

# Wyscout Data Glossary

## Complete Reference Guide

Generated from: <https://dataglossary.wyscout.com/>

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## **Wyscout Data Glossary - Overview**

This Glossary describes the current state of the Wyscout data model, used across the Wyscout Platform, reports and the API.

## Acceleration

API eventId: 7API subeventId: 70

### Details:

- Accelerations are only tagged for meaningful runs, at least 10 meters long.
- The player should touch the ball, otherwise, a meaningful run in the open space would be an Off the ball move.
- About half of accelerations are also Progressive runs.
- Number of accelerations normalized per 90 minutes.

### Available Metrics:

Accelerations / 90

Number of accelerations normalized per 90 minutes.



*Acceleration with the ball 02181271616*



*Acceleration towards the ball 382369175*

## Aerial duel

API eventId: 1API subeventId: 10Subtype of: Duel

### Details:

- Aerial duels aren't currently divided into offensive and defensive categories.
- If there are more than two players competing for the ball at the same time, an aerial duel will be recorded for all opposing players.
- An aerial duel is considered won in favour of the player who touches the ball first, no matter what happens next. An aerial duel that results in a foul is considered won in favour of the player who suffered a foul.
- Number of aerial duels normalized per 90 minutes.
- Percentage of aerial duels won.

### Available Metrics:

Aerial duels / 90 minutes

Number of aerial duels normalized per 90 minutes.

Aerial duels won (%)

Percentage of aerial duels won.



*Aerial duel 457702617*

# Assist

Subtype of: Shot assist

## Details:

- Since Goal is always a Shot, any Assist is, by definition, a Shot assist.
- Number of assists in a single match is guaranteed to be equal to or less than the number of goals.
- No opponent player should control the ball between the last action and the goal, otherwise it won't qualify as an assist.
- If a dribble or a significant run by the goal scorer happens between the last teammate action and the goal, it is not considered an assist.
- Penalty foul suffered, when the penalty is scored by the same player or a teammate, is not considered an assist.
- Number of assists normalized per 90 minutes.

## Available Metrics:

Assists / 90

Number of assists normalized per 90 minutes.



Assist 453803712

## Ball out

API eventId: 5API subeventId: 50

**Details:**

- When the ball goes out of the pitch over the touchline, either a Goal kick or a Corner kick should necessary be awarded based on who made the last touch.
- When the ball goes out of the pitch over the byline, a Throw-in should necessarily be awarded.



## Clearance

API eventId: 7API subeventId: 71

### Details:

- Most of the time the player clearing the ball would be under pressure.
- A significant amount of clearances are Long forward passes.
- About half of clearances are Interceptions (a player is interrupting a pass to clear the ball out).
- Number of clearances normalized per 90 minutes.

### Available Metrics:

Clearances / 90

Number of clearances normalized per 90 minutes.



Clearance after a cross 440689964

## Corner kick

API eventId: 3API subeventId: 30Subtype of: Set pieces

### Details:

- Always happens after a Ball out.
- If a referee decides to repeat a corner kick after a foul or any particular situation that happened before the corner kick was served, only the last instance of the corner kick is tagged.
- A corner is not considered a Pass.
- A corner that is immediately followed by a goalkeeper save or a direct goal is considered a Shot.
- Height of a corner kick. A short-played corner would always have low height.
- A scheme attribute is set for a corner kick if it's played in a way that required synchronization of different player moves and appears to be pre-trained.



Corner kick 217276161

## Counterattack

Counterattack A transition of the possession from the opponent team, where the team is transitioning quickly from defensive to attacking phase, trying to catch the opponent out of their defensive shape. Counterattack by Borussia Dortmund



Counterattack 443529102

## Counterpressing recovery

Counterpressing Recovery Any Recovery that ends a Possession of the opposition team with length less than 5 seconds.

## Covering teammate

A video-only event, not available in the API. Subtype of: Non-ball

### Details:

- A characteristic movement of covering teammate is a back or diagonal run from a normal player's position to cover the empty zone.
- Predominantly happens in the own third, with an average distance from own goal of 20 meters.



*S. de Vrij covering teammate 430586547*

## Cross

API eventId: 8API subeventId: 80Subtype of: PassSubtypes: Deep completed cross

### Details:

- Includes just open play crosses, not set play crosses (corners/free kicks).
- Height of a cross:
- High: indicates a cross over waist height
- Low: indicates a cross below waist height
- Blocked crosses are not distinguished by height
- A cross is considered successful if the next touch is by a teammate.
- The foot that the player delivered the cross with.
- A normalized field width of 68 meters is divided in thirds, where the left flank is considered to be the leftmost 23 meters, and the right flank, the rightmost 23 meters.
- Number of cross attempts normalized per 90 minutes.
- Percentage of successful crosses.
- Number of cross attempts normalized per 90 minutes that are delivered from the left flank (the leftmost 23 meters).
- Percentage of successful crosses from the left flank (the leftmost 23 meters).
- Number of cross attempts normalized per 90 minutes that are delivered from the right flank (the rightmost 23 meters).
- Percentage of successful crosses from the right flank (the rightmost 23 meters).
- Number of cross attempts with a next touch inside the six-yard box normalized per 90 minutes.
- Percentage of successful crosses with a next touch inside the six-yard box.

### Available Metrics:

Crosses / 90

Number of cross attempts normalized per 90 minutes.

Cross accuracy

Percentage of successful crosses.

Crosses from left flank, per 90

Number of cross attempts normalized per 90 minutes that are delivered from the left flank (the leftmost 23 meters).

Cross accuracy from left flank (%)

Percentage of successful crosses from the left flank (the leftmost 23 meters).

Crosses from right flank, per 90

Number of cross attempts normalized per 90 minutes that are delivered from the right flank (the rightmost 23 meters).

Cross accuracy from right flank (%)

Percentage of successful crosses from the right flank (the rightmost 23 meters).

Crosses to six-yard box, per 90 mins

Number of cross attempts with a next touch inside the six-yard box normalized per 90 minutes.

Cross accuracy to six-yard box (%)

Percentage of successful crosses with a next touch inside the six-yard box.



*Cross into the penalty area 438002966*



*Cross scheme*



## Deep completed cross

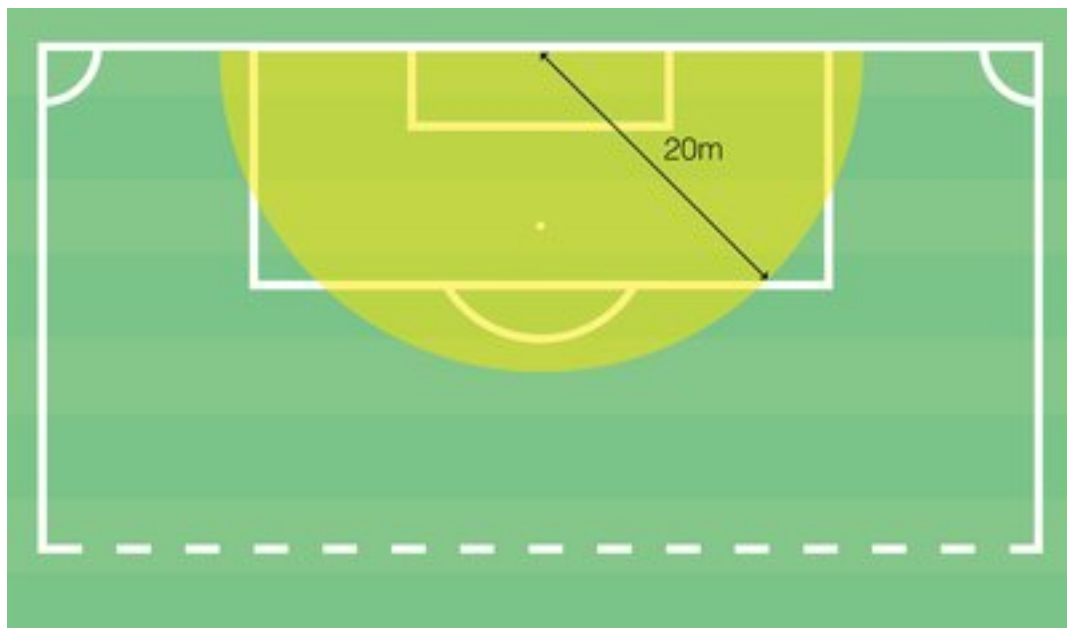
Deep completed cross A Cross that is targeted to the zone within 20 meters of the opponent goal. Map of the area where the cross should be targeted to qualify as a deep completed cross L. Alario heading a deep completed cross from K. Volland

Available metrics Deep completed crosses / 90 Number of deep completed crosses attempted per 90 minutes.

### Available Metrics:

Deep completed crosses / 90

Number of deep completed crosses attempted per 90 minutes.



*Deep completions pass map deep-completion-map*



*K. Volland with a deep completed cross 420635169*



## Deep completion

**Deep Completion** A non-cross Pass that is targeted to the zone within 20 meters of the opponent's goal. Map of the area where the pass should be targeted to qualify as a deep completion Cristiano Ronaldo with a deep completion Details While it's a subtype of Pass, the Crosses are excluded from this definition. For this, see Deep completed cross. Available metrics Deep completions passes / 90 Number of deep completions made per 90 minutes.

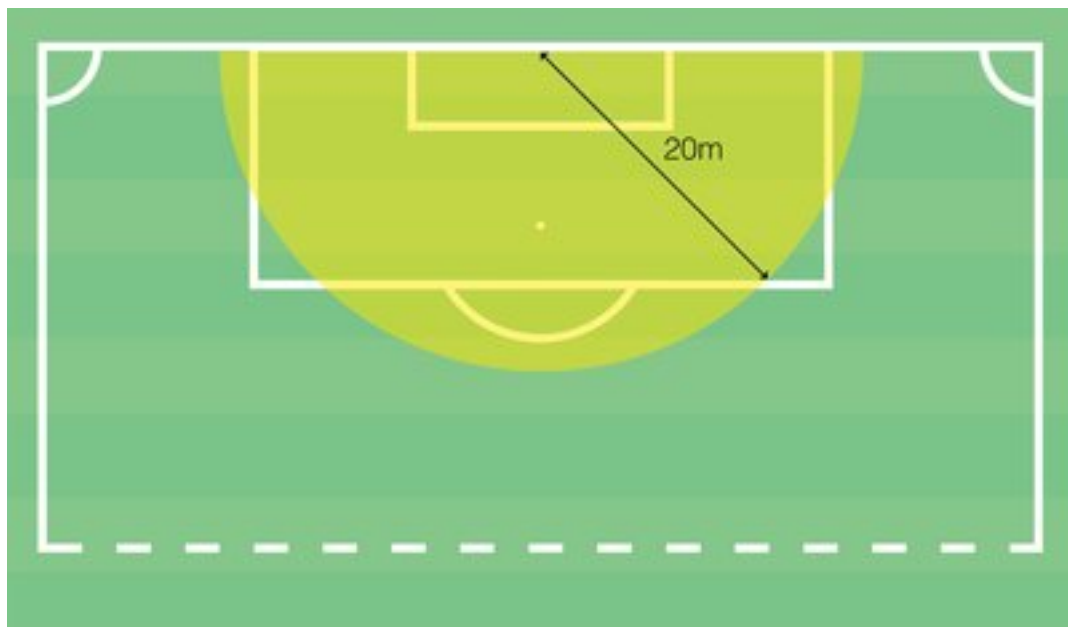
### Details:

- While it's a subtype of Pass, the Crosses are excluded from this definition. For this, see Deep completed cross.
- Number of deep completions made per 90 minutes.

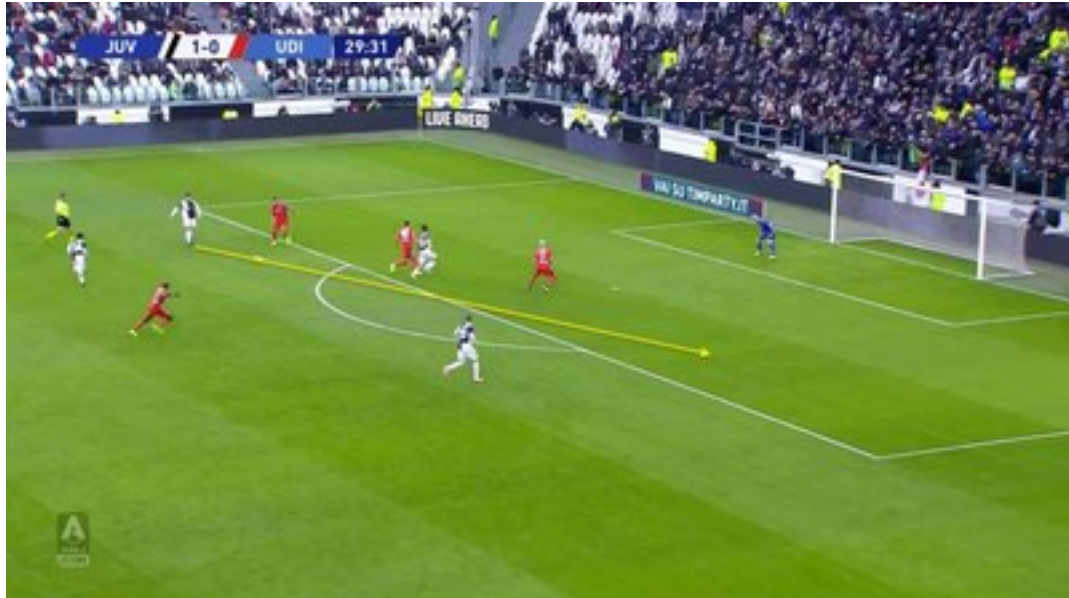
### Available Metrics:

Deep completions passes / 90

Number of deep completions made per 90 minutes.



*Deep completions pass map deep-completion-map*



*Cristiano Ronaldo with a deep completion 447517993*

## Defensive duel

Subtype of: DuelSubtypes: Dribble past

### Details:

- A Defensive duel is always paired to an Offensive Duel from the player of another team.
- If the defensive player stopped the progression of the attacking player with the ball and didn't commit a foul, the defensive duel is considered won (and the linked offensive duel is considered lost). See the full definition in Offensive Duel.
- Examples of a won defensive duel:
  - defending player dispossesses the attacker
  - defending player kicks the ball out
  - the attacker stays with the ball, but the defender forces him to go back
- If a defending player lets the attacking player progress with the ball, it's considered a lost defensive duel (and a won Offensive duel for the player with the ball, see Offensive duel for more details).
- A less sophisticated algorithm for defining the outcome of the duel. If the next action of the duel is one of the players in the duel, the duel is assigned a clearly won value to this player and a clearly lost value for his opponent. All other cases are neutral.
- A defensive player is positioning himself better to reach the ball first. Used together with the Beaten to the ball attribute in a corresponding Offensive duel.
- Number of defensive duels normalized per 90 minutes.
- Percentage of won defensive duels.

### Available Metrics:

Defensive duels / 90 minutes

Number of defensive duels normalized per 90 minutes.

Defensive duels won (%)

Percentage of won defensive duels.



S. Kryvtsov in a defensive duel against ■. Gündo■an. 438473555

## Defensive positioning

A video-only event, not available in the API. Subtype of: Non-ball

### Details:

- A error in positioning in defensive phase would be tagged as a defensive positioning with special attribute set to bad.



*L. Fejsa covering in the defense. 414313552*

# Dribble

Subtype of: Offensive duel

## Details:

- The player that has the possession of the ball is using their ability in an attempt to move past the opposition player or to find a free zone for the next action (see Type).
- When a player shields and guards the ball using his physical strength, this is not a dribble, but it is still an Offensive Duel.
- If the next action following the duel is by the same offensive player and that action is closer to the opponent's goal, or;
- If the duel was a dribble and it's followed by a touch of an attacking teammate closer to the opponent goal (i.e. successful forward pass for the attacking player from a dribble), or;
- If the duel ended in a foul from the defensive player
- The scenarios above result in a dribble won. Everything else qualifies as an dribble lost (and a won Defensive duel for a defender).
- The side that the attacking player attempts to dribble past an opponent.
- The Space type is used when the attacking player dribbles past an opponent to create space for his next action. The Take-on dribble is a stricter attempt to dribble past the opposite player. The dribble definition includes both these types of dribbles.
- Number of dribble attempts normalized per 90 minutes.
- Percentage of successful dribbles.

## Available Metrics:

Dribbles / 90

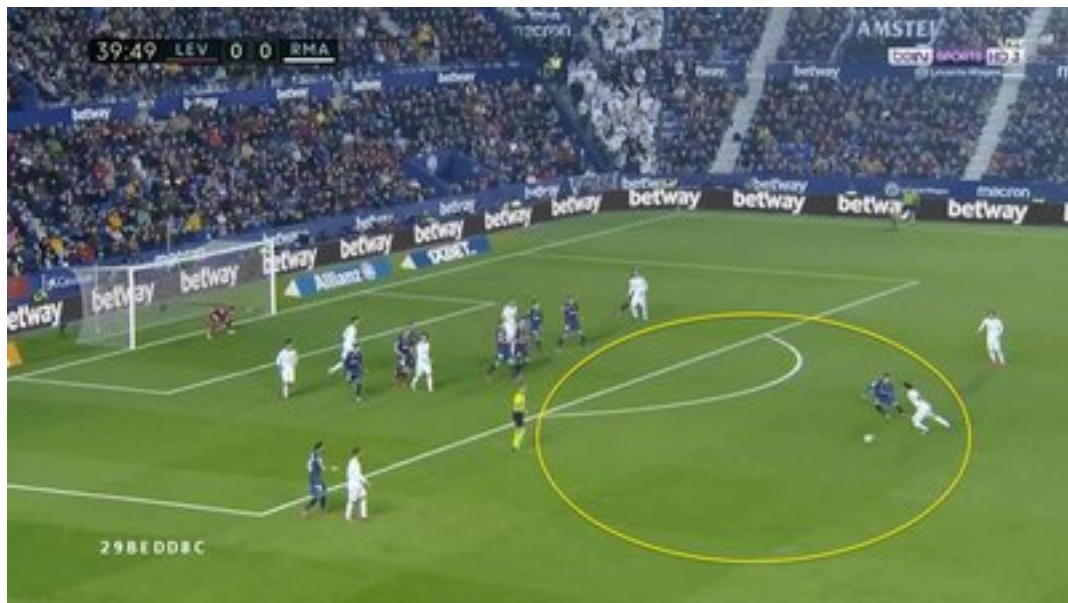
Number of dribble attempts normalized per 90 minutes.

Dribbles %

Percentage of successful dribbles.



*Dribble with a take-on 438519797*



*Dribble with space 473518353*

## Dribble past

Subtype of: Defensive duel



*Foul suffered 617723835*



## Duel

Subtypes: Aerial duelDefensive duelLoose ball duelOffensive duelSliding tackle

### Details:

- When more than two players compete for an aerial duel, a separate set of aerial duels are tagged for every player involved from opposite teams.
- All duels can be won or lost. The definition of won or lost differs based on the type of the duel.
- It can happen that one of the two players cannot be identified by our operators, in this case we assign playerId=0 to one of the paired duel events.



## Fairplay

**Fairplay** A clearance of the ball when a player needs medical treatment or the pass when the ball is being returned back to the opponent team after being cleared out in the spirit of fair play. D. Bouanga is returning the ball to the opponent as part of the fair play Details Fair play actions are excluded from statistics, neither affecting the number of passes/clearances made, nor the pass accuracy.

### Details:

- Fair play actions are excluded from statistics, neither affecting the number of passes/clearances made, nor the pass accuracy.



*Fairplay 421924871*

## Foul

API eventId: 2API subeventId: 20Subtypes: Hand ballLate card foulOut of play foulPenalty foulProtest foulSimulation foulTime lost foulViolent foul

### Details:

- Normally a foul is penalized with a Free kick.
- A foul committed in the penalty area (Penalty foul) is penalized by a Penalty kick.
- A foul, when it's done in a Duel, will have a corresponding Foul suffered for the opponent player. The fouls outside of duels (i.e. Hand balls) are not considered fouls suffered for the opponent team.
- Together with a normal foul type, there are special foul types specifically tagged:
- A foul signalled for touch the ball with a hand in unnatural position.
- A violent action, a deliberate kick or punch of an opponent without the ball.
- A foul whistled for diving, simulating a foul.
- A foul whistled for committing a foul that the referee doesn't whistle, letting the play continue.
- A foul whistled for arguing with the referee.
- A foul whistled out of the open play.
- Fouls are always unsuccessful.
- A value whether the foul is punished by a yellow and red card.
- Number of fouls normalized per 90 minutes.

### Available Metrics:

Fouls / 90

Number of fouls normalized per 90 minutes.



Foul 430444783

## Foul suffered

Subtype of: Offensive duel

### Details:

- When a player suffers a foul in a duel, the duel is always considered won.



*Foul suffered 412901730*

## Free kick

API eventId: 3API subeventId: 31Subtype of: Set piecesSubtypes: Free kick  
crossFree kick shot

### Details:

- Neither Penalties or Corner Kicks are included in the definition.
- A scheme attribute is set for a free kick if it's played in a way that required synchronization of different player moves and appears to be pre-trained.



*T. Partey with a short free kick 459712379*

## Free kick cross

API eventId: 3API subeventId: 32Subtype of: Free kick

### Details:

- Typically addressed to penalty area.
- Height of a cross from a free kick. High height indicates a value over waist height, while low means a value below waist height. Crosses from free kicks are predominantly served high.



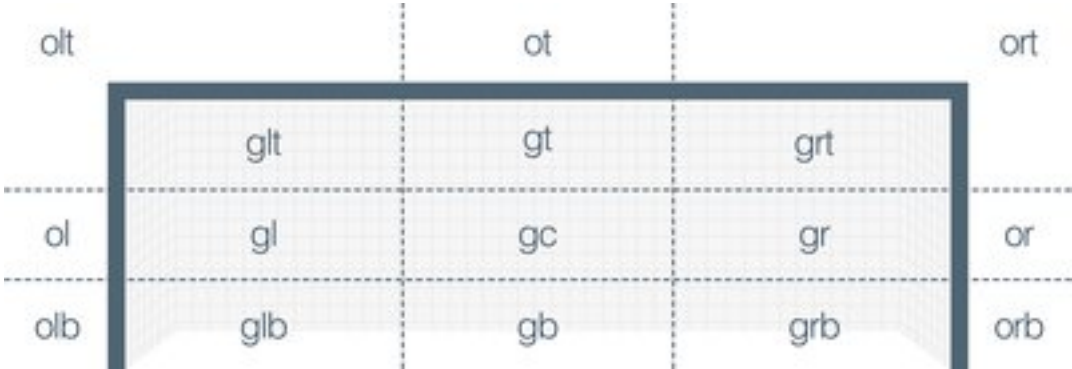
A. Cresswell with a cross from free kick 0459712379

Free kick shot

API eventId: 3API subeventId: 33Subtype of: Free kick



A. Sanabria with a shot from a free kick 447013065



Goal

## Game interruption

API eventId: 5API subeventId: 51Subtype of: Non-ball

**Details:**

- The game clock is not stopping, the time would be added instead as injury time.
- The game resumes with a drop-of ball if stopped by the referee when in play or with a normal action if the ball was already out of play.



## Goal

**Goal** A goal scored as specified in law 10.1 of the IFAB Laws of the Game. Details In player context, this does not include own goals. In team context, this includes own goals by the opponent. Includes scored penalty kicks (except Non-penalty goals metric). Except when it's not an Own goal, a goal is always a Shot. Does not include goals scored following a VAR review, the award of a Foul or an Offside. Available metrics Goals Total number of goals scored. Goals / 90 Number of goals normalized per 90 minutes. Non-penalty goals, total Total number of goals, excluding penalty kicks. Non-penalty goals, per 90 mins Total number of goals, excluding penalty kicks, normalized per 90 minutes. Head goals, total Total number of headed goals. Head goals, avg per 90 mins Total number of headed goals normalized per 90 minutes.

### Details:

- In player context, this does not include own goals. In team context, this includes own goals by the opponent.
- Includes scored penalty kicks (except Non-penalty goals metric).
- Except when it's not an Own goal, a goal is always a Shot.
- Does not include goals scored following a VAR review, the award of a Foul or an Offside.
- Total number of goals scored.
- Number of goals normalized per 90 minutes.
- Total number of goals, excluding penalty kicks.
- Total number of goals, excluding penalty kicks, normalized per 90 minutes.
- Total number of headed goals.
- Total number of headed goals normalized per 90 minutes.

### Available Metrics:

Goals

Total number of goals scored.

Goals / 90

Number of goals normalized per 90 minutes.

Non-penalty goals, total

Total number of goals, excluding penalty kicks.

Non-penalty goals, per 90 mins

Total number of goals, excluding penalty kicks, normalized per 90 minutes.

Head goals, total

Total number of headed goals.

Head goals, avg per 90 mins

Total number of headed goals normalized per 90 minutes.



## Goal conceded

Subtype of: Shot against (Save attempt)

### Available Metrics:

Goals conceded

Total number of goals conceded.

Goals conceded / 90

Number of goals conceded normalized per 90 minutes.

## Goal kick

API eventId: 3API subeventId: 34

### Details:

- If a referee decides to repeat a goal kick after a foul or any particular situation that happened before the goal kick was served, only the last instance of the goal kick is considered.
- The starting position for goal kick is not tagged, assuming it happens all the time in own penalty area.
- A goal kick can be either a shorter pass, or a longer aerial pass, but never, by definition, a Hand pass.
- Though most typically performed by a goalkeeper, can be technically performed by any player.
- A goal kick is considered successful if the next touch of the ball is by a teammate.



*A short-played goal kick 438520506*

## Goalkeeper Leaving Line

API eventId: 4API subeventId: 40

### Details:

- If the goalkeeper is challenged by an opponent player, the event is also classified as an aerial duel.
- Number of events leaving line normalized per 90 minutes.

### Available Metrics:

Exits, per 90 mins

Number of events leaving line normalized per 90 minutes.



Gk Exit 423245156

## Hand ball

API eventId: 2API subeventId: 21Subtype of: Foul

### Details:

- Hand ball with a hand seen by the referee as in natural position and not followed by a foul is not considered a hand ball.
- An irregular ball touch with a hand by a goalkeeper inside own penalty area (for example, after a ground pass from a teammate), which is punished by an indirect Free kick, is also tagged as a hand ball.
- Goalkeeper hand ball in own penalty area by D. de Gea
- Fouls are always unsuccessful.
- A value whether the foul is punished by a yellow or red card.



*Goalkeeper hand ball 332942255*

## Hand pass

API eventId: 8API subeventId: 81Subtype of: Pass

### Details:

- Can only be made by a player currently designed as the goalkeeper, since otherwise this would be a violation of the rules.
- Throw-ins are not considered hand passes.
- Hand ball fouls, even if it's a pass attempt, are not considered hand passes.



*Hand pass 463820435*

## Head pass

API eventId: 8API subeventId: 82Subtype of: Pass

### Details:

- A headed pass is used in situations where there are no opponent players nearby or there is a clear advantage in the air, when the opponent doesn't present any challenge in the air.
- A head pass, therefore, can never be an Aerial Duel.
- A headed pass is considered successful if the next touch of the ball is by a teammate.



Head pass 463822148

## Interception

**Interception** An act of player actively intercepting the ball by anticipating its movement when the opponent is shooting, passing or crossing. A throw-in intercepted by L. Modrić ■ **Details** When a Shot is blocked by a player (typically a defender), this would be tagged as an Interception. Available metrics Interceptions / 90 minutes Number of interceptions normalized per 90 minutes. Interceptions / per 30 minutes of opponent possession Number of interceptions possession adjusted per 30 minutes of opponent possession.

### Details:

- When a Shot is blocked by a player (typically a defender), this would be tagged as an Interception.
- Number of interceptions normalized per 90 minutes.
- Number of interceptions possession adjusted per 30 minutes of opponent possession.

### Available Metrics:

Interceptions / 90 minutes

Number of interceptions normalized per 90 minutes.

Interceptions / per 30 minutes of opponent possession

Number of interceptions possession adjusted per 30 minutes of opponent possession.



*Interception 496576856*



## Key pass

**Key pass** A pass that immediately creates a clear goal scoring opportunity for a teammate. Key pass from F. Neuhaus to A. Plea Details Key Passes include only type pass actions If a key pass is a Shot Assist, it will be assigned the xA value (see Shot Assist). A Key Pass can also be an assist. Please note: on legacy API endpoint v2/match/wyld/events a Key Pass (API tagId: 302) was considered any action (not only a pass type) that immediately creates a clear goal scoring opportunity for a teammate who in turn fails to score. As a consequence a Key Pass was never also an assist. Attributes Successful: Yes / No A key pass is considered successful if the next touch of the ball is by a teammate. Available metrics: Key passes / 90 Number of key passes normalized per 90 minutes.

### Details:

- Key Passes include only type pass actions
- If a key pass is a Shot Assist, it will be assigned the xA value (see Shot Assist).
- A Key Pass can also be an assist.
- Please note: on legacy API endpoint v2/match/wyld/events a Key Pass (API tagId: 302) was considered any action (not only a pass type) that immediately creates a clear goal scoring opportunity for a teammate who in turn fails to score. As a consequence a Key Pass was never also an assist.
- A key pass is considered successful if the next touch of the ball is by a teammate.
- Number of key passes normalized per 90 minutes.

### Available Metrics:

Key passes / 90

Number of key passes normalized per 90 minutes.



Key pass 431351687



## Late card foul

API eventId: 2API subeventId: 22Subtype of: Foul

## Link-up Play

**Link-up Play** An action of an attacking player receiving a ball from a defender or a midfielder with his back to the opposite goal. T. Hazard quickly returning the ball to A. Witsel Details Usually ends in an Offensive duel or a Back pass.

### Details:

- Usually ends in an Offensive duel or a Back pass.



*Link-up Play 423236785*

## Long pass

API eventId: 8API subeventId: 83Subtype of: Pass

### Details:

- 75% of long passes are targeted, and about 50% are successful.
- A Launch (API subeventId: 84) is a pass that doesn't appear to have a specific target..
- A High Pass (API subeventId: 83) is a pass that is above shoulder height and longer than 25 meters.
- A Long Ground Pass (API subeventId: 85) is a pass that is longer than 45 meters.
- The definition of a long pass includes all of the above.
- A long pass is considered successful if the next touch of the ball is by a teammate.
- Marks the pass as a Through Pass.
- Number of long passes normalized per 90 minutes.
- Percentage of successful long passes.

### Available Metrics:

Long passes / 90 minutes

Number of long passes normalized per 90 minutes.

Accurate long passes (%)

Percentage of successful long passes.



Long pass 429653105

## Loose ball duel

API eventId: 1API subeventId: 13Subtype of: Duel

### Details:

- Neither of the players involved have a clear advantage of reaching/touching the ball first (otherwise this would be an offensive duel and defensive duel).
- A loose ball duel from a player one team is always paired with a loose ball duel from a player from another team.
- Sliding tackle (API tagId: 1601): Yes / No In rare cases, a loose ball duel can be also a Sliding tackle.
- Number of loose ball duels normalized per 90 minutes.

### Available Metrics:

Loose ball duels / 90 minutes

Number of loose ball duels normalized per 90 minutes.



*Loose ball duel 0429096955*

# Loss

Subtype of: Transition

## Details:

- A loss is recorded at the point where the player of the team actually loses the possession of the ball. For non-passes, this would be equal to the point of his last action, but, for example, with an unsuccessful long pass, the loss will be recorded at the ending point of the pass, not at its starting point.
- Events where the ball goes off the field off a player are, by definition, losses.
- Every unsuccessful pass is a loss.
- Loss is always an unsuccessful action.
- Suffered foul, while ending a possession, is not considered a loss.
- Based on the coordinates of the loss, the loss is awarded a zone. Low / Mid / High correspond to the thirds of the field (low is own third, high is the final third), while own half losses are all losses that happen in the own half.
- When a loss is followed by a Shot of the opponent within 20 seconds.
- Number of recoveries losses per 90 minutes.
- Number of losses in the opponent half normalized per 90 minutes.

## Available Metrics:

Losses / 90

Number of recoveries losses per 90 minutes.

Own half losses / 90

Number of losses in the opponent half normalized per 90 minutes.

## Missed ball

Missed ball Missed ball is a type of Touch when the player is trying to control the ball, but can't reach it. A. Romagnoli with a missed touch Details Missed sliding tackles are also tagged as missed balls. P. Ankersen missing a sliding tackle Available metrics Missed balls / 90 minutes Number of missed balls normalized per 90 minutes. Products: Advanced Search.

### Details:

- Missed sliding tackles are also tagged as missed balls.
- P. Ankersen missing a sliding tackle
- Number of missed balls normalized per 90 minutes. Products: Advanced Search.

### Available Metrics:

Missed balls / 90 minutes

Number of missed balls normalized per 90 minutes. Products: Advanced Search.



A. Romagnoli with a missed touch 415213578



*P. Ankersen missing a sliding tackle 426361995*

## Non-ball

Subtypes: Covering teammateDefensive positioningGame interruptionOff the ball movementPressing duelRed cardYellow card



## Off the ball movement

A video-only event, not available in the API. Subtype of: Non-ball

### Details:

- The player should be actively looking for open space in the attack and showing with his movement that he's ready to receive the ball
- Frequently, but not exclusively, happens in counterattacks
- The player doesn't have to receive the ball eventually, though this is possible as well



*Off-the-ball 414318009*

## Offensive duel

API eventId: 1API subeventId: 11Subtype of: DuelSubtypes: DribbleFoul suffered

### Details:

- When the attacking player uses their ability and skill in an attempt to pass an opponent, this is also a Dribble.
- However, when the player in possession is required to protect the ball with his body, although this is an offensive duel, it is not a Dribble.
- Offensive duels can happen anywhere on the pitch, including inside a player's own penalty area.
- An offensive duel is always paired to an Defensive duel from the player of another team.
- If the next action following the duel is by the same offensive player and that action is closer to the opponent's goal, or;
- If the duel was a dribble and it's followed by a touch of an attacking teammate closer to the opponent goal (i.e. successful forward pass for the attacking player from a dribble), or;
- If the duel ended in a foul from the defensive player
- The scenarios above result in an offensive duel won. Everything else qualifies as an offensive duel lost (and a won Defensive duel for a defender).
- A less sophisticated algorithm for defining the outcome of a duel. If the next action of the duel is one of the players in the duel, the duel is assigned a clearly won value to this player and a clearly lost value for his opponent. All other cases are neutral.
- A defensive player positions himself better to reach the ball first. Used together with the Anticipation attribute in a corresponding Defensive duel.
- Number of offensive duels normalized per 90 minutes.
- Percentage of successful offensive duels.

### Available Metrics:

Offensive Duels / 90

Number of offensive duels normalized per 90 minutes.

Offensive Duels %

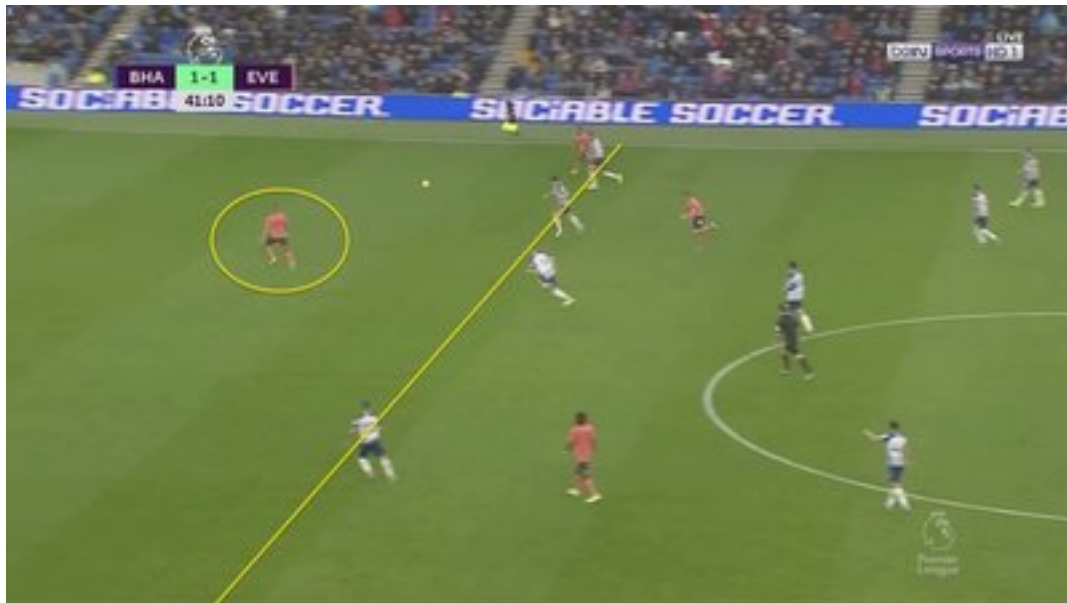
Percentage of successful offensive duels.

## Offside

API eventId: 6API subeventId: 60

### Details:

- Only offsides that are whistled by the referee and where the game is resumed with an indirect free kick awarded to the opposite team are tagged as offsides.
- All actions between the pass to a player that was offside and the referee decision are ignored.
- If an event sequence is cancelled by VAR due to an offside, all actions in the sequence after the offside are ignored.



Offside 424222715

## Opportunity

Opportunity A clear chance of scoring a goal. A. Milik with an opportunity to score  
Details Predominantly tagged on a Shot, meaning a dangerous shot. Notes In the event feed API, the tagId 201 is only meaning a goalscoring chance that wasn't scored.

### Details:

- Predominantly tagged on a Shot, meaning a dangerous shot.
- In the event feed API, the tagId 201 is only meaning a goalscoring chance that wasn't scored.



A. Milik with an opportunity to score 414277332

## Out of play foul

API eventId: 2API subeventId: 23Subtype of: Foul

**Details:**

- Out of play fouls often happen at set pieces, two players are violently challenging for a better position in the penalty area, and the referee give them both a yellow card.
- Fouls are always unsuccessful.
- A value whether the foul is punished by a yellow or red card.

## Own goal

Own goal A Goal scored by the player of a conceding team. Details In player context, this is not included in any goal metrics. In team context, this is included in the number of goals scored by the opponent.

**Details:**

- In player context, this is not included in any goal metrics. In team context, this is included in the number of goals scored by the opponent.

## Pass

API eventId: 8API subeventId: 85Subtypes: CrossDeep completionFairplayHand passHead passKey passLong passPass into final thirdPass into penalty areaProgressive passSecond assistShort/medium passShot assistSmart passThird assistThrough pass

### Details:

- Crosses, Head Passes, Hand Passes, Smart Passes and Long Passes are all included in the pass statistics.
- Goal Kicks, Corner Kicks, Free Kick Crosses and Throw-ins are not included in the pass statistics.
- Passes are classified by Wyscout into Forward, Backward and Lateral passes. Note that lateral passes only include passes longer than 12 meters, so the sum of forward, backward and lateral passes would be less or equal than the total number of passes.
- A pass is considered successful if the next touch of the ball is by a teammate.
- Marks the pass as an Interception.
- Marks the pass as Link-up play.
- Number of passes normalized per 90 minutes.
- Percentage of successful passes.

### Available Metrics:

Passes / 90

Number of passes normalized per 90 minutes.

Pass accuracy

Percentage of successful passes.



Pass model 901281281281

## Pass into final third

**Pass into final third** Any pass that originates outside of the final third and the next ball touch occurs within the final third. **Details** Includes just passes. Throw ins, for example, are excluded. **Attributes** Successful: Yes (API tagId: 1801) / No (API tagId: 1802) A pass into final third is considered successful if the next touch of the ball is by a teammate. **Available metrics** Passes to final third / 90 Number of passes to final third normalized per 90 minutes. Passes to final third % Percentage of succesful passes to final third.

### **Details:**

- Includes just passes. Throw ins, for example, are excluded.
- A pass into final third is considered successful if the next touch of the ball is by a teammate.
- Number of passes to final third normalized per 90 minutes.
- Percentage of succesful passes to final third.

### **Available Metrics:**

Passes to final third / 90

Number of passes to final third normalized per 90 minutes.

Passes to final third %

Percentage of succesful passes to final third.



## Pass into penalty area

**Pass into penalty area** Any Pass that originates outside of the opposition's penalty area and the next ball touch occurs inside the opposition's penalty area. Details Includes just passes. For example, Crosses are included in this definition, but Throw-ins and Dribbles are not. Controlled penalty area entries (with a run or a dribble) are not included. Attributes Successful: Yes (API tagId: 1801) / No (API tagId: 1802) A pass into final third is considered successful if the next touch of the ball is by a teammate. Available metrics Passes to penalty area / 90 Number of passes to penalty area normalized per 90 minutes. Passes to penalty area % Percentage of succesful passes to penalty area.

### Details:

- Includes just passes. For example, Crosses are included in this definition, but Throw-ins and Dribbles are not.
- Controlled penalty area entries (with a run or a dribble) are not included.
- A pass into final third is considered successful if the next touch of the ball is by a teammate.
- Number of passes to penalty area normalized per 90 minutes.
- Percentage of succesful passes to penalty area.

### Available Metrics:

Passes to penalty area / 90

Number of passes to penalty area normalized per 90 minutes.

Passes to penalty area %

Percentage of succesful passes to penalty area.

## Penalty foul

Penalty foul A foul whistled inside the penalty area, which would be followed by a Penalty kick. Attributes Successful: No Fouls are always unsuccessful. Card: No / Yellow (API tagId: 1702) / Red (API tagId: 1701/1703) A value whether the foul is punished by a yellow or red card.

# Penalty kick

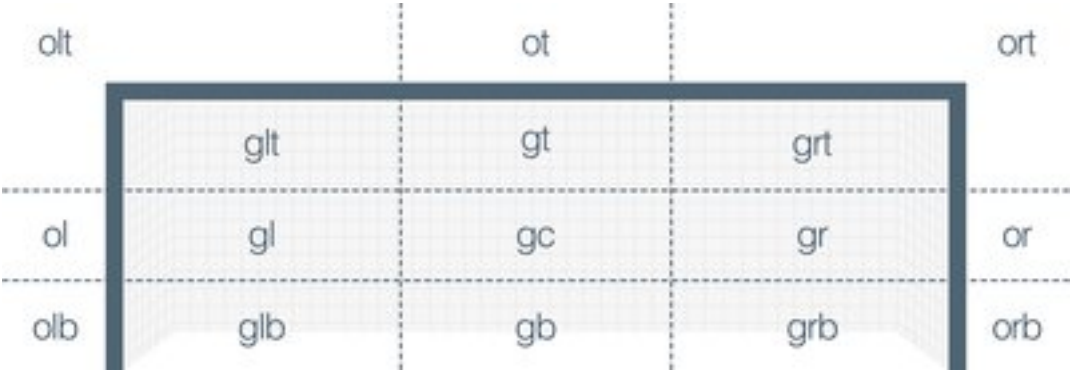
API eventId: 3API subeventId: 35Subtype of: Set pieces

**Details:**

- Does not include postmatch penalties.
- Includes shots missed, deliberately missed, or passes instead of a shot.
- A foot that the player performed the penalty kick with.
- Does the shot result in a Goal.
- Shots on post are tagged as a shape of plt, where p replaces o of the corresponding angle. Shots on post that are scored are tagged with the corner of where they land in the goal.



Penalty 423237912



Goal

## Pressing duel

A video-only event, not available in the API. Subtype of: Non-ball

### Details:

- Can never be an event of actively trying to win possession of the ball (as this would constitute a Defensive duel).
- Can never be a Dribble past attempt, since this would also be a Defensive duel.
- If there was a contact with the opponent player just after he made a pass, this would be tagged as a Pressing duel.
- Number of pressing duels normalized by 90 mins of time on the field.

### Available Metrics:

Pressing duels, per 90

Number of pressing duels normalized by 90 mins of time on the field.



*Pressing duel 429086960*

## Progressive pass

**Progressive pass** A forward pass that attempts to advance a team significantly closer to the opponent's goal. A progressive pass from A. Haidara to T. Werner  
**Details** A pass is considered progressive if the distance between the starting point and the next touch is: at least 30 meters closer to the opponent's goal if the starting and finishing points are within a team's own half at least 15 meters closer to the opponent's goal if the starting and finishing points are in different halves at least 10 meters closer to the opponent's goal if the starting and finishing points are in the opponent's half  
**Attributes** Successful: Yes (API tagId: 1801) / No (API tagId: 1802)  
A progressive pass is considered successful if the next touch of the ball is by a teammate. Available metrics Progressive passes / 90 Number of progressive passes normalized per 90 minutes. Accurate progressive passes (%) Percentage of successful progressive passes.

### Details:

- A pass is considered progressive if the distance between the starting point and the next touch is:
- at least 30 meters closer to the opponent's goal if the starting and finishing points are within a team's own half
- at least 15 meters closer to the opponent's goal if the starting and finishing points are in different halves
- at least 10 meters closer to the opponent's goal if the starting and finishing points are in the opponent's half
- A progressive pass is considered successful if the next touch of the ball is by a teammate.
- Number of progressive passes normalized per 90 minutes.
- Percentage of successful progressive passes.

### Available Metrics:

Progressive passes / 90

Number of progressive passes normalized per 90 minutes.

Accurate progressive passes (%)

Percentage of successful progressive passes.



Progressive pass 445613336

## Progressive run

**Progressive run** A continuous ball control by one player attempting to draw the team significantly closer to the opponent goal. D. Tadić beginning a progressive run  
**Details** A run is considered progressive if the distance before the starting point and the last touch of the player is: at least 30 meters closer to opponent goal if starting and finishing points are in own half at least 15 meters closer to opponent goal if starting and finishing points are in different field halves at least 10 meters closer to opponent goal if starting and finishing points are in opponent half  
**Available metrics** Progressive run / 90 Number of progressive passes normalized per 90 minutes.

### Details:

- A run is considered progressive if the distance before the starting point and the last touch of the player is:
  - at least 30 meters closer to opponent goal if starting and finishing points are in own half
  - at least 15 meters closer to opponent goal if starting and finishing points are in different field halves
  - at least 10 meters closer to opponent goal if starting and finishing points are in opponent half
- Number of progressive passes normalized per 90 minutes.

### Available Metrics:

Progressive run / 90

Number of progressive passes normalized per 90 minutes.



*Progressive run 445634357*

## Protest foul

API eventId: 2API subeventId: 24Subtype of: Foul

# Recovery

Subtype of: TransitionSubtypes: Counterpressing recovery

## Details:

- A recovery is recorded at the point where the player of the team beginning the possession touches the ball. For example, with an unsuccessful long pass, the Loss will be recorded at the starting point of the pass, and the recovery, at its ending point.
- Events where the team's possession starts after ball going out of the pitch or a foul are not considered recoveries.
- Recoveries are typically Duels (44%) or Interceptions (16%), but can happen without any specific action from the player doing the recovery (positioning himself correctly or simply collecting the ball).
- Based on the coordinates of the recovery, the recovery is awarded a zone. Low / Mid / High correspond to the thirds of the field (low is own third, high is the final third), while opponent half recoveries are all recoveries that happen in the opponent half.
- A recovery that doesn't happen with an active action in defense (a Defensive duel, a Sliding tackle or an Interception).
- Number of recoveries normalized per 90 minutes.
- Number of recoveries in the opponent half normalized per 90 minutes.

## Available Metrics:

Recoveries / 90

Number of recoveries normalized per 90 minutes.

Opponent half recoveries / 90

Number of recoveries in the opponent half normalized per 90 minutes.



## Red card

Red card Disciplinary action by the referee that is indicated by showing a red card according to law 12.3 of the IFAB Laws of the Game. Details Can only be shown on an event that is a foul. Includes red cards received for whatever reasons, including not just fouls, but also misconduct and unsportive behaviour. A second yellow card is treated as a red card. Also includes red cards received while on the bench. Includes also red cards appealed and overturned after the match. Available metrics Red cards, total Total number of red cards in a timeframe. Red cards / 90 minutes Number of red cards normalized per 90 minutes.

### Details:

- Can only be shown on an event that is a foul.
- Includes red cards received for whatever reasons, including not just fouls, but also misconduct and unsportive behaviour.
- A second yellow card is treated as a red card.
- Also includes red cards received while on the bench.
- Includes also red cards appealed and overturned after the match.
- Total number of red cards in a timeframe.
- Number of red cards normalized per 90 minutes.

### Available Metrics:

Red cards, total

Total number of red cards in a timeframe.

Red cards / 90 minutes

Number of red cards normalized per 90 minutes.

## Reflexes save

API eventId: 9API subeventId: 90Subtype of: Save



*Reflexes save 450671618*

## Save

Subtype of: Shot against (Save attempt) Subtypes: Reflexes save

### Details:

- A save is tagged for all shots on target, even from medium and long distance. The difficult saves would be essentially Reflexes saves.
- A pre-shot xG value of a probability of the current shot (not necessarily on target) to be scored.
- The post-shot xG2 value of a probability of the current shot (guaranteed to be on target) to be scored.



Save 447632984

## Second assist

**Second assist** The last action of a player from the goalscoring team, prior to an Assist by a teammate. **Details** The number of second assists is guaranteed to be equal to, or less than the number of assists in any single match. No opponent player should control the ball between the second assist and the assist. If a meaningful action (for example, a dribble or a run) by the player making the assist happens after he receives the ball, the previous pass would not be considered a second assist. **Attributes** Successful: Yes (API tagId: 1801) Second assists are always successful. **Available metrics** Second assists / 90 Number of second assists normalized per 90 minutes.

### **Details:**

- The number of second assists is guaranteed to be equal to, or less than the number of assists in any single match.
- No opponent player should control the ball between the second assist and the assist.
- If a meaningful action (for example, a dribble or a run) by the player making the assist happens after he receives the ball, the previous pass would not be considered a second assist.
- Second assists are always successful.
- Number of second assists normalized per 90 minutes.

### **Available Metrics:**

Second assists / 90

Number of second assists normalized per 90 minutes.

## Set pieces

Subtypes: Corner kickFree kickPenalty kickThrow in

## Short/medium pass

Short or medium pass A Pass that is not explicitly tagged as a Long pass. Generally this means a pass of less than 40 meters long. Details A short or medium pass can never be a long pass. 2.5% of short/medium passes are Smart passes. 16% of short/medium passes are Progressive passes. Attributes Successful: Yes / No On average, 86% of short / medium passes are successful. Available metrics Short/medium passes / 90 Number of short/medium passes normalized per 90 minutes. Short/medium passes % Accuracy of short/medium passes.

### Details:

- A short or medium pass can never be a long pass.
- 2.5% of short/medium passes are Smart passes.
- 16% of short/medium passes are Progressive passes.
- On average, 86% of short / medium passes are successful.
- Number of short/medium passes normalized per 90 minutes.
- Accuracy of short/medium passes.

### Available Metrics:

Short/medium passes / 90

Number of short/medium passes normalized per 90 minutes.

Short/medium passes %

Accuracy of short/medium passes.

## Shot

API eventId: 10API subeventId: 100Subtypes: GoalShot after corner

### Details:

- Blocked shots, penalties and direct free kicks are also considered as shots.
- A shot is considered successful if it lands on target (see Zone).
- Shots that hit the frame of the goal are not considered successful.
- Whether the shot results in a goal.
- Whether the shot presents a clear goal scoring chance (see Opportunity).
- The body part that is used to perform the shot. In situations where more than one body part is involved in the shot, the last one is to be used.
- Shots on post are tagged as a shape of plt, where p replaces o of the corresponding angle. Shots on post that are scored are tagged with the corner of where they land in the goal. Blocked shots are tagged as bc (API tagId: 2101)
- The xG value of a probability of the current shot to be scored.
- Number of all shots attempted in the timeframe.
- Number of shots normalized per 90 minutes.
- Percentage of shots that go on target.
- Number of shots from the danger zone. The danger area falls within the coordinates  $x \geq 84.29$  and  $y \geq 36.29$  and  $y \leq 63.71$
- Sum of xG values of all shots in the timeframe.
- Sum of xG values for all shots normalized per 90 minutes.
- Percentage of shots resulted in a goal.

### Available Metrics:

Shots, total

Number of all shots attempted in the timeframe.

Shots / 90

Number of shots normalized per 90 minutes.

Shots on target %

Percentage of shots that go on target.

Shots from danger zone

Number of shots from the danger zone. The danger area falls within the coordinates  $x \geq 84.29$  and  $y \geq 36.29$  and  $y \leq 63.71$

xG, Total

Sum of xG values of all shots in the timeframe.

xG / 90

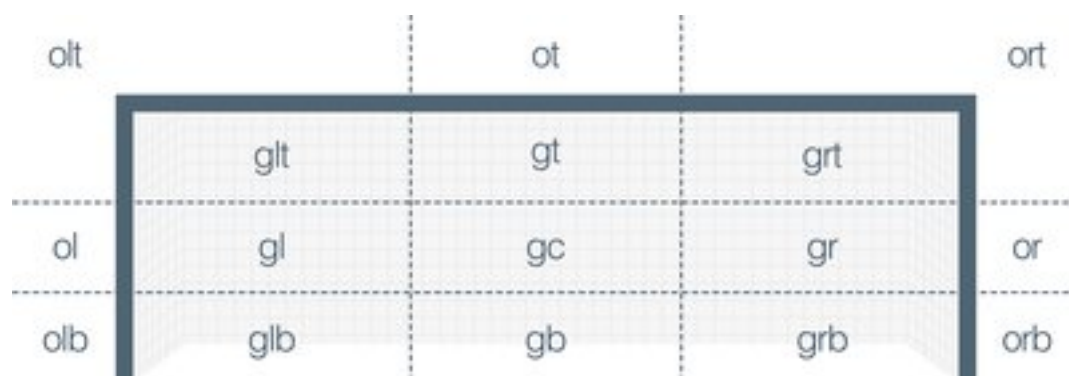
Sum of xG values for all shots normalized per 90 minutes.

Goal conversion (%)

Percentage of shots resulted in a goal.



Shot 422792115



Goal



## Shot after corner

Shot after corner A Shot of the team that happens within 14 seconds of a Corner kick awarded to the same team. Shot after corner by D. Origi



*Shot after corner 362990981*

## Shot against (Save attempt)

API eventId: 9API subeventId: 91Subtypes: Goal concededSave

### Details:

- A goalkeeper event that can either end in a Save or a Goal.
- Is tagged even if a goalkeeper doesn't touch the ball and the ball is going into the net or saved by a defender.
- Whether the shot against result in a conceded Goal. If false, the event is a Save.
- Number of shots against the goalkeeper normalized by 90 mins of time on the field.

### Available Metrics:

Shots against / 90

Number of shots against the goalkeeper normalized by 90 mins of time on the field.

## Shot assist

Subtype of: PassSubtypes: Assist

### Details:

- Every shot assist is guaranteed to have one (and just one) correlated shot. However, not all shots are assisted.
- The player doesn't have to have a clear intention to make an Assist. For clearly intended passes that lead to a shot (but not a goal), see Key pass.
- A shot assist is always successful.
- The xG value of a Shot that's being assisted by this pass.
- Number of shot assists normalized per 90 minutes.
- Sum of xA values for all shot assists normalized per 90 minutes.
- Sum of xG values for all shots and xA values for all shot assists normalized per 90 minutes.

### Available Metrics:

Shot assists / 90

Number of shot assists normalized per 90 minutes.

xA / 90

Sum of xA values for all shot assists normalized per 90 minutes.

xG + xA / 90

Sum of xG values for all shots and xA values for all shot assists normalized per 90 minutes.



Shot assist 458585606

## Simulation foul

API eventId: 27Subtype of: Foul

**Details:**

- In most cases Simulation fouls happen inside the penalty area.
- Fouls are always unsuccessful.
- A value whether the foul is punished by a yellow or red card.

## Sliding tackle

**Sliding tackle** An aggressive slide on the ground in the legs of the opposition player with a clear intention to dispossess the opponent or to clear the ball out. Virgil van Dijk doing a sliding tackle **Details** Is a subtype of Duel (Ground defensive duel or Loose ball duel). Attempted sliding tackles that ended in fouls are tagged as a sliding tackle and then a Foul. **Attributes** Successful: Yes / No The success is calculated using the same logic as Defensive duels. **Available metrics** Sliding tackles / per 30 minutes of opponent possession Number of sliding tackles, possession adjusted per 30 minutes of opponent possession.

### Details:

- Is a subtype of Duel (Ground defensive duel or Loose ball duel).
- Attempted sliding tackles that ended in fouls are tagged as a sliding tackle and then a Foul.
- The success is calculated using the same logic as Defensive duels.
- Number of sliding tackles, possession adjusted per 30 minutes of opponent possession.

### Available Metrics:

Sliding tackles / per 30 minutes of opponent possession

Number of sliding tackles, possession adjusted per 30 minutes of opponent possession.



*Sliding Tackle 403591096*

## Smart pass

API eventId: 8API subeventId: 86Subtype of: Pass

### Details:

- A smart pass is generally a short or medium length pass, but it can also be a long ground pass (see Long Pass).
- A smart pass is considered successful if the next touch of the ball is by a teammate.
- Marks the pass as an Interception.
- Marks the pass as a Link-up play.
- Marks the pass as a Through pass.
- Number of smart passes normalized per 90 minutes.
- Percentage of successful smart passes.

### Available Metrics:

Smart passes / 90

Number of smart passes normalized per 90 minutes.

Accurate smart passes (%)

Percentage of successful smart passes.



Smart pass 459267414

## Third assist

**Third assist** The last action of a player from the goalscoring team, prior to a Second assist by a teammate. **Details** The number of third assists is guaranteed to be equal to, or less than the number of second assists in any single match. No opponent player should control the ball between the third assist and the second assist. **Attributes** Successful: Yes (API tagId: 1801) Third assists are always successful. **Available metrics** Third assists / 90 Number of third assists normalized per 90 minutes.

### **Details:**

- The number of third assists is guaranteed to be equal to, or less than the number of second assists in any single match.
- No opponent player should control the ball between the third assist and the second assist.
- Third assists are always successful.
- Number of third assists normalized per 90 minutes.

### **Available Metrics:**

Third assists / 90

Number of third assists normalized per 90 minutes.

## Through pass

**Through pass** A pass played into the space behind the defensive line for a teammate to contest. A ground through pass from C. Immobile to J. Correa A high through pass (ball in behind) from M. Terrier to M. Cornet Details • A Through Pass can also be a Smart Pass. Attributes Successful: Yes (API tagId: 1801) / No (API tagId: 1802) A through pass is considered successful if the next touch of the ball is by a teammate. Available metrics Through passes / 90 Number of through passes normalized per 90 minutes. Accurate through passes (%) Percentage of successful through passes.

### Details:

- A Through Pass can also be a Smart Pass.
- A through pass is considered successful if the next touch of the ball is by a teammate.
- Number of through passes normalized per 90 minutes.
- Percentage of successful through passes.

### Available Metrics:

Through passes / 90

Number of through passes normalized per 90 minutes.

Accurate through passes (%)

Percentage of successful through passes.



Through pass 424803935





*Through pass 423228687*

## Throw in

API eventId: 3API subeventId: 36Subtype of: Set pieces

### Details:

- Always happens after a Ball out over the byline.
- If a referee decides to repeat a throw-in after a foul or any particular situation that happened before the throw-in kick was served, only the last instance of the throw-in kick is tagged.
- A throw-in is not considered a Pass.
- A scheme attribute is set for a throw-in it's played in a way that required synchronization of different player moves and appears to be pre-trained.



Throw in 0424803935

## Time lost foul

API eventId: 2API subeventId: 26Subtype of: Foul

## Touch

API eventId: 7API subeventId: 72

### Details:

- A Touch can be tagged on both intentional and unintentional touches, like ball deflections (including Own goals).
- A Touch, if there are no other actions, is tagged when the ball is received by a player who then controls a ball over a significant distance (like a Progressive run).
- A Touch is tagged when a player crosses the line of the penalty area or the center line of the field to show his movement in significant areas.
- A Touch is tagged when there is a change of the direction of a Pass (back or forward).
- Missed attempts to touch the ball are tagged as touches with a missed attribute (see Missed ball).
- Dummy miss is used when the player doesn't touch ball on purpose, letting it for a teammate or trying to pass a the defender.
- Michel consciously doesn't make a touch, letting the pass go to a partner



*Douglas Santos touching a ball 439026421*



*Michel consciously doesnt make a touch 425973818*

## Touch in box

**Touch in box** An action (a Pass or a Touch) that happens in the opponent penalty area. Duels are excluded from this definition. Touch in box by K. Bellarabi Details Two touches in box in the same attack will count as two separate actions. No ground duels, aerial duels or fouls are considered touches in box. Available metrics Touches in box, per 90 Number of touches in penalty area normalized by 90 mins of time on the field.

### Details:

- Two touches in box in the same attack will count as two separate actions.
- No ground duels, aerial duels or fouls are considered touches in box.
- Number of touches in penalty area normalized by 90 mins of time on the field.

### Available Metrics:

Touches in box, per 90

Number of touches in penalty area normalized by 90 mins of time on the field.



*Touch in box 422803484*

## Transition

Subtypes: LossRecovery

## Violent foul

API eventId: 2API subeventId: 27Subtype of: Foul



## Yellow card

Yellow card Disciplinary action by the referee that is indicated by showing a yellow card according to law 12.3 of the IFAB Laws of the Game. Details Can only be shown on an event that is a Foul. Includes yellow cards received for whatever reasons, including not just fouls, but also misconduct and unsportive behaviour. Also includes yellow cards received while on the bench. Includes also yellow cards appealed and overturned after the match. Available metrics Yellow cards, total Total number of yellow cards in a timeframe. Yellow cards / 90 minutes Number of yellow cards normalized per 90 minutes. Notes In case of a second yellow card a yellow card would be tagged and available in the F24 API, but not in the stats.

### Details:

- Can only be shown on an event that is a Foul.
- Includes yellow cards received for whatever reasons, including not just fouls, but also misconduct and unsportive behaviour.
- Also includes yellow cards received while on the bench.
- Includes also yellow cards appealed and overturned after the match.
- Total number of yellow cards in a timeframe.
- Number of yellow cards normalized per 90 minutes.
- In case of a second yellow card a yellow card would be tagged and available in the F24 API, but not in the stats.

### Available Metrics:

Yellow cards, total

Total number of yellow cards in a timeframe.

Yellow cards / 90 minutes

Number of yellow cards normalized per 90 minutes.

Notes

In case of a second yellow card a yellow card would be tagged and available in the F24 API, but not in the stats.

## Ball progression

Ball progression A metric quantifying how many meters a player is taking the ball forward . For every successful forward pass, wyscout calculates how close this pass is to the opponent goal. For example, if a pass started at the center of the field and arrived to the edge of the penalty area successfully, this pass would have brought the ball forward 36 meters. The same logic also applies to runs, i.e. successful ball control over distance from the same player. The difference between the distance of the starting point of the run to the opponent goal and the end point of the run to the opponent goal is saved as the run progression. Note that only succesful forward passes and forward runs are included in this description, so the metric would be always equal or more than zero.

## Challenge intensity

Challenge Intensity A team metric, quantifying how many defensive actions (defensive duels, loose ball duels, interceptions, tackles) a team is doing per minute of opponent ball possession. Challenge intensity reflects how often the team is actively trying to recover the ball when the opponent is in possession (thus, it's correlated to PPDA). The higher this number, the more intense the team is in challenges. In top five European leagues for 2018/2019 the average challenge intensity is 6.04. The best team in Challenge intensity in top five leagues 2018/2019 is Eibar with 7.7; Parma, Nürnberg and Angers have the least (5).

## Match-level metrics

Match-level metrics	Metric	Short name	Type	Definition	Products	Actions
Match/Player	Total number of actions.	Match report, Player Stats	Actions / successful	Match/Player	Total number of successful actions.	Also available as a percentage.
Match report, Player Stats	Aerial duels	Match/Team, Player	Total number of aerial duels.	Match report, Player Stats, Team Stats	Aerial duels won	Match/Team, Player
Total number of won aerial duels.	Also available as a percentage.	Match report, Player Stats, Team Stats	Assists	Match/Player	Total number of assists.	Match report, Player Stats
Attacks	Match/Team	Total number of possessions having at least one successful action in the final third.	Match report	Attacks per minute	Match/Team	Number of open play attacks per minute of play.
See Attack.	Match report	Attacks with shots	Match/Team	Number of attacks containing a shot.	Also available as a percentage.	Match report
Average formation line	Match/Team	Average position on the axis from own goal to the opponent goal of all team events with the ball.	Match report	Average pass length	Match/Team, Player	Average length of passes.
Match report, Team Stats	Average passes per possession	Match/Team	Average number of passes in an open play possession.	Team Stats	Average possession duration	Match/Team
Average duration of an open play possession.	Match report	Average shot distance	Match/Team	Average distance on the axis from own goal to the opponent goal of all team shots.	Match report, Team Stats	Back passes
Match/Team, Player	Total number of passes in a 90° angle rotated by 45° facing backwards.	See Pass.	Match report, Player Stats, Team Stats	Back passes / accurate	Match/Team, Player	Total number of accurate back passes.
Also available as a percentage.	Match report, Player Stats, Team Stats	Back passes to GK	Match/Player	Total number of back passes with own goalkeeper as a receiver.	Match report	Ball distributions
Match/Player	Total number of goal kicks.	Player Stats	Ball possession (%)	Match/Team	Percentage of ball possession.	See Ball possession on methodology.
Match report, Team Stats	Challenge intensity	Match/Team	Number of defensive actions (defensive duels, loose ball duels, interceptions, tackles) per minute of opponent ball possession.	Match report	Clearances	Match/Team, Player
Total number of clearances.	Match report, Player Stats, Team Stats	Conceded penalty goals	Match/Player	Total number of goals conceded from penalty.	Applies to the goalkeeper.	Match report
Corners	Match/Team, Player	Total number of corner kicks taken.	Match report, Team Stats	Corners with shots	Match/Team	Total number of corner kicks that led to a shot of the team taking the corner kick within 14 seconds.
Also available as a percentage.	Match report, Team Stats	Counterattacks	Match/Team	Total number of counterattacks.	Match report, Team Stats	Counterattacks with shots
Match/Team	Total number of counterattacks where the possession had a shot.	Also available as a percentage.	Team Stats	Crosses	Match/Team, Player	Total number of crosses.
Match report, Player Stats, Team Stats	Crosses / accurate	Match/Team, Player	Total number of accurate crosses.	Also available as a percentage.	Match report, Player Stats, Team Stats	Crosses / blocked
Match/Team	Total number of crosses that are blocked.	Match report	Crosses / high	Match/Team	Total number of crosses above waist height.	Match report
Crosses / low	Match/Team	Total number of crosses below waist height.	Match report	Dead time	Match	Time when neither of the teams were in possession of the ball
Match report	Deep completions	Match/Team, Player	Total number of deep completed passes.	Match report, Team Stats	Deep completed crosses	Match/Team
Total number of deep completed crosses.	Team Stats	Defensive duels	Match/Team, Player	Total number of defensive duels.	Match report, Player Stats, Team Stats	Defensive duels won
Match/Team, Player	Total number of defensive duels won.	See Defensive duel on methodology.	Also available as a percentage.	Match report, Player Stats, Team Stats	Direct free kicks taken	

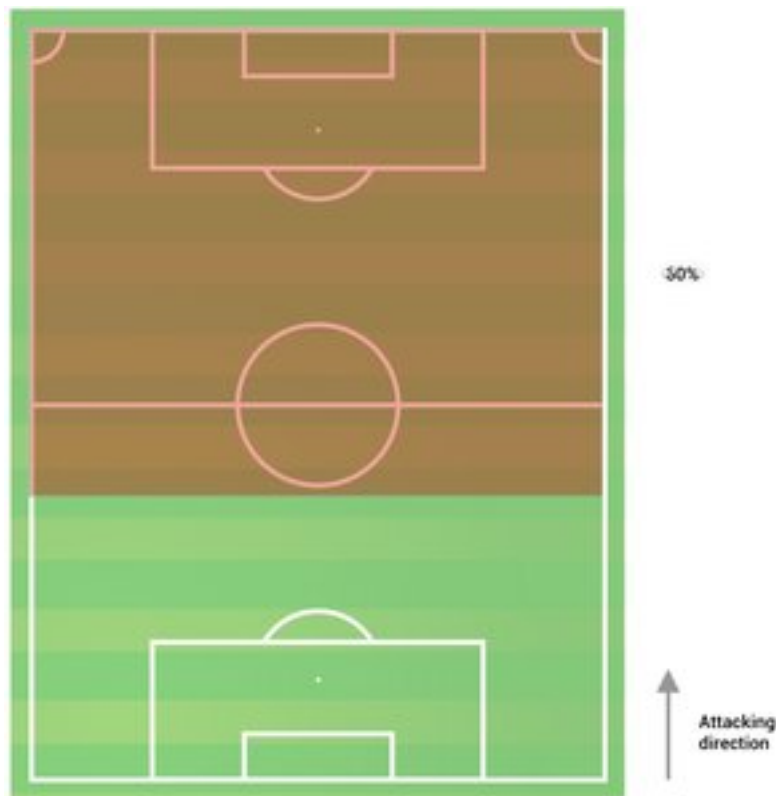
Match/Team, Player Total number of shots taken from free kicks. Match report  
 Dribbles Match/Team, Player Total number of dribbles. Match report, Player Stats  
 Dribbles / successful Match/Team, Player Total number of successful dribbles. See  
 Dribble on methodology. Also available as a percentage. Match report, Player  
 Stats Duels Match/Team, Player Total number of duels (offensive, defensive, loose  
 ball, aerial). Match report, Player Stats Duels win rate Match/Team Percentage of  
 duels won per interval. Match report Duels won Match/Team, Player Total number  
 of duels won. Also available as a percentage. Match report, Player Stats Expected  
 Assists xA Match/Player The sum of xA values of all shot assists. Match report,  
 Player Stats Expected Goals xG Match/Team, Player The sum of xG values of all  
 shots. Match report, Player Stats, Team Stats Expected Conceded Goals xCG,  
 xG2 Match/Team, Player The sum of xCG values of all shots against on target.  
 Match report, Player Stats Forward passes Match/Team, Player Total number of  
 passes in a 90° angle rotated by 45° facing forwards. See Pass. Match report,  
 Player Stats, Team Stats Forward passes / accurate Match/Team, Player Total  
 number of accurate forward passes. Also available as a percentage. Match report,  
 Player Stats, Team Stats Fouls Match/Team, Player Total number of game fouls.  
 Match report, Player Stats, Team Stats Fouls suffered Match/Team, Player Total  
 number of fouls suffered. Match report, Player Stats Free kicks Match/Team,  
 Player Total number of free kicks. Match report, Team Stats Free kicks with shots  
 Match/Team Total number of free kicks that led to a shot of the team taking the  
 free kick within 14 seconds. Match report, Team Stats Goalkeeper exits  
 Match/Player Total number of goalkeeper exits. Match report, Player Stats Goals  
 Match/Team, Player Total number of goals scored. Includes own goals in team  
 context. Match report, Player Stats, Team Stats Goals conceded Match/Team,  
 Player Total number of goals conceded. In player context, refers just to the  
 goalkeeper. Match report, Player Stats, Team Stats Interceptions Match/Team,  
 Player Total number of interceptions. Match report, Player Stats, Team Stats Key  
 passes Match/Team, Player Total number of key passes. Match report Lateral  
 passes Match/Team, Player Total number of passes in two 90° angles rotated by  
 45° facing sideways, longer than 12 meters. See Pass. Match report, Team Stats  
 Lateral passes / accurate Match/Team, Player Total number of accurate lateral  
 passes. Also available as a percentage. Match report, Team Stats Long pass  
 share (%) Match/Team Percentage of how many of the passes a team makes are  
 long passes. Match report, Team Stats Long passes Match/Team, Player Total  
 number of long passes. Match report, Player Stats, Team Stats Long passes /  
 accurate Match/Team, Player Total number of accurate long passes. Also  
 available as a percentage. Match report, Player Stats, Team Stats Loose ball duels  
 Match/Team, Player Total number of loose ball duels. Match report, Player Stats  
 Loose ball duels won Match/Team, Player Total number of loose ball duels won.  
 Also available as a percentage. Match report, Player Stats Losses Match/Team,  
 Player Total number of possession losses. Match report, Player Stats, Team Stats  
 Losses / High Match/Team Total number of possession losses in final third. Match  
 report, Team Stats Losses / Low Match/Team Total number of possession losses  
 in own third. Match report, Team Stats Losses / Medium Match/Team Total  
 number of possession losses in mid-third. Match report, Team Stats Losses / Own  
 half Match/Player Total number of possession losses in own half. Match report,  
 Player Stats Match tempo Match/Team Number of team passes per minute of pure  
 ball possession. Match report Number of possessions Match/Team Total number  
 of possessions. Match report Offensive duels Match/Team, Player Total number of  
 offensive duels. Match report, Player Stats, Team Stats Offensive duels won  
 Match/Team, Player Total number of offensive duels won. See Offensive duel on  
 methodology. Also available as a percentage. Match report, Player Stats, Team  
 Stats Offsides Match/Team, Player Total number of offsides. Match report, Player  
 Stats, Team Stats Open play possessions / Long Match/Team Total number of  
 open play possessions with length of 20-45 seconds. Match report Open play  
 possessions / Medium Match/Team Total number of open play possessions with

length of 10-20 seconds. Match report Open play possessions / Short Match/Team Total number of open play possessions with length of 0-10 seconds. Match report Open play possessions / Total Match/Team Total number of open play possessions/ Match report Open play possessions / Very long Match/Team Total number of open play possessions with length > 45 seconds. Match report Pass accuracy (%) Match/Team Percentage of accurate passes. Match report Passes Match/Team, Player Total number of passes. Match report, Player Stats, Team Stats Passes / accurate Match/Team, Player Total number of accurate passes. Also available as a percentage. Match report, Player Stats, Team Stats Passes beyond own third Match/Player Total number of passes (including goal kicks) that went outside own third. Match report Passes beyond own third / accurate Match/Player Total number of accurate passes (including goal kicks) that went outside own third. Also available as a percentage. Match report Passes inside own third Match/Player Total number of passes (including goal kicks) made inside own third. Match report Passes inside own third / accurate Match/Player Total number of accurate passes (including goal kicks) made inside own third. Also available as a percentage. Match report Passes per minute Match/Team Number of passes per minute of ball possession. Team Stats Passes to final third Match/Team, Player Total number of passes from outside final third to the final third. Match report, Team Stats Passes to final third / accurate Match/Team, Player Total number of accurate passes from outside final third to the final third. Also available as a percentage. Match report, Team Stats Passes to penalty area Match/Team, Player Total number of passes from outside opponent penalty area to the opponent penalty area. Match report, Player Stats Passes to penalty area / accurate Match/Team, Player Total number of accurate passes from outside opponent penalty area to the opponent penalty area. Also available as a percentage. Match report, Player Stats Penalties Match/Team Total number of penalties. Team Stats Penalties converted Match/Team Total number of penalties scored. Team Stats Penalties saved Match/Player Total number of penalties saved. Applies to the goalkeeper. Match report Penalty area entries Match/Team Total number of penalty area entries (via pass, cross or carry). Team Stats Positional attacks Match/Team Total number of positional attacks. Match report, Team Stats Positional attacks with shots Match/Team Total number of positional where the possession had a shot. Match report, Team Stats Possessions reaching opponent box Match/Team Total number of possessions that have at least one successful action in the opponent penalty area. Match report Possessions reaching opponent half Match/Team Total number of possessions that have at least one successful action in the opponent half. Match report Pressing intensity PPDA Match/Team A metric to quantify high press intensity in final 60% of the field. See PPDA Match report, Team Stats Progressive passes Match/Team, Player Total number of progressive passes. Match report, Team Stats Progressive passes / accurate Match/Team, Player Total number of accurate progressive passes. Also available as a percentage. Match report, Team Stats Progressive runs Match/Player Total number of progressive runs. Player stats Pure possession time Match/Team Pure time spent in possession of the ball. Match report Received passes Match/Player Total number of accurate passes received. Player Stats Recoveries Match/Team, Player Total number of recoveries. Match report, Player Stats, Team Stats Recoveries / High Match/Team Total number of possession recoveries in final third. Match report, Team Stats Recoveries / Low Match/Team Total number of possession recoveries in own third. Match report, Team Stats Recoveries / Medium Match/Team Total number of possession recoveries in mid-third. Match report, Team Stats Recoveries / Opponent half Match/Team, Player Total number of possession recoveries in opponent half. Match report, Player Stats Recoveries per minute Match/Team Total number of possession recoveries per minute of play. Match report Red cards Match/Team, Player Total number of red cards. Match report, Player Stats, Team Stats Reflex saves Match/Player Total number of reflex saves. Applies to the goalkeeper only Match report, Player Stats Saves

Match/Player Total number of saves. Applies to the goalkeeper only. Match report, Player Stats Second assists Match/Player Total number of second assists. Match report, Player Stats Set pieces Match/Team Total number of attacks started from set pieces. Team Stats Set pieces with shots Match/Team Total number of attacks started from set pieces that had a shot inside the possession. Also available as a percentage. Team Stats Short + medium passes Match/Player Total number of passes that were not long passes. Match report Short + medium passes / accurate Match/Player Total number of accurate passes that were not long passes. Also available as a percentage. Match report Shot assists Match/Player Total number of shot assists. Match report, Player Stats Shots Match/Team, Player Total number of shots. Match report, Player Stats, Team Stats Shots against Match/Team Total number of shots against (blocked or missed are included). Team Stats Shots blocked Match/Team, Player Total number of shots blocked by the opponent. Match report Shots from the box Match/Team Total number of shots made from inside the opponent penalty area. Match report Shots from the box on target Match/Team Total number of shots made from inside the opponent penalty area and were on target. Also available as a percentage. Match report Shots on post Match/Team Total number of shots that hit the post and then went wide. Match report Shots on target Match/Team, Player Total number of shots that were on target. Also available as a percentage. Match report, Player Stats, Team Stats Shots outside the box Match/Team Total number of shots made from outside the opponent penalty area. Match report, Team Stats Shots outside the box on target Match/Team Total number of shots made from outside the opponent penalty area and were on target. Also available as a percentage. Match report, Team Stats Shots wide Match/Team Total number of shots that were off target (blocked). Match report Sliding tackles Match/Team, Player Total number of sliding tackles. Match report, Player Stats, Team Stats Sliding tackles / won Match/Team, Player Total number of won sliding tackles. See Defensive duel for methodology. Also available as a percentage. Match report, Player Stats, Team Stats Smart passes Match/Team, Player Total number of smart passes attempted. Match report, Team Stats Smart passes / accurate Match/Team, Player Total number of accurate smart passes. Also available as a percentage. Match report, Team Stats Third assists Match/Player Total number of third assists. Match report Through passes Match/Player Total number of through balls attempted. Match report, Player Stats Through passes / accurate Match/Player Total number of accurate through balls. Also available as a percentage. Match report, Player Stats Throw-ins Match/Player Total number of throw-ins taken. Match report Touches in box Match/Team, Player Total number of actions with the ball in the opponent penalty area. Match report, Team Stats Yellow cards Match/Team, Player Total number of yellow cards. Match report, Player Stats, Team Stats

## PPDA

PPDA (Passes per defensive action) A metric to quantify high press intensity introduced by Colin Trainor in 2014\*. Only events in a subset of the field (final 60%), as described on the figure, are taken in consideration: In this zone, we calculate all opponent passes that started there and divide them by the sum of defensive actions (fouls, interceptions, won defensive duels, sliding tackles) of the pressing team and divide opponent passes by defensive actions. Example: In the Liverpool-Manchester United match of 20 October 2019, Manchester United had 207 passes in their lower 60% zone, while Liverpool had 10 won defensive duels, 16 interceptions, 11 fouls and 3 sliding tackles in this area.  $207 / (10 + 16 + 11 + 3) = 5.2$ . This is the value of PPDA for Liverpool. In the same match, Liverpool had 404 passes in the lower 60% zone, while Manchester United had won 6 defensive duels, 10 interceptions, 4 fouls and 3 sliding tackles.  $404 / (6 + 10 + 4 + 3) = 17.6$ . This is the value of PPDA for Manchester United. Notice that Manchester United had allowed much more Liverpool passes in their defensive zone. Basically PPDA reflects how many passes in the opponent defensive zone the opponent can make per one challenge. The lower this number, the better the team is doing high pressing. In top five European leagues for 2018/2019 the average PPDA per season is 11.01. The best team in PPDA in top five leagues 2018/2019 is Eibar with whopping 6.72, and Nürnberg has the least PPDA (18.21).



PPDA zone



## Physical metrics

Physical metrics These metrics are only available for specific competitions and players with at least 60 minutes of active play across all matches. Metric Definition

Products Count HI per 90 The number of High Intensity actions: sum of Count HSR (High Speed Runs) and Count Sprint, normalized per 90 minutes. Advanced Search Count High Acceleration per 90 The number of Accelerations detected with a peak value greater than  $3 \text{ m/s}^2$ , normalized per 90 minutes. The action needs to last for at least 1 second. Advanced Search Count High Deceleration per 90 The number of Decelerations detected with a peak value less than  $-3 \text{ m/s}^2$ , normalized per 90 minutes. The action needs to last for at least 1 second. Advanced Search Count HSR per 90 The number of High Speed Runs detected between  $20 \text{ km/h}$  and  $25 \text{ km/h}$ , normalized per 90 minutes. The action needs to last for at least 1 second. Advanced Search Count Medium Acceleration per 90 The number of Accelerations detected with a peak value between  $1.5 \text{ m/s}^2$  and  $3 \text{ m/s}^2$ , normalized per 90 minutes. The action needs to last for at least 1 second. Advanced Search Count Medium Deceleration per 90 The number of Decelerations detected with a peak value between  $-1.5 \text{ m/s}^2$  and  $-3 \text{ m/s}^2$ , normalized per 90 minutes. The action needs to last for at least 1 second. Advanced Search Count Sprint per 90 The number of Sprints exceeding  $25 \text{ km/h}$ , normalized per 90 minutes. The action needs to last for at least 1 second. Advanced Search HI Distance per 90 High Intensity. Distance covered above  $20 \text{ km/h}$ , normalized per 90 minutes. Advanced Search HSR Distance per 90 High Speed Runs. Distance covered between  $20 \text{ km/h}$  and  $25 \text{ km/h}$ , normalized per 90 minutes. Advanced Search Meter/min Total distance covered across all actions, divided per number of minutes. Advanced Search Max Speed (km/h) The maximum speed recorded. Advanced Search Running Distance per 90 Distance covered between  $15 \text{ km/h}$  and  $20 \text{ km/h}$ , normalized per 90 minutes. Advanced Search Sprinting Distance per 90 Distance covered above  $25 \text{ km/h}$ , normalized per 90 minutes. Advanced Search Total Distance per 90 Total distance covered, normalized per 90 minutes. Advanced Search

## Player metrics

Player metrics Metric Type Products Definition Accelerations / 90 Statistics Advanced Search Number of accelerations normalized per 90 minutes. Aerial duels / 90 minutes Statistics Advanced Search Number of aerial duels normalized per 90 minutes. Aerial duels won (%) Statistics Advanced Search Percentage of aerial duels won. Accurate long passes (%) Statistics Advanced Search Percentage of successful long passes. Accurate progressive passes (%) Statistics Advanced Search Percentage of successful progressive passes. Accurate smart passes (%) Statistics Advanced Search Percentage of successful smart passes. Accurate through passes (%) Statistics Advanced Search Percentage of successful through passes. Assists / 90 Statistics Advanced Search Number of assists normalized per 90 minutes. Clearances / 90 Statistics Advanced Search Number of clearances normalized per 90 minutes. Cross accuracy Statistics Advanced Search Percentage of successful crosses. Cross accuracy from left flank (%) Statistics Advanced Search Percentage of successful crosses from the left flank (the leftmost 23 meters). Cross accuracy from right flank (%) Statistics Advanced Search Percentage of successful crosses from the right flank (the rightmost 23 meters). Cross accuracy to six-yard box (%) Statistics Advanced Search Percentage of successful crosses with a next touch inside the six-yard box. Crosses / 90 Statistics Advanced Search Number of cross attempts normalized per 90 minutes. Crosses from left flank, per 90 Statistics Advanced Search Number of cross attempts normalized per 90 minutes that are delivered from the left flank (the leftmost 23 meters). Crosses from right flank, per 90 Statistics Advanced Search Number of cross attempts normalized per 90 minutes that are delivered from the right flank (the rightmost 23 meters). Crosses to six-yard box, per 90 mins Statistics Advanced Search Number of cross attempts with a next touch inside the six-yard box normalized per 90 minutes. Deep completed crosses / 90 Statistics Advanced Search Number of deep completed crosses attempted per 90 minutes. Deep completions passes / 90 Statistics Advanced Search Number of deep completions made per 90 minutes. Defensive duels / 90 minutes Statistics Advanced Search Number of defensive duels normalized per 90 minutes. Defensive duels won (%) Statistics Advanced Search Percentage of won defensive duels. Dribbles / 90 Statistics Advanced Search Number of dribble attempts normalized per 90 minutes. Dribbles % Statistics Advanced Search Percentage of successful dribbles. Exits, per 90 mins Statistics Advanced Search Number of events leaving line normalized per 90 minutes. Fouls / 90 Statistics Advanced Search Number of fouls normalized per 90 minutes. Goal conversion (%) Statistics Advanced Search Percentage of shots resulted in a goal. Goals Statistics Advanced Search Total number of goals scored. Goals / 90 Statistics Advanced Search Number of goals normalized per 90 minutes. Head goals, avg per 90 mins Statistics Advanced Search Total number of headed goals normalized per 90 minutes. Head goals, total Statistics Advanced Search Total number of headed goals. Interceptions / 90 minutes Statistics Advanced Search Number of interceptions normalized per 90 minutes. Interceptions / per 30 minutes of opponent possession Statistics Advanced Search Number of interceptions possession adjusted per 30 minutes of opponent possession. Key passes / 90 Statistics Advanced Search Number of key passes normalized per 90 minutes. Note: in contexts like reports and Advanced Search, this metric includes Assists made as well. Long passes / 90 minutes Statistics Advanced Search Number of long passes normalized per 90 minutes. Loose ball duels / 90 minutes Statistics Advanced Search Number of loose ball duels normalized per 90 minutes. Loss index Statistics Player Lists Number of ball losses a player makes divided by the successful actions in attack (shot on targets, accurate crosses and successful dribbles). Losses / 90 Statistics Advanced Search Number of recoveries losses per

90 minutes. Missed balls / 90 minutes Statistics Advanced Search Number of missed balls normalized per 90 minutes. Non-penalty goals, per 90 mins Statistics Advanced Search Total number of goals, excluding penalty kicks, normalized per 90 minutes. Non-penalty goals, total Statistics Advanced Search Total number of goals, excluding penalty kicks. Offensive Duels / 90 Statistics Advanced Search Number of offensive duels normalized per 90 minutes. Offensive Duels % Statistics Advanced Search Percentage of successful offensive duels. Opponent half recoveries / 90 Statistics Advanced Search Number of recoveries in the opponent half normalized per 90 minutes. Own half losses / 90 Statistics Advanced Search Number of losses in the opponent half normalized per 90 minutes. Pass accuracy Statistics Advanced Search Percentage of successful passes. Passes / 90 Statistics Advanced Search Number of passes normalized per 90 minutes. Passes to final third / 90 Statistics Advanced Search Number of passes to final third normalized per 90 minutes. Passes to final third % Statistics Advanced Search Percentage of successful passes to final third. Passes to penalty area / 90 Statistics Advanced Search Number of passes to penalty area normalized per 90 minutes. Passes to penalty area % Statistics Advanced Search Percentage of successful passes to penalty area. Pressing duels, per 90 Statistics Advanced Search Number of pressing duels normalized by 90 mins of time on the field. Progressive passes / 90 Statistics Advanced Search Number of progressive passes normalized per 90 minutes. Progressive passes allowed Statistics Rankings Number of progressive passes made by the opponent in the zone of the player (for example, defensive left flank for left defender). Progressive runs / 90 Statistics Advanced Search Number of progressive passes normalized per 90 minutes. Recoveries / 90 Statistics Advanced Search Number of recoveries normalized per 90 minutes. Red cards / 90 minutes Statistics Advanced Search Number of red cards normalized per 90 minutes. Red cards, total Statistics Advanced Search Total number of red cards in a timeframe. Second assists / 90 Statistics Advanced Search Number of second assists normalized per 90 minutes. Short/medium passes / 90 Statistics Advanced Search Number of short/medium passes normalized per 90 minutes. Short/medium passes % Statistics Advanced Search Accuracy of short/medium passes. Shot assists / 90 Statistics Advanced Search Number of dribbles normalized per 90 minutes. Shots / 90 Statistics Advanced Search Number of shots normalized per 90 minutes. Shots against / 90 Statistics Advanced Search Number of shots against the goalkeeper normalized by 90 mins of time on the field. Shots on target % Statistics Advanced Search Percentage of shots that go on target. Shots, total Statistics Advanced Search Number of all shots attempted in the timeframe. Sliding tackles / per 30 minutes of opponent possession Statistics Advanced Search Number of sliding tackles, possession adjusted per 30 minutes of opponent possession. Smart passes / 90 Statistics Advanced Search Number of smart passes normalized per 90 minutes. Successful attacking actions / 90 Statistics Advanced Search Sum of shots on target, accurate crosses and successful dribbles normalized per 90 minutes. Successful defensive actions / 90 Statistics Advanced Search Sum of defensive duels won, interceptions and sliding tackles normalized per 90 minutes. Third assists / 90 Statistics Advanced Search Number of third assists normalized per 90 minutes. Through passes / 90 Statistics Advanced Search Number of through passes normalized per 90 minutes. Touches in box, per 90 Statistics Advanced Search Number of touches in penalty area normalized by 90 mins of time on the field. xA / 90 Statistics Advanced Search Sum of xA values for all shot assists normalized per 90 minutes. xG / 90 Statistics Advanced Search Sum of xG values for all shots normalized per 90 minutes. xG + xA / 90 Statistics Advanced Search Sum of xG values for all shots and xA values for all shot assists normalized per 90 minutes. xG, Total Statistics Advanced Search Sum of xG values of all shots in the timeframe. Yellow cards / 90 minutes Statistics Advanced Search Number of yellow cards normalized per 90 minutes. Yellow cards, total Statistics Advanced Search Total number of yellow cards in a timeframe.



## Wyscout Index

Wyscout Index An index (available in the Rankings app) that sorts players in a competition for each position based on their stats. Top 11 team according to wyscout index in Bundesliga 2019/2020 For every position, there's a set of parameters that are taken in consideration in the final ranking. Here's a sample (not exhaustive) list of top relevant stats per position. Goalkeeper: Conceded goals, Goal mistakes, Saves, Shots faced, Penalty saves, Exits from the line, Pass accuracy. Full-back: Accelerations, Crosses, Defensive duels won, Sliding tackles, Key passes, Clearances, Pressing attempts, Interceptions, Loose ball duels won, Dribbles won Centre-back: Team conceded goals, Defensive duels won, Loose ball duels won, Interceptions, Clearances, Aerial duels won, Sliding tackles, Lost balls, Blocked shots, Yellow/red cards, Pass accuracy. Defensive midfielder: Goals, Chances created, Dribbles won, Shots on target, Loose ball duels won, Assists, Passes, Through passes, Sliding tackles, Interceptions Central midfielder: Goals, Chances created, Through passes, Loose ball duels won, Shots on target, Pressing attempts, Assists, Aerial duels won, Interceptions, Defensive duels won Attacking midfielder: Goals, Chances created, Dribbles won, Through passes, Shots on target, Assists, Crosses, Accelerations, Loose ball duels won, Pressing attempts Winger: Goals, Shots on target, Assists, Through passes, Crosses, Chances created, Acceleration, Dribbles won, Loose ball duels won, Aerial duels won Forward: Goals, Chances created, Through passes, Assists, Shots, Dribbles won, Shots on target, Duels won, Crosses, Link-up plays Every stat is assigned a weight, either positive or negative. Based on this, the algorithm calculates the distribution inside a season and assigns values linearly according to minimum and maximum values in the league. For example, the goalkeeper with most goals conceded would receive -4.6 points, and the one with least goals conceded would have a zero: the value for goalkeepers in the middle would be distributed linearly. The index is calculated a sum of statistical params multiplied by weights as described above. The index is updated after every match played.



Wyscout Index Bundesliga

## Attack

Attack An attack is a Possession of the team. The attacks are split into following categories: Open play attack A possession that doesn't start from a set piece (Free Kick Cross, Free Kick Shot, Corner, Throw In or Penalty). The possession should have at least one successful action in the opposition final third to qualify as an attack. Counterattack Happens when after a turnover the team switches quickly from defense to attack, trying to catch their opponent out of defensive shape. Positional attack An open play attack that is not a Counterattack. Set piece attack Any possession that starts from a Corner Kick or a Free Kick Cross.

## Ball possession

Ball possession A metric quantifying how much a team is actually in possession of the ball. Available as pure time or as percentage of possession (compared to the opponent). Wyscout uses a ball possession percentage calculation approach based on pure time spent in possession of the ball. A Possession is a sequence of events with the ball of the same team. Time where the ball is out of play (either out of field or, for example, setting up a set piece) is not counted as possession for any of the two teams. Opponent actions that do not constitute a meaningful ball possession, like lost duels, missed balls and rebounds that are immediately picked up, do not break possessions. Other data providers might use a simpler algorithm, which only takes into account accurate passes made by two teams, however, since not all passes are created equal and take different time to complete, the pure time algorithm provides more accurate results. Open play possessions Possessions that doesn't start from a set piece (Free Kick Cross, Free Kick Shot, Corner, Throw In or Penalty). Open play possessions are split in following values according to their duration: Short: (0-10 sec) Medium: (10-20 sec) Long: (20-45 sec) Very long: (45+ sec)

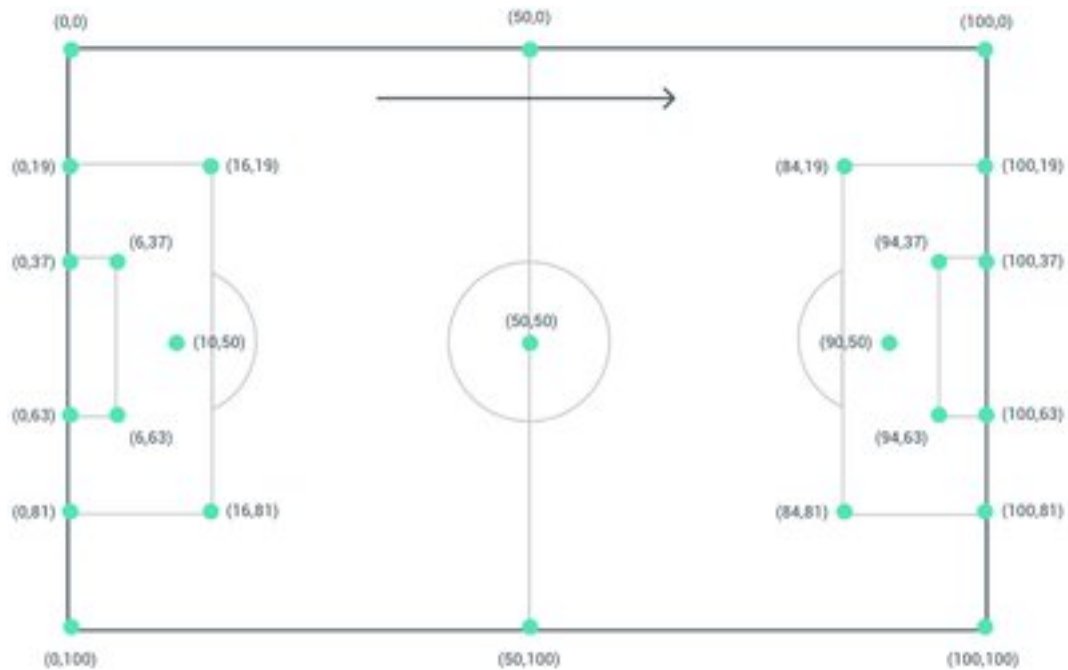


## Minutes played

Every player is assigned the actual minutes played, with stoppage time, in a match. For example, if a player played a full match where 2 minutes of extra time was added to the first half and 3 to the second half, the minutes played for him for this match would be 95. The normalization per 90 minutes happens based on this number. For example, if a player attempted 10 shots in a match as described above, his Shots/90 metric for the timeframe consisting of just this match would be 9.47.

## Pitch coordinates

Pitch coordinates The event's coordinates depends on the subject. The subject's goal to be defended is always  $x=0\%$  and the attack is always  $x=100\%$ . All values are % expressed as  $(x,y)$ .



*Pitch coordinates*

## Player reports

Player reports Rankings For every position, there's a set of parameters that are selected for the player rankings section in the player report. Goalkeepers: Conceded goals, Shots faced, Saves, xG saved, Recoveries, Defensive duels, Aerial duels, Passes, Average pass length Full-backs: Recoveries, Counterpressing recoveries, Defensive duels, Offensive duels, Dribbles, Passes, Crosses, Average pass length, Progressive runs, Progressive passes, Deep completions, Deep completed crosses, Goals, xG, Assists, xA, Shots, xG per shot, Shot assists Central defenders: Recoveries, Counterpressing recoveries, Defensive duels, Aerial duels Offensive duels, Dribbles, Passes, Average pass length, Progressive runs, Progressive passes, Deep completions, Deep completed crosses Midfielders: Goals, xG, Assists, xA, Shots, xG per shot, Passes, Crosses, Shot assists, Offensive duels, Defensive duels, Aerial duels, Dribbles, Progressive runs, Progressive passes, Deep completions, Deep completed crosses, Recoveries, Counterpressing recoveries Forwards: Goals, xG, Assists, xA, Shots, xG per shot, Passes, Crosses, Shot assists, Second assists, Touches in penalty area, Received passes, Received long passes, Offensive duels, Dribbles, Progressive runs, Progressive passes, Recoveries in final third, Counterpressing recoveries

## Possession-adjusted

Possession-adjusted (styled as PAdj or Opp30) is a method to calculate defensive statistics to take possession values into account. While the average duration of the match is slightly on rise every year and is at 95 minutes 30 seconds for 2019, the pure time of ball in play is in decrease and is generally between 50 and 60 minutes depending on the league. Wyscout took 60 minutes as a reasonable value to adjust possession-dependent stats to. The logic for adjusting defensive statistics is the following: you can only make defensive contribution when you're not in the possession of the ball. Therefore, when you look for high defensive values, normally you would only encounter the defenders of the lower teams in the league: their defenders, being dominated by a possession-leading team, are forced to make more actions (defensive duels, interception, sliding tackles etc.). The defenders of possession-based teams are naturally making less actions. Adjusting these values to the possession (as if the match was played with a 50%/50% possession) gives further insight to the frequency of defensive actions. Example: In the match of AFC Bournemouth - Manchester City (0:1, 2 March 2019) Man City had had 80% of possession (42:37 pure possession time), while Bournemouth only had 20% (10:35 pure possession time). Aké, who played the whole match for Bournemouth, had 10 interceptions. His PAdj interceptions value would be:  $10 / 42.5 * 30 = 7.06$ . Walker, who played the whole match for Man City, had 5 interceptions. His PAdj interceptions value would be:  $5 / 10.5 * 30 = 14.3$ . Therefore, while Walker made only half of interceptions of Aké, the huge difference in possession make his possession-adjusted value twice higher.

## **xA**

Expected assist (xA) value for a pass is the value of expected goals (xG) of the shot that this pass led to. In order to qualify for this, the pass should be a 'shot assist' (see the definition in our glossary). Besides regular passes, crosses, corners servings, throw ins and passes from free kicks that are followed by shots can also have xA value. Suffered fouls that result in penalties or direct free kicks are not included (as goals scored from these events are not qualified as assisted). If a pass is made and a player is offside, this is just an unsuccessful pass, so it cannot have an xA value, even if a player scores after this. Same logic is applied to VAR-cancelled goals, no actions after a VAR-found foul or offside are recorded.

## xG

Expected goals (xG) is a predictive ML model used to assess the likelihood of scoring for every shot made in the game. For every shot, the xG model calculates the probability to score based on event parameters: Location of the shot Location of the assist Foot or head Assist type Was there a dribble of a field player or a goalkeeper immediately before the shot? Is it coming from a set piece? Was the shot a counterattack or did it happen in a transition? Tagger's assessment of the danger of the shot These parameters (plus a few technical ones) are used to train the xG model on the historical Wyscout data and predict the probability of the shot being scored. The probabilities range between 0 and 1. A shot of 0.1 xG means a shot like this should be scored 10% of the time. A shot of 0.8 xG means a shot like this should be scored 80% of the time. A penalty xG value is fixed to 0.76. M. de Roon with 0.006 xG shot S. Mané with 0.85 xG shot At the moment there are no additional constraints for xG of shots in the same possession. So a sequence of shots in short succession (like a rebound after a save) could theoretically yield an xG value of  $> 1$ . Currently they are considered to be different shots and all xG values are calculated at the shot level. Pre-shot and post-shot xG The pre-shot xG model (or 'xG' for short) is trained on all shots (including blocked shots and shots wide), only using the information at the moment the shot is taken. However, Wyscout also calculates post-shot xG ('PSxG' for short or 'xCG' in goalkeeper context for 'Expected conceded goals'). Here only shots on target are used in training (all blocked shots and shots wide automatically have a post-shot xG value of 0), and parameters like the coordinates of the goal where the shot is estimated to go in are included. The post-shot xG for a given shot is usually higher than the pre-shot and can reflect finishing skills. Post-shot xG is especially valuable for evaluating goalkeeper impact on conceded goals.



Shot 635719742



Shot 678490445