In cooperation with

FIFA WORLD CUP 2022™
The Player Workload Journey

FIFPRO PLAYER WORKLOAD MONITORING

Men’s Football Report
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Welcome to the FIFPRO PWM Men’s Football Flash Report 2022. It provides a snapshot of the unprecedented workload demands placed upon the game’s leading players ahead of the FIFA World Cup Qatar 2022™.

Over the coming weeks, the eyes of the world will be focused on football’s biggest tournament, celebrating the individual performances of those who make it possible. However, the players are currently experiencing a year unlike any other, as they are once again forcefully pushed beyond their limits. As always, the players will persevere and produce incredible moments of skill and athleticism with the support of their nations behind them.

However, the current situation cannot continue into the next calendar cycle and future tournaments. The industry needs a far greater collective effort to establish effective player workload safeguards and a responsible calendar solution that protects player health and supports player performance.
DANGEROUS PREPARATION AND RECOVERY TIME

Significantly reduced preparation and recovery periods before and after this FIFA World Cup 2022™ pose an ominous threat to player health and hinder performance optimisation.

The average number of preparation and recovery days scheduled before and after the previous five tournaments demonstrate the current blatant disregard for player health.

EXTREME CALENDAR IMBALANCE

2022/23 SEASON DATA: 01/08/22 - 24/10/22

In many regions, additional fixtures have been crammed into an already saturated early part of this season, exposing players to increased risk. In other regions, players have been competitively underloaded due to inadequate calendar planning.

OVER 70% BACK-TO-BACK

- Heung-Min Son: started all 18 of his minutes in back-to-back matches
- Harry Kane: played back-to-back across the first 23 days in October
- Kylian Mbappé: 75% of his minutes in back-to-back matches

OVER 30,000 COMBINED MINUTES

- Portugal: over 30,000 combined minutes played across their squad
- Brazil: highest workload on combined minutes and have played the highest amount of back-to-back minutes across their squad

UNDER 20,000 COMBINED MINUTES

- Cameroon
- Ghana
- Senegal
- Tunisia
- Qatar
- Saudi Arabia
- Iran
- Australia

Four of five African national teams have played 20,000 or less combined minutes

Four of six Asian national teams have played 20,000 or less combined minutes
Leading players across the world have been forcefully pushed past acceptable limits. These unsustainable workload demands continue to harm players’ physical and mental health, in addition to putting their performance and future career longevity at risk.

**Vinícius Jr.**
- Played 72% of his minutes in higher-risk back-to-back matches since the beginning of last season. His longest sequence of consecutive back-to-back matches was 13.

**Sadio Mané**
- Has appeared in 93 competitive matches since the beginning of last season, among the highest of all players at this year’s tournament.

**Kylian Mbappé**
- At just 23 years old, has played over 27,000 minutes (300+ matches) of senior football. His longest sequence of consecutive back-to-back matches during the period analysed was 11 matches.

**Heung-Min Son**
- Has totalled 146,104 kms of international travel with club and country since the beginning of last season, crossing 132 time zones.
PLAYER IMPACT
WORLD CUP SCHEDULING AND CALENDAR CONGESTION

The FIFA World Cup Qatar 2022™ presents unprecedented workload challenges in the midst of extreme calendar congestion and following soon after the emergency calendar of the COVID-19 impacted seasons. How will the players cope?
INTRODUCTION

In the months leading up to this year's tournament, the competition's most important contributors - the players - have been confronted with unprecedented workload demands, without the provision of effective safeguards.

Many of the game's leading players - too many - will unfortunately not participate through injury after a congested period of matches that granted little space for individual workload management or rest and recovery. Those that do participate have been subjected to an arduous cycle of matches leading into the competition raising valid concerns regarding performance optimisation, physical injury, and mental wellbeing. Following the tournament's conclusion, the players will face an even more relentless fixture schedule over the subsequent months.

Overlapping competitions, consecutive back-to-back matches, extreme weather conditions, a condensed preparation period and insufficient recovery time together pose an ominous danger to player health and performance. Failure to implement basic safeguards to guard against these aggravating factors is no longer a viable option, as the physical and mental strain on players becomes even more apparent.
One of the unprecedented features of the FIFA World Cup™ in Qatar is that, for most players, it will take place around the half-way mark of the regular club season. In addition to the knock-on effect on overall scheduling and fixture congestion, one of the immediate impacts of moving the tournament to the winter is that it significantly reduces the time gap between the tournament and the club season for many players.

Let’s take the English Premier League (EPL) as an example. With over 120 players in the 32 World Cup squads, the EPL is the league with the largest representation. This season, the last gameweek before the tournament takes place on 12-13 November, meaning that only a 7-day gap exists between the last EPL match and the kick-off of FIFA World Cup 2022™. This leaves little room for conditioning and tactical preparation with the national team, friendly matches for optimizing preparation, or recovery from short-term injuries. In previous years, there were at least 30 days of scheduled preparation time.

Following FIFA World Cup 2022™, even though the tournament was shortened by a few days to alleviate fixture congestion, the EPL (and many other leagues) will re-start a mere 8 days after the Final, once again a much shorter gap for recovery than before. When will those who progress far in the tournament will rejoin their club teams and how will the schedule negatively affect player health and performance over the rest of the season? FIFPRO has recently conducted research on the mental health impact on players after participating in major tournaments and potential strategies for dealing with these effects.

Finally, it must be mentioned that for a minority of players, the winter World Cup arrives right at the end of their club season. Leagues that follow a “summer schedule” (spring-autumn) all conclude before the tournament.

### Historical evolution of the gap between the World Cup and the club season

<table>
<thead>
<tr>
<th>Year</th>
<th>PREPARATION</th>
<th>RECOVERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil 2014</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>South Africa 2010</td>
<td>33</td>
<td>34</td>
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<tr>
<td>Brazil 2014</td>
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<td>Russia 2018</td>
<td>32</td>
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<tr>
<td>Qatar 2022</td>
<td>7</td>
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<table>
<thead>
<tr>
<th>Year</th>
<th>PREPARATION</th>
<th>RECOVERY</th>
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<tbody>
<tr>
<td>Italy 1990</td>
<td>40</td>
<td>48</td>
</tr>
<tr>
<td>USA 1994</td>
<td>31</td>
<td>34</td>
</tr>
<tr>
<td>France 1998</td>
<td>20</td>
<td>34</td>
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<td>Korea Republic - Japan 2002</td>
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<td>Germany 2006</td>
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<td>South Africa 2010</td>
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<td>Brazil 2014</td>
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<td>34</td>
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<tr>
<td>Russia 2018</td>
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<td>26</td>
</tr>
<tr>
<td>Qatar 2022</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Football Benchmark analysis
The 32 national teams competing for World Cup glory consist of players coming together from a varied range of different workload environments. What are the significant differences in their workload metrics over recent months and seasons and how will these impact their performances?
Even at the very top of the professional game, there are notable differences in terms of player workload and playing time. In this section, the diverse workload journeys of the 26 players that comprise each participating national squad are analysed, covering the period leading up to FIFA World Cup 2022™.

The tournament in Qatar features 32 national teams from five different confederations. As over a third of the teams are from Europe and due to the comparative financial strength of European leagues, most participants play for clubs on the continent. However, a multitude of domestic leagues from around the world are represented by the over 800 players taking part in the tournament. This provides us with the opportunity to take a “global” look and assess the workload of footballers coming from different backgrounds.

In this section, we explore workload differences between the squads. The analysis, unless stated otherwise, is based upon the period between 12th July 2021 and 24th October 2022, which makes up little more than a year leading up to FIFA World Cup 2022™. The period starts just after the finals of the UEFA European Championship and the Copa América that took place last summer. Furthermore, it is important to note that club friendly matches were excluded from the analysis.

- Which national teams’ players played the most since last summer?

- Who has the most experience in top-level club competitions?

- Which squads were the most overloaded with higher-risk back-to-back matches?
1) STRONG CORRELATION WITH OVERALL WORKLOAD AND BACK-TO-BACK MINUTES

The Brazil squad had the second highest back-to-back minutes % and the second most minutes played.

Total minutes played and back-to-back workload
Period analysed: 2021/22 – 2022/23 (until 24th October 2022)

- Total minutes played by national teams ranges between 67,000 and 136,000, highlighting the uneven calendar; some players need more matches while others need less.

- The Portuguese squad played the most combined minutes with their players averaging approximately 5,200 minutes during the analysed period. They are just ahead of Brazil and Mexico by this metric.

- Qatar’s back-to-back minutes percentage is quite high, but their overall workload is the lowest. This is explained by the unusually long, six-month training camp arranged for national team players. Since the end of the 2021/22 season, they only participated in national team friendlies; could the lack of competitive minutes backfire?

- The teams in the top-right quadrant of the chart had the most intense workload throughout the seasons. This group includes most of the leading contenders; Brazil, Portugal, France, Spain, England, Germany, Belgium, and Argentina. More than half of these squads' combined minutes was recorded in back-to-back matches.
Arriving to the tournament as defending champions, the French squad played the most minutes in international club competitions.

Breakdown of minutes played by competition type
Period analysed: 2021/22 – 2022/23 (until 24th October 2022)

- Qatar played the almost 40% of their total minutes in national team friendlies (38%). This is mainly due to their players taken out of their club settings since the end of 2021/22. The average national team minutes percentage across all 32 squads was only 16%.

- French players played 20% of their total minutes in international club games as many of them are key members of the very best European club sides. This experience could be an advantage at FIFA World Cup 2022™. In stark contrast, Wales collectively had just above 2,000 minutes in international club competitions.

Source: FIFPRO PWM platform, Football Benchmark analysis
3) FOCUS ON THE 2022/23 SEASON: BREAKNECK SCHEDULE FOR MOST IN THE RUN-UP TO THE TOURNAMENT

An average FIFA World Cup 2022™ squad has already played close to 24,000 minutes collectively since August

Cumulative minutes played of squad members since the start of the 2022/23 season
Period analysed: 1st August - 24th October 2022

Focusing only on the immediate run-up to the tournament, we analysed the early part of the 2022/23 season in isolation. Based on combined minutes played by squad members since 1st August 2022, Portugal is at the top; they are the only squad above the 30,000-minute threshold. This means that an average Portugal squad member has already played around 13 full matches since the start of the season.

Qatar is not included on the chart due to their players only appearing in a few national team friendlies since the summer. The average of all squads (excluding Qatar) is 23,827 minutes.

There are eight nations at or below the 20,000-minute threshold, including four out of the five African and four out of the six Asian national teams. This illustrates the differences in scheduling and the potential problem of underload for some teams. Saudi Arabia are in last place mainly because their domestic league started only late August and paused already in mid-October. The national team participated in a month-long training camp before the tournament.

Source: FIFPRO PWM platform, Football Benchmark analysis
4) THERE ARE SIGNIFICANT DIFFERENCES BETWEEN AND WITHIN CONFEDERATIONS

Based on each squad’s median player’s minutes, teams from Asia (AFC) have the highest variance

Each national team’s median player’s total minutes played grouped by confederation
Period analysed: 2021/22 – 2022/23 (until 24th October 2022)

- Instead of an average, we calculated the median player’s total minutes for each squad. The results show a large degree of variance: Qatar and Saudi Arabia are at the bottom (barely above 2,500 minutes), while Mexico leads the ranking (almost 5,500 minutes).

- National teams in Asia (AFC) are the most uneven by this metric. Korea Republic and Japan are on par with most top European and South American squads, but the other four AFC countries are lagging far behind them. This is a testament to the different league and scheduling systems in place in these countries.

- Teams from the African confederation (CAF) recorded the lowest minutes by the median player. They are also the confederation with the least variance.

Source: FIFPRO PWM platform, Football Benchmark analysis
Defenders dominate the ranking by total minutes played

Top 20 outfield players by total minutes played between July 2021 and October 2022

- There are six players from outside the European “Big Five” leagues on the list of outfield players with the most minutes played over the analysed period.

- Defenders clearly dominate the list. One of them, Virgil Van Dijk played the most minutes with 7,597 in 78 appearances. He leads the list after returning from an ACL injury that sidelined him between October 2020 and July 2021. Upon recovery, he quickly reestablished himself in Liverpool FC’s backline and played two-thirds (67%) of his minutes in back-to-back games since then.

- 18 players on the list recorded at least 58% of their on-pitch time in back-to-back matches (less than five days of rest in between appearances). The most extreme case is Éverton Ribeiro’s, whose back-to-back minutes percentage was 75%, while also making almost one hundred appearances.

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5) VERY HIGH WORKLOAD IS NOT EXCLUSIVE TO THE “BIG FIVE” EUROPEAN LEAGUES

Defenders dominate the ranking by total minutes played

Top 20 outfield players by total minutes played between July 2021 and October 2022

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>Age</th>
<th>Position</th>
<th>Team(s)</th>
<th>2021/22</th>
<th>2022/23</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Apps made</td>
<td>Minutes played</td>
<td>Apps made</td>
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<tr>
<td>1</td>
<td>V. van Dijk</td>
<td>31</td>
<td>Defender</td>
<td>Liverpool FC</td>
<td>60</td>
<td>5,828</td>
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<tr>
<td>2</td>
<td>João Cancelo</td>
<td>28</td>
<td>Defender</td>
<td>Manchester City FC</td>
<td>61</td>
<td>5,813</td>
<td>17</td>
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<tr>
<td>3</td>
<td>S. Mané</td>
<td>31</td>
<td>Forward</td>
<td>Liverpool FC, FC Bayern München</td>
<td>67</td>
<td>5,723</td>
<td>20</td>
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<tr>
<td>4</td>
<td>A. Rüdiger</td>
<td>30</td>
<td>Defender</td>
<td>Chelsea FC, Real Madrid CF</td>
<td>62</td>
<td>6,192</td>
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<tr>
<td>5</td>
<td>H. Kane</td>
<td>29</td>
<td>Forward</td>
<td>Tottenham Hotspur FC</td>
<td>62</td>
<td>5,465</td>
<td>18</td>
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<tr>
<td>6</td>
<td>H. Vanaken</td>
<td>30</td>
<td>Midfielder</td>
<td>Club Brugge KV</td>
<td>60</td>
<td>5,280</td>
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<td>7</td>
<td>Pau Torres</td>
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<td>Defender</td>
<td>Villarreal CF</td>
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<td>5,722</td>
<td>16</td>
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<tr>
<td>8</td>
<td>D. Rice</td>
<td>24</td>
<td>Midfielder</td>
<td>West Ham United FC</td>
<td>58</td>
<td>5,463</td>
<td>18</td>
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<tr>
<td>9</td>
<td>Éverton Ribeiro</td>
<td>34</td>
<td>Midfielder</td>
<td>CR Flamengo</td>
<td>71</td>
<td>5,197</td>
<td>27</td>
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<tr>
<td>10</td>
<td>N. Otamendi</td>
<td>35</td>
<td>Defender</td>
<td>SL Benfica</td>
<td>53</td>
<td>5,151</td>
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<tr>
<td>11</td>
<td>P. Højbjerg</td>
<td>27</td>
<td>Forward</td>
<td>Tottenham Hotspur FC</td>
<td>59</td>
<td>5,203</td>
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<tr>
<td>12</td>
<td>D. Tadić</td>
<td>34</td>
<td>Forward</td>
<td>AFC Ajax</td>
<td>57</td>
<td>5,173</td>
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<tr>
<td>13</td>
<td>A. Johnston</td>
<td>24</td>
<td>Defender</td>
<td>Nashville SC, CF Montréal</td>
<td>57</td>
<td>4,867</td>
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<td>14</td>
<td>Sergio Busquets</td>
<td>34</td>
<td>Midfielder</td>
<td>FC Barcelona</td>
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<td>5,500</td>
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<td>15</td>
<td>B. Johnson</td>
<td>21</td>
<td>Forward</td>
<td>Nottingham Forest FC</td>
<td>64</td>
<td>5,401</td>
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<td>16</td>
<td>R. Lewandowski</td>
<td>34</td>
<td>Forward</td>
<td>FC Bayern München, FC Barcelona</td>
<td>56</td>
<td>5,110</td>
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<td>17</td>
<td>Éder Militão</td>
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<td>Real Madrid CF</td>
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<td>22</td>
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<td>Real Madrid CF</td>
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<td>5,027</td>
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<tr>
<td>19</td>
<td>D. Blind</td>
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<td>AFC Ajax</td>
<td>56</td>
<td>4,917</td>
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<td>20</td>
<td>A. Tchouaméni</td>
<td>23</td>
<td>Midfielder</td>
<td>AS Monaco, Real Madrid CF</td>
<td>62</td>
<td>5,225</td>
<td>17</td>
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</tbody>
</table>

Source: FIFPRO PWM platform, Football Benchmark analysis
Note: For the purposes of this analysis, 2021/22 refers to the period between 12th July and 30th June 2022. 2022/23 refers to the period between 1st July and 24th October 2022.
Players at the top level of the game must contend with an extremely congested match calendar. What has their workload journey looked like during the build-up to the tournament?
For players, the FIFA World Cup™ is one of the pinnacle competitions of the sport where participation alone is a life-long dream for many. Every participant wants to optimise their performance by arriving to the tournament in the best possible physical and mental state. In the final section of this report, we look at the workload journeys of a selection of global star players and focus on their preparation leading into FIFA World Cup 2022™.

ABOUT THE PLAYER SELECTION

To highlight the pre-tournament workload situation at the highest level, we selected six players from across the FIFPRO Divisions.

• AFRICA – Senegal - Sadio Mané (FC Bayern München)
• SOUTH AMERICA – Brazil - Vinícius Jr. (Real Madrid CF)
• CENTRAL and NORTH AMERICA – Mexico - Guillermo Ochoa (CF América)
• ASIA – Korea Republic - Heung-min Son (Tottenham Hotspur FC)
• EUROPE – England - Harry Kane (Tottenham Hotspur FC)
• EUROPE – France - Kylian Mbappé (Paris Saint-Germain FC)

ABOUT THE DATASET

Individual players were analysed on the basis of all matches played between 12th July 2021 and 24th October 2022, including all competitive and friendly matches for both club and national team. In addition, where stated, specific charts focused on analysing the opening months of the 2022/23 season and the immediate run-up to FIFA World Cup 2022™.

ABOUT THE WORKLOAD INDICATORS

We assess the breakdown of overall match load by competitions, expressed both in appearances and in minutes. Other analytical measures used in the section focus on the prevalence of back-to-back matches and the international travel load of the player. The longest trips made since summer 2021 are further illustrated with a map visual.

The data shows that the selected six players already played at least 50% more in the early months of this season than the average amount played by all participating players of the tournament.
The data shows that the selected six players already played at least 50% more in the early months of this season than the average amount played by all participating players of the tournament.

Source: FIFPRO PWM platform, Football Benchmark analysis

Note: Guillermo Ochoa’s season in the Liga MX started already in July, but for the sake of comparability, only his minutes since August are displayed on the chart.
SADIO MANÉ

WORKLOAD ANALYSIS
Period analysed: 2021/22 – 2022/23 (until 24th October 2022)

Sadio Mané has an eventful period behind him filled with highs and lows; although he lost the UEFA Champions League Final with Liverpool FC, he led the Senegalese national team to Africa Cup of Nations glory. In the summer, he transferred to FC Bayern München and was named Africa’s Player of the Year for a second time in his career.

- Mané appeared in 93 games in total in the analysed period. This is one of the highest figures among players participating in FIFA World Cup 2022™.
- His longest streak of back-to-back games stretched to 14 appearances: he played 1,151 minutes in just 46 days (March-April 2022).
- During the Africa Cup of Nations, Mané accumulated 689 minutes in 7 games including the Final that ended with a penalty shoot-out.

Sadio Mané suffered an injury playing for his club on 8 November, just 13 days before Senegal’s first match of FIFA World Cup 2022™. Considering the reduced preparation time afforded to players ahead of the tournament, his participation now appears in doubt.

MATCH WORKLOAD

Minutes played

<table>
<thead>
<tr>
<th>Club - Domestic League</th>
<th>Club - Domestic Cup</th>
<th>Club - International Cup</th>
<th>Club - Friendly</th>
<th>National Team - Competitive</th>
<th>National Team - Friendly</th>
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<tr>
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<td>3,457</td>
<td>536</td>
<td>185</td>
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<td>1,293</td>
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<td>7,255</td>
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14 MATCHES

<table>
<thead>
<tr>
<th>Match appearances</th>
<th>Minutes played</th>
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<td>93</td>
<td>1,478</td>
</tr>
<tr>
<td>16</td>
<td>1,293</td>
</tr>
<tr>
<td>6</td>
<td>536</td>
</tr>
<tr>
<td>17</td>
<td>45</td>
</tr>
</tbody>
</table>

Minutes played in back-to-back matches by month

INTERNATIONAL TRAVEL

165 Hours spent traveling
41 Time zones crossed made

13/10/2022 Windhoek 8,666 km Liverpool
20/07/2022 Munich 6,616 km Washington DC
22/07/2022 Washington DC 6,616 km Munich
VINÍCIUS JÚNIOR

WORKLOAD ANALYSIS
Period analysed: 2021/22 – 2022/23 (until 24th October 2022)

Last season was the most successful one of Vinícius Jr’s career so far. Despite losing the 2021 Copa América Final against Argentina, he played a pivotal role in Real Madrid CF’s UEFA Champions League, LaLiga, Supercopa de España and UEFA Super Cup winning side.

- During the 2021/22 UEFA Champions League campaign, Vinícius Jr. accumulated the most minutes among all outfield players. Consequently, he also covered the longest distance, averaging almost 10.25 kms per game (133.2 kms in total).
- Played 72% of his minutes in back-to-back games since the summer of 2021.
- Recorded an extremely high number of back-to-back games in September-October 2022 (13 appearances in a row without sufficient rest).

MATCH WORKLOAD

MATCHES

MINUTES

BACK-TO-BACK MATCHES

% of minutes in back-to-back matches

Longest streak of consecutive back-to-back matches

13 MATCHES

INTERNATIONAL TRAVEL

270 Hours spent traveling

116 Time zones crosses made
This FIFA World Cup™ is the fifth time in a row that Guillermo Ochoa is part of the Mexico squad. The veteran goalkeeper recently broke the club record for most clean sheets at his club, CF América (111 clean sheets).

- During the 2021/22 season, Ochoa played 10 matches (and 1,000+ minutes) over the span of just 33 days.
- He was one of the three players above the age of 23 included in the "El Tri" squad for the 2020 Tokyo Olympics; he played all available minutes and won the bronze medal.
- Considering all players at FIFA World Cup 2022™, Ochoa recorded the 4th most on-pitch minutes (over 8,200) in the analysed period since July 2021.
Last season, Heung-min Son became the first Asian player to win the Premier League Golden Boot (shared with Mohamed Salah), despite missing a couple of games due to injury. Since the 2022/23 season's start, he has been heavily involved once again in both club and national team matches; October was his busiest month full of back-to-back games.

- Son was one of the players traveling the most (146,104 kms in total) internationally during the period. While doing so, he also crossed time zones on 132 occasions.
- He rarely had a rest after long international trips; he played almost 1,000 minutes within 2-3 days after inter-continental travels.
- He recorded over 600 minutes in back-to-back games over the span of just 23 days in October 2022.

**MATCH WORKLOAD**

<table>
<thead>
<tr>
<th>Match appearances</th>
<th>Minutes played</th>
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<tbody>
<tr>
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<td>8</td>
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<td>8</td>
<td>47</td>
</tr>
<tr>
<td>6</td>
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</tbody>
</table>

**BACK-TO-BACK MATCHES**

<table>
<thead>
<tr>
<th>% of minutes in back-to-back matches</th>
<th>Longest streak of consecutive back-to-back matches</th>
</tr>
</thead>
<tbody>
<tr>
<td>61%</td>
<td>8 MATCHES</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minutes played in back-to-back matches by month</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2022</td>
</tr>
<tr>
<td>Oct 2022</td>
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<tr>
<td>Jan 2022</td>
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<td>Feb 2022</td>
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<td>Oct 2022</td>
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<tr>
<td>Nov 2022</td>
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<tr>
<td>Dec 2022</td>
</tr>
</tbody>
</table>

**INTERNATIONAL TRAVEL**

- 194 Hours spent traveling
- 134 Time zones crosses made
- 31,859 Club travel (km)
- 115,521 National team travel (km)

- 17/07/2022 Suwon to London: 10,762 km
- 06/10/2021 London to Ansan: 10,701 km
- 10/09/2021 London to Seoul: 10,701 km
During FIFA World Cup Qatar 2022™ Harry Kane could become England’s all-time top scorer; if he scores at least three goals, he will overtake Wayne Rooney. Often the first name on the team sheet for both club and country, Kane very rarely misses a match.

- Kane played 64% of his minutes in back-to-back matches since last July, one of the highest values among all FIFA World Cup 2022™ participants.
- He has not missed a single Tottenham Hotspur FC game this season yet. He was on the pitch for 14 out of 15 England matches since the EURO 2020 Final.
- Kane was in the starting line-up in all of Tottenham’s competitive fixtures in the 2022/23 season so far. He was subbed off just three times.

**MATCH WORKLOAD**

<table>
<thead>
<tr>
<th>Match appearances</th>
<th>Minutes played</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>946</td>
</tr>
<tr>
<td>4</td>
<td>295</td>
</tr>
<tr>
<td>9</td>
<td>743</td>
</tr>
<tr>
<td>8</td>
<td>741</td>
</tr>
</tbody>
</table>

**BACK-TO-BACK MATCHES**

- % of minutes in back-to-back matches: 64%
- Longest streak of consecutive back-to-back matches: 8 MATCHES

**INTERNATIONAL TRAVEL**

- 68 Hours spent traveling
- 40 Time zones crossed made
- Club travel (km): 32,646
- National team travel (km): 15,348

- 17/07/2022 Suwon 8,885 km London
- 12/07/2022 London 8,857 km Seoul
- 29/07/2022 London 3,510 km Haifa
Looking to defend their title, France will heavily rely on Kylian Mbappé. Last season, the forward became the youngest player to reach 50 games with Les Bleus. Mbappé renewed his contract with Paris Saint-Germain FC in May and started the new season in strong form.

- Since the start of the 2022/23 season, Mbappé experienced an extremely busy period as he played 75% of his minutes in back-to-back games.
- Like many other top players, he had only 3-4 days between appearances for a while, leaving little time for recovery.
- Even though he is only 23, he already played more than 27,000 minutes of senior football, one of the highest workloads recorded at such a young age.

**WORKLOAD ANALYSIS**

Period analysed: 2021/22 – 2022/23 (until 24th October 2022)

- **Match appearances**
  - Minutes played: 6,535
  - Minutes played in back-to-back matches: 4,151
  - Minutes played in other matches: 2,384

- **Back-to-back matches**
  - Longest streak of consecutive back-to-back matches: 11 matches
  - Percentage of minutes in back-to-back matches: 59%

- **International travel**
  - Club travel (km): 34,525
  - National team travel (km): 10,006
  - Hours spent traveling: 64
  - Time zones crossed: 24

**Match appearances**

- July 2021: 3 matches
- August 2021: 1 match
- September 2021: 10 matches
- October 2021: 3 matches
- November 2021: 2 matches
- December 2021: 1 match

**Minutes played by month**

- July 2022: 397
- August 2022: 467
- September 2022: 534
- October 2022: 646

**Club travel vs National team travel**

- Paris 19/07/2022 to Tokyo 01/08/2022: 9,713 km
- Suita 12/07/2022 to Paris 19/07/2022: 9,628 km
- Paris 29/07/2022 to Haifa 01/08/2022: 3,236 km
METHODOLOGY

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.

PLAYER SAMPLE

The report focuses on all members of the squads participating at FIFA World Cup 2022™ in Qatar. Where final squads were not available at the time of publication, the most likely 26-man selections were used as of early November 2022.

PERIODS ANALYSED

When analysing the workload journey of players before the tournament, we assessed all their appearances in the period between 12 July 2021 and 24 October 2022. This selection covers a full football season, as well as the early, most congested part of the 2022/23 season just before FIFA World Cup 2022™.

MATCHES COVERED

There are over 60,000 player appearances on record in the underlying data set. This includes all competitive club matches and all national team appearances of all FIFA World Cup 2022™ participant players. Appearances are categorized as either domestic club, international club, or 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.

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 in the approximately 16-month period leading up to the tournament, including competitive club and all national team matches.

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.

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 in a match, then it is accounted for as an appearance.

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

BACK-TO-BACK MATCH – an appearance is considered as a “back-to-back” 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, and shortened off-season or in-season breaks, that constitutes a danger to player 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 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.
FIFPRO PLAYER IQ

This publication has been developed by FIFPRO Player IQ, a player-focused knowledge centre that aims to help shape decision-making in the football industry to protect and improve the careers and working lives of professional footballers.

For more, visit https://fifpro.org/en/player-iq.

FIFPRO PWM PLATFORM

The FIFPRO PWM platform is a digital tool tracking the workload of professional football players from around the world. The platform is an analytics tool that monitors player workload to provide data insights and enable informed decisions to be taken in relation to future competitive scheduling and sustainable competition structures by prioritising player health, performance, and career longevity.

The data-rich database within the PWM platform is the source of the analysis presented within this workload report. The FIFPRO PWM platform currently has over 70,000 match appearances on record, covering 355 professional footballer’s workload journeys since 2018. The next update of the platform is scheduled for January 2023, involving a major expansion to up to 1,800 players.

The FIFPRO PWM platform, operated jointly by FIFPRO and Football Benchmark, is freely accessible at the FIFPRO website and at the Football Benchmark website.

FOOTBALL BENCHMARK

Football Benchmark is a digital data & analytics platform that includes financial and operational performance data from more than 250 European and South American professional football clubs and social media performance metrics of hundreds of football clubs and players. The business intelligence tool also provides market value estimates for 8,000+ players, covering the best leagues of the UEFA, CONMEBOL and AFC confederations.