



Data-driven Squad Planning and Recruitment Solution

Futebol Clube do Porto

Practical Example
June 2022



Squad performance – Portuguese league table & standings

In order to facilitate an understanding of the process followed with our recruitment tool, a practical case has been developed with FC Porto, analyzing the performance of the team during the 34 league games played in 2021/22.

Performance during season 2021/22					
P	Club	Points	xG	xGA	xGD/go
1	Porto	91	79.0	24.6	1.60
2	Sporting CP	85	68.1	22.9	1.33
3	Benfica	74	60.4	30.5	0.88
4	Sporting Braga	65	51.3	36.2	0.44
5	Gil Vicente	51	48.8	48.7	0.00
6	Vitória Guimarães	48	53.4	47.9	0.16
7	Santa Clara	40	40.0	43.3	-0.10
8	Famalicão	39	44.9	45.0	0.00
9	Estoril	39	37.7	52.1	-0.42
10	Marítimo	38	36.8	54.4	-0.52
11	Boavista	38	36.2	46.2	-0.29
12	Portimonense	38	37.2	52.6	-0.45
13	Paços de Ferreira	38	37.0	56.0	-0.56
14	Vizela	33	44.1	51.4	-0.22
15	Arouca	31	39.2	49.9	-0.32
16	Moreirense	29	38.8	44.7	-0.17
17	Tondela	28	35.0	60.2	-0.74
18	Belenenses	26	29.5	50.8	-0.63

Average (4 years)			
P	xG	xGA	xGD/go
1	70.9	26.2	1.32
2	67.8	28.2	1.16
3	61.3	32.9	0.84
4	53.4	36.3	0.50
5	50.2	40.0	0.30
6	48.0	43.7	0.13
7	41.4	41.9	-0.02
8	40.6	45.1	-0.13
9	41.2	47.0	-0.17
10	40.0	46.8	-0.20
11	35.5	43.4	-0.23
12	37.2	46.4	-0.27
13	35.6	48.8	-0.39
14	36.7	51.4	-0.43
15	35.4	52.4	-0.50
16	35.1	54.2	-0.56
17	32.2	52.8	-0.61
18	31.9	57.0	-0.74

- FC Porto had the largest number of accumulated expected goals (xG), and the second lowest accumulated number of expected goals against (xGA), only below Sporting.
- In comparison to the Portuguese league average of the last four years, Porto performed better, both offensively and defensively, than the average level required to win the league.
- With regards to the rest of the clubs in the league, Moreirense, and Vizela performed at a much better level than the results show, which might indicate the presence of interesting players that bring value defensively (Moreirense) and offensively (Vizela).
- On the contrary, Marítimo and Estoril should have been quite lower in the table, which might indicate overperformance, hence a word of caution when scouting at these clubs.



Squad performance – Comparative analysis per position

As a second step, prior to deciding which players to replace or remove from the starting eleven for new signings, the individual performance of the players with the highest number of minutes played in 2021/22 would be analyzed.



- In order to compare between players in the squad, a calculation of the **relative offensive & defensive contribution (final score)** has been made, comparing them to the performance of all the players in the Portuguese league that played in the same position during that season.
- The result shows that all Porto players are above the average of the league in each position (higher final score than 0), with Vitorinha being the one with the largest difference in the team, and Diogo Costa the one with the least difference.

Number	Position	Player	Offensive Contribution	Goals Saved	Final Score	Market Value
20	Central Midfielder	Vitorinha	0.24	-	3.2	30,000,000
8	Defensive Midfielder	M. Uribe	0.14	-	3.0	16,000,000
23	Right Back	João Mário	0.16	-	2.7	15,000,000
12	Left Back	Z. Sanusi	0.15	-	2.6	10,000,000
3	Centre Back	Pepe	0.06	-	2.0	1,000,000
19	Centre Back	C. Mbemba	0.06	-	2.0	17,000,000
9	Centre Forward	M. Taremi	0.79	-	1.3	20,000,000
30	Centre Forward	Evanilson	0.62	-	0.7	22,000,000
50	Attacking Midfielder	Fábio Vieira	0.51	-	0.6	25,000,000
25	Right Winger	Otávio	0.37	-	0.5	30,000,000
14	Goalkeeper	Diogo Costa	-	0.03	0.2	25,000,000

(*) Offensive contribution = expected assists & expected goals

(**) Goals saved = expected goals against – goals against

Offensive & defensive contribution relative to players in Bwin league in the position



Next steps – Scouting process

Once the current squad was analyzed, we would sit with Porto's recruitment team to validate the positions & players analyzed, the budget available for the upcoming transfer window(s) and the type of players to be scouted, deciding also on the countries and leagues to explore.

- Our main objective is not to find 1 to 1 replacements, finding substitutes that have the same characteristics, but to **explore the market to find players that brought value** to their clubs and therefore would contribute to increase the performance of Porto to their required level.
- This approach allows us, on the one hand, to **identify the players in the current squad that are not performing, or not as good as others in a different position** to help the process of deciding on who to replace in each transfer window. On the other hand, it helps the club to sell a player at the right time and replace him with a cheaper alternative that has performed at a similar or better level (always adjusted based on the leagues each player played in, considering offensive and defensive coefficients).
- The meeting with Porto's recruitment team would serve to **validate the positions & players to reinforce and decide on the 2/3 filters to apply per position** (e.g., good at crossing, tackles, passing accuracy, aerial duels, etc.). In addition, we would also confirm the total budget available and the countries or leagues to explore.
- We would then use our recruitment solution to **shortlist optimal transfer combinations of players** that would bring value to Porto and would also meet the pre-defined criteria. This shortlist would also be complemented with a comparison over performance between different candidates per position as well as an individual player dashboard.
- With this approach we aim to **complement the scouting process of the clubs**, reducing the number of candidates to around 10 players to be visually assessed by scouts, and provide data-driven insights on the players helping with the interpretation of all the general metrics that data providers offer with their subscriptions.