TABLE OF CONTENTS

01 Welcome 4

02 About 5

03 Key Findings 6

04 Player Workload: FIFA World Cup 2022™ 8

05 Post-Tournament Restart & The Season Ahead 19

06 Individual Player Focus 28

07 Methodology 33
Welcome to the FIFPRO PWM Men's Football Flash Report 2023, produced in cooperation with Football Benchmark.

It provides a snapshot of the unprecedented workload demands placed upon the game’s leading players prior to and immediately following the FIFA World Cup Qatar 2022™.

A range of competing industry factors have created the environment for this season’s chaotic match calendar, which presents a clear and pressing danger to the physical and mental health of players. The winter scheduling of the FIFA World Cup, combined with the related scheduling decisions taken by club competition organisers in response, have aggravated workload demands to extreme levels. The forewarned dangers of overload and increased risk of injury continue to become clearer and more evident as the season progresses.

The players remain aligned in their response – as highlighted in the results of the FIFPRO World Cup Player Survey 2023 contained within this report – the unacceptable levels of fixture congestion currently being experienced, without the necessary workload safeguards in place, are extremely damaging to both players and the industry overall.

Virgil van Dijk

It (the lack of rest pre-World Cup) caught up with me unfortunately, my body, I'm not a robot...

What caught up is that I played too many games at a time.

Raphaël Varane

The very highest level is like a washing machine, you play all the time and you never stop.

We have overloaded schedules and play non-stop. Right now, I feel like I'm suffocating and that the player is gobbling up the man.
KEY FINDINGS
POST-TOURNAMENT REVIEW & PLAYER SURVEY RESULTS

EXTREME WORKLOAD: MACRO INDUSTRY CAUSES

AGGRAVATING FACTORS: WORLD CUP 2022

PREPARATION & RECOVERY TIME
Unprecedentedly Short Preparation & Recovery Periods Must Not Be Repeated

86% of players want at least 14 days preparation time
61% of players want a minimum of 14-28 days recovery time

PREPARATION TIME
for many players between their final club match and the opening group match

RECOVERY TIME
before returning to competitive action with their clubs after the tournament’s final game

WORKLOAD
High Workload Demands Place Strain Upon Players, Clubs And Leagues
33,614 total minutes played by Premier League players at World Cup 2022
17 number of F.C. Barcelona players at World Cup 2022, the highest of any club

STOPPAGE TIME
Workload Impact Of Stoppage Time Changes Must Be Accounted For
11.6 minutes of stoppage time on average, in World Cup 2022 matches
4.8% likely increase in total minutes per season of an elite player if changes implemented generally (equivalent to almost 3.5 full matches)

RECOVERY & RESTART
Immediate Resumption Of Club Competitions Further Endangers Player Health
4 days
Kamil Glik had between his national team’s elimination and his first club appearance post World Cup
55% of World Cup participating players were already back playing club matches by January 1st 2023

PLAYER HEALTH & WELFARE

MENTAL FATIGUE
20% of surveyed World Cup players felt extremely high levels of mental and emotional fatigue compared to usual at this point of the season (in January).

PHYSICAL FATIGUE
44% of surveyed World Cup players experienced extreme or increased physical fatigue compared to usual at this point of the season (in January).

INJURY RISK
53% of surveyed World Cup players reported an injury or felt more likely to suffer one this season due to the extremely congested fixture calendar.

3,722 MINUTES
MATCH OVERLOAD
Harry Kane
3,722 minutes played in total between July 1st and January 30th (40+ matches)

15 MATCHES
BACK-TO-BACK MATCHES
Achraf Hakimi
15 consecutive matches back to back between August & October

8 DAYS
SHORT SEASON BREAKS
Raphaël Varane
8 days between last World Cup match and first club matchday
PLAYER WORKLOAD: FIFA WORLD CUP 2022™

The FIFA World Cup 2022™ was a highly demanding tournament for the players, with high-intensity matches and various aggravating factors affecting player workload. In this section, we highlight some of the workload related factors of the tournament and examine their impact on the players.

### Insufficient Preparation Time

The 2022 tournament marked a significant departure from tradition as it was the first edition of the tournament held during the winter. Most players arrived in Qatar only days before the tournament and were expected to perform at their best after a physically and mentally demanding period of club matches in their domestic leagues and continental competitions.

### Demanding Tournament Workload & Calendar Congestion

Due to the winter timing, the FIFA World Cup 2022™ had a compressed schedule with 64 matches played in just 29 days. This put intense physical demands on the players. Even with 32 participating nations, the tournament became the shortest one since the 1978 tournament which featured only 16 teams.

### Impactful Extended Stoppage Time

During the 2022 tournament, players experienced extended stoppage times as referees were instructed to follow a new interpretation. During this immensely congested season, this change led to several matches that were unusually long, often exceeding 100 minutes in length.
INSUFFICIENT PREPARATION TIME

86% OF PLAYERS WANT A PREPARATION PERIOD OF AT LEAST 14 DAYS, WITH THE VAST MAJORITY SEEKING 14-21 DAYS

What would be the ideal number of preparation days with your national team pre-tournament?

Less than 50% of players believed they had sufficient time to prepare for the 2022 FIFA World Cup™, especially those whose teams progressed to at least the quarter-finals. A significant 75% of surveyed players from these teams reported inadequate time to prepare for the tournament in Qatar. Regarding the optimal preparation time, the majority (around 68%) of the players surveyed felt that ideally it should be between 14 and 21 days.

Notably, players of Saudi Arabia and host nation Qatar avoided this challenge as their federations organised pre-tournament training camps lasting for one and six months, respectively. However, these were exceptional cases where players could be taken out from their club setting for an extended period of time.

86% OF PLAYERS WANT A PREPARATION PERIOD OF AT LEAST 14 DAYS, WITH THE VAST MAJORITY SEEKING 14-21 DAYS

9 days are not enough time to prepare for one of the biggest tournaments in the world. I thought that you would work your way into your tactics rather than feeling rushed. (Player Quote, FIFPRO Post-Tournament Player Survey)

Players were also surveyed about their preference for the timing of future World Cups. It is telling that only 11% indicated that they would favour a winter World Cup, while the majority still prefer the traditional June/July scheduling. This implies that having experienced the challenges brought on by the disrupted calendar, the majority would not like to go through it again. Interestingly, of the players surveyed who had also participated in previous World Cup tournaments, none of them were in favour of the winter scheduling.

CASE STUDY:
Key Players injured shortly before the tournament

With only a short period of time to prepare for the tournament, even minor injuries in the weeks leading up to the World Cup were met with great concern. As a result of the extremely short preparation time, some players were forced to sit out the tournament due to injuries, while others raced against time to regain their fitness before the tournament’s start.

Among the key players who arrived in Qatar despite sustaining an injury in the weeks prior were Richarlison (Brazil), Son Heung-min (Korea Republic) and Ángel Di María (Argentina). On the other hand, Diogo Jota (Portugal), Reece James (England) and Timo Werner (Germany) were high-profile examples of players who unfortunately missed the tournament as their recovery period extended beyond the start of the World Cup.

In our team there were players that got injured right before the tournament and couldn’t recover in time for the World Cup. When you have 15 days, you can have enough time to recover, but unfortunately with only 7 days of preparation time, it was not possible for them to make it. (Player Quote, FIFPRO Post-Tournament Player Survey)
DEMANDING TOURNAMENT WORKLOAD & CALENDAR CONGESTION

The FIFA World Cup Qatar 2022™ posed never-before-seen workload challenges amidst an already congested calendar, compounded by the impact of the COVID-19 pandemic on the previous seasons’ schedules. Players at the top of the game were pushed to their limits as many of them experienced an alarming increase in their already heavy workload.

Leading the ranking is World Champion Nicolás Otamendi, who has played over 3,000 minutes already, followed by his countryman and former teammate, Enzo Fernández, and England’s Harry Kane. Besides the two SL Benfica players, Zeno Debast from Anderlecht is the only player in the top rankings who plays for a team outside of the European “Big Five” leagues during the period under review. He recorded close to 3,000 minutes in just four months, even though he did not play a single minute at the 2022 FIFA World Cup™.

Workload Overview: 2022/23

Top 20 outfield players by minutes played in 2022/23¹

From 1st August 2022 until 1st January 2023

<table>
<thead>
<tr>
<th>Name</th>
<th>National Team</th>
<th>Club¹</th>
<th>Position</th>
<th>Appearances made</th>
<th>Minutes played in all competitions</th>
<th>World Cup 2022</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. Otamendi</td>
<td>SL Benfica</td>
<td>DF</td>
<td>33</td>
<td>3,266</td>
<td>796</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Fernández</td>
<td>SL Benfica</td>
<td>MD</td>
<td>35</td>
<td>2,994</td>
<td>651</td>
<td></td>
<td></td>
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<tr>
<td>H. Kane</td>
<td>Tottenham Hotspur FC</td>
<td>FW</td>
<td>31</td>
<td>2,943</td>
<td>451</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. van Dijk</td>
<td>Liverpool FC</td>
<td>DF</td>
<td>29</td>
<td>2,897</td>
<td>543</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K. Mbappé</td>
<td>Paris Saint-Germain FC</td>
<td>FW</td>
<td>31</td>
<td>2,847</td>
<td>691</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Fernandes</td>
<td>Manchester United FC</td>
<td>MD</td>
<td>30</td>
<td>2,748</td>
<td>398</td>
<td></td>
<td></td>
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<tr>
<td>Z. Debast</td>
<td>RSC Anderlecht</td>
<td>DF</td>
<td>29</td>
<td>2,741</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td>A. Hakimi</td>
<td>Paris Saint-Germain FC</td>
<td>DF</td>
<td>22</td>
<td>2,680</td>
<td>694</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Kluivert</td>
<td>PSV Eindhoven</td>
<td>FW</td>
<td>20</td>
<td>2,664</td>
<td>494</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P. Højbjerg</td>
<td>Tottenham Hotspur FC</td>
<td>MD</td>
<td>28</td>
<td>2,662</td>
<td>301</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L. Messi</td>
<td>Paris Saint-Germain FC</td>
<td>FW</td>
<td>28</td>
<td>2,656</td>
<td>796</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J. Bellingham</td>
<td>BV Benfica OF Dortmund</td>
<td>MD</td>
<td>28</td>
<td>2,608</td>
<td>471</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y. Marquinhos</td>
<td>Paris Saint-Germain FC</td>
<td>DF</td>
<td>29</td>
<td>2,682</td>
<td>474</td>
<td></td>
<td></td>
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<tr>
<td>B. Rice</td>
<td>West Ham United FC</td>
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<td>29</td>
<td>2,573</td>
<td>479</td>
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<td></td>
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<tr>
<td>Y. Fofana</td>
<td>AS Monaco FC</td>
<td>MD</td>
<td>32</td>
<td>2,564</td>
<td>263</td>
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<td></td>
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<tr>
<td>L. Perissic</td>
<td>Tottenham Hotspur FC</td>
<td>MD</td>
<td>33</td>
<td>2,565</td>
<td>728</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Rice</td>
<td>Manchester City FC</td>
<td>MD</td>
<td>28</td>
<td>2,543</td>
<td>433</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. Tavassie</td>
<td>Eintracht Frankfurt</td>
<td>MD</td>
<td>20</td>
<td>2,543</td>
<td>379</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Draxler</td>
<td>Arsenal FC</td>
<td>MD</td>
<td>29</td>
<td>2,540</td>
<td>397</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J. Kimmich</td>
<td>FC Bayern München</td>
<td>MD</td>
<td>28</td>
<td>2,538</td>
<td>305</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Note: The Club column shows the club the player was playing for during the analysed period.
² Source: FIFPRO/PWM, Football Benchmark analysis.

I found it difficult to re-start the season this year (in 2023). Not just because of the cold weather… but also because of the workload from the previous year.

(Player Quote, FIFPRO Post-Tournament Player Survey)
There is a direct correlation between the minutes played in the game and the distance covered during it. Apart from goalkeepers, the players that accumulate the most minutes usually experience the highest physical workload in terms of distance covered. Cross-tabulating official physical data from the FIFA match reports with the minutes played at the tournament, it is not a surprise that players from the top four national teams lead the ranking in both metrics. Purely based on the numbers, Nicolás Otamendi (Argentina), Josko Gvardiol (Croatia) and Sofyan Amrabat (Morocco) experienced the most demanding tournament: all three of them played all available minutes of their respective teams while covering considerable distances while on the pitch.

WORLD CUP PLAYER WORKLOAD – MOST MINUTES AND LONGEST DISTANCE COVERED

At the 2022 FIFA World Cup™, Brazil were the only team to utilize all 26 players from their squad. Besides the “Canarinha”, five other national teams - Switzerland, Portugal, Morocco, France, and Argentina - used more than 90% of their squads. In contrast, Wales and Ecuador had the lowest squad utilization rate with 69%.

Naturally, total minutes played at the 2022 FIFA World Cup™ are closely correlated with the final number of matches each team had, but Argentina, the eventual winners, still accumulated more than the rest of the final four as they had to play extra time on multiple occasions on their road to World Cup glory.

WORLD CUP SQUAD WORKLOAD – COMBINED MINUTES

Total minutes played by the squads and the percentage of players they utilized

There is a direct correlation between the minutes played in the game and the distance covered during it. Apart from goalkeepers, the players that accumulate the most minutes usually experience the highest physical workload in terms of distance covered. Cross-tabulating official physical data from the FIFA match reports with the minutes played at the tournament, it is not a surprise that players from the top four national teams lead the ranking in both metrics. Purely based on the numbers, Nicolás Otamendi (Argentina), Josko Gvardiol (Croatia) and Sofyan Amrabat (Morocco) experienced the most demanding tournament: all three of them played all available minutes of their respective teams while covering considerable distances while on the pitch.

Players with the most minutes played and highest distance covered at the 2022 FIFA World Cup™

Source: FIFPRO PWM, Football Benchmark analysis

Source: FIFPRO PWM, Football Benchmark analysis, FIFA
The 2022 FIFA World Cup™ in Qatar featured a very condensed schedule: 64 matches were played over just 29 days, resulting in an intense workload for participating players and underlining the substantial physical demands of the tournament.

Analysing the schedules of national teams that progressed to at least the quarter-finals stage reveals that there were three occasions when a team had three or fewer days of rest between matches. This occurred for Argentina and Brazil just after the group stage, and for Morocco following their semi-final defeat. Morocco also had the shortest recovery time between two games: only around 66 hours passed between the final whistle of their semi-final and the kick-off at their third-place playoff game.

### In-Tournament Recovery Days

The 2022 FIFA World Cup™ in Qatar featured a very condensed schedule: 64 matches were played over just 29 days, resulting in an intense workload for participating players and underlining the substantial physical demands of the tournament.

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### FIFA Word Cup™ Matchdays

<table>
<thead>
<tr>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Stages</td>
<td>Round of 16</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>21</td>
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<tr>
<td>07</td>
<td>07</td>
</tr>
<tr>
<td>08</td>
<td>08</td>
</tr>
</tbody>
</table>

Croatia was the only team that played all 7 matches as consecutive back-to-back games.

Less than 3 days of rest after the last Group Stage match’s final whistle and the kick-off of the Round of 16 match.

Less than 3 days of rest after the final whistle against France in the Semi-Finals and the kick-off of the bronze match.

Less than 3 days of rest after the last Group Stage match’s final whistle and the kick-off of the Round of 16 match.

### Evolution of Stoppage Time at the FIFA World Cup™

When analysing average stoppage times during recent FIFA World Cups, a clear and upward trend is identified. As a result of the new policy, the average stoppage time was around 11.6 minutes at the 2022 tournament (excluding matches that went into extra time). This is a significant, almost 60% increase compared to the World Cup in Russia four years prior and double of what was considered to be the norm in previous decades.

**Impactful Extended Stoppage Time**

For the 2022 edition, FIFA introduced a new interpretation of stoppage time. This modification was intended to make up for time lost during matches due to VAR (Video Assistant Referee) checks, the treatment of injuries, increased number of substitutions, penalties, red cards, and extended celebrations or time-wasting. However, the workload impact of this change must not be dismissed. If this new interpretation was adopted more widely across all competitions, players would be forced to cope with longer effective playing times amid their already overloaded match calendars.

53% of players surveyed liked the new interpretation of stoppage time rules at the FIFA World Cup™ - but stressed that widespread adoption could only be supported if the extended playing time impact was accounted for in fixture planning.

Source: FIFPRO PWM, Football Benchmark analysis
Let's carry out a little experiment: how would a top player's season look like if the same approach of longer stoppage times was enforced in all competitions? To investigate the potential effects of this approach, we conducted an analysis on a selection of players and calculated how much more they would have played over the course of the 2021/22 season. This allows us to identify the potential impact that maximizing effective playing time could have on them. Players with at least 60 appearances in 2021/22 were selected who also participated in international club competitions.

Potential impact of the new policy on selected players' playing time (2021/22 actual numbers vs projection)

<table>
<thead>
<tr>
<th>Player</th>
<th>Total minutes (fact)</th>
<th>Total minutes increase (new policy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan Oblak</td>
<td>1,000 - 2,000</td>
<td>-4.6%</td>
</tr>
<tr>
<td>Milan Skriniar</td>
<td>1,000 - 2,000</td>
<td>-5.3%</td>
</tr>
<tr>
<td>Sergej Mirkovic-Savic</td>
<td>1,000 - 2,000</td>
<td>-5.3%</td>
</tr>
<tr>
<td>Harry Kane</td>
<td>1,000 - 2,000</td>
<td>-4.8%</td>
</tr>
<tr>
<td>Mohamed Salah</td>
<td>1,000 - 2,000</td>
<td>+4.6%</td>
</tr>
<tr>
<td>Callum McGregor</td>
<td>1,000 - 2,000</td>
<td>-4.6%</td>
</tr>
<tr>
<td>Vinícius Jéfer</td>
<td>1,000 - 2,000</td>
<td>-5.3%</td>
</tr>
<tr>
<td>Sergio Busquets</td>
<td>1,000 - 2,000</td>
<td>-6.9%</td>
</tr>
</tbody>
</table>

The timing was strange because we were in an intense and competitive moment in the league, playing at a high rhythm, and then we had to go into the World Cup... Returning to the club and starting again in early 2023 was tough.

(Player Quote, FIFPRO Post-Tournament Player Survey)

According to the results, it appears that on average, the players in our study would play approximately 4.8% more over the course of the season if the approach of maximizing effective playing time were applied to their team's matches. This translates to almost three full matches, or around 270 additional minutes of on-pitch time. This increase in playing time may seem small, but it could have a significant impact on the players' workload, rest and recovery and conditioning. By requiring players to spend more time on the field, it could put additional strain on their bodies and potentially increase the risk of injury.

It is important that overall player workload is carefully considered in the construction of the future match calendar before the wider implementation of such a change takes place.
The unprecedented winter schedule of the 2022 FIFA World Cup™ posed many challenges for players, especially concerning the short turnaround between the end of the tournament and the resumption of club football. Several players were subject to extremely limited rest and recovery times, increasing the risk of injury. The following chapter focuses on post-tournament league restarts, players returning to their club setting and their post-World Cup workload metrics.

**Inadequate Recovery & Resumption**
- Recovery Periods
- Resumption of Club Activity

**The Harmful Effect**
- Physical Fatigue
- Mental Fatigue
- Injury Risk
**RECOVERY PERIODS**

One of the main challenges for players after the conclusion of the 2022 FIFA World Cup™ was the short turnaround between the end of the tournament and the resumption of club football. For many players, this meant that they had very little time to rest and recover after competing in a gruelling and physically demanding international tournament.

**61% OF PLAYERS SURVEYED ARGUED THAT AT LEAST 14-21 DAYS OF POST-WORLD CUP RECOVERY TIME WAS NECESSARY BEFORE RETURNING TO THE CLUB ENVIRONMENT**

The majority of respondents (61%) indicated that they would like to have had at least 14 days for recovery. Notably, league representation had a considerable impact on the responses. Only 38% of England-based players felt that they had enough time for recovery; this is not surprising given that the English Premier League resumed on 26 December, just a week after the World Cup, while the EFL Championship clubs were already back in action during the tournament’s knock-out stages. In contrast, 67% of German-based players felt positive about the time for recovery, as the Bundesliga resumed only in mid-January.

The timing of return to play varied widely between countries and competitions. Some, such as the second divisions of Italy and Spain, continued despite the World Cup and did not have a break in their schedule. Others, such as the Australian A-League and the Tunisian Ligue 1, resumed shortly after the conclusion of the group stages. In addition, in some countries they even slotted in a round of domestic cup games before the resumption of the league (e.g., there was an EFL Cup round before the restart of the English Premier League).

We need to put more emphasis on the rest time that international players get. We have another international window in March with more matches when we could be resting. The workload is huge and there is not enough rest.

*(Player Quote, FIFPRO Post-Tournament Player Survey)*

**RESUMPTION OF CLUB ACTIVITY**

Considering all players (831) from the official squad lists, 55% (457) of them were already back in action by 1st of January 2023 following their World Cup participation. When analysing the dates between a player’s first match after the tournament and the day of their national team’s elimination at the World Cup, we find that 13% (105) of them had less than two weeks for rest and recovery before returning to competitive play. This provided them with a very limited time to readjust to different playing conditions and their club setting. Among the top 10 players with the most minutes played at the 2022 FIFA World Cup™, four (Otamendi, Perisic, Modric and Tchouameni) already made an appearance for their clubs in the two weeks that followed their last World Cup match.

The impact of the short turnaround was felt not only by players from top leagues and highly ranked national teams, but also by other players participating in the World Cup in Qatar. The most extreme example among those who made at least one appearance at the tournament was Poland’s Kamil Glik, who had only four days between elimination in the round of 16 and his first appearance for Benevento Calcio in Italy’s second tier. Similarly, Morocco’s Abderrazak Hamdallah had only a 5-day “recovery” period between his national team’s bronze match against Croatia and his first club appearance post-World Cup in the Saudi King’s Cup. Other examples with alarmingly short days between their last appearance in Qatar and their first one upon returning include Karim Ansarifard (Iran and Omonia Nicosia – Cypriot 1st Division), Krystian Bielik (Poland and Birmingham City – EFL Championship), Otávio (Portugal and FC Porto – Portuguese Primeira Liga) and Iliman Ndiaye (Senegal and Sheffield United – EFL Championship).

We need to put more emphasis on the rest time that international players get. We have another international window in March with more matches when we could be resting. The workload is huge and there is not enough rest.

*(Player Quote, FIFPRO Post-Tournament Player Survey)*

**Number of days between the respective national team’s last World Cup match and a player’s first post-World Cup club appearance**

<table>
<thead>
<tr>
<th>Player</th>
<th>Number of Days</th>
<th>Months</th>
<th>Between Last World Cup Match</th>
<th>Between First Club Match After Restart</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karim Ansarifard</td>
<td>6</td>
<td>6</td>
<td>10/12/2022</td>
<td>16/12/2022</td>
<td></td>
</tr>
<tr>
<td>Abderrazak Hamdallah</td>
<td>5</td>
<td>5</td>
<td>29/11/2022</td>
<td>05/12/2022</td>
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<td>Karim Ansarifard</td>
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<td>10/12/2022</td>
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<td>Iliman Ndiaye</td>
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<td>04/12/2022</td>
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<td>Mathieu Leckie</td>
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*Source: FIFPRO PWM, Football Benchmark analysis*
The burden of player participation on leagues

The composition of an average squad at the World Cup includes players at various stages of their careers and development, representing a wide range of leagues and clubs from around the globe. For the 2022 edition, 55 different leagues had at least one player at the tournament. Compared to previous editions, the 2022 FIFA World Cup™ was the most diverse in this regard. The analysis of minutes played, and the number of players involved from each league reveals the dominance of the so-called “Big Five” leagues of Europe. The Premier League is the standout in this ranking: 134 players from the English top division accumulated more than 33,000 minutes during the tournament. This is almost equal to the combined record of the second and third ranked leagues (Spanish La Liga and Italian Serie A). This ultimately implies that a majority of elite players tend to play in a select group of leagues. These are often very competitive and include clubs that also play in international competitions; together, this places a significant workload on players during the season. On top of their regular workload, they were now subjected to a mid-season interruption and additional matches at the World Cup.

Another notable league high up in the ranking is the Saudi Pro League: their players logged the fifth most minutes with 5,600 in total. This is largely due to the fact that all squad members of the Saudi Arabian national team play in their domestic league. Other non-European leagues that were heavily represented in terms of accumulated minutes of their players were Qatar (Stars League), Mexico (Liga MX) and the United States (MLS). What is common in all four is the low number of national team players that ply their trade abroad. In contrast, the squads of Canada, Senegal and Wales entirely consisted of players representing foreign leagues.

Our analysis shows that there is a direct correlation between the number of players representing a domestic league and their total minutes played at the World Cup. However, there are some whose players experienced higher workload than expected. For example, the Portuguese Primeira Liga had 20 players at the tournament who played 4,566 total minutes, placing them above the trend line. The Dutch Eredivisie and Scottish Premiership were also similar. This is mainly due to the fact that the Portuguese and Dutch national teams relied heavily on players from their own domestic leagues and had players of their nationalities who made a deep run at the World Cup.

Clubs most affected by World Cup player participation

As the results of the league-level analysis foreshadowed, English Premier League teams dominate the ranking when we order clubs by their players’ World Cup workload. At the top end, 16 Manchester City FC players reached close to 5,200 combined World Cup minutes; they are followed by FC Barcelona with 4,741 minutes (17 players) and Manchester United FC with 4,364 minutes (14 players).

Clubs that almost made it into the top 10 include the likes of AFC Ajax (11 players and 2,533 minutes), Al Sadd FC from Qatar (2,363 mins) and Al-Hilal from the Saudi Pro League (2,248 mins).

The total minutes played at the 2022 FIFA World Cup™ and number of players by league

![Graph showing the total minutes played at the 2022 FIFA World Cup™ and number of players by league](image-url)

Source: FIFPRO PWM, Football Benchmark analysis
Mental health issues refer to the psychological and emotional conditions that impact an individual’s mood, thinking, behaviour, or feelings. These problems encompass various forms of burnout, anxiety, depression, substance abuse, or sleep disorders. Football players are particularly susceptible to these issues due to a range of stressors.

The harmful effect on players as a result of this season’s gruelling schedule continues to become more evident as the season progresses. While it is common for physical and mental fatigue to be felt by players following an intense tournament like the World Cup, usually this is closely followed by an off-season period for rest and recovery. This time around, this is not the case, and the worrying feedback presented below highlights the dangers and severe risk of injury being experienced by players throughout the remainder of the season, with many training and playing at dangerously high levels of fatigue. The consistent imbalance between workload and recovery is likely to lead to injuries, both physical and mental, to players.

Physical fatigue is a common problem among football players, particularly during periods of high-intensity competitions. Overtraining, frequent travel, and lack of adequate rest and recovery can all contribute to physical exhaustion, which in turn can lead to decreased performance, increased risk of injury, and other negative health outcomes.

When asked about their mental health in the FIFPRO World Cup 2022 Player Survey, 20% of footballers reported experiencing extremely high levels of mental or emotional fatigue compared to usual at this point in a regular season. These effects were particularly pronounced among England-based players, with 63% indicating extreme mental or emotional fatigue. The quick restart of English competitions post-World Cup combined with the high number of participating players provides an explanation for this alarming figure.

In terms of physical fatigue, a significant proportion of players, around 44%, reported experiencing extreme or increased levels of fatigue compared to how they usually feel at this time of the season.

According to the FIFPRO survey, 52% of players reported suffering an injury or feeling more susceptible to injury due to the congested schedule. Interestingly, this trend was more prominent among non-first time World Cup players, who tend to be older, more experienced, and have a better understanding of their bodies, with 75% of them reporting such injuries or susceptibility.

Our data collection seems to back up this finding. Since the start of the World Cup, there have been 66 players who suffered an injury, according to media reports. This equates to approximately 8% of all players who participated at the tournament in Qatar. These players had 76 injuries in total as some recorded more than one. It is also strongly assumed that minor injuries often go unreported, hence the actual number could even be higher.

A large portion (58%) of reported injuries occurred during the World Cup, while 42% happened after the conclusion of the tournament. Key players for both club and country such as Virgil van Dijk (Liverpool FC), Aurelien Tchouameni (Real Madrid CF), Marcelo Brozovic (FC Internazionale Milano), Angel Di María (Juventus FC) all picked up an injury very soon upon returning to their clubs.

It seemed bizarre to me that they had to return so quickly - it was practically suicide. They could’ve gotten injured but luckily, they didn’t.

(Player Quote, FIFPRO Post-Tournament Player Survey)
Virgil van Dijk is in the middle of a demanding season at Liverpool FC. If it was not for injury, the Dutchman barely missed a second in the heart of the Merseyside club’s defence.

This season, he accumulated the 4th highest minutes played with 2,897 between 1st August 2022 and 1st January 2023 considering all players who were at the World Cup. In Qatar, he played all available minutes for his national team (543).

However, the additional high-intensity minutes played may have contributed to his recent injury. After returning to Liverpool FC, he was forced off midway through the game against Brentford on 2nd January 2023 and was subsequently side-lined for 7 games due to a muscular injury.

Tchouameni made his mark as a key player for Real Madrid CF this season, after his transfer to the Spanish capital. The Frenchman played 2,269 minutes until 1st January 2023, out of which a staggering 72% came in back-to-back appearances.

His heavy workload continued at the World Cup: he was the most utilized player for “Les Bleus”.

Unfortunately, his busy season was not without consequences, as he suffered two muscle injuries. The first injury, which occurred after a streak of 7 consecutive games, caused him to miss two matches in late October/early November. The second, a calf injury was more severe and forced him to sit out for 6 matches, including the Spanish Super Cup in Saudi Arabia.

We tell ourselves that we need to be strong and work harder, but it is difficult both mentally and emotionally and I am already feeling it.

(Quote from a FIFPRO Post-Tournament Player Survey)
INDIVIDUAL PLAYER FOCUS
ACHRAF HAKIMI

WORKLOAD HIGHLIGHTS IN NUMBERS
Period Analyzed: From 1st July 2022 until 30th January 2023

Total minutes played in all competitions combined, including friendlies during the period under review
3,139

Percentage of back-to-back minutes played leading to a lack of rest and recovery time and increasing the risk of injury
70%

The number of consecutive back-to-back matches from August until October: This is 2.5 times the recommended maximum (6)
15 MATCHES

EXTREMELY DEMANDING SCHEDULE LEADING UP TO THE WORLD CUP
From 31st August 2022 until 25th October 2022

Back-to-back matches

Total minutes played in all competitions combined, including friendlies during the period under review
1,171

Minutes in consecutive back-to-back matches

WORKLOAD HIGHLIGHTS IN NUMBERS
Period Analyzed: From 1st July 2022 until 30th January 2023

RAHAF HAKIMI

WORKLOAD HIGHLIGHTS IN NUMBERS
Period Analyzed: From 1st July 2022 until 30th January 2023

Total minutes played in all competitions combined, including friendlies during the period under review
2,226

The number of days between Rafael Varane’s last World Cup appearance and the first matchday after returning to Manchester United FC
8 DAYS

VARANE ALWAYS QUICKLY RETURNED TO ACTION AFTER A TOURNAMENT WITH ONLY A LIMITED BREAK GRANTED TO HIM

We have overloaded schedules and play non-stop. Right now, I feel like I’m suffocating and that the player is gobbling up the man.

Back-to-back matches

Cumulative minutes played (compared to the average of World Cup 2022 participant players)

2022/23 SEASON IN DETAIL
From 1st July 2022 until 30th January 2023

WORKLOAD HIGHLIGHTS IN NUMBERS
Period Analyzed: From 1st July 2022 until 30th January 2023

The very highest level is like a washing machine, you play all the time and you never stop

Back-to-back matches

Cumulative minutes played (compared to the average of World Cup 2022 participant players)
NICOLÁS OTAMENDI

WORKLOAD HIGHLIGHTS IN NUMBERS
Period Analyzed: From 1st July 2022 until 30th January 2023

- Total number of minutes played in all competitions combined, including friendlies during the period under review: 3,796
- Percentage of back-to-back minutes played leading to a lack of rest and recovery time and increasing the risk of injury: 69%
- The number of days between Nicolás Otamendi’s last World Cup appearance and the first matchday after returning to SL Benfica: 12 DAYS

IN 2022/23 OTAMENDI HAS ALREADY PLAYED AROUND 75% OF THE MINUTES HE ACCUMULATED LAST SEASON
From 1st July 2022 until 30th January 2023

- 2020/21 season: 4,151 minutes played
- 2021/22 season: 5,065 minutes played
- 2022/23 season (until 30th January 2023): 3,796 minutes played

2022/23 SEASON IN DETAIL
From 1st July 2022 until 30th January 2023

- Cumulative minutes played compared to the average of World Cup 2022 participant players
- Back-to-back matches
- Minutes played in back-to-back matches
- Minutes played in other matches

HARRY KANE

WORKLOAD HIGHLIGHTS IN NUMBERS
Period Analyzed: From 1st July 2022 until 30th January 2023

- Total number of minutes played in all competitions combined, including friendlies during the period under review: 3,722
- Percentage of back-to-back minutes played leading to a lack of rest and recovery time and increasing the risk of injury: 65%
- The number of days between Harry Kane’s last World Cup appearance and the first matchday after returning to Tottenham Hotspur FC: 16 DAYS

EXTREMELY DEMANDING SCHEDULE LEADING UP TO THE WORLD CUP
From 26th September 2022 until 12th November 2022

- 14 consecutive back-to-back matches
- In just 47 days, 100% of minutes played were in back-to-back games

2022/23 SEASON IN DETAIL
From 1st July 2022 until 30th January 2023

- Cumulative minutes played compared to the average of World Cup 2022 participant players
- Back-to-back matches
- Minutes played in back-to-back matches
- Minutes played in other matches

Career minutes
47,000+ minutes played in close to 600 match appearances
(All senior match appearances until 30th January 2023)
The findings presented in this flash report are largely based on the methodology and metrics of the FIFPRO Player Workload Monitoring (PWM) platform covering the match, rest & recovery, travel, and other workload statistics of professional footballers from around the world.

OUR ANALYTICAL APPROACH
To put the analytical results of the report into context, it is important to understand the key characteristics of the underlying dataset.

FACTORs TO CONSIDER

- Every World Cup group
- Every stage of the tournament, including both finalists
- Every FIFPRO division
- A broad range of age profiles participated

Interestingly, 69% of players surveyed play their club football in Europe. The topics explored in the survey were centred around player workload issues such as preparation and recovery periods. Feedback was also sought on other tournament conditions such as match and tournament timing, weather conditions, and in-tournament rest days. The players also shared their views on the implementation of stoppage time changes, injury risk and reported on their mental and physical fatigue compared to previous seasons.

FIFPRO WORLD CUP 2022 PLAYER SURVEY
Following the tournament in Qatar, FIFPRO conducted a survey in January 2023 among participating World Cup players. A total of 64 selected World Cup players completed the survey. The selected player sample ensured feedback from:

- Every World Cup group
- Every stage of the tournament, including both finalists
- Every FIFPRO division
- A broad range of age profiles participated

When analysing the workload journey of World Cup players, we assessed all their appearances from 1 August 2022 (the start of the 2022/23 season for most players) until 30 January 2023. In the case of players selected for analysis in Chapter 06, matches played in July 2022 were also considered. There are over 20,000 player appearances on record in the underlying data set. This includes all competitive club and national team appearances of all FIFA World Cup 2022™ participants.

PERIOD ANALYSED
From 1 August 2022 to 30 January 2023, the following terms are used throughout the report to illustrate the workload situation of professional football players.

- 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 and manage injury risk.
- OFF-SEASON BREAK – the period given to players between two seasons, without training or matches, 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 rest period (in calendar days) that a player is permitted to take without matches or training, during a season. In-season breaks are mandatory and should last 14 days. However, they are not always fully respected, given the demanding requirements of the match calendar.

MATCH WORKLOAD

- 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” appearance 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 it is the cumulative exposure to back-to-back matches, together with travel demands, that constitutes a danger to player health, performance, and career longevity.

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 player’s health, performance, and career longevity.

Global Player and Competitions

- FIFPRO PWM SAMPLE – this report analyses match schedule and workload data of the over 800 male football players from 32 national teams taking part in FIFA World Cup 2022™. The analysis covers all matches played by these players since 1st August 2022 leading up to the tournament, including competitive club and all national team matches.

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.