWM SAMPLE)

 This flash report analyses match schedule and workload data of the 265 male professional football players who are part of the FIFPRO PWM platform. This is a diverse group, representing players from 6 confederations and 43 domestic leagues. The analysis covers all of the matches played by these players, including official club and national team matches as well as friendlies.

PLAYER WORKLOAD

 **Player workload** 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 player's 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, club friendlies and national team matches.

 **Critical zone** - a match is considered to fall into the "critical zone" if the player was on the pitch for at least 45 minutes and played a minimum of 45 minutes in the previous game and did not have at least 5 days of rest and recovery time between these two appearances. It is important to note that it is the cumulative exposure to matches in the critical zone, together with travel, and potentially shortened off-season and on-season breaks, that constitutes an issue for a player's health, performance and career longevity.

REST & RECOVERY

 **Rest time** - the period (in hours and days) between the end of a player's 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 2 seasons, without training or matches, in order to recover and regenerate. Off-season breaks are mandatory, should last at least 5 weeks (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 2 weeks. 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.

WHAT ABOUT THE PLAYERS?

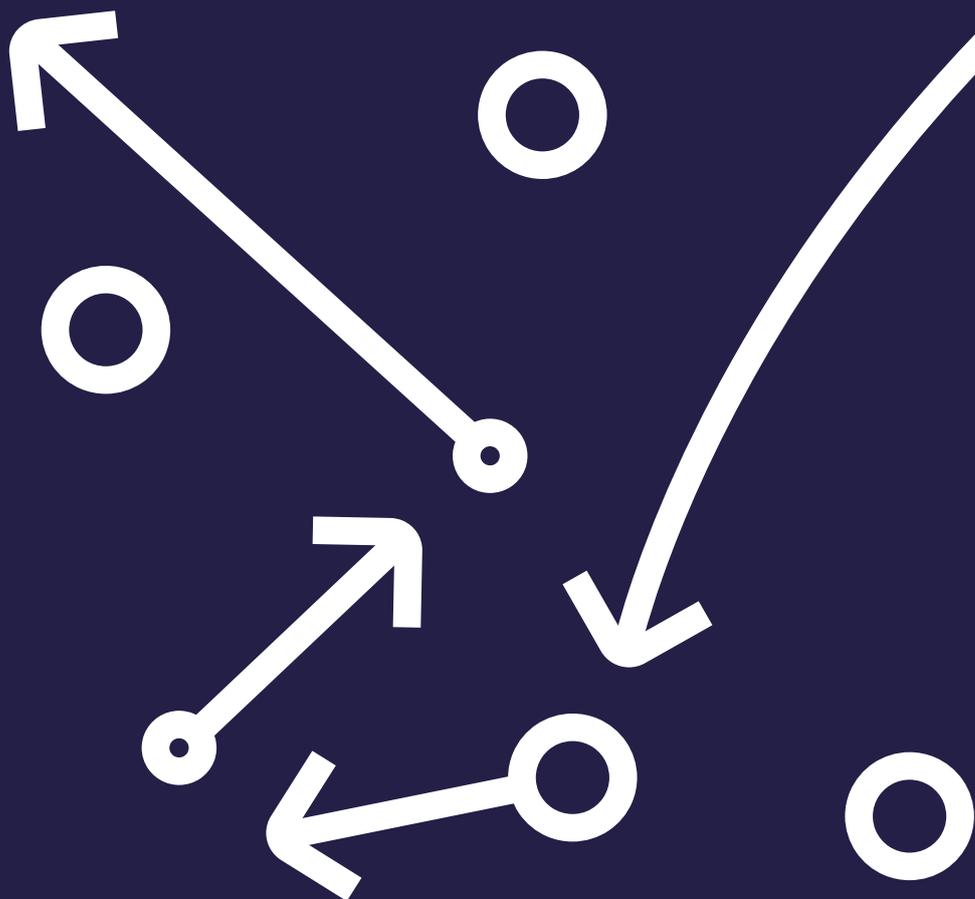
"Everyone is talking about the Super League and the Champions League, but UEFA aren't paying any attention to the players about the number of games."

Ronald Koeman

FC Barcelona head coach

21 April 2021





FIFPRO
FOOTBALL
PLAYERS
WORLDWIDE



fifpro.org



info@fifpro.org



+31 23 554 6970



Scorpius 161,
2132 LR Hoofddorp
Netherlands

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with KPMG Football Benchmark*

*Photo cover by:
ANP*

*Main photo sources:
ANP*