

Technical analysis of player performance

Drs Raffaele Poli, Loïc Ravenel and Roger Besson

1. Introduction

Since 2010 the CIES Observatory has been developing a method to objectively measure performance on both a collective and individual level. The starting point of the approach used consists of considering that in football, as a collective sport, the total is greater than the sum of parts. Nobody can deny that throughout the history of the game, all the great teams have been able to make individual talent serve the collective effort.

Apart from the intrinsic qualities of players, complementarity between teammates is decisive when it comes to success. Thus, this notion is at the heart of our approach. The latter is based on the computing of the number and outcome of actions carried out in six areas of the game. Each indicator refers to specific skills that all clubs must gather in order to be successful.

Following on from the [fifth edition](#), this Monthly Report presents the six Key Performance Indicators (KPIs) on which our approach is built. We shall then illustrate the methodology developed by presenting the rankings of the best big-5 league players in 2015/2016 for each area of the game. The following chapter presents the rankings according to position.

We will go on to identify the best performing footballers in comparison to their teammates. This type of analysis is particularly useful in unveiling the potential of footballers who do not yet play for the most competitive clubs. It also allows us to measure the clubs' dependency on their key players.

In the conclusion, we will underline some of the numerous advantages that a well-grounded approach to measure players' technical performance as presented in this report can bring to forward-thinking teams. The CIES Football Observatory research team is at the disposal of professional clubs to help enhance their effectiveness in this field.

2. Key Performance Indicators

In a football team, players fulfil very particular roles. The qualities necessary to play on the wing, for example, are very different to those required to play in the centre of the field. The same observation holds for defensive positions compared to attacking ones. It is therefore crucial to measure performances in a specific manner by identifying the most important actions for each position.

The recourse to statistical analysis techniques has allowed us to construct six Key Performance Indicators (KPIs) covering all of the essential actions that outfield players¹ must accomplish in order to enable their team to win. The KPIs developed are composite indicators that are perfectly comparable both spatially (between leagues or clubs) and temporally (between seasons). They combine systematically the number of actions carried out (productivity) and their outcome (efficiency).

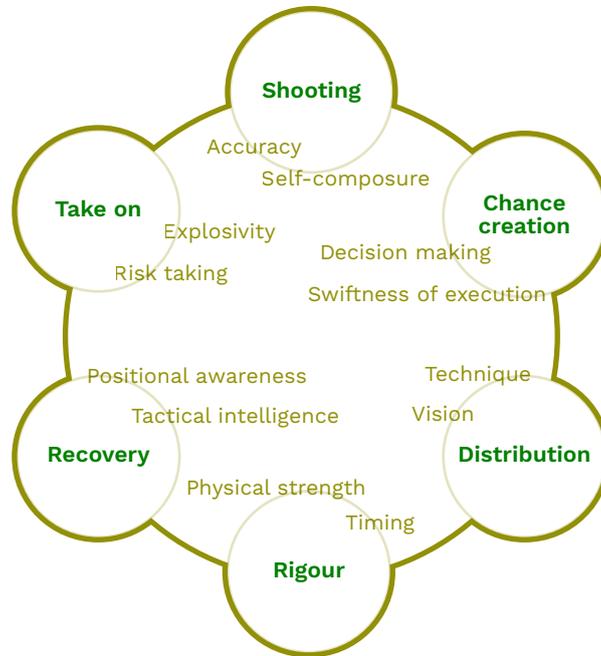
From a defensive point of view, **rigour** highlights players who are most able to hamper the ability of the opposing team to become dangerous thanks to a strong presence in duels, both in the air and on the ground. This is an area that notably foregrounds the most skilled footballers in marking. The latter ability relies on qualities such as physical strength and timing.

Also part of defending, **recovery** measures the ability of players to minimise the opportunities of their adversaries through proficient interception work. This area showcases footballers who are best at anticipating the offensive intentions of their opponents. Qualities such as a sense of position and tactical intelligence are of crucial importance here.

The third area, **distribution**, highlights players who are best able to pass the ball. This skill

¹ The indicators developed to measure the performance of goalkeepers are not presented here. On this subject, see issue [number 147](#) of the CIES Football Observatory Weekly Post.

Figure 1: CIES Football Observatory KPIs for the technical analysis of player performance



is very important insofar as it allows teams to keep a grip on the game. With rare exceptions, dominating clubs have more possession than lesser performing teams. From the point of view of individual qualities associated with this area, technique and vision are of primary importance.

When it comes to attacking, **take on** measures the ability of players to create dangerous situations by successfully challenging adversaries. Without a numerical advantage, it becomes difficult for each team to create opportunities. Take on also increases the chances to score from set play by obtaining free kicks and corners. Aside from technique, a player needs to take risks and be explosive in order to excel at take on.

Chance creation defines the ability to put teammates in a favourable position to shoot. This area highlights players who are most skilled at making the final pass. These footballers combine aforementioned qualities such as technique and vision, while being also particularly gifted at the levels of decision-making and swiftness of execution.

Finally, the domain of **shooting** measures the capacity of footballers to target successfully their opponent's goal. In a sport such as football, where the number of goals is very low,

having players that are able to take advantage of opportunities is a luxury that few teams can afford. Apart from the above-mentioned skills, shooting relies heavily on accuracy and self-composure.

3. Absolute rankings per area

This chapter reviews the best performing footballers for each of the six areas of the game that make up our approach. The rankings only include footballers who played at least 60% of minutes in the five major European leagues during the 2015/16 season. The differences in the levels between competitions are taken into consideration in an intrinsic manner insofar as the technical actions accounted are both more numerous and better executed in the most competitive leagues.

Five centre backs, two defensive midfielders, two box-to-box midfielders and a full back occupy the top ten positions of the rankings for rigour. Heading the list is the Chilean Arturo Vidal (Bayern Munich), followed by two other South Americans: Diego Godín (Atlético Madrid) and Alex (Milan). The presence of three Atlético Madrid players illustrates the importance that coach Diego Simone attributes to defensive duels.

Figure 2: best performing players in absolute, RIGOUR, big-5 leagues (2015/16)

1.	Arturo Vidal Bayern (GER)	DM*
2.	Diego Godín Atlético Madrid (ESP)	CB
3.	Alex da Costa Milan (ITA)	CB
4.	Saúl Ñíguez Atlético Madrid (ESP)	BM
5.	Nicolás Otamendi Man. City (ENG)	CB
6.	Xabi Alonso Bayern (GER)	DM
7.	José Giménez Atlético Madrid (ESP)	CB
8.	Mousa Dembélé Tottenham (ENG)	BM
9.	Mats Hummels Dortmund (GER)	CB
10.	Ricardo Pereira Nice (FRA)	FB

* [CB] : Centre Back, [FB] : Full Back,
[DM] : Defensive midfielders, [BM] : Box-to-box midfielders,
[AM] : Attacking midfielders, [FW] : Forwards

Most of the footballers in the top ten positions of the rankings for recovery play as defensive midfielders. The presence of Thiago Silva and Christian Fuchs highlights their exceptional skills in terms of anticipation and positional awareness. In the same vein, Claudio Marchisio is very gifted. Our analysis also brings to light the talent of the French neo-international N'Golo Kanté. The Leicester City's midfielder fully deserves his place among the Blues.

Figure 3: best performing players in absolute, RECOVERY, big-5 leagues (2015/16)

1.	Claudio Marchisio Juventus (ITA)	DM
2.	N'Golo Kanté Leicester (ENG)	DM
3.	Riccardo Montolivo Milan (ITA)	DM
4.	Mousa Dembélé Tottenham (ENG)	BM
5.	Idrissa Gueye Aston Villa (ENG)	DM
6.	Thiago Silva Paris SG (FRA)	CB
7.	Jorginho Frello Napoli (ITA)	DM
8.	Christian Fuchs Leicester (ENG)	FB
9.	Francesco Magnanelli Sassuolo (ITA)	DM
10.	Jérémy Toulalan Monaco (FRA)	DM

The footballers of clubs whose playing style is strongly based on possession monopolise

the top places when it comes to distribution. Three Bayern Munich footballers are notably ranked in the top ten, including two world champions: Xabi Alonso (1st) and Philipp Lahm (6th). With the Chilean Arturo Vidal, they are the pass masters of Pep Guardiola's team.

Figure 4: best performing players in absolute, DISTRIBUTION, big-5 leagues (2015/16)

1.	Xabi Alonso Bayern (GER)	DM
2.	Jorginho Frello Napoli (ITA)	DM
3.	Arturo Vidal Bayern (GER)	DM
4.	Julian Weigl Dortmund (GER)	DM
5.	Thiago Motta Paris SG (FRA)	DM
6.	Philipp Lahm Bayern (GER)	DM/FB
7.	Andrés Iniesta Barcelona (ESP)	BM
8.	Ilkay Gündoğan Dortmund (GER)	BM
9.	Marek Hamšík Napoli (ITA)	BM
10.	Francesc Fàbregas Chelsea (ENG)	BM

Forwards and attacking midfielders are equally distributed in the top ten for the area of take on. The young Lille talent Sofiane Boufal, 22 years of age, is ahead of one of the best dribblers in the history of football: Lionel Messi. This is a clear indicator of his great potential. Douglas Costa, ranked fourth, has also had an excellent debut season in the big-5 leagues.

Figure 5: best performing players in absolute, TAKE ON, big-5 leagues (2015/16)

1.	Sofiane Boufal Lille (FRA)	FW
2.	Lionel Messi Barcelona (ESP)	FW
3.	Franco Vázquez Palermo (ITA)	FW
4.	Douglas Costa Bayern (GER)	AM
5.	Alejandro Gómez Atalanta (ITA)	FW
6.	Yannick Bolasie Crystal Palace (ENG)	AM
7.	Wilfred Zaha Crystal Palace (ENG)	AM
8.	Neymar Júnior Barcelona (ESP)	FW
9.	Filip Kostić Stuttgart (GER)	AM
10.	Georges-Kévin Nkoudou Marseille (FRA)	AM

Six attacking midfielders, three forwards and one box-to-box midfielder are to be found in the top ten positions for chance creation. Mesut Özil (Arsenal) is ahead of David Silva (Manchester City) and a relatively unknown but very talented player: the Brazilian Raffael (Borussia Mönchengladbach). Considering the more defensive position occupied in Real Madrid's tactical disposition, Toni Kroos seventh place is also remarkable.

Figure 6: best performing players in absolute, CHANCE CREATION, big-5 leagues (2015/16)

1.	Mesut Özil Arsenal (ENG)	AM
2.	David Silva Man. City (ENG)	AM
3.	Raffael de Araújo M'gladbach (GER)	FW
4.	Henrik Mkhitaryan Dortmund (GER)	AM
5.	Christian Eriksen Tottenham (ENG)	AM
6.	Riccardo Saponara Empoli (ITA)	AM
7.	Toni Kroos Real Madrid (ESP)	BM
8.	Paco Alcácer Valencia (ESP)	FW
9.	Dimitri Payet West Ham (ENG)	AM
10.	Neymar Júnior Barcelona (ESP)	FW

The rankings for shooting brings to the fore the extraordinary performances of Zlatan Ibrahimović. Aged 34 and a half, the Swede is still at the top of his form. Coming to the end of his contract at Paris St-Germain, he should have no difficulties in finding as ambitious a club as his current one. Despite the high number of goals scored, Cristiano Ronaldo is penalised by a relatively low shot conversion rate.

Figure 7: best performing players in absolute, SHOOTING, big-5 leagues (2015/16)

1.	Zlatan Ibrahimović Paris SG (FRA)	FW
2.	Luis Suárez Barcelona (ESP)	FW
3.	Robert Lewandowski Bayern (GER)	FW
4.	Gonzalo Higuaín Napoli (ITA)	FW
5.	Javier Hernández Leverkusen (GER)	FW
6.	Pierre-Emerick Aubameyang Dortmund (GER)	FW
7.	Lionel Messi Barcelona (ESP)	FW
8.	Alexander Meier Frankfurt (GER)	FW
9.	Cristiano Ronaldo Real Madrid (ESP)	FW
10.	Antoine Griezmann Atlético Madrid (ESP)	FW

4. Absolute rankings per position

This chapter ranks big-5 league footballers having played at least 60% of championship minutes over the 2015/16 season according to the position occupied on the pitch. Six positions are taken into account: centre backs, full backs, defensive midfielders, box-to-box midfielders, attacking midfielders and forwards. The Key Performance Indicators are selected or weighted according to their importance for each of the positions as illustrated in the figure below.

Figure 8: KPIs per position according to the CIES Football Observatory

Poste	RIG*	REC	DIS	TAK	CHA	SHO
Centre backs	●●	●●	●●	-	-	-
Full backs	●●	●●	●●	●●	●●	●●
Defensive midfielders	●●	●●	●●	●	●	●
Box-to-box midfielders	●●	●●	●●	●●	●●	●●
Attacking midfielders	●	●	●	●●	●●	●●
Forwards	-	-	-	●●	●●	●●

* [RIG]: Rigour, [REC]: Recovery, [DIS]: Distribution, [TAK]: Take on, [CHA]: Chance creation, [SHO]: Shooting
From very important [●●●●●] to not considered [-]

Of the 60 footballers in the top ten places of the rankings per position, 15 play in the Spanish Liga, 13 in the English Premier League, 12 in both the German Bundesliga and the Italian Serie A, as well as 8 in the French Ligue 1. This result tends to reflect performance gaps between leagues. The clubs most represented are Barcelona (7 players), Bayern Munich (6), Borussia Dortmund (6), Manchester City (4), Tottenham (4) and Atlético Madrid (4).

The leading trio of centre backs is made up of Mats Hummels (Dortmund), Thiago Silva (PSG) and Nicolás Otamendi (Manchester City). The youngest player in the top ten is Olympic Lyonnais's Samuel Umtiti. At 22 years of age, the winner of the 2013 edition of the under 20 World Cup is ready to make the big jump to teams capable of winning the Champions League.

Figure 9: best performing centre backs in absolute, big-5 leagues (2015/16)

1.	Mats Hummels Dortmund (GER)
2.	Thiago Silva Paris SG (FRA)
3.	Nicolás Otamendi Man. City (ENG)
4.	David Alaba Bayern (GER)
5.	Facundo Roncaglia Fiorentina (ITA)
6.	Diego Godín Atlético Madrid (ESP)
7.	Kalidou Koulibaly Napoli (ITA)
8.	David Luiz Paris SG (FRA)
9.	Samuel Umtiti Lyon (FRA)
10.	Mamadou Sakho Liverpool (ENG)

Filipe Luís is the best performing full back of the big-5 leagues. After a difficult year at Chelsea, the Brazilian regained his best form under Diego Simone at Atlético Madrid. The youngest player on the list is Ricardo Pereira. Although only 22 years of age, according to our analysis, the Portuguese footballer on loan from Porto to Nice could already play successfully with the top European clubs.

Figure 10: best performing full backs in absolute, big-5 (2015/16)

1.	Filipe Luís Atlético Madrid (ESP)
2.	Philipp Lahm Bayern (GER)
3.	Dani Alves Barcelona (ESP)
4.	Ricardo Pereira Nice (FRA)
5.	Marcelo Vieira Real Madrid (ESP)
6.	Marcos Alonso Fiorentina (ITA)
7.	Ignazio Abate Milan (ITA)
8.	Aleksandar Kolarov Man. City (ENG)
9.	Jordi Alba Barcelona (ESP)
10.	Senad Lulić Lazio (ITA)

Two Bayern Munich footballers head the rankings for defensive midfielders: Arturo Vidal and Xabi Alonso. Both of them ensure the stability of Pep Guardiola's team. In third place, the Argentinean Lucas Biglia possesses sufficient qualities to play for an even better performing team than Lazio. The youngest player on the list, Julian Weigl, is only 20 years old. From the very start of his first season in a big-5 league, he has been able to show the true extent of his talent.

Figure 11: best performing defensive midfielders in absolute, big-5 leagues (2015/16)

1.	Arturo Vidal Bayern (GER)
2.	Xabi Alonso Bayern (GER)
3.	Lucas Biglia Lazio (ITA)
4.	Claudio Marchisio Juventus (ITA)
5.	Jorginho Frello Napoli (ITA)
6.	Mounir Obbadi Lille (FRA)
7.	Lassana Diarra Marseille (FRA)
8.	N'Golo Kanté Leicester (ENG)
9.	Sergio Busquets Barcelona (ESP)
10.	Julian Weigl Dortmund (GER)

During the 2015/16 big-5 league season, there has not been a better performing box-to-box midfielder than Tottenham's Mousa Dembélé. On the cusp of his 29th birthday, the Belgian

international has fully matured. In fourth place is another Tottenham player: Dele Alli (20 years old). This is one of the greatest talents England has produced in the last decade.

Figure 12: best performing box-to-box midfielders in absolute, big-5 leagues (2015/16)

1.	Mousa Dembélé Tottenham (ENG)
2.	Blaise Matuidi Paris SG (FRA)
3.	Ilkay Gündoğan Dortmund (GER)
4.	Dele Alli Tottenham (ENG)
5.	Yaya Touré Man. City (ENG)
6.	Paul Pogba Juventus (ITA)
7.	Miralem Pjanić Roma (ITA)
8.	Toni Kroos Real Madrid (ESP)
9.	Andrés Iniesta Barcelona (ESP)
10.	Saúl Ñíguez Atlético Madrid (ESP)

At 30 years of age, Manchester City's attacking midfielder David Silva is still performing at a very high level. The Spaniard is ranked ahead of another world champion, the German Mesut Özil, and the Armenian Henrik Mkhitarjan. Six footballers from the English Premier League are to be found in the top ten places. The youngest players in the list were born in 1992: Erik Lamela (Tottenham), Koke Resurrección (Atlético Madrid) and Christian Eriksen (Tottenham).

Figure 13: best performing attacking midfielders in absolute, big-5 leagues (2015/16)

1.	David Silva Man. City (ENG)
2.	Mesut Özil Arsenal (ENG)
3.	Henrik Mkhitarjan Dortmund (GER)
4.	Erik Lamela Tottenham (ENG)
5.	Koke Resurrección Atlético Madrid (ESP)
6.	Douglas Costa Bayern (GER)
7.	Christian Eriksen Tottenham (ENG)
8.	Adam Lallana Liverpool (ENG)
9.	Dimitri Payet West Ham (ENG)
10.	Shinji Kagawa Dortmund (GER)

Of the forwards, Lionel Messi heads Zlatan Ibrahimović and his teammates Neymar and Luis Suárez. Cristiano Ronaldo is sixth behind the young prodigy from Juventus Paulo Dybala (22 years of age). The Argentinean is well on his way to becoming a world-class footballer. Six of the top ten forwards are South Americans. Zlatan Ibrahimović and Thomas Müller are the only representatives of non-Latin countries.

Figure 14: best performing forwards in absolute, big-5 leagues (2015/16)

1.	Lionel Messi Barcelona (ESP)
2.	Zlatan Ibrahimović Paris SG (FRA)
3.	Neymar Júnior Barcelona (ESP)
4.	Luis Suárez Barcelona (ESP)
5.	Paulo Dybala Juventus (ITA)
6.	Cristiano Ronaldo Real Madrid (ESP)
7.	Raffael de Araújo M'gladbach (GER)
8.	Thomas Müller Bayern (GER)
9.	Lucas Pérez La Coruña (ESP)
10.	Gonzalo Higuaín Napoli (ITA)

5. Relative rankings per area

While most of the footballers at the top of the absolute rankings are already very well known, many footballers having over-performed the most in comparison with their teammates are less familiar. For example, at the first place of the relative rankings for centre backs is Sebastian Langkamp. His performances are part of the reason for Hertha Berlin's successful season. The Argentinean Facundo Roncaglia of Fiorentina is also very talented.

Figure 15: best performing players compared to teammates, RIGOUR, big-5 leagues (2015/16)

1.	Sebastian Langkamp Hertha Berlin (GER)	CB
2.	Facundo Roncaglia Fiorentina (ITA)	CB
3.	Raphaël Varane Real Madrid (ESP)	CB
4.	Diego Reyes Real Sociedad (ESP)	CB
5.	Kader Mangane GFC Ajaccio (FRA)	CB
6.	Issiaga Sylla GFC Ajaccio (FRA)	FB
7.	Alexandre Coeff GFC Ajaccio (FRA)	FB
8.	Sebastian De Maio Genoa (ITA)	CB
9.	Wallace dos Santos Monaco (FRA)	CB
10.	Angelo Ogbonna West Ham (ENG)	CB

In the domain of recovery, the Senegalese Idrissa Gueye has largely surpassed the performances of his teammates at Aston Villa. The second place of N'Golo Kanté confirms the importance of this player in the success enjoyed by Leicester City. Our analysis also suggests that Riccardo Montolivo is the best candidate to supplant Claudio Marchisio, injured, for the next European championships.

Figure 16: best performing players compared to teammates, RECOVERY, big-5 leagues (2015/16)

1.	Idrissa Gueye Aston Villa (ENG)	DM
2.	N'Golo Kanté Leicester (ENG)	DM
3.	Riccardo Montolivo Milan (ITA)	DM
4.	Jorginho Frello Napoli (ITA)	DM
5.	Grzegorz Krychowiak Sevilla (ESP)	DM
6.	Claudio Marchisio Juventus (ITA)	DM
7.	Mousa Dembélé Tottenham (ENG)	BM
8.	Serey Die Stuttgart (GER)	DM
9.	Kalidou Koulibaly Napoli (ITA)	CB
10.	Mirko Gori Frosinone (ITA)	BM

The analysis of relative performances in the area of distribution allows us to highlight the key role played by Roberto Trashorras in Rayo Vallecano's tactical scheme. At 35 years of age, the player trained at Barcelona is still a force to be reckoned with. Second-ranked Daniel Ceballos has not yet celebrated his 20th birthday. He is destined for a great career.

Figure 17: best performing players compared to teammates, DISTRIBUTION, big-5 (2015/16)

1.	Roberto Trashorras Rayo Vallecano (ESP)	DM
2.	Daniel Ceballos Betis (ESP)	BM
3.	Mounir Obbadi Lille (FRA)	DM
4.	Daniel Drinkwater Leicester (ENG)	DM
5.	Pascal Gross Ingolstadt (GER)	BM
6.	Dani Parejo Valencia (ESP)	BM
7.	Jorginho Frello Napoli (ITA)	DM
8.	Lucas Biglia Lazio (ITA)	DM
9.	Bruno Soriano Villarreal (ESP)	DM
10.	Fabien Lemoine St-Etienne (FRA)	DM

Franco Vázquez heads the relative rankings in the area of take on. Despite the good performances of the Italo-Argentinean, Palermo has not had a successful season. The very frequent changes of coach have certainly not helped in this regard. Trained at Real Madrid, Pablo Sarabia has the necessary skills to play for a more ambitious club than Getafe.

Figure 18: best performing players compared to teammates, TAKE ON, big-5 leagues (2015/16)

1.	Franco Vázquez Palermo (ITA)	FW
2.	Pablo Sarabia Getafe (ESP)	AM
3.	Sofiane Boufal Lille (FRA)	FW
4.	Alejandro Gómez Atalanta (ITA)	FW
5.	Lionel Messi Barcelona (ESP)	FW
6.	Isaac Success Granada (ESP)	FW
7.	Sergio Keko Eibar (ESP)	FW
8.	Yannick Bolasie Crystal Palace (ENG)	AM
9.	Hatem Ben Arfa Nice (FRA)	AM
10.	Wilfred Zaha Crystal Palace (ENG)	AM

The relative rankings for chance creation illustrate the extraordinary talent of Mesut Özil. Though he is playing in such a competitive team as Arsenal, the German is the player who over-performed the most in comparison to his teammates. Our analysis also shows that two young Spaniards have all the necessary attributes to pursue a top-level career: Paco Alcácer (22 years of age) and Marco Asensio (20).

Figure 19: best performing players compared to teammates, CHANCE CREATION, big-5 (2015/16)

1.	Mesut Özil Arsenal (ENG)	AM
2.	Paco Alcácer Valencia (ESP)	FW
3.	Marco Asensio Espanyol (ESP)	AM
4.	Riccardo Saponara Empoli (ITA)	AM
5.	David Silva Man. City (ENG)	AM
6.	Jordan Veretout Aston Villa (ENG)	BM
7.	Xherdan Shaqiri Stoke City (ENG)	AM
8.	Lucas Pérez La Coruña (ESP)	FW
9.	Dimitri Payet West Ham (ENG)	AM
10.	Wahbi Khazri Bordeaux (FRA)/Sunderland (ENG)	AM

In the domain of shooting, no player has performed better in comparison with his teammates than Alexander Meier. The knee injury that kept him from playing since the beginning of March has heavily penalised Eintracht Frankfurt. Odion Ighalo's second place shows

how important the Nigerian is for Watford. Ranked fourth, Javier Hernández has integrated himself very well into Bayer Leverkusen's style of play.

Figure 20: best performing players compared to teammates, SHOOTING, big-5 leagues (2015/16)

1.	Alexander Meier Frankfurt (GER)	FW
2.	Odion Ighalo Watford (ENG)	FW
3.	Rubén Castro Betis (ESP)	FW
4.	Javier Hernández Leverkusen (GER)	FW
5.	Deyverson Acosta Levante (ESP)	FW
6.	Antonio Sanabria Gijón (ESP)	FW
7.	Gonzalo Higuaín Napoli (ITA)	FW
8.	Borja Bastón Eibar (ESP)	FW
9.	Lucas Pérez La Coruña (ESP)	FW
10.	Wissam Ben Yedder Toulouse (FRA)	FW

6. Relative rankings per position

Our approach also allows us to calculate the relative contribution of players according to their position. Several footballers in the top ten, such as Sebastian Langkamp, are also present high in the rankings per area of the game presented above. Without excelling in any particular domain, Gustavo Cabral (Celta Vigo) is ranked fifth among centre backs. This result shows him as very good all-rounder. Our analysis also highlights the talent of the 23-year-old Mexican Diego Reyes (Real Sociedad, on loan from Porto).

Figure 21: best performing centre backs compared to teammates, big-5 leagues (2015/16)

1.	Sebastian Langkamp Hertha Berlin (GER)
2.	Facundo Roncaglia Fiorentina (ITA)
3.	Kalidou Koulibaly Napoli (ITA)
4.	Diego Reyes Real Sociedad (ESP)
5.	Gustavo Cabral Vigo (ESP)
6.	Shkodran Mustafi Valencia (ESP)
7.	Nicolás Otamendi Man. City (ENG)
8.	Damien da Silva Caen (FRA)
9.	Kader Mangane GFC Ajaccio (FRA)
10.	Jérémie Bréchet GFC Ajaccio (FRA)

Jonas Hector (Cologne) heads the rankings among full backs. Our analysis justifies Joachim Löw decision to make him a regular of the German national team. Loaned at the start of the season by Grasshopper to the newly promoted Serie A team Frosinone, the Swiss with Croatian origins Daniel Pavlović has had a very good first season in the big-5. Torino's Bruno Peres is ranked third. The Brazilian is being sought after by several top level clubs.

Figure 22: best performing full backs compared to teammates, big-5 leagues (2015/16)

1.	Jonas Hector Köln (GER)
2.	Daniel Pavlović Frosinone (ITA)
3.	Bruno Peres Torino (ITA)
4.	Issiaga Sylla GFC Ajaccio (FRA)
5.	Youssef Sabaly Nantes (FRA)
6.	Jonathan Martins Troyes/Guingamp (FRA)
7.	Senad Lulić Lazio (ITA)
8.	Marcos Alonso Fiorentina (ITA)
9.	Mitchell Weiser Hertha Berlin (GER)
10.	Julian Palmieri Bastia (FRA)

Just behind the evergreen Roberto Trashorras, Víctor Camarasa is the big-5 defensive midfielder who has out-performed the most his teammates. Aged 22, the Levante player is on his way to a promising career. The youngest

footballer in the top ten, Seko Fofana, is 21 years of age. His owner club, Manchester City, loaned him to Fulham in 2014/15 and then to Bastia for the 2015/16 season. A new loan to a big-5 league club in 2016/17 would allow him to further develop.

Figure 23: best performing defensive midfielders compared to teammates, big-5 leagues (2015/16)

1.	Roberto Trashorras Rayo Vallecano (ESP)
2.	Víctor Camarasa Levante (ESP)
3.	Mounir Obbadi Lille (FRA)
4.	Younousse Sankharé Guingamp (FRA)
5.	Seko Fofana Bastia (FRA)
6.	Beñat Etxebarria Bilbao (ESP)
7.	Damjan Djoković GFC Ajaccio (FRA)
8.	James McArthur Crystal Palace (ENG)
9.	Arturo Vidal Bayern (GER)
10.	N'Golo Kanté Leicester (ENG)

Zlatko Junuzović first place among box-to-box midfielders illustrates his status as a key player at Werder Bremen. He has held this role for several seasons. The second place of Dele Alli is indicative of his extraordinary talent. Pascal Gross from Ingolstadt is also very talented. Our analysis suggests that the 24 year-old German is ready for the next step in his career.

Figure 24: best performing box-to-box midfielders compared to teammates, big-5 leagues (2015/16)

1.	Zlatko Junuzović Bremen (GER)
2.	Dele Alli Tottenham (ENG)
3.	Pascal Gross Ingolstadt (GER)
4.	Jordan Veretout Aston Villa (ENG)
5.	Daniele Baselli Torino (ITA)
6.	Mahmoud Dahoud M'gladbach (GER)
7.	Mousa Dembélé Tottenham (ENG)
8.	Thomas Mangani Angers (FRA)
9.	Yannick Gerhardt Köln (GER)
10.	Miralem Pjanić AS Roma (ITA)

Riyad Mahrez heads the list of attacking midfielders. The Franco-Algerian has greatly contributed to the incredible results achieved by Leicester City. Dimitri Payet, ranked fourth, has made a great Premier League start with West Ham. The South Korean Ja-Cheol Koo (Augsburg) is also particularly talented. Confined for too long in amateur football, Mohamed Larbi (GFC Ajaccio) fully deserves his place in the professional game.

Figure 25: best performing attacking midfielders compared to teammates, big-5 leagues (2015/16)

1.	Riyad Mahrez Leicester (ENG)
2.	Mesut Özil Arsenal (ENG)
3.	Pablo Sarabia Getafe (ESP)
4.	Dimitri Payet West Ham (ENG)
5.	Ja-Cheol Koo Augsburg (GER)
6.	Mohamed Larbi GFC Ajaccio (FRA)
7.	Nicolai Müller Hamburg (GER)
8.	Riccardo Saponara Empoli (ITA)
9.	Wahbi Khazri Bordeaux (FRA)/Sunderland (ENG)
10.	Marco Asensio Espanyol (ESP)

The relative rankings for forwards highlight the out of the ordinary performances of Lucas Pérez. The Spaniard scored almost 40% of Deportivo La Coruña's goals. Aged 27, he can still take his chance with more ambitious clubs.

Wissam Ben Yedder, ranked sixth, also has the necessary qualities to play a major role in a better performing team than Toulouse. His departure seems imminent as his contract runs out in 2017.

Figure 26: best performing forwards compared to teammates, big-5 leagues (2015/16)

1.	Lucas Pérez La Coruña (ESP)
2.	Odion Ighalo Watford (ENG)
3.	Alexander Meier Frankfurt (GER)
4.	Gonzalo Higuaín Napoli (ITA)
5.	Paco Alcácer Valencia (ESP)
6.	Wissam Ben Yedder Toulouse (FRA)
7.	Rubén Castro Betis (ESP)
8.	Zlatan Ibrahimović Paris SG (FRA)
9.	Kevin Gameiro Sevilla (ESP)
10.	Deyverson Acosta Levante (ESP)

7. Conclusion

For a pertinent analysis of player performance, contextual elements must be taken into account. Individual performance is strongly linked to the ability of clubs to bring together footballers with complimentary characteristics within the framework of the style of play practised. The matching between individual qualities and skills required to play in a particular position with regard to the team's tactical scheme is also of crucial importance.

Moreover, individual performance is influenced by the general configuration of teams. It is, for example, much easier for a player to be competitive in a stable environment with a clear strategy than in an unstable one characterised by frequent changes of the coach.

The strong interdependence between all of these contextual elements makes performance analysis in football particularly complex. An in-depth knowledge of the football environment, a fine understanding of the logics of the game and the perfect mastery of statistical techniques are all prerequisites to be efficient in this domain.

Though our experience shows that resistance to quantitative methods within clubs is on the decline, shortfalls in the production, contextualisation or interpretation of results continues to have a negative impact on the ability of teams to take full advantage of data-driven research. Recurrent power struggles within clubs also contribute to limit the potential impact of innovative analytical approaches.

However, a well-grounded performance analysis on both a collective and individual level should be one of the key actions that any ambitious club should undertake to combat short-termism and improvisation that are still prevalent in the majority of professional football teams. From this viewpoint, the full integration of pertinent performance analyses such as that presented in this Report in the decision making processes continues to have a strong potential for the significant and long term improvement of results.