



City AM: 21 Premier League Players To Watch In 2021

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Strictly Private and Confidential

30 December 2020

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1. How were these players selected?

The 21 selected players were chosen based on a number of objective metrics:

- Carteret Rating
- CRCI
- Delta% in *Carteret Rating* between Season 2019/20 and Season 2020/21
- Carteret Match Impact% (CMI%)
- Attribute Analysis
- Playing Characteristics
- Age
- Future trajectory

The *Glossary* located at the end of this report will provide more information about the key terms and metrics stated above.

2. And the 21 are...

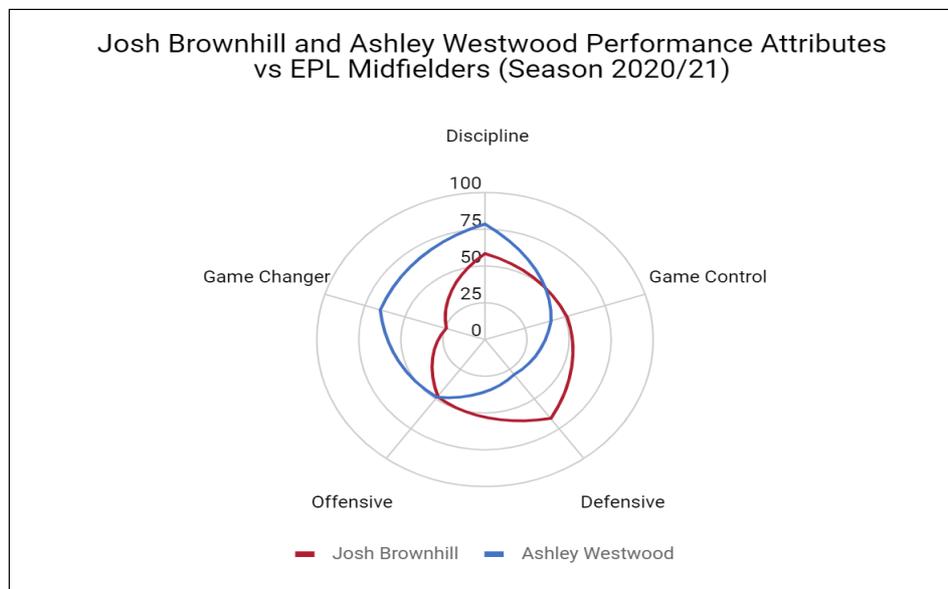
Arsenal: Gabriel Magalhães (Carteret Rating: 239.5) - The Brazilian centre back has cemented his position in the starting XI as Arsenal's strongest performer this season with a *Carteret Rating* of **239.5**. It will be interesting to see how the Arsenal team performs without their star player after he was sent off in Wednesday's match against Southampton.

Aston Villa: Ezri Konsa (Carteret Rating: 214.9) - Whilst the majority of the Aston Villa squad is living in the shadow of **Jack Grealish's** exceptional first half of the 2020/21 season, **Konsa** has emerged as a young talent for Aston Villa that is continuing to grow year on year (his *Carteret Rating* up **23%** on last season). He will be one to look out for during the remainder of the season if he can continue his good form.

Brighton: Yves Bissouma (Carteret Rating: 203.3) - Another player with a high delta on last season's *Carteret Rating* (up by **40%**), **Bissouma** is certainly Brighton's most improved player this season and could be the key difference in Brighton's ability to maintain Premier League status.

Burnley: Josh Brownhill (Carteret Rating: 188.2) - **Josh Brownhill's** objective performance levels are **13%** higher than in the 2019/20 season. His performance levels place him on a level comparable to experienced Burnley midfielder **Ashley Westwood (Carteret Rating 195.6)**. A direct comparison of **Brownhill** and **Westwood** (Exhibit 1) shows that **Brownhill** demonstrates stronger Defensive and Game Control performance attributes. The data analysis suggests that **Brownhill** will be a key player for Burnley in 2021.

Exhibit 1: A Radar Chart to show Josh Brownhill's Performance Attributes in the 2020/21 season.

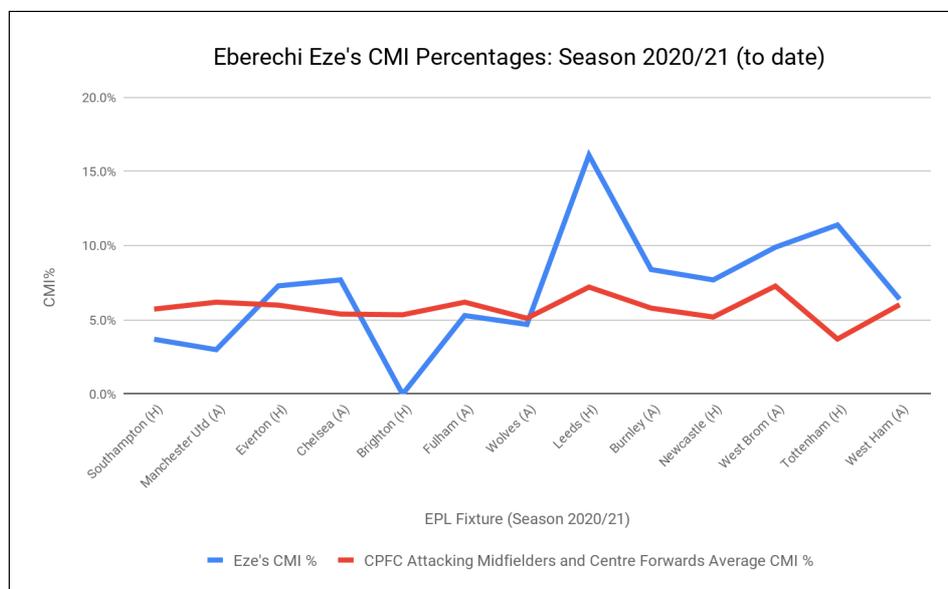


Source: Carteret Analytics, London

Chelsea: Kurt Zouma (Carteret Rating: 267.6) - Chelsea's second highest rated centre back this season (only second to veteran teammate **Thiago Silva**). **Silva's** impact could be responsible for this purple patch in **Zouma's** turbulent career to date, helping him grow as a player. They have objectively formed the strongest defensive partnership in the EPL with Chelsea having conceded 5 goals less compared to the same stage in season 2019/20. **Zouma's** performance levels have improved by **17%** compared to last season.

Crystal Palace: Eberechi Eze (Carteret Rating: 182.7) - **Eze's** increasing level of influence on the Crystal Palace team is demonstrated by his positive **CMI%** correlation over the last six matches. His recent performances suggest that he is starting to settle into the team and is now showcasing glimpses of his full potential. He will certainly be one to watch in 2021 to see if Palace can extract his maximum ability and relieve **Wilfried Zaha** from some of the attacking burden.

Exhibit 2: A Line Graph to show Eberechi Eze's individual Carteret Match Impact for each game in the 2020/21 season



Source: Carteret Analytics, London

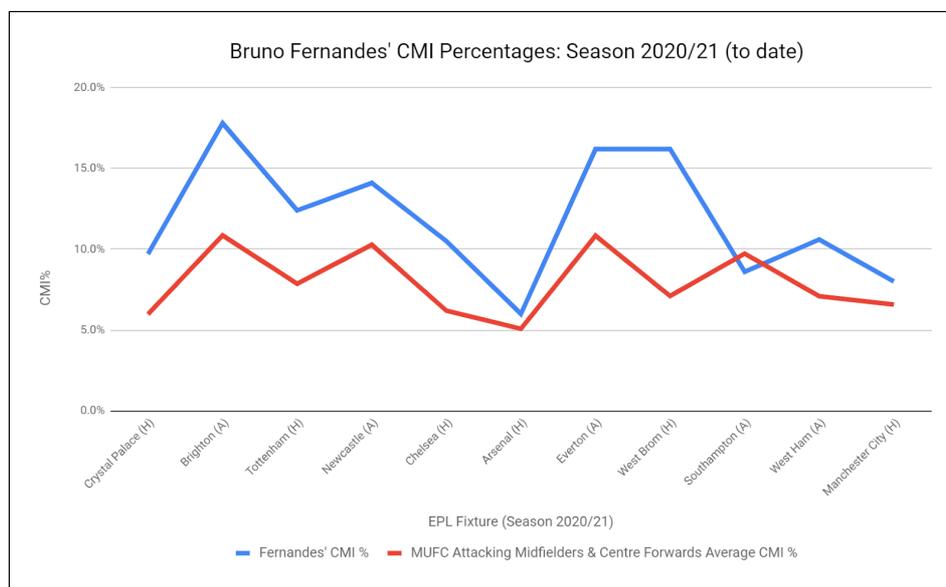
Everton: Dominic Calvert-Lewin (Carteret Rating: 276.6) - Everton's current top performer and the most improved player in this 21 man list when compared to last season (*Carteret Rating* up **55%**), **Calvert-Lewin** has made his intentions clear in striving to become one of the Premier League's finest marksman. He currently sits at the top of the goalscorer rankings alongside familiar names **Mohamed Salah** and **Son Heung-Min**.

Liverpool: Curtis Jones (Carteret Rating: 219.4) - In a midfield filled with injuries, **Jones** has risen to the challenge and thrived during his first team opportunities. At just 19 years old, he is the strongest objective performer out of all the Liverpool midfielders this season (bar makeshift centre back **Fabinho**). We believe Jones is a player that will continue to climb on a positive trajectory moving into 2021.

Manchester City: Rúben Dias (Carteret Rating: 243.5) - Despite some frustrating results, Manchester City are still performing strongly across the squad from an objective basis. Most impressively, new signing **Dias** has joined some of the most consistent veteran performers for the club with just three players rated higher (**De Bruyne**, **Gündogan** and **Mahrez**). He possesses the highest *Carteret Rating* out of the Manchester City central defenders so far this season.

Manchester United: Bruno Fernandes (Carteret Rating: 314.8) - **Fernandes** has created a considerable gap between himself and the rest of the Manchester United squad. What is more, his impressive performance levels are up **15%** from last year. We are seeing a significant level of CMI% in some of his performances and we could be looking at one of (if not) the player(s) of the 2020/21 season.

Exhibit 3: A Line Graph to show Bruno Fernandes' individual Carteret Match Impact for each game in the 2020/21 season



Source: Carteret Analytics, London

Newcastle United: Callum Wilson (Carteret Rating: 247.0) - The striker's move to Newcastle has proved catalytic for his performance levels (**51%** higher than last season) and he now ranks as the number one objective rated player in the Newcastle squad. He is a player in his prime years that we believe will continue to perform well for the team going into next year.

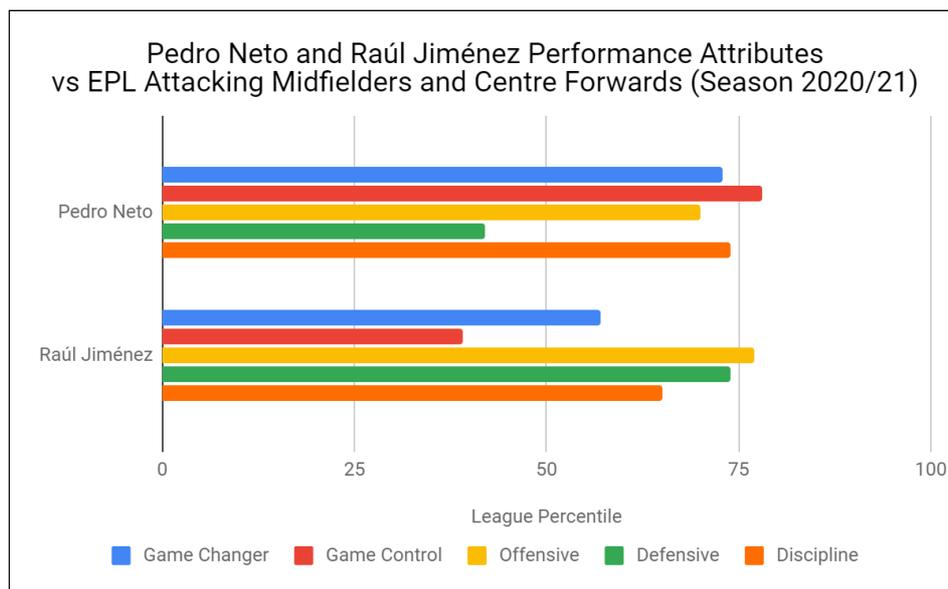
Sheffield United: Sander Berge (Carteret Rating: 180.5) - After an underwhelming start to the season, **Sander Berge** may be the only positive thing bottom placed Sheffield United have to enjoy at present. The youngster is beating the trend at the Blades by achieving his highest *Carteret Rating* to date (**23%** higher than last seasons **147.0**). We believe he is the most likely candidate to inspire Sheffield United to try and fight out of the relegation zone in 2021.

Southampton: Jannik Vestergaard (Carteret Rating: 241.9) - **Vestergaard** is the highest ranked Defender in the Southampton squad this season, and the third best player overall, only behind **James Ward-Prowse** and **Danny Ings**. **Vestergaard's** objective performance levels have improved by almost **30%** compared to last season. At the same stage last season, Southampton were 19th in the EPL and had conceded 31 goals. This season the Saints are 3rd in the league and have conceded only 18 goals.

West Ham United: Jarrod Bowen (Carteret Rating: 203.2) - Statistically, and objectively, 8th placed West Ham United look like a completely different team. At this point in the 19/20 season, West Ham were still finding their feet 9 places lower in the league at 17th with just 13 points, vastly contrasting the current 21 points that they hold. This improvement is partly down the increased contribution of young attacker **Jarrod Bowen**. A **21%** increase in *Carteret Rating* identifies **Bowen** as one of the club's best players this season.

Wolverhampton Wanderers: Pedro Neto (Carteret Rating: 222.0) - **Neto** is the highest rated player in the Wolves squad. An improvement in his objective performance levels of **45%** compared to last season. **Neto** has a pass success percentage of **90%** this season and averages 26 successful passes per match. **Neto's** CMI% in each game this season indicates he is having a significant influence on each match he has played this season; he is consistently above the team's CMI% average for Centre Forwards and Attacking Midfielders. **Neto** is joint highest goal scorer in the Wolves squad alongside **Raúl Jiménez**.

Exhibit 4: A horizontal bar chart to show Pedro Neto's Performance Attributes compared to Raúl Jiménez in the 2020/21 season

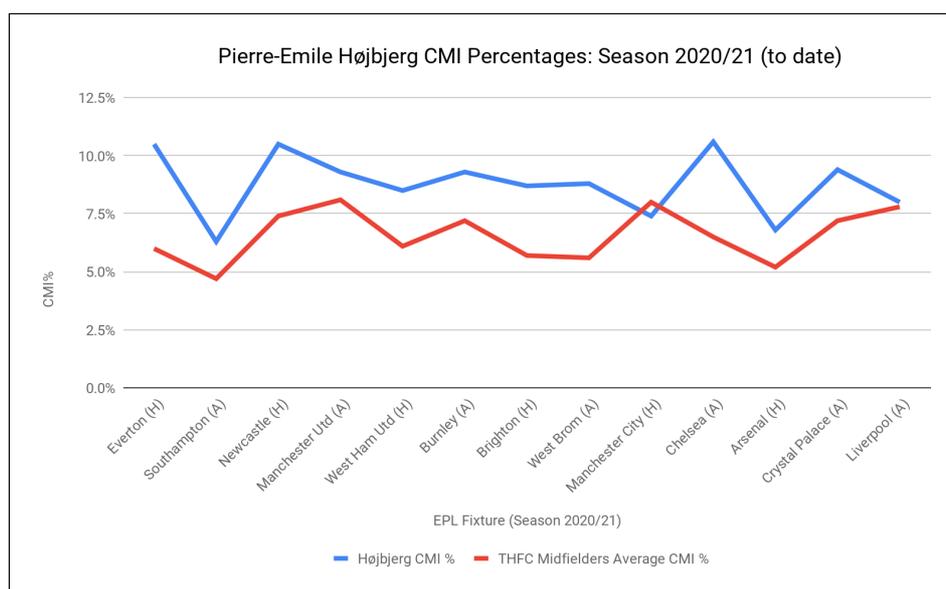


Source: Carteret Analytics, London

Leicester City: Timothy Castagne (Carteret Rating: 213.1) - Prior to his injury, **Castagne** was the 3rd best performer in the Leicester City squad based on our purely objective analysis. This is highly impressive when you consider the level of value lost in the fullback position of the squad from the sale of **Ben Chilwell** to Chelsea (albeit on the opposite side of the defence). **Castagne's** objective contribution to the team could be vital going into 2021 once he has made a full recovery.

Tottenham: Pierre-Emile Højbjerg (Carteret Rating: 208.9) - **Højbjerg's** exceptional performances have understandably been a major talking point for supporters over recent weeks. His **11%** increase in *Carteret Rating* suggests that he has fit in perfectly with Mourinho's style of play and is now objectively ranked as the highest rated Spurs midfielder. We can see that (forgoing the Manchester City game), **Højbjerg** has consistently performed above the average performance levels of the Tottenham midfield in each and every one of his performances this season.

Exhibit 5: A Line Graph to show Pierre-Emile Højbjerg's individual Carteret Match Impact for each game in the 2020/21 season



Source: Carteret Analytics, London

Fulham: Tosin Adarabioyo (Carteret Rating: 208.8) - The objective data analysis shows that **Tosin Adarabioyo** is performing at a consistently high level in the 2020/21 EPL season. Fulham have only conceded four goals in the last four matches, with just the one match against Manchester City, ending in defeat. In the last four matches **Adarabioyo** has had a CMI% of over **9%**, making him the most influential defender in the Fulham team.

Leeds United: Illan Meslier (Carteret Rating 229.6) - A *Carteret Rating* of **229.6**, indicates that objectively, **Illan Meslier** is currently the best performing goalkeeper in the EPL, this is particularly impressive considering he is only 20 years old. His strong performances are helping retain his place in the Leeds United starting XI ahead of the experienced former Real Madrid goalkeeper **Kiko Casilla**. The data analysis shows that **Meslier** has demonstrated a CMI% of over **10%** in seven of the thirteen EPL matches this season, indicating how influential his performances have been.

West Bromwich Albion: Conor Gallagher (Carteret Rating 220.4) - The Chelsea loanee, **Conor Gallagher** is objectively the best performing player in the West Brom team. **Gallagher** demonstrates a strong *Game Changer* attribute, which when compared to all other EPL Midfielders, places him in the top **30%** for the 2020/21 season. Gallagher has scored two goals in his nine EPL appearances this season. The data analysis indicates Gallagher's performance attributes and playing characteristics could be pivotal to West Brom's EPL survival if they are drawn into a relegation battle and he is selected by the new manager Sam Allardyce.

Star Player for 2021: James Ward-Prowse (Carteret Rating: 279.5) - His four goals and three assists this season have seen **James Ward-Prowse** earn himself a place in the England national squad. His objective performance levels this season are comparable with Manchester City's **Kevin De Bruyne (Carteret Rating 280.8)**. Despite already achieving a positive uplift of **31%** so far for

this season, **Ward-Prowse** is firmly plotted on a positive trajectory moving into 2021 and we strongly believe that his *Carteret Rating* will continue to climb. At present, he is the most likely candidate to achieve player of the year from an objective measurement by the end of 2021.

3. Glossary

Carteret Rating

This is a proprietary and objective method of determining how good a football player really is (and aims to accurately predict future performance in various scenarios set by the football club). It is based on a series of leading-edge algorithms that have been developed by Carteret Analytics. These algorithms have evolved from the quantitative analysis utilised in investment banking by its sister company, Carteret Capital, for, inter alia, asset and equities trading strategies, pricing and hedging of derivatives, portfolio optimisation and risk management. The algorithmic methodology assesses each player by identifying every match in which he/she has been involved (for which we have data) and then identifying and isolating the Key Match Events (“KMEs”) in each and every one of those matches. Then, for each and every KME, in each and every single match, we analyse that player’s contribution to each of those KMEs. This is a substantial piece of analysis, and one which produces a unique *Carteret Rating* for the player.

It is a dynamic rating, and it changes with each additional match played. Its ‘beauty’ is in its pure objectivity - ignoring characteristics such as age and nationality, and avoiding the ‘noise’ of subjective considerations that are frequently taken into account (often wrongly) in trying to determine the ability, attributes, characteristics and the ‘fit’ of a player into the club style or systems. It is an exceptionally accurate rating, with an *r-squared value* between 0.88-0.90 for Premier League players - demonstrating that it is very precise at predicting how good a player will be in the future. The dynamic nature of the Carteret Rating also enables Carteret Analytics to accurately predict the impact of the player in different clubs and different leagues.

Carteret Rating Confidence Index (“CRCI”)

We are in the business of predictions, and, more specifically, accurately predicting the future performance levels of players, managers and teams - in a variety of league, style, player combination and formation scenarios. We have built a series of algorithms that are able to utilise a huge amount of raw data to produce highly accurate predictions - which we constantly measure after every match to ensure the predictive levels (*r-squared value*) remains high. The line of predictive extrapolation in any data analysis will always be dependent on the quality and quantity of raw data. We are usually very confident with the quality of raw data that we are able to utilise, but sometimes the quantity of the raw data is lower for one player for a particular period than another player. We need to recognise that difference in quantity, and the CRCI is our mechanism for doing so. A CRCI of 1.00 or lower suggests an extremely high level of confidence that the quantity and quality of the raw data is of a sufficiently high level to produce a strong extrapolated line of prediction.

Attribute

The purpose of this Report is to provide an objective analysis of a player’s performance levels and ability, and to predict what these might be in the future at his current or an alternative football club. The *Carteret Rating* provides a highly accurate and objective rating of the player, and which provides a means for an objective measure against every other player - it is a holistic measure of overall performance and avoids all the noise created by subjective or other poor data analysis.

Nevertheless, we are able to break down a player's performance into a number of Attributes - Game Changer, Game Control, Offensive, Defensive and Discipline. This provides greater clarity on the player's strengths and weaknesses, and enables us to provide insights into **how** the player actually contributes to increasing the probability of his team winning matches. Where the Carteret Rating provides the overall (objective) measure of the player's performances, the Attributes allow us to peel back the layers of those performances - to identify strengths and weaknesses, but also to help us understand how he might fit into preferred styles and formations. These Attributes have been quantitatively constructed based on rigorous data testing, to provide an accurate representation of how a number of KMEs can be combined to build a picture of how a player can best contribute in a match to increase the probability of the team winning.

The **Game Changer** Attribute measures a player's creation of, or contribution to, specific KMEs that were demonstrated to move the in-match position to a better score position (weighted against the extant opposition score position), or to retain a score position in circumstances where there was a material probability that the score position could have moved against the player's team.

The **Game Control** Attribute measures a player's ability to maintain a positive score position, and avoid a reduced or negative score position, through a variety of in-match scenarios such as proactive ball control and movement, maintenance of possession, and transitioning between offensive, defensive and 'special teams' types of play (moving the ball and gameplay away from dangerous scenarios in a positive score position, late in the match). It is a good measure of tactical leadership on the pitch, and it is an extremely beneficial Attribute for teams that value a possession based style of play as well as those teams that need to contain the game for periods of time.

The **Offensive** Attribute measures a player's ability to create and contribute to 'positive' KMEs that actually provided an incremental step to offensively maintain an in-match score position or to positively transform an in-match score position. This will involve forward play, as well as play in an offensively forward zone. Likewise, the **Defensive** Attribute measures a player's ability to create and contribute to 'protecting and continuing' KMEs, i.e. to avoiding a reduced and/or negative in-match score position. All players will have both an Offensive and Defensive Attribute, whatever their position, and these Attributes (as with all Attributes) are generally measured against a League Percentile of other players in the same position (in a particular league). High levels for **both** the Offensive and Defensive Attributes often indicate a player's [strong] ability to transition quickly and effectively between attack and defence (and vice-versa).

The **Discipline** Attribute is a useful measure of a player's ability to avoid losing control of various aspects of a match **and** to avoid reducing the options of the team to maximise the probability of winning future matches because he has been suspended through poor Discipline. Poor in-match Discipline often leads to loss of possession, and frequently leads to negative KMEs. It is usually measured on charts *in the positive* - i.e. on radar charts or bar charts set against the League Percentiles for the Attribute, a player whose Discipline is in the bottom 25th League Percentile has a poor Discipline Attribute.

Characteristics

These are individual elements of a player's gameplay, and each forms what we refer to as the player's 'Atomic Structure'. A player's relative success in each individual Characteristic teaches us very little about their ability to contribute to their team increasing the probability of winning football matches. We currently have 33 Characteristics that we combine in a series of algorithms with a player's Attributes, and measure against the creation/contribution to KMEs, in every single minute or every single match in which the player has participated (for which we have data). Then the relative success of each part of the 'Atomic Structure' is plotted across 42 measures to build a picture of the player and their performances. These

can then be used to recreate the ‘Atomic Structure’ of other players (e.g. finding a quasi Virgil van Dijk at half the cost), or recreating parts of a successful team in the aggregate (again, ideally, at a much lower cost).

League Percentiles

The mechanism to measure and rate a player against their peers (usually in the same position) in a particular league. References are often made to the lower 25th League Percentile (which indicates a poor performance measure), 50th League Percentile (which is the average measure), and in the 75th League Percentile (which indicates high performance - in the top 25% of players in that League).

Carteret Match Impact (“CMI”)

The Carteret Match Impact (CMI) is a proprietary and objective measure of each player’s contribution to the overall team performance in each individual match. It is particularly instructive in helping us understand the objective contribution each player has made, in a specific match, to the team achieving the match outcome.

Key Match Events (“KMEs”)

Key Match Events (“KMEs”) are events that we have identified (through constant quantitative testing) as having the greatest influence on the outcome of a football match. Our current quantitative modelling includes 42 KMEs, and in very general terms these are events that, to varying degrees, lead to a goal being scored; could lead to a goal being scored; lead to a goal being conceded; or could lead to a goal being conceded. The *Carteret Rating* - which is obviously the proprietary objective measure that permeates everything that we do - measures a player’s creation and contribution to each and every KME, in each and every match for which we have data on that player. This is a huge piece of data analysis, and is the reason why the *Carteret Rating* is so accurate and predictive.

4. Contact Details

Carteret Analytics is part of the Carteret Group of companies, based in the City of London, New York and Geneva. It provides leading-edge quantitative analysis and commercial analytics to clients worldwide, with particular expertise in the sports sector. In football our work includes player rating and valuation, head coach assessment, team performance analysis, and applying proprietary analytics to transform commercial revenues.

Further information and contact details

If you have any questions, or would like to enquire about further services provided by the Carteret Group, then please feel free to contact one of the team members listed below.

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