CIES Football Observatory

Players' physical and tactical profile

November 2026

This note sets out the method developed using data from our partner SkillCorner to establish the physical and tactical profile of outfield players. Various performance indicators have been selected and grouped into eight categories: four primarily associated with the physical aspect (endurance, speed, explosiveness and dynamism) and four with the tactical aspect (commitment, availability, effectiveness and risk-taking).

To standardise their distribution, all indicators were taken into account based on their z-score before being incorporated into a composite metric for each domain. The values obtained are divided by the average recorded amongst players in the same position and from the same team. This is very important, as both physical and tactical performance depend heavily on the player's position and his/her team's style of play.

Positions are defined according to the following five categories: centre back, wide back, midfielder, winger and centre forward. For footballers playing in multiple positions, the calculations are based on the minutes played in each of them. The number of minutes per match is also used as a corrective factor for physical attributes, so as considering the difficulty of maintaining a high level of performance throughout the duration of a match.

As the values within each domain have different distributions, a quantile harmonisation was carried out to align the corresponding indices on a common and comparable basis. From the indices per domain, three further composite metrics are calculated.

The athletic impact index is derived from the average of the values of the four physical domains and reflects the player's athletic role within the context of his/her team. The strategic influence index is calculated from the average of the four tactical domains and reflects the player's level of tactical responsibility within his/her team's playing system.

Finally, an index of overall importance is calculated as an average of the six highest values from the eight domains to reflect the player's general physical and tactical weight within the context of his/her team's play.

(1) Dimension: Physical

Domains

>>> Endurance

Performance indicators

- Total distance par 90'
- Distance covered at >15 km/h par 90'

>>> Speed

Performance indicators

- Number of sprints (>25 km/h for >1'') per 90'
- Average of the maximum speed reached by the player in each match

>>> Explosiveness

Performance indicators

- Accelerations (3 m/s² for 0.7'') from <9 to >20 km/h per 90'
- Average of the fastest time per match to accelerate from <9 to >20 km/h

>>> Dynamism

Performance indicators

- Number of off-ball runs (>15 km/h for 0.7'') in possession phase per 90'
- Diversity of off-ball runs (based on the breakdown across 10 types of runs; see here : https://skillcorner.com/articles/game-intelligence-off-ball-run-types)

Composite physical index: athletic impact

(2) Dimension: Tactical

Domains

>>> Commitment

- Performance indicators
- Number of pressures on opponents per 90'
- Percentage of pressures resulting in an opponents' loss of possession

>>> Availability

Performance indicators

- Number of times the player receives or recovers the ball per 90'
- Number of times the player offers a pass option per 90'
- Percentage of times the player is targeted when he is a passing option

>>> Effectiveness

An adjustment based on the number of actions is systematically applied to avoid biases associated with low values and giving greater weight to highly active players.

- Performance indicators
- Percentage of times the player receives or recovers the ball after which possession is kept
- Percentage of continuous ball controls (>8m) after which possession is kept

The various groupings and criteria for selecting the indicators set out below have been established to ensure that players in all positions are concerned.

Average of the two maximum values between:

- Percentage of pass receptions performed under intense pressure and in tight space in which the player retained possession
- Percentage of times the player receives or recovers the ball in a tight space under high pressure finishing under low pressure
- Percentage of times the player receives or recovers the ball under high pressure leading to a forward progression (>8 meters).
- Percentage of times the player receives or recovers the ball under high pressure leading to a dangerous action (shot/pass with >2% goal probability within 10'')

Maximum value between:

- Percentage of successful passes breaking an opponent defensive line
- Percentage of successful dangerous passes (>2% goal probability within 10'')

>>> Risk-taking

The groupings and criteria for selecting the indicators set out below have been established to ensure that players in all positions are concerned.

Performance indicators

Maximum value between:

- Number of continuous ball controls (>8m) per 90'
- Number of times player receives or recovers the ball under high pressure leading to a dangerous action per 90' (>2% goal probability within 10'')

Maximum value between:

- Number of passes attempted to break an opponent defensive line per 90'
- Number of dangerous passes attempted by the player per 90' (>2% goal probability within 10'')

Composite physical index: strategic influence

Composite general index: overall importance