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**ESG criteria and competitiveness in
professional football:**

A comparative analysis of Serie A, Premier League
and Bundesliga

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INDEX

Introduction

Chapter I --- Football as an industry: the economic landscape and challenges facing the Italian system

<u>1.1 Football as an economic and social sector</u>	<u>p.1</u>
<u>1.2 An overview of the historical development of football</u>	<u>p.2</u>
<u>1.3 The business model of Italian football: Critical Issues and Financial Analysis</u>	<u>p.7</u>
<u>1.3.1 Revenue streams: the over-reliance on broadcasting rights</u>	<u>p.7</u>
<u>1.3.2 Cost structure: wage bill rigidity and the burden of financial charges</u>	<u>p.13</u>
<u>1.4 The innovation gap: a comparative analysis with top European Leagues</u>	<u>p.16</u>
<u>1.4.1 Obsolete infrastructure as a barrier to revenue diversification</u>	<u>p.21</u>
<u>1.4.2 Lags in digitalization and data-driven scouting</u>	<u>p.27</u>

Chapter II --- CSR, sustainability and governance in modern football

<u>2.1 From Corporate Social Responsibility (CSR) to strategic sustainability</u>	<u>p.35</u>
<u>2.1.1 Forest Green Rovers: A sustainability-led identity</u>	<u>p.38</u>
<u>2.1.2 Bayern Munich: ESG integration in elite football</u>	<u>p.40</u>
<u>2.2 Governance and sustainability frameworks in European football</u>	<u>p.51</u>
<u>2.2.1 The UEFA "Strength through Unity 2030" framework</u>	<u>p.52</u>
<u>2.2.2 EU Taxonomy and its impact on sports financing</u>	<u>p.56</u>
<u>2.3 Risk Matrix for Football Clubs (ESG)</u>	<u>p.59</u>
<u>2.3.1 Physical risks: Climate change impact on infrastructure asset management</u>	<u>p.61</u>
<u>2.3.2 Transition risks: Carbon taxes, energy price volatility, and regulatory shifts</u>	<u>p.62</u>
<u>2.3.3 Financial risk: ESG rating and the cost of capital (Green Loans vs Junk Bond</u>	<u>p.64</u>

Chapter --- III Research methodology and empirical analysis

<u>3.1 The relationship between football clubs and ESG criteria</u>	<u>p.69</u>
<u>3.2 Research question</u>	<u>p.71</u>

3.3 Data Gathering Procedure	p.72
3.3.1. Selection of clubs for analysis	p.73
3.4 Data Analysis Categories	p.74
3.5 Group A - English clubs	p.77
3.5.1 Arsenal FC	p.77
3.5.2 Liverpool FC	p.81
3.5.3 Tottenham Hotspur FC	p.83
3.6 Group B - German clubs	p.86
3.6.1 Bayern Munich FC	p.86
3.6.2 Borussia Dortmund	p.91
3.6.3 RB Leipzig	p.93
3.7 Group C - Italian clubs	p.96
3.7.1 Inter FC	p.96
3.7.2 Juventus FC	p.98
3.7.3 AS Roma	p.101
3.8 Results and Discussion	p.104
3.8.1 Financial Results	p.104
3.8.1.1 Revenue	p.106
3.8.1.2 Tangible Assets, Intangible Assets & Player trading	p.107
3.8.1.3 Equity	p.109
3.8.2 Non-Financial Results (ESG)	p.111
3.8.2.1 Environmental	p.112
3.8.2.2 Social	p.113
3.8.2.3 Governance	p.114
3.9 Methodology model limitations	p.117
Conclusions	p.119
References	p.122

Introduction

Professional football has undergone a profound transformation over recent decades. The contemporary football landscape is capable of capturing the interest of a global and cross-national audience, and it is no longer only a sporting activity, but also a complex economic, cultural and media industry. From an economic perspective, the sector is now structured as a large-scale industry, characterized by a significant social and media impact within the wider sports ecosystem. As a result, football clubs are required to compete not only on the pitch, but also in terms of managerial efficiency, financial stability, infrastructure quality, stakeholder engagement and long-term strategic planning. Driven by this scale and cultural significance, football clubs increasingly need integrated management models capable of combining operational improvement with an ethical and responsible role toward society, while preserving the core values of sport: competitive ambition and respect.

The football sector faces a wide range of risk factors. In the Italian context, the decline in competitive sporting performance has been accompanied by a significant financial sustainability crisis, which has manifested itself through a deterioration of balance sheets, structural losses and rising debt levels. This complex macroeconomic framework is further compounded by emerging non-financial challenges, including the physical and transition risks stemming from climate change, increasing social pressures from stakeholders and the need to adopt rigorous and transparent corporate governance models. This latter aspect is particularly relevant, as weak governance may expose clubs to regulatory sanctions, reputational damage and further financial instability.

The objective of this study is to highlight the competitive and structural gap that separates Serie A and its clubs from their main European rivals, and to examine whether ESG criteria can represent more than a cost or a superficial marketing exercise. By observing and evaluating the strategies adopted by clubs that have already integrated ESG-related practices into their management modes, this thesis investigates whether these criteria can become an opportunity and a practical tool for Italian clubs. In particular, the study examines whether ESG integration may support innovation,

organizational development, and the achievement of greater economic and financial stability.

From a methodological standpoint, this research is based on a comparative analysis of a sample of nine football clubs from three different European leagues: the English Premier League, the German Bundesliga, and the Italian Serie A. The study examines both the economic and financial performance of the clubs and their non-financial results, with specific attention to sustainability reporting and ESG-related disclosure. The aim is to compare different managerial and reporting models in order to understand whether ESG criteria can contribute to the long-term sustainability and competitiveness of professional football clubs.

Regarding non-financial performance, the analysis refers to current regulatory frameworks, distinguishing between sector-specific rules introduced by UEFA and broader provisions affecting European companies, such as the EU Taxonomy and the Corporate Sustainability Reporting Directive. This framework is further supplemented by national regulatory references issued by the FIGC for the Italian context, as well as by theoretical and programmatic pillars of the ESG framework, including the objectives of the 2030 Agenda.

The thesis is structured as follows: Chapter I opens with an analysis of the historical evolution and socio-economic value of football, before moving to a comparative assessment of Italian clubs and major international competitors. This chapter highlights the structural, financial and infrastructural gap that separates Italian football from other leading European contexts.

Chapter II focuses on the regulatory frameworks governing the sector and on the introduction of the ESG criteria as an increasingly relevant tool for responding to new compliance obligations and strategic challenges. The chapter also examines the physical, transition, and reputational risk that may arise from club inertia or from a failure to align with sustainability-related criteria.

Chapter III adopts an empirical and operational approach, focusing on the analysis of both the financial and non-financial information disclosed by the individual clubs in the sample. The chapter culminates in a macro-comparative analysis of the three leagues

under review, aimed at outlining the overall impact of ESG factors and providing an overview of how these criteria are progressively integrated with different clubs and competitive environments.

Chapter I --- Football as an industry: the economic landscape and challenges facing the Italian System

1.1 Football as an economic and social sector

Building a sustainable future necessarily involves strengthening social education, understood as a tool capable of promoting awareness, responsibility and active participation. In this sense, education plays a central role in encouraging behavior that is more mindful of the environmental and social impact of human activities. Sustainability cannot be viewed merely as a technical or regulatory objective, but as a cultural process involving individuals, institutions and businesses.

The formation of a person's identity is influenced by a multitude of factors, including their family background, their circle of friends and, more generally, the environment in which they grow up. Family and social relationships have a significant impact on a young person's development, shaping their tastes, passions, values and even their life choices. It is not uncommon, for example, for interests and hobbies to be passed on within the family unit, just as ideals and behaviors may stem from the influence of peer groups. In this sense, sport also represents a very powerful channel for cultural transmission. A parent may pass on a passion for a particular sport, whilst friendship may steer a child towards certain activities or towards adopting specific behavioral models.

Looking at sports, football exerts a significant influence, especially on younger generations. In Italy, in fact, football is the most popular sport and the one in which people participate most, and this widespread popularity helps to reinforce its cultural and social significance. According to data reported by "Il Sole 24 Ore", 7 out of 10 Italians follow this sport, whilst globally the figure exceeds over 73%. It is therefore a constantly expanding phenomenon, capable of influencing not only entertainment but also the formation of values and habits among the younger generation.

Given the vast following that this sport can generate, it is essential to initiate a process of modernizing Italian football clubs, based on the integration of environmental protection principles and social policies consistent with ESG principles. In Italy, however,

the system still appears to lag its main European competitors, both in terms of infrastructure and in cultural and managerial terms.

The thesis will analyze the causes of this lag and the possible avenues for development to regain competitiveness, whilst helping to instill a more responsible and aware culture in younger generations. The objective is twofold: on the one hand, to promote the protection of the planet; on the other, to restore value and prestige to Italian football clubs, returning them to a prominent role as in the past.

1.2 An overview of the historical development of football

To envisage the future, one must understand the key historical milestones that have shaped this sector. Professional football has always been subject to regulatory measures, most of which have been introduced under urgent circumstances, and this has invariably led to inevitable repercussions for sports clubs, including in economic and managerial terms.

Views on the economic side of sports clubs have not always remained the same over time; they have evolved, and it is best to divide this history into three distinct periods:

- First period: the 1960s and 1970s. The initial expansion of sport in terms of scale and economic significance.
- Second period: the 1980s to the mid-1990s. The first laws and regulations governing professional sport were introduced.
- Third period: from the second half of the 1990s to the present day. The Bosman ruling and the significant impact of television rights.

Already in the first period, we see a marked shift from the very beginnings of football's history, as the player ceases to be merely an amateur and begins to be regarded as a professional athlete (though not in a legal sense). Financially, clubs began to significantly increase their levels of debt. Football was thus transforming from an elite pastime into a mass spectacle, but there were still no commercial revenues to support this shift.

The only income these major business owners received came from ticket sales (stadium tickets), but with costs constantly rising, this was no longer sustainable. In an attempt to address this highly precarious situation, the FIGC (Italian Football Federation) intervened by passing a series of resolutions stating that a football club would transition from being a simple sports association to a fully-fledged company (similar to a public limited company), where, however, a 'model constitution' was required; this set out the company's corporate purpose, its non-profit status (a subjective requirement, meaning that profits must be reinvested within the company) and other corporate rules governing the company.

In the second period, there was an increase in legal protection for these companies. The legal forms of companies range from public limited companies (SpA) to private limited companies (Srl), and so football became a fully-fledged commercial enterprise. With these new regulations, it is fair to say that even in this period we are witnessing a sort of revolution in the history of companies, with a shift from the concept of a 'family business' to a fully-fledged industrial model.

One of the key points concerns Law 91/81, which states that a player becomes an employee, meaning they were on a contract with a maximum duration of five years. Previously, however, a player belonged to a club for life until the club decided to sell him. Furthermore, this law also introduced the training and technical development allowance, better known by another name, IPP (Indemnity for Preparation and Promotion); this was nothing more than a way of keeping the old "contractual obligation" for footballers in place, even though its theoretical purpose was to recoup the costs incurred in developing the player. The formula used to calculate the IPP is as follows:

$$\text{Base value} \times \text{Multiplication factor};$$

where the base value is the average gross salary from the player's last two seasons and the multiplication factor is based on the player's age and the category of the club they are joining or leaving (Table 1.1).

Table 1.1 IPP valuation based on Player's age and category.

				Club category (previous contract - new contract)									
Player's Age	A/A	B/A	A/B B/B	C1/A	C1/B	A/C1	B/C1	C1/C1	C2/A	C2/B	C2/C1	A/C2 B/C2	C1/C2 C2/C2
22	12	15	9,5	10,1	7,15	2,7	2,9	2,5	12,5	8,75	3	1,5	1,4
23	12,5	15,5	10	10,4	7,5	3	3,25	2,75	12,6	9,1	3,3	1,65	1,5
24	12	15	9,5	10,1	7,15	2,7	2,9	2,5	12,25	8,75	3	1,5	1,4
25	11	14	9	9,1	6,5	2,4	2,6	2,2	11,2	8,05	2,7	1,35	1,2
26	10	12,5	8	8,45	5,85	2,1	2,3	1,9	10,15	7,35	2,4	1,2	1,1
27	9	11	7	6,3	4,4	1,65	1,8	1,65	7,6	4,95	2,1	1	1
28	5,6	7,2	4,4	4,2	3	1,1	1,2	1,15	4,5	3,2	0,5	0,7	0,7
29	4,5	5,6	3,75	3,4	2,4	0,8	0,9	0,8	3,6	2,8	1,15	0,5	0,5
30	2,8	3,5	2,1	2	1,3	0,6	0,6	0,6	2,4	1,5	0,8	0,4	0,4
31	2,1	2,8	1,75	1,6	1,15	0,4	0,4	0,4	1,7	1,3	0,5	0,3	0,3
32	1,4	1,75	1,05	1	0,8	0,3	0,3	0,3	1,15	0,8	0,4	0,2	0,2
33 and over	0,7	1	0,7	0,6	0,5	0,2	0,2	0,2	0,6	0,5	0,3	0,1	0,1

Source: slides Mancin M., "Il bilancio delle società sportive professionistiche, Cedam, 2009, pag. 15)

Players were therefore "locked in" for up to two seasons, until their contract expired and no other club was willing to pay that IPP fee. There is a major problem with this methodology, namely that labor costs are constantly rising, because in order to increase the IPP value - which, as we know, is calculated based on the average salary over the past two years - clubs continued to raise players' salaries with the aim of increasing their value at the end of their contracts. All of this will lead to another period of significant financial losses for companies.

The third period was marked by two external shocks: the Bosman ruling and the rise of pay TV and pay-per-view.

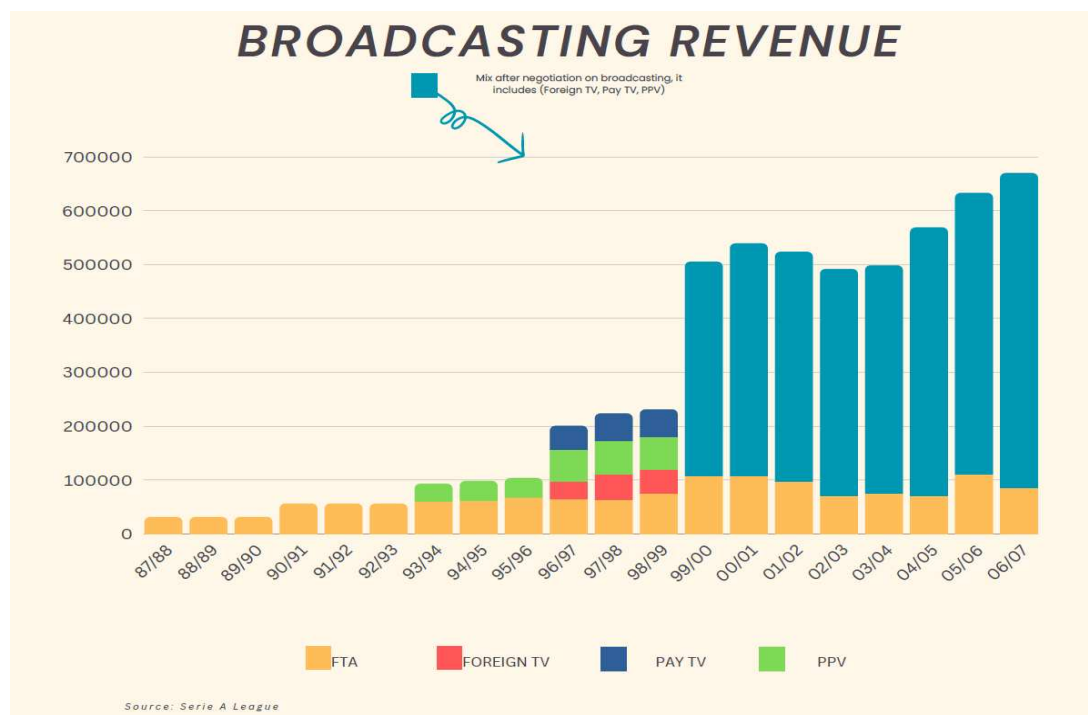
Given the severe economic difficulties, clubs struggled to afford the compensation associated with the IPP, and many players found themselves stuck, just as their clubs' revenues were frozen. All regulations governing the binding of players to sports clubs are thus called into question, and by the end of 1995, the appeal regarding compensation and the limit on the number of foreign players allowed in professional

leagues was upheld; this ruling is known as the Bosman ruling. This new legislation applied to all companies located within the Member States, including Italy. However, although the Court's rulings are generally retroactive, it was decided that, given the scope of the ruling, this rule would not apply in this instance. All of this led to the elimination of the IPP from the budgets of sports organizations, and subsequent legislative decrees further amended the laws governing this sector: elimination of the prohibition on profit-making and introduction of restrictions on the distribution of profits.

Following the Bosman ruling, laws in Europe regarding the number of foreign players allowed on the field were also repealed, giving rise to a new category of fans: those who support a player rather than a team. This is big news, as the fan base is no longer limited to the country itself but has expanded to include a wider audience, even on an international level. As a result of this new soccer-related socio-political system, there has been an increase in the number of people interested in our league, even outside of Italy.

Meanwhile, football became a powerful marketing tool, leading to a steady increase in television share (Table 1.2).

Table 1.2. Broadcasting revenue (from season 87/88 to season 06/07).



Source: Serie A, Slides Mancin M., "Il bilancio delle società sportive professionistiche, Cedam, 2009, pag. 26

In Italy, in particular, Berlusconi's purchase of Milan marked the beginning of "modern football". Football was no longer just a sport, as it had been in previous years, but a full-fledged television spectacle. With this ideology, aggressive business strategies began to be implemented, accompanied by major investments in marketing and communications.

If we consider just the Italian league, the evolution of television rights has been incredible. In the 1980s, Rai broadcast FTA, generating revenues of between €10 million and €20 million. In the 1990s, in addition to free-to-air matches, pay-per-view events began to gain traction, with Tele+ generating total average annual revenues of approximately €500 million. In the early 2000s, Sky Italia and Mediaset Premium were launched, the two main players in the football pay-per-view market, where annual revenue stood at around €900 million (by the end of the first decade, in 2010). Today, with Sky Italia and DAZN, traditional pay-per-view has almost completely disappeared due to a new business model called "All You Can Watch," where a monthly subscription allows you to watch all the matches included in the package.

Unfortunately, the market that has sustained Italian sports clubs for decades—the TV rights market—is currently saturated and in steady decline. Club debt is on the rise, and as of today, Serie A clubs collectively owe nearly 5 billion euros.

Meanwhile, in other top European leagues—the Premier League (the English league) in particular—revenue from these broadcasting rights is much higher and continues to rise. This creates a significant economic gap within our societies, which in turn affects the performance of our football clubs.

Given that this market is currently at a standstill, one wonders how Serie A can once again become the most exciting and envied league in the world, as it was up until the year we won our last World Cup, 2006.

The following sections examine the structural causes of this decline and try to come up with some logical solutions.

The data analysis presented in this thesis pertains to the 2024–2025 football season; whenever data from other seasons is included, this will be noted throughout the text.

1.3 The Business model of Italian football: critical issues and financial analysis

Today, the sports sector, and football in particular, is increasingly similar to traditional business, both due to the complexity of its internal organization and the growing importance of the economic and financial variables that influence its functioning. From this perspective, a club can no longer base its solidity on a single source of revenue but must build a model capable of generating revenue in a comprehensive and diversified manner (business diversification), thus reducing dependence on individual channels and strengthening its stability over time. The diversification of earnings therefore becomes an essential element not only to improve the economic sustainability of society, but also to make it more resilient to market fluctuations and sporting results. The following subparagraphs will explore, on the one hand, the heavy burden of television rights in the case of Italian football and, on the other, the rigidity of the cost structure, with particular attention to the salary bill and the financial burdens situation on clubs.

1.3.1 Revenue streams: the over-reliance on broadcasting rights

To be more specific, top-tier football companies have a revenue portfolio rather than individual revenue streams.

In the past, revenue was limited to ticket sales, but today, that alone wouldn't come close to covering costs; now we have other sources of income that, taken together, keep the clubs afloat.

The main revenue categories are television rights, sponsorship, merchandising, digital activities, the transfer market (the buying and selling of players), non-sporting events, and brand licensing. The more revenue streams a company has, the more resilient it is and the greater its long-term viability.

It is crucial to analyze the specific periods in which these financial items were first recognized and whether their appearance occurred concurrently.

As for television rights, we have already seen that they have evolved over the years, but that they have been part of this sector since the 1960s and have grown in importance to the point of becoming its main component from the 1990s onwards.

Sponsorship came into play a few years after TV rights, simply for cultural reasons: until the early 1980s, many leagues banned advertising on shirts, but as soon as this sort of taboo was broken, sport became a major advertising platform in its own right. We see the main sponsors on the team kit, to the extent that today the available space on the shirt is completely taken up by sponsors. Sponsors, therefore, currently create links and opportunities for economic growth, both for the football club and for those seeking such opportunities. This growth has been steady, and for some years now, even in Italy, many clubs have even dedicated a section of their stadium's name to it (naming rights), such as Atalanta (the Bergamo-based team), which until the end of June 2025 was called 'Gewiss Stadium' but, following the failure to renew the commercial agreement with that company, has been renamed 'New Balance Arena' in recognition of the club's new kit sponsor.

Merchandising follows on from the previous two points and began to gain prominence in the late 1980s, before experiencing a boom in the mid-1990s. This boom is due to a number of factors, one of the most significant being the Bosman ruling, which effectively transformed footballers into international stars and boosted demand for merchandise: A shirt, which was once regarded as just a simple T-shirt, has now become a symbol of identity (not just in sport); just think that all over the world, children who love football dream of owning their idols' shirts. For example, anyone has seen fans wearing the shirts of two sports icons: Messi and C. Ronaldo, these two legends, whichever team they play for, boost the club's revenue from this source.

Digital activities refer to all activities related to the tech sector; in this context, we're talking about categories such as social media, club apps (where, for example, you can buy tickets or be always updated on information of your favorite team), on-demand content and even fan tokens. These tokens function like cryptocurrencies; they are issued by the club and allow fans to take part in exclusive activities, such as participating

in team surveys or gaining early access to match ticket sales. This item aims not only to generate revenue but also to build a community, thereby turning occasional supporters into regular users, with the ultimate aim of fostering the strongest possible bond between supporters and the club. Digital activities began to be included in financial statements around 10 to 15 years ago.

The transfer market, one of the aspects most familiar to everyone, simply involves the buying and selling of players; it has always existed but has changed over the years. Initially, it was based on informal agreements where managers exchanged player cards, and the transfer fee was merely a token amount; over the years, however, a structured system has emerged, involving various restrictions and regulations that clubs are required to follow when buying or selling a player. Of course, the key legal turning point came following the Bosman ruling and, consequently, the introduction of the free movement of footballers (in that case, it concerned players who were out of contract but linked to the concept of the IPP discussed earlier); this change had a significant impact on clubs' squad management strategies. Over the years, further regulations and restrictions have been introduced by the main bodies involved in this sector, such as UEFA; for example, Financial Fair Play, which was introduced to ensure the sustainable management of clubs, so, clubs can no longer afford to spend heavily (in the transfer market) whilst continuing to increase their levels of debt; this is a factor that has had a significant impact on Italian clubs. To summarize this last point, a club could not spend 100 million in a transfer window unless it had first met the sales target set by UEFA; the financial accounts relating to this item must increasingly strive to be sustainable.

Non-sporting events clearly generate revenue from sources other than the team's matches, such as club museums and tours of the stadium and all its facilities. Creation of hospitality areas where customers willing to pay a premium can relax and enjoy a unique experience both during the day and during the match (lunch and dinner inside the stadium, post-match parties, the chance to meet the players as they arrive or leave the stadium, and much more). This concept emerged at the start of the new century, when it became clear that a stadium cannot be used solely for those 30 to 40 days a year dedicated to matches, but can also be hired out and generate revenue for non-sporting

activities, such as, quite simply, when concerts are held inside the stadium, or a recent example being the opening ceremony of the historic Milan-Cortina 2026 Winter Olympics.

Finally, among the items mentioned above is brand licensing, a concept that emerged in the late 1990s but really took off at the start of the new millennium. In such cases, clubs license their brand for various purposes, such as video games or non-sporting products. The value attributed to a club's brand is not clearly defined within this sector and, above all, is closely linked to the club's performance, both on the pitch and financially.

So, to answer the second question as well, no, these items did not all appear at the same time. This demonstrates that the sports business is constantly evolving, and that an innovative approach is what enables clubs to remain at the top of their game and keep their finances in order – an approach that Italian football clubs have, to date, largely failed to adopt, at least for the most of them.

If we look at the impact of each factor on club revenues, we can see that TV rights account for the lion's share and are crucial to the financial health of the clubs. The problem is that, since 2000, with this boom in corporate revenue, many football clubs have believed and maintained that the revenue generated from these sources represented a steady growth trend and that, with the advent of pay-per-view, there would be a continuous increase. One might therefore conclude that these companies have come to believe in the illusion of perpetual growth, without giving any thought to adverse scenarios.

The truth is that today, as mentioned earlier, growth is no longer as exponential as it once was, and partly due to the introduction of new regulations imposed by the major governing bodies – UEFA in particular – these revenues are currently stagnating, with the sum derived from television rights in Italy stuck at around €900 million. Below, we look at how the revenue estimates for Serie A clubs are calculated for this item. According to data from the website “Calcio e Finanza” (Table 1.3), we find:

- 50% is divided equally amongst all 20 clubs participating in the league (a total of 450 million);
- 11.2% is based on the team's league position in the previous season (approximately 100 million);
- 2.8% is linked to points earned in the last league season, amounting to approximately 25 million
- 9,33% is linked to the average league position over the last five seasons (84 million);
- 4.67% is linked to the club's past achievements (as it follows that the more significant a team's achievements have been throughout its history, the more fans it has and the larger it's their popularity) (42 million);
- 1.1% relates to the playing time of younger players (10 million);
- 12.54% is attributable to the number of spectators attending matches at the stadium over the last three seasons (around 110 million);
- 8.36% relates to the television audience share – the number of fans who watch their team on TV (around 75 million).

Table 1.3. Revenue distribution, Broadcasting TV, Serie A 2024-2025.

	Broadcasting TV revenues distribution								
	Equal part	Audience TV	Audience stadium	Young Players	Historical results	5 years result	Last year result	Points earned	TOTALE
Inter	22,5	9,8	17,6	0,2	3,6	13,1	13,2	2	82
Napoli	22,5	7,5	9,8	0,7	2,8	7,3	15,7	2	68,4
Milan	22,5	8,4	14,8	0,4	3,8	11	5	1,5	67,4
Juventus	22,5	11,7	8,4	0,2	4	9,4	9,4	1,7	67,4
Roma	22,5	6,6	12,7	0,6	3,4	5,8	8,2	1,7	61,4
Lazio	22,5	5,2	11,3	0,3	3	6,3	5,7	1,6	55,7
Atalanta	22,5	5,6	1,4	0,6	2,2	8,4	11,3	1,8	53,8
Fiorentina	22,5	4,5	7,7	0,3	3,2	5	6,9	1,6	51,6
Bologna	22,5	3,8	4,7	0,4	2,4	4,2	4,4	1,5	43,9
Torino	22,5	2,5	3,7	0,6	2,6	2,7	3,1	1,1	38,8
Genoa	22,5	1,2	6,7	1	1,8	1,3	2,5	1,1	38
Udinese	22,5	0,9	2,8	0,8	2	2,1	2,8	1,1	35
Verona	22,5	0,6	1,8	0,3	1,4	3,5	2,2	0,9	33,2
Como	22,5	3,2	0,4	0,6	0,6	0,1	3,8	1,2	32,3
Lecce	22,5	0,2	5,6	0,3	1	0,4	1,3	0,8	32,2
Cagliari	22,5	1,9	1,2	0,4	1,6	1	1,9	0,9	31,4
Parma	22,5	0,5	0,9	0,5	1,2	0,5	1,6	0,9	28,5
Empoli	22,5	0,8	0,6	0,5	0,4	0,9	0,9	0,8	27,5
Venezia	22,5	0,4	0,2	0,7	0,8	0,3	0,6	0,7	26,1
Monza	22,5	0,1	0,6	0,5	0,2	0,7	0,3	0,4	25,3
TOTALE	450	75,2	112,9	9,9	42	84	100,8	25,2	900
In million €									

Source: Calcio e Finanza, 5th June 2025.

Consistently achieving outstanding sporting results year after year can lead to significant management strategies aimed at generating ever-increasing revenue; if a team has a poor season in terms of league position, this will affect not only the following season’s earnings but also revenue for the next four or five seasons.

A large stadium is particularly important when a club has a large fan base. On the other hand, it is clear that little credit is given to the presence of young players.

As we shall see later, it is worth keeping these numbers in mind because, by comparing them with other leagues, we can really comprehend the significant difference in revenue for this budget item.

Using the data from the last table, we can plot a graph (Figure 1.1) showing the distribution of revenue for each team (%) and for each category (%):

Figure 1.1. Team allocation % & Revenue distribution per category, Serie A, 2024-2025.



Source: Calcio e Finanza, 5th June 2025.

The gap between the top and bottom clubs is significant; however, it is paradoxical that for a less prestigious club, TV rights revenue can account for more than 80% of total income. This is because, having a smaller fanbase than the big clubs, income from other items in the balance sheet does not carry the same weight; this means fewer sponsors, limited demand for merchandise (mainly within the city), a smaller stadium capacity and, consequently, less money from ticket sales.

These few figures are enough to highlight just how critical the situation in Italian football is at a time when broadcasting revenues have stagnated. The lack of innovation and the persistence of this trend appear to pose a systemic risk, particularly for smaller clubs which, unable to evolve financially, face a situation that is worrying to say the least; indeed, many historic clubs operating at a lower level have gone bankrupt over the years.

1.3.2 Cost structure: wage bill rigidity and the burden of financial charges

Moving on to the risks faced by Italian football clubs, we find two very important items, this time relating to costs. The items in question relate to the wage bill and financial charges.

The rigidity of the wage bill is a factor that sets this type of organization apart from ordinary businesses, because whilst ordinary business can cut costs if sales are falling, a football club cannot and often finds itself in serious difficulty.

Before looking at some examples, let's take a closer look at the reasons behind these issues regarding the wage bill.

When a footballer is signed by a club, he signs a contract and undertakes to honor it; however, this contract is for a fixed term, typically spanning several years, and in most cases the terms do not change even if the club's revenue decreases. Let's assume that a team that usually finishes in the top four of the league – which means qualifying for the next Champions League – and therefore to receive a higher prize fund at the end of the season (as the prize money for qualifying for the next major European competition ranges from €60–65 million guaranteed for the first-placed team down to the fourth-placed team, which is guaranteed a minimum of around €30 million), if the club fails to achieve this goal this year and faces a drop in revenue, whilst the costs associated with players' contracts remain fixed, this situation will lead to major financial problems. In addition to this point, as highlighted in the “ReportCalcio (PwC,2025)”, the proportion of total wages relative to total revenue in Serie A exceeds the critical threshold of 70%. This is to say that innovation within an Italian club is closely linked to sporting results, and that these potentially poor seasons can have a significant impact on the

clubs' investment in innovation, thereby risking stagnation and falling behind others who, in the meantime, have all the resources to continue on their path of growth.

In many cases, when a situation of this kind arises, the simplest and most practical approach clubs take is to sell a few top players in order to stabilize their financial position; however, what is also evident from this choice is that the philosophy of investing in innovation and sustainability remains a secondary consideration.

Later in this paper, we will explore some possible ideas for trying to mitigate this problem through a potential change to the regulations.

Let's look at a brief example:

Figure 1.2 Income Statement, comparison between 2024 and 2025, Player Trading and Broadcasting TV revenue.



CONTO ECONOMICO		al 30.06.2025	al 30.06.2024
A VALORE DELLA PRODUZIONE			
1)	Ricavi delle vendite e delle prestazioni		
a)	ricavi da gare in casa	14.387.503	15.811.801
b)	percentuale su incassi gare da squadre ospiti	66.179	0
c)	abbonamenti	9.674.502	11.484.132
d)	altri ricavi da gare	0	94.979
	Totale Ricavi delle vendite e delle prestazioni (1)	24.128.184	27.390.912
5)	Altri ricavi e proventi		
b)	proventi da sponsorizzazioni	48.062.629	48.650.684
c)	proventi pubblicitari	5.000	5.000
d)	proventi commerciali e royalties	20.077.513	21.568.088
e)	proventi da cessioni diritti televisivi	78.084.465	142.188.404
f)	proventi vari	1.344.000	1.307.222
g)	ricavi per cessione temporanea calciatori	7.241.858	1.300.000
h)	plusvalenza da cessione diritti pluriennali calciatori	102.550.445	70.758.785
i)	altri proventi da gestione calciatori	571.420	867.745
l)	ricavi e proventi diversi	8.794.812	14.153.534
	Totale Altri ricavi e proventi (5)	286.732.142	300.799.462
	TOTALE VALORE DELLA PRODUZIONE A)	290.860.326	328.190.374

Source: Financial Statement, 30th June 2025, SSC Napoli SpA

In the Neapolitan club's financial statement, we can see in detail the two most significant items relating to financial losses incurred as a result of sporting performance, and the major impact these have on such clubs. Point (e) shows a difference in revenue of over 60 million, as the previous year Napoli managed to qualify for the Champions League and the revenue received from UEFA, combined with an excellent run in the competition, was very significant. The following season, Napoli finished 10th in the league and, as they did not qualify for European competition, their revenue under heading (e) was significantly lower; as described above, to alleviate this problem, clubs

need to sell their players to boost revenue; indeed, in the transfer income and expenditure items (g) and (h), we can see that both figures have risen in the financial statements as at the end of June 2025, yet despite this, the total value of production remains almost 30 million in the red compared with the previous year.

When it comes to financial expenses, however, the situation is perhaps slightly more complicated to understand. To begin with, financial expenses are defined as interest expense and the administrative costs associated with debt (BCI, 2022). This is because debt in football is still permitted; however, regulations have changed over the years and the guidelines to be followed have become increasingly strict. Nowadays, sanctions are only imposed if the debt becomes unsustainable or if repayment deadlines are missed. In this section, the item 'financial expenses' includes interest expense, the cost of bringing forward revenue (the cost of receiving TV rights payments from the Serie A League in advance, which would otherwise be paid several months later), and interest expense on bonds.

On this subject, among the best-known clubs as examples are Inter and Juventus. In the case of Inter, we have a club that made use of a financial instrument known as a 'Senior Secure Bond': in 2022, heavily in debt, it issued a bond worth over €400 million with an interest rate of 6.75%, which meant paying over €25 million a year in interest alone; in the meantime, the club changed hands to Oaktree, which in mid-June 2025 decided to repay the debt early to avoid further interest expense (FinanceCommunity,2025).

In the case of Juventus, however, although it has had to raise capital on three occasions over the last five years, it has been financially affected by the ECB's interest rate rises and has had to spend more to service its short-term debt. As a result, the club found itself facing financial expenses of over 25 million, as reported on page 296 of the "Annual Financial Report" as at 30 June 2025, available on the Juventus website.

When it comes to financial expenses, mid-table and lower-league Italian clubs are more likely to take out revenue-based loans, meaning they essentially do not wait for the various instalments from Serie A but instead choose to secure the funds that will go directly to the bank or financial institution; the problem is that this is taxed, so if, for

example, we are talking about 35 million, the bank retains 5%, and we know that the club will have a liability of around 1.75 million euros under the financial expenses heading.

1.4 The innovation gap: a comparative analysis with top European Leagues (and MLS)

We have mentioned the word ‘gap’ several times in relation to clubs in other leagues, and now it is time to take a look at them too, so that we can make a quick comparison and analyze the main differences in their financial statements and beyond.

Staying on the topic of European clubs, let’s start with those that are currently, without a doubt, at the top of the table in terms of revenue and entertainment value (taking into account all the teams in the league, not just the top sides in each one – otherwise the two most famous clubs in the world, Real Madrid and Barcelona, would come out on top), so let’s talk about the English teams in the Premier League.

In alphabetical order, among the top English teams we have Arsenal (Figure 1.3), which has been competing for the title for several years and also takes part in the UEFA Champions League. Keeping in mind that €1 is currently worth £0.87.

Figure 1.3 Comparison of Group turnover voices of Arsenal FC for the year 2024 and 2025.

Group turnover

	2025 £'000	2024 £'000
Turnover, all of which originates in the UK, comprises the following:		
Gate and other match day revenues	153,854	131,652
Broadcasting	272,784	262,252
Commercial	263,193	218,268
Property	713	3,034
Player trading	454	1,374
	<u>690,998</u>	<u>616,580</u>

Broadcasting revenue includes UEFA distributions in respect of participation in the men’s UEFA Champions League of £99.9 million (2024 - £80.4 million – UEFA Champions League) and £1.4 million (2024 - £0.2 million) from participation in the women’s UEFA Champions League.

Source: Arsenal Holding Limited, accounts 31-05-25

Whereas Napoli (which is one of the best in Italy) earns €290 million, the English club Arsenal earns almost €800 million. And the “Player trading” category is significantly smaller than that of the Italian team (compared to the previous year); So, thanks to the other sources of income mentioned earlier, they earn so much that they have no need to sell their best players in order to ensure their financial sustainability.

However, Arsenal is only the third highest-earning English club; in first place is Liverpool FC, which last year set a Premier League revenue record with over €830 million in revenue (LFC, 2026).

Turning to the German league, the most prominent team is Bayern Munich, which, compared to its rivals in the league, generates very high revenues; every year, the club continues to increase its turnover, and by the end of the 2024/2025 season, it had generated more than €900 million.

Operating profit (EBITDA) rose by 11.3 percent to €187.8 million. Pre-tax profit amounted to €42.5 million, with net profit for the year at €27.1 million.

And the AG CEO of FC Bayern says that in a world where the football industry continues to grow but at the same time it is also becoming increasingly unpredictable, Bayern Munich is sending a strong signal of reliability.

This club is distinctive because, despite being considered a giant of the game with a record-breaking 34 domestic league titles, six Champions League titles, and numerous international honors, they continue to innovate and build upon their legacy. Furthermore, they maintain financial sustainability, rarely spending more than they earn.

The German league, the Bundesliga, is the league where environmental impact is most closely monitored (CSR,2024); in fact, the regulations include guidelines that must be followed and adhered to in order to avoid penalties or, in the worst-case scenario, disqualification from the league.

Let's see Bayern's last income, in Figure 1.4:

Figure 1.4 Overview of the financial Statement of Bayern FC for the year 2024/2025.

Items of income:

- Income from match operations (Income from Bundesliga home games, friendly matches, DFB Cup, UEFA Champions League and FIFA Club World Cup)	€260.7 million
- Income from sponsorship and marketing	€240.4 million
- Income from media marketing (Matches in the Bundesliga, DFB Cup and friendlies) - of which from the DFL for the Bundesliga central marketing, domestic and international: €102.9 million	€105.3 million
- Income from transfers	€117.7 million
- Income from merchandising	€150.5 million
- Miscellaneous (Including rent and leases, new media, museum, release of players to the German FA, income from the FC Bayern reserves, youth and women's football)	€51.9 million

Source: FC Bayern Munchen Official Website.

The main difference we see between a top Italian club, such as Milan, and a top German club (Bayern) in terms of their financial statements is the weight the two clubs place on different items and the diversification of their revenue streams; In this case, television rights account for over 40% of Milan's total revenue, whereas for a club with almost double the turnover, the same item accounts for around 25% of the total.

This shows us that the source of revenue which keeps clubs afloat in Italy is regarded as a 'secondary' income stream in most of Europe; or at the very least, clubs generate so many different types of revenue that, even if they fail to meet their targets in a given season, they do not need to sell players to safeguard the club's financial sustainability.

The paradox is that, given Italy's reliance on TV rights, one might think we should be trying to boost revenue from this budget item in some way. Instead, as well as being our main source of financial security, we are also among those who benefit least from it. And not just compared to one league, but practically all of them. The ranking is as follows: the Premier League, the Bundesliga, La Liga, Serie A and finally Ligue 1. The

latter earns less than one-twentieth of the English league, but in this case, there have been issues between the broadcaster and the state itself, with a new internal solution still in the works.

A striking example once again concerns English clubs and the difference in TV rights revenue. Let's compare the Italian club that earned the most (in TV revenue) in Serie A – Inter – with the club that finished bottom of the table in the 2024–25 Premier League season: Southampton.

Whilst Inter FC, as shown in Table 1.3, earned a total of €82 million, Southampton earned well over €125 million in the same season, as shown in Figure 1.5 below:

Figure 1.5 Broadcasting revenue, season 2024/2025 Premier League.

 Season 2024/25 Payments to Clubs								
Club Name	Live	UK			International		Commercial (£m)	Total (£m)
		Equal Share (£m)	Facility Fees (£m)	Merit (£m)	Equal Share (£m)	Merit (£m)		
Liverpool	30	£29.8	£24.9	£32.3	£59.2	£20.8	£7.9	£174.9
Arsenal	29	£29.8	£24.2	£30.7	£59.2	£19.7	£7.9	£171.5
Manchester City	25	£29.8	£20.9	£29.0	£59.2	£18.7	£7.9	£165.5
Chelsea	26	£29.8	£21.8	£27.4	£59.2	£17.6	£7.9	£163.7
Newcastle United	25	£29.8	£20.9	£25.8	£59.2	£16.6	£7.9	£160.2
Aston Villa	27	£29.8	£22.6	£24.2	£59.2	£15.6	£7.9	£159.3
Nottingham Forest	22	£29.8	£18.5	£22.6	£59.2	£14.5	£7.9	£152.5
Brighton & Hove Albion	16	£29.8	£13.7	£21.0	£59.2	£13.5	£7.9	£145.1
AFC Bournemouth	17	£29.8	£14.6	£19.4	£59.2	£12.5	£7.9	£143.4
Brentford	15	£29.8	£12.9	£17.7	£59.2	£11.4	£7.9	£138.9
Fulham	14	£29.8	£12.1	£16.1	£59.2	£10.4	£7.9	£135.5
Crystal Palace	18	£29.8	£15.4	£14.5	£59.2	£9.3	£7.9	£136.1
Everton	16	£29.8	£13.7	£12.9	£59.2	£8.3	£7.9	£131.8
West Ham United	18	£29.8	£15.4	£11.3	£59.2	£7.3	£7.9	£130.9
Manchester United	28	£29.8	£23.4	£9.7	£59.2	£6.2	£7.9	£136.2
Wolverhampton Wanderers	15	£29.8	£12.9	£8.1	£59.2	£5.2	£7.9	£123.1
Tottenham Hotspur	24	£29.8	£20.2	£6.5	£59.2	£4.2	£7.9	£127.8
Leicester City	14	£29.8	£12.1	£4.8	£59.2	£3.1	£7.9	£116.9
Ipswich Town	10	£29.8	£8.9	£3.2	£59.2	£2.1	£7.9	£111.1
Southampton	11	£29.8	£9.7	£1.6	£59.2	£1.0	£7.9	£109.2
		£596.0	£338.8	£338.8	£1,184.0	£218.0	£158.0	£2,833.6

Source: Premierleague.com, 2025.

This value of over 2,8 billion £ and this discrepancy in revenue for the same item in the financial statements is an even more telling indication of just how difficult it is for Italian teams to maintain the same sporting and financial ambitions as the European sides they compete against every year.

Looking beyond Europe's borders and across the Atlantic, a comparison with the North American market offers a further and, in some respects, surprising perspective. In the

United States, football — referred to as ‘soccer’ to distinguish it from American football, a mass sport deeply rooted in the country’s cultural identity — has historically occupied a marginal position in the national sporting landscape. Yet, a comparison with Serie A reveals a picture that is far less predictable than one might assume.

In its early days, the American league was known as the North American Soccer League (NASL); it was a professional league covering the United States and Canada, founded in 1968 and dissolved in 1984, as despite featuring some great players, it was forced to close due to financial difficulties.

Major League Soccer (MLS) was launched in conjunction with FIFA to coincide with the 1994 FIFA World Cup. The league initially comprised 10 teams, but some of them went bankrupt after a few years, and most Americans did not regard it as a sport worthy of prominence. Some owners, however, remained true to their vision and decided to invest heavily in new, modern stadiums and a more aggressive marketing campaign. Over time, new clubs joined the league, bringing with them new investors, and gradually the stadiums began to fill up.

The boom in this league is down to the idea of signing top players from Europe, thereby filling more and more stadiums and finally building a large fanbase for the sport. The rules of the MLS differ from those of the major European leagues; for example, there is no promotion or relegation, and the same teams compete for the title every year. Over the years, American football has begun to attract fans from outside the continent, and its audience share continues to grow. (SofaScore News, 2025).

The North American market possesses an economic appeal that is hard to match in any other footballing context worldwide. American sporting culture has historically been geared towards the spectacle of the product rather than the patient development of talent — a philosophy that prioritizes immediate impact on the audience over the gradual development of players. This approach, combined with financial resources that are structurally superior to those of mid-tier European clubs, has enabled Major League Soccer to attract, with increasing regularity, champions who have written important chapters in the history of European football and who, in the final stages of their

competitive careers, find in MLS a destination capable of offering them lucrative contracts, international visibility and a real opportunity to leave a significant mark on a football market still in the midst of development.

Speaking of football clubs, the best-known one at the moment is undoubtedly Inter Miami, the team where Lionel Messi plays; thanks to him, and to other teammates who wield considerable influence in the world of football, the club has seen an exponential increase in its revenue. As highlighted earlier, modern football has undergone a profound transformation in the dynamics of fan loyalty: increasingly, it is the player, their story, their identity, their journey, that captures the attention of supporters, regardless of the shirt they wear. In this context, Lionel Messi's transfer to Inter Miami in the 2023 season represents a prime example of how a single transfer move can redefine the international perception of an entire league. The Florida-based club, founded and chaired by David Beckham himself, one of the most iconic figures in the recent history of global sport, has successfully capitalized on the arrival of the greatest footballer of his generation, turning it into a media event of global significance. In just a few months, this has accelerated a process of international legitimization for the MLS that Serie A took decades to build, and which, in part, it has not yet completed.

Unlike European clubs, the MLS operates differently and its turnover is not always made public; however, thanks to an article in Forbes.com, we know that the club's total revenue for the 2024/25 season stands at around 200 million. This figure is certainly lower than that of the highest-earning club in Italy, but if we consider that the Serie A league was founded in 1898 whilst the MLS came into being almost 100 years later, we realize that not only will we be one of the last top leagues in Europe, but soon even leagues where this sport is considered 'secondary' will be ahead of us.

1.4.1 Obsolete infrastructure as a barrier to revenue diversification

One of the key factors that most significantly influences the competitiveness of Italian football, both in sporting and economic terms, is the quality and modernity of its stadium infrastructure. This fact is all the more significant when considered in relation

to the extraordinary intensity with which this sport permeates the country's culture and collective identity: it is difficult to find another nation where football occupies such a central place in the social imagination and, at the same time, has infrastructure so profoundly inadequate for the needs of contemporary professional football. Italian stadiums, in the vast majority of cases dilapidated, publicly owned and designed according to outdated principles, are not merely uncomfortable facilities for the fans who attend them: they are underutilized economic assets that drain resources rather than generate them, depriving clubs of revenue that their more advanced European competitors systematically generate through their own privately owned facilities.

To date, Italian clubs generate stadium revenues that are less than half those of the other four top European leagues (the Premier League, La Liga, the Bundesliga and Ligue 1). This major financial problem stems from a long-standing failure to diversify revenue streams, meaning they have not capitalized on the commercial potential of their stadiums.

A mid-to-top-table English team manages to generate revenues of close to €200 million a year, whereas in Italy the top clubs generate less than €90 million; it is clear that this creates a significant financial gap that is decisive for the clubs' future plans.

Let's get a first view of the stadiums in Figure 1.6:

Figure 1.6 – Stadium of Bologna, Como, Bayern Munich, Real Madrid, Arsenal.



Source: archiSTADIA.

The visual and architectural scale of the stadiums offers, even at first glance, an immediate indication of the gap separating Italian football from the rest of Europe. A

comparison between the stadiums in Bologna and Como — two clubs that have demonstrated significant ambition and achieved notable results in Serie A in recent years — and the stadiums of Europe's major football clubs reveals an asymmetry that is hard to dispute. But what makes this fact even more significant is not the comparison with the continent's top clubs: it is the realization that mid-table or lower-mid-table clubs in the major foreign leagues have modern, functional and architecturally refined facilities that are every bit as good as those of far more prestigious clubs. A comparison that shifts the issue from the realm of excellence to that of the norm: in Europe, a decent and innovative stadium is the standard; in Italy, it is still the exception.

Looking at it from an economic perspective, one might ask why there is such a significant difference in revenue?

One of the main structural causes of the economic weakness of Italian stadiums lies in their ownership structure. Most of Serie A stadiums are owned by local authorities, which means that the clubs operating there do not have full control over the revenue generated by the stadium. Revenue from ticket sales and ancillary services is subject to revenue-sharing arrangements involving the owning local authority and third parties, significantly reducing the share that remains in the sports club's coffers and limiting the club's ability to reinvest these resources in innovation, major maintenance or the commercial development of the stadium.

In Serie A, only four clubs own their own stadium: Juventus, Udinese, Atalanta and Sassuolo. This figure alone is indicative of the structural lag in the Italian system, but it takes on even greater significance when one considers that not even these clubs are able to bridge the gap with their main European competitors. The reasons are numerous and interlinked. In terms of capacity, Italian-owned stadiums have significantly lower capacity than those of major European clubs, structurally limiting matchday revenue potential. From a commercial perspective, the national macroeconomic context directly affects the value of premium services: ticket prices and hospitality area charges are significantly lower than those in the wealthiest leagues, reflecting the public's lower spending power and a demand for premium experiences that remains underdeveloped. Perhaps the most significant problem, however, is systemic in nature: whilst in the major European leagues — and in particular in the Premier League — the stadium represents

just one of many sources of revenue on which a club can rely, for Italian clubs it remains a key financial item, the relative weight of which in the balance sheet highlights the overall fragility of the revenue model adopted.

The lack of competition in Italy, as far as stadiums are concerned, is mainly due to a bureaucratic tangle that turns any proposal into a never-ending journey through the administrative system. The main obstacle stems from the overlap of responsibilities between local councils, regional authorities and heritage bodies; it is precisely these latter bodies that typically impose heritage restrictions on facilities (a well-known recent example being San Siro), thereby preventing their modernization.

Added to all this is the weakening of the 'Stadiums Act', which has sparked fears of speculation within the construction sector; and there is also an issue regarding public funding, with the resulting uncertainty over approval timelines, which has made any international investor hesitant to put money into financing Italian stadiums.

A further factor contributing to the infrastructure deficit in Italian football is the virtual absence, over recent decades, of a systematic programme for the construction of new facilities and the refurbishment of existing ones. The figures below make it unequivocally clear that Italy occupies a marginal position in Europe in this regard — a situation that stands in stark contrast to the historical and cultural significance of football in the country. In the European context, 2025 marked the start of a new era in stadium development: Barcelona's Camp Nou, following a major refurbishment, has established itself as one of the world's largest-capacity stadiums, redefining the benchmark standards for the continent's major sports arenas. In Italy, signs of change are finally beginning to emerge: the debate surrounding the future of San Siro, set to make way for a new stadium shared by Inter and Milan, represents the most emblematic case of a season that could mark a turning point, accelerated in part by the deadlines imposed by the organization of the 2032 European Championships.

To better highlight the issue facing Italian clubs regarding the construction or modernization of their stadiums, it is worth examining some relevant data. A total of 226 stadiums have been built or rebuilt in Europe since 2007; when one considers that only six 'new' stadiums have been built in Italy since then, it is clear that our country is

lagging behind in terms of innovation. Let’s take a quick look at how we compare with our main competitors in Figure 1.7.

Figure 1.7 – Number of stadiums built or restructured in Europe since 2007.



Source: Esquire.com (2026) & tuttomercatoweb.com (2025).

When a stadium is owned outright, the concept of diversification can be expanded. Diversifying the stadium’s revenue streams really does generate a significant source of income, as, in addition to ticket sales, visitors can enter the stadium whenever they like on a guided tour, including access to the hospitality areas, which makes the fan experience even more immersive and memorable. But it is not just football fans; people with an interest in art and history can also admire the stadium and learn about how it was built and how such an infrastructure came to be. A further source of income could come from renting out the stadium for specific events such as concerts or ceremonies, but with the proceeds – unlike today – going entirely to the club and none to the local council.

A further point regarding the obsolescence of Italian stadiums concerns not only the commercial and economic aspects, but also environmental and operational considerations. Whilst European clubs are seeking to reduce operating costs through sustainable circular economy practices and renewable energy, Italy’s structural inertia is causing environmental problems. This technological gap significantly hinders access

to subsidized loans and Green Bonds, a topic which will be explored in greater depth later.

1.4.2 Lags in digitalization and data-driven scouting

Over the past two decades, professional football has undergone a profound structural transformation driven by the widespread adoption of digital technologies. This process is also commonly known as digitalization. It does not stop at the introduction of individual technological tools, but involves a comprehensive reconfiguration of the organizational, communication and operational models of clubs, the various leagues and even the associated federations. From this perspective, digitalization in football affects multiple levels simultaneously: the fan experience, the internal management of the club and also the sporting performance.

In terms of consumption, the rise of streaming platforms has redefined the relationship between the audience and the final football product, shifting the focus of linear television coverage to the digital ecosystem. Indeed, national cup matches are increasingly available on social media platforms (e.g. YouTube), where you can interact via the chat function and with other users whilst watching the match. A very topical example, in Italy, is undoubtedly the YouTube channel “Cronache di spogliatoio”¹. From a management perspective, the most advanced clubs have integrated Customer Relationship Management (CRM) tools, business analytics platforms and data collection systems relating to the fan base, with the aim of transforming support from a spontaneous phenomenon into a measurable and strategically manageable variable.

Finally, in terms of performance, clubs have adopted a number of innovations over the years: wearable sensors, optical tracking systems and video analysis software have made it possible to monitor players in great detail, both in matches and in training, feeding into databases that now form the information basis for technical and transfer decisions.

¹ They have secured the exclusive rights to broadcast, in Italy, the Copa del Rey (Spain) matches for the next three years and have also broadcast League Cup (England) matches.

In Italy, from this perspective too, we are clearly lagging behind, as there is much greater tendency to cling to one's cultural ideology; consequently, data is undervalued as a strategic asset. This current gap, particularly when compared with the situation regarding Premier League clubs, is due to the fact that the latter believe in the future and act, investing in innovation and thus creating an inspiring product that also expands globally. It is above all the international aspect that leaves the Italian competition, and others as well, in the dust. English clubs hold international TV rights that alone are worth over 2 billion £, a staggering figure that our clubs can only dream of today. They acted early and decisively, securing a prosperous and glorious future for years to come, leaving other leagues behind.

From an economic perspective, Italian football's digital lag translates directly into a shortfall in revenue. Although the top Serie A clubs can count on one of the largest digital fan bases in Europe, the vast majority of them have not yet developed strategies focused on direct engagement with their audience (Direct to Consumer approach), which would enable them to collect data on supporters, profile them and create a personalized commercial offering for each one. The result is a contradiction that is hard to ignore: a huge audience base that remains systematically under-monetized, not due to a lack of demand but due to the absence of an organizational culture and digital infrastructure capable of capturing and capitalizing on it.

Among Italian clubs, some have begun to act through social media initiatives. Inter has adopted a new format, known as the "Media House", moving away from the traditional press office to build a system of personalized content which, by analyzing interactions on social media and streaming services, is able to distinguish between a casual fan and a loyal supporter, creating a bespoke experience for each one.

Alongside the digitalization of management, European football has undergone a profound transformation in recent years in the way clubs identify and assess players. Before signing a player, traditional scouting is usually carried out, based on direct observation and the scout's qualitative judgement; today, however, this tradition is gradually giving way to a more systematic and quantitative approach, commonly

referred to as “data-driven scouting”, in which transfer decisions are supported, and increasingly determined, by the analysis of large volumes of statistical and biometric data.

This paradigm shift draws inspiration from a well-established analytical tradition in North American sport. It is from one of the most popular sports in the United States, baseball, that this approach has emerged, whereby transfer dealings are conducted based on insights derived from a range of collected data. The experience of the Oakland Athletics demonstrated how rigorous approach to data analysis could enable a club with limited resources to compete with organizations with significantly larger budgets. This case was brought to the public’s attention through Micheal Lewis’s book, *Moneyball* (2003), becoming a cultural as well as a methodological benchmark.

In football, the rise of data-driven scouting has been a more gradual process, but it has accelerated significantly since 2010. The metrics used have become progressively more refined, as alongside the more traditional indicators (goals, assists, pass completed %) a range of more sophisticated metrics have become established: expected goals (xG), expected assists (xA), defensive pressure indices, ball progression maps and many other innovations; all of which allows player profiles to be compared on a global scale, regardless of the league they play in. Building on on-pitch performance data, in the most advanced phase, we have predictive models for “injury prevention” and algorithms for assessing development potential, which shift the analysis from current performance to future prospects.

Here too, in Europe, it was the English clubs that were the first to adopt this type of scouting model, followed by the German and French clubs, with Spain and Italy lagging behind.

Brighton’s case:

Brighton & Hove Albion is arguably the most successful example to date in the international debate on data-driven scouting, and for a very specific reason: it represents a major transformation that no traditional model of football management could have achieved.

In the early 2010s, this club was competing in the third tier of English football (League One), with a recent history marked by financial crises and constant threat of relegation. In just over a decade, the club has secured a permanent place in the topflight of English football (Premier League) and established itself as one of the most innovative and financially sound clubs in Europe. The turning point has a specific name. Tony Bloom, a mathematician by training and an entrepreneur in the field of statistical analysis applied to sports betting, took control of the club. Mr. Bloom brought with him an innovative organizational culture that was completely different from that prevalent in the world of football at the time. His approach was based on principle that was seemingly simple but rather revolutionary in its application: every sporting decision had to be supported by quantitative evidence, limiting the reliance on intuition and subjective experience of the club's various observers.

The operational tool that still underpins this philosophy is known as "Starlizard"; it is an analytics firm founded by Bloom himself, which develops predictive models for football with a level of technical sophistication that competitors took years to recognize and further years to attempt to replicate. The strength lies not so much in the quality of the models as in the fact that they are proprietary. Whilst other European teams purchase data from third-party suppliers, Brighton generates its own statistical information independently, eliminating acquisition costs and, above all, safeguarding its analyses from the competitors.

The scouting process of the "Seagulls" (the nickname given to Brighton's supporters) follows an approach that reverses the traditional order of priorities. It starts with the need rather than the player: the club itself precisely defines the functional characteristics of the profile it is seeking, based on the team's playing system and the available budget. It is only at this stage that algorithmic models are used to scan the global market and generate a list of potential candidates who meet the specified criteria. Traditional scouting has not been completely phased out, it is simply used at a later stage, serving to verify and assess quality, thereby reducing its scope. The final stage involves assessing the player's personal and character traits, with a strong focus on their ability to adapt and develop over time.

A distinctive feature of this model is its long-term vision. Brighton typically plans its transfer dealing one or even two transfer windows in advance, with new signings, often, not immediately integrated into the first team but instead placed on specific development pathways, such as a loan spell at a satellite club, to ensure the player gets regular playing time and can improve to be ready for the first team.

The success of this model, pioneered by Mr. Bloom, is measured in figures. In recent years, Brighton has generated record profits by signing players whom the traditional transfer market had not yet recognized and selling them on, after developing them, for sums that have redefined the scale of man clubs' transfer dealings. The example of Moises Caicedo, Brighton bought him in 2021 (for 28,20 million €), they let him go on loan in a Belgium club (Beerschot VA), then he came back and played for Brighton in the season 2022/2023 and in the 2023 they sold him to Chelsea FC for the sum of 116 million €, generating a capital gain of more than 85 million €, and this from only one player. The most surprising aspect is that we are not talking about a one-off deal, but rather a systematic process. Indeed, it is the only Premier League club to have maintained a positive net balance in the transfer market (Figure 1.8) consistently over the long term, demonstrating that this innovative model enjoys a structural and sustainable competitive advantage.

Figure 1.8 – Consolidated Statement, Profit on player trading of Brighton 2024 & 2025.

Brighton & Hove Albion Holdings Limited					
Consolidated Statement of Comprehensive Income for the Year Ended 30 June 2025					
		Operations excluding player trading	Player trading	Total	(As restated) Total
	Note	2025 £ 000	2025 £ 000	2025 £ 000	2024 £ 000
Turnover	3	242,672	-	242,672	260,849
Cost of sales		(36,305)	-	(36,305)	(46,416)
Gross profit		206,367	-	206,367	214,433
Operating expenses		(240,876)	(81,976)	(322,852)	(255,216)
Profit on player trading		-	57,005	57,005	110,299
Other operating income	4	5,060	-	5,060	3,760

Source: BHA Holdings 2025.

The Brighton case was not an isolated one. Across Europe, clubs with very different histories and resources have followed similar paths, adapting the data-driven approach to their own organizational, economic and cultural needs and circumstances.

Germany is the first country to adopt the concept devised by Bloom. The best-known teams that have been highly successful are Bayer 04 Leverkusen and RB Leipzig. Bayer 04 has adopted this approach by establishing a technology partnership with a leading external provider, integrating various advanced artificial intelligence platforms into its performance analysis and scouting processes. RB Leipzig, on the other hand, shares the same philosophy of efficiency but its network structure is somewhat unique: the club is part of the Red Bull Group, which has built an international network of clubs, including RB Salzburg (Austria), RB New York (USA) and RB Bragantino (Brazil). This functions as an integrated ecosystem for identifying and developing talent. Players are selected using uniform analytical criteria on a global scale, with the aim of strengthening the first team of every club in the group. This allows the group to operate simultaneously across multiple markets whilst keeping unit costs low.

Moving on, we find the French clubs: Monaco first and foremost, which follows the same philosophy. In the same league, we also find clubs whose sole aim is to win (Paris Saint-Germain), where therefore little attention is paid to financial sustainability (in terms of players trading), but substantial investments are made to secure sporting titles and significant global visibility. Another type of club, in France, is Rennes, which is one of the teams where there is strong economic and financial sustainability within the club thanks to excellent investment in the youth sector.

In Spain, there are essentially two clubs: Real Betis (Seville), which closely aligns with the philosophy and vision already described in relation to Brighton; and Girona, which is part of a group (City Football Group) that owns several football clubs around the world, bringing us back to the model seen with the Red Bull group's teams.

In Italy, the Moneyball-style approach has not yet been fully implemented; the only club that has been trying to apply this philosophy for the past couple of years is Parma Calcio, which, following its takeover by a North American business group, has embarked on a process of modernizing its management through the use of specialist software.

All these clubs that have adopted the data-driven model most consistently share certain common structural characteristics. They are owned by individuals with a strong quantitative mindset, who, either through their own analytical skills and tools or by acquiring third-party software, are able to maintain a long-term market outlook, where the objective is not immediate results but the building of a sustainable competitive advantage over time. These are precisely the characteristics that Italian football, except for the Emilia-based team, has not yet been able to develop and utilize properly.

In the popular imagination, the application of data analytics to football is associated almost exclusively with scouting and sporting performance. This, however, is a reductive view. Quantitative data analysis is now a cross-cutting tool, capable of having a significant impact on the environmental aspects of club management as well. The link between environmental sustainability and data-driven approaches is not incidental, but structural. An organization or club that does not measure cannot improve, and in the context of the ecological transition, this statement takes on particularly concrete significance, where the benefits will extend not only to the environment but also to the club's economic future.

CHAPTER II --- CSR, sustainability and governance in modern football

2.1 From Corporate Social Responsibility (CSR) to strategic sustainability

The modern debate on corporate social responsibility (CSR) is conventionally traced back to work of the economist Howard R. Bowen, whose reflections in the 1950s are universally recognized as one of the foundational reference points of the discipline (Carroll, 1991). The first comprehensive institutional definition, however, was provided by the European Commission, which, in its 2001 Green Paper, describes CSR as the voluntary integration of social and environmental concerns into companies' business operations and their relationships with stakeholders. This concept was later reformulated in 2011 as responsibility of enterprises for their impacts on society (European Commission, 2011).

From a theoretical perspective, one of the most influential contributions is Archie B. Carroll's pyramid, which organizes corporate responsibilities into four dimensions: economic, legal, ethical and philanthropic. These dimensions are not mutually exclusive but should be considered as complementary components of corporate responsibility. This approach is complemented by Freeman's stakeholder theory, according to which a company is accountable not only to its shareholders but to a wider range of stakeholders, including employees, customers, local communities and institutions (Freeman, 1984).

From an operational perspective, CSR includes both an internal and external dimension. The internal dimension concerns issues such as responsible human resources management, environmental efficiency and ethical supplier selection, while the external dimension focuses on the quality of relations with the local area and the community. The main structural limitation of this model lies in its predominantly voluntary and reputational nature. Traditional CSR often takes the form of activities that are ancillary to the company's core strategy and, as a result, may be insufficient to generate profound structural change.

It is precisely this separation that the ESG paradigm aims to overcome. Unlike traditional Corporate Social Responsibility (CSR), which often focuses on voluntary social initiatives and reputational enhancement, ESG shifts the focus toward standardized measurement, rigorous reporting, and corporate governance. It embeds sustainability directly into risk management and financial decision-making, transforming ethical considerations into quantifiable metrics that affect a club's capital allocation and long-term financial viability. Within the world of professional football, this shift is becoming increasingly important, rapidly evolving from a reputational choice into a structural necessity.

Football, by its very nature, has historically viewed social responsibility through the lens of traditional CSR: community initiatives, awareness campaigns, charitable foundations and social inclusion projects. These are commendable, often genuine activities, but they have been systematically disconnected from the club's strategic and financial management. The result has been a model in which sustainability has often occupied a marginal place in the organizational chart and an even more marginal one in the balance sheet, perceived as a reputational cost rather than as a value-generating investment. In Italy, this phenomenon is particularly evident: a study conducted on Serie A clubs during the 2023/2024 season found that no more than 40% of clubs have a structured sustainability strategy, while most clubs still rely on one-off initiatives lacking a long-term vision, focusing primarily on the social aspect, through a good communication campaign, while the environmental dimension remained comparatively underdeveloped (Community Soccer Report, 2024).

This approach now presents limitations that are becoming increasingly difficult to ignore. The first is regulatory in nature: while the gradual extension of the obligations set out in the CSRD (Corporate Sustainability Reporting Directive) does not automatically apply to all football clubs, as it strictly depends on specific legal forms and company-size thresholds, it will increasingly affect a growing number of them, either directly or indirectly, depending on their legal status, size, ownership structure and reporting obligations. As a result, ESG is increasingly shifting from a voluntary practice to a more structured compliance requirement, forcing larger clubs to structure formal sustainability reports to avoid regulatory non-compliance.

The second limitation is financial: institutional investors and banks are increasingly applying ESG assessment criteria systematically in their capital allocation decisions, penalizing organizations that are unable to demonstrate their environmental commitment with reliable and verifiable data. For football clubs, this financial scrutiny directly implies higher borrowing costs and restricted access to credit lines needed for infrastructure development, such as stadium modernization.

The third limitation is competitive: in a market where sponsors and commercial partners select the organizations with which to collaborate partly based on their environmental and social reputation, a club lacking a credible ESG strategy is denying itself access to a growing range of resources and opportunities. Consequently, lagging behind in ESG performance directly translates to a loss of premium sponsorship deals and reduced commercial revenues relative to more sustainable competitors.

Given these limitations, the transition to an integrated ESG should not be understood simply as an update of the CSR model, but as a broader shift in strategic perspective. The difference is not merely terminological: while CSR often encourages organizations to undertake socially responsible initiatives alongside their core activities, ESG requires environmental, social and governance considerations to be integrated into strategic, operational and financial decision-making. In the context of football, this means that the sustainable management of a stadium is not a side project for the communications department but a choice that directly impacts operating costs, the value of stadium assets and the club's appeal to investors.

From this perspective, sustainability should not be seen as the opposite to competitiveness, but as one of its potential drivers. European clubs that have anticipated this transition by adopting integrated ESG strategies have shown that investment in sustainability can generate benefits over time through several channels, including reduced energy costs, access to preferential financing, strengthened commercial partnership and the building of a reputation that translates into greater attractiveness on the global market (EFC, Sustainability Report, 2025).

For Italian football, which already lags significantly behind its main European competitors in terms of infrastructure, revenue and digitalization, adopting an ESG approach is not merely a matter of compliance with UEFA or the European Union requirements. Rather, it can represent a strategic lever to reduce part of this gap and build a club model that is economically more robust, environmentally more responsible and better equipped to face the challenges of European football in the coming decades.

To better understand how sustainability can evolve from an abstract principle into a measurable competitive advantage, the following section examines two cases that illustrate this transition from very different starting points: : Forest Green Rovers, selected as an extreme example of sustainability-led identity in England's fourth division, and Bayern Munich, chosen to demonstrate the integration of ESG criteria within a financially strong, elite football club.

2.1.1 Forest Green Rovers: A sustainability-led identity

The case of Forest Green Rovers provides a clear example of how environmental sustainability can become an integral part of a football club's identity and strategy. When Dale Vince, founder of Ecotricity (one of the UK's first renewable energy companies), took over the Gloucestershire club in the early 2000s, Forest Green Rovers was a modest football club, with limited resources and modest sporting ambitions. Rather than following the traditional models of professional football, Vince chose to build something structurally different: a club where environmental sustainability was not just one of the club's activities, but the guiding principle behind all its activities.

Forest Green Rovers subsequently became the first club in the world to be certified as carbon neutral by the United Nations, and to receive official recognition from FIFA in 2017 as the most environmentally friendly football organization on the planet (Forest Green Rovers FC). But what makes this case particularly significant is not the recognition itself, but the depth and consistency of the model that brought it about. As described on the club's websites, the entire facility is powered by energy from renewable sources, with solar panels installed on the stadium roof covering a significant proportion of the

annual energy requirement. The pitch is maintained without the use of chemicals and watered with rainwater collected and recycled via an integrated system. The grass is cut by a GPS-guided, solar-powered robotic mower. The club's vehicle fleet has been progressively converted to electric. The food served to players, staff and even supporters is entirely plant-based, with ingredients sourced predominantly locally, a choice that significantly reduces emissions linked to the food supply chain.

The club's long-term vision also extends to infrastructure development. Its planned new stadium (Figure 2.1), designed by Zaha Hadid Architects, will be completed by 2028 and is expected to rely extensively on timber sourced from certified sustainable sources, with lower embodied carbon emissions than any other sports facility in the world, and with its own energy generation capable of covering a large portion of its operational needs. This project further illustrates how stadium design can become a central component of a club's ESG strategy.

The Forest Green Rovers case is also relevant from the perspective of circular economy. In contrast to the traditional linear model, in which products are manufactured, consumed and then discarded, a circular economy approach aims to reduce waste, keep materials in use and regenerate natural systems.

Football kits provide a useful example: many clubs replace their kits every season, generating significant material waste. Forest Green Rovers has adopted a different approach by keeping the same kit for more than one season and using materials derived from recycled plastic bottles and coffee waste. This example shows how even symbolic elements of football culture, such as team shirts, can become part of a broader sustainability strategy.

The Forest Green Rovers case illustrates how ESG sustainability, when genuinely integrated into the club's strategy rather than relegated to a secondary role, generates value across multiple and simultaneous dimensions.

First, regarding reputation, the club has achieved international visibility that exceeds what is typically expected for a team in the fourth tier of English football, successfully attracting the attention of global media, institutions and commercial partners. Second,

with respect to partnerships, the strong alignment between the club's values and those of its sponsors has enabled the development of solid, long-term commercial relationships with sustainability-focused companies, creating a mutually reinforcing ecosystem. Finally, in relation to community, the club has deeply involved its supporters in the values it promotes, fostering a level of brand loyalty that extends beyond traditional sporting support.

Figure 2.1. All the club's (Forest Green Rovers FC) environmental initiatives.



Source: Forest Green Rovers FC.

2.1.2 Bayern Munich: ESG integration in elite football

If Forest Green Rovers show that sustainability can be pursued even by clubs with limited resources, Bayern Munich illustrates how sustainability can also be integrated into the strategy of a highly competitive and financially successful elite club. As discussed in the previous chapter, Bayern has achieved significant financial success in recent years, with growing revenues and solid operating performance.

Bayern's governance is based on a key principle: the club never spends more than it earns. This financial discipline, which is rare in modern football, in a world dominated by speculative investment and structural debt, is precisely what has enabled the club to treat investments in sustainability not as an extraordinary expense, but as a standard component of its strategic planning.

In environmental terms, Bayern has developed a systematic approach based on three main areas. The first area of focus is the Allianz Arena, which has been equipped with advanced energy-efficiency solutions, including lighting and energy management technologies that position it among the highly energy-efficient stadiums in Europe relative to its size. The second regards the supply chain, as the selection of suppliers and business partners increasingly takes into account their environmental and social standards. The third is related to their strategic positioning: Bayern's social and environmental responsibility initiatives are not treated as separate from the sporting and commercial departments but are integrated into the club's overall narrative as a distinctive element of its global brand.

This creates a self-sustaining virtuous circle. A club that presents itself as financially sound, sportingly successful and environmentally responsible can attract high-level commercial partners, improve its access to sustainable financing and build a stronger relationship with supporters, based not only on sporting results but also on identity and values.

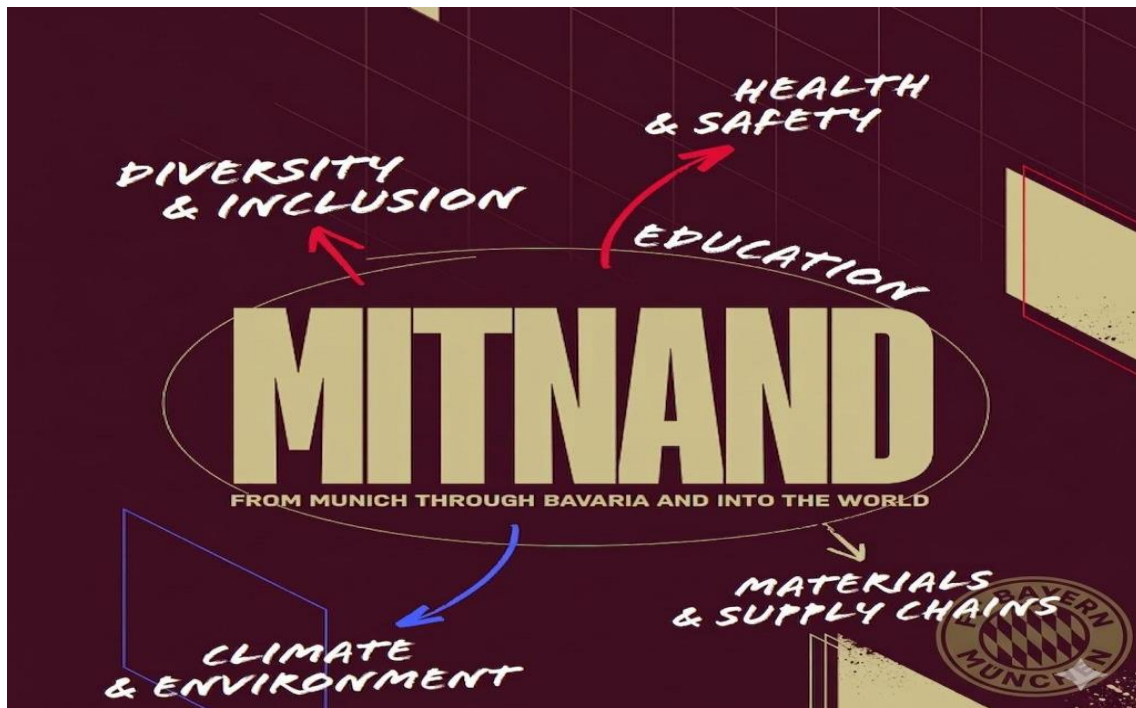
An ambitious project that this club has been pursuing over the years is called "Mitnand" (Figure 2.2), which means "together" in the Bavarian dialect. It is the main tool through which they adopt a strategy based on sustainability. The name itself indicates that this is a collective mission, involving the club, its staff, partners and the fans themselves. The idea is to serve as a role model for society.

Among its objectives is climate neutrality by 2040, and the three measures involved concern electric mobility, energy efficiency and resources management. The club's other strategic objectives, within this project, are related to social sustainability and the importance of fan support and involvement by featuring interactive events (such as

“Bavarian Climate Week”) where club members can discuss a their ideas directly with the club’s sustainability team, giving fans themselves the opportunity to engage and influence the club’s final decision, all with the aim of taking positive “team” action for the planet (FC Bayern Munich, 2025).

For Italian football clubs, Bayern Munich can therefore represent a useful benchmark. The case suggests that economic strength and environmental responsibility do not necessarily conflict with one another; rather, they can be integrated within the same long-term strategic approach.

Figure 2.2. The Mitnand project by Bayern Munich, report 2025



Source: FC Bayern Munich.

The Bayern Munich case also illustrates how a sustainability strategy can generate economic and reputational benefits when it is integrated into the club’s broader management model. These benefits, far from being negligible in the context of football clubs, help to enhance asset value and tract greater interest from investors. In this respect, Bayern Munich provides a useful example of how sustainability can support both environmental responsibility and long-term competitiveness. This financial and operational synergy is practically demonstrated within the club’s “Mitnand”

sustainability framework through its major partnership with Viessmann. Rather than serving as a traditional, passive corporate sponsor, Viessmann represents a high-value strategic and technological alliance centered on climate solutions. By integrating advanced heating and cooling systems across the club's facilities, this collaboration illustrates how robust ESG criteria can attract premium commercial partners, simultaneously drive technological implementation and generating tangible financial benefits through operational efficiencies.

The partnership began in 2018, although Viessmann had already been involved in the world of sport for 25 years, particularly through winter sports, such as luge. As a company specializing in heating and energy-efficiency technologies, Viessmann represents a relevant partner for Bayern Munich's sustainability strategy. This partnership takes various forms, including the presence of the Viessmann brand on the team's kits and at sporting events. Furthermore, both organizations are committed to raising awareness among their fans and the wider community about the importance of sustainability, using football as a platform to spread positive messages. In this context, Viessmann provides not only financial support, but also a potential technological and reputational contribution to Bayern Munich's sustainable strategy.

This joint commitment holds the potential to strengthen Bayern Munich's sustainability positioning and contribute to a broader reputational and technological framework of environmental and social responsibility for both partners, offering a strategic avenue for future operational efficiency.

This partnership has had a number of impacts on the club's facilities (FC Bayern Munich, 2023; Viessman, 2022). Some key examples include:

1. Energy Efficiency

- Heating and cooling system: Viessmann has installed high-efficiency condensing boilers and refrigeration systems to optimize comfort in office areas and training facilities. These systems are designed to reduce energy consumption and ensure stable temperatures, thereby lowering operating costs.

2. Environmental Sustainability

- Renewable energy sources: the integration of solar panels and energy management systems has enabled Bayern to utilize renewable energy sources, contributing to a significant reduction in CO₂e emissions. These systems are designed to generate energy directly on-site, reducing reliance on fossil fuels.
- Water management: solutions have been implemented for the collection and management of rainwater, which can be used for pitch maintenance and other needs, contributing to a more responsible use of water resources.

3. Technological Innovations

- Automation and monitoring: automation systems have been introduced to monitor and manage energy consumption in real time, enabling more efficient resource management. These systems can send alerts in the event of anomalies, ensuring rapid intervention and reducing waste.
- Digital infrastructure: the implementation of “Internet of Things” technologies has facilitated the collection of data on energy performance and facility usage, enabling Bayern to make informed decisions based on concrete data.

4. Facility Expansion

- Facility refurbishment: the partnership has led to investment in the refurbishment of existing areas, improving the thermal insulation of buildings and reducing heat loss. This makes the facilities more efficient and comfortable.
- New construction: where new facilities are built, they have been designed in accordance with sustainability principles, using materials with a low environmental impact and advanced technologies to ensure high energy performance (Viessmann, 2021).

Another important aspect of the Mitnand report concerns the measurement and reporting of sustainability metrics. In particular, Bayern Munich reports its greenhouse gas emissions using the standard Scope 1, Scope 2 and Scope 3 classification. This framework makes it possible to distinguish between direct emissions, indirect emissions from purchased energy and broader indirect emissions generated along the club's value chain (FC Bayern Munich, 2025).

To specific operational boundaries and carbon categories included within each level of this reporting framework are detailed below:

Scope 1: These emissions come from fixed or mobile sources under the organization's direct control, such as fuel consumption in a company vehicle or on-site generator. In this case we will include the "Fugitive emission", "Stationary emissions" and "Company-owned vehicles".

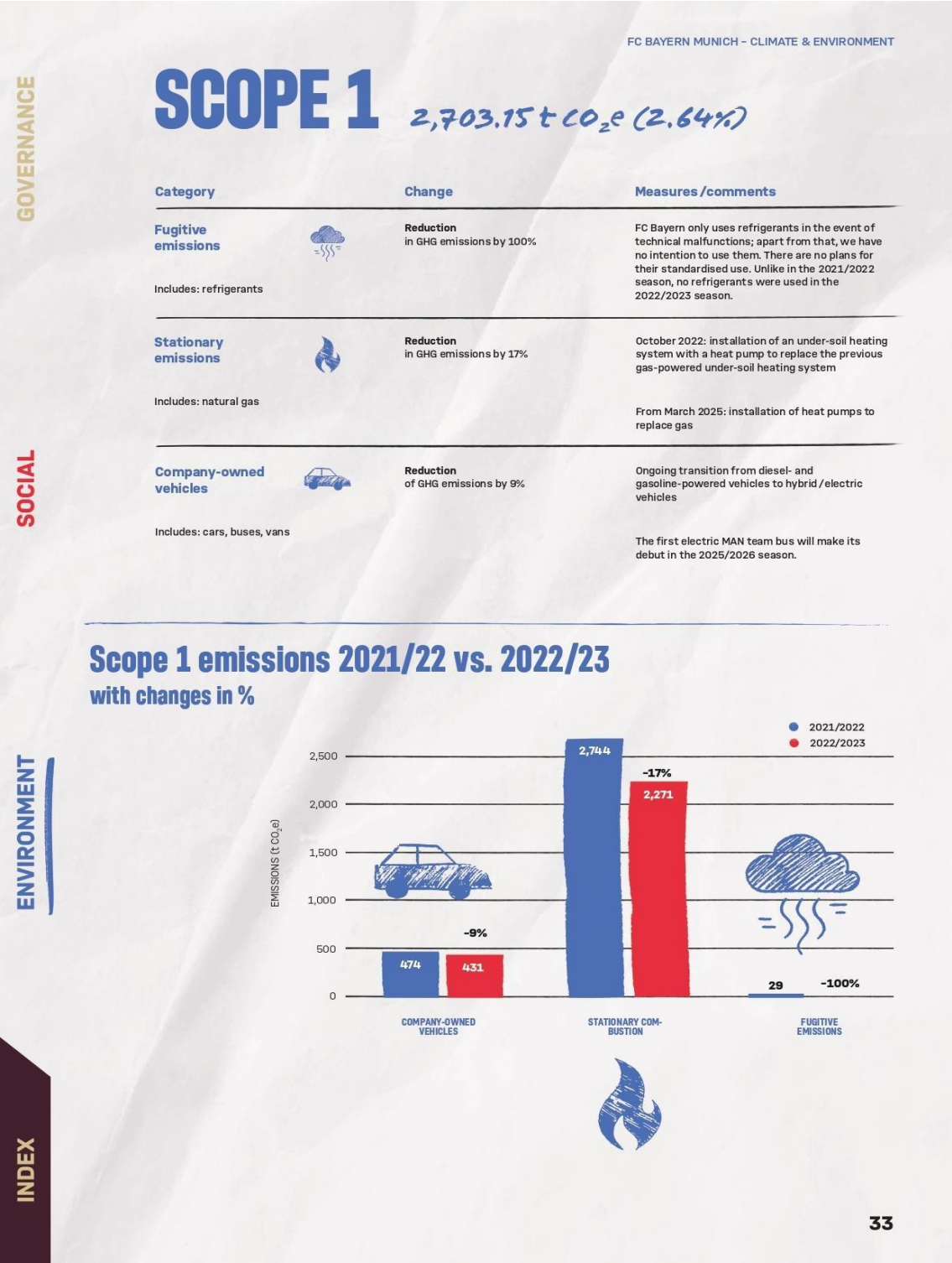
In Figure 2.3 we have all the information related to this aspect of the football club Bayern Munich.

Scope 2: These are indirect emissions linked to the consumption of externally purchased energy, primarily electricity, steam or heating. In this case we will include the following categories: "Electricity consumption", "Heating consumption", "Electric mobility" (Figure 2.4).

Scope 3: The broadest and most complex category covers all other indirect emissions, both upstream and downstream, such as fan travel, the production of merchandise, supplier travel and waste management. For Bayern, this includes the following areas: "Purchased goods and services", "Capital goods", "Fuel and energy-related emissions", "Waste produced", "Business travel", "Employee mobility", "Fan mobility". In Figure 2.5 we have all the descriptions for each category.

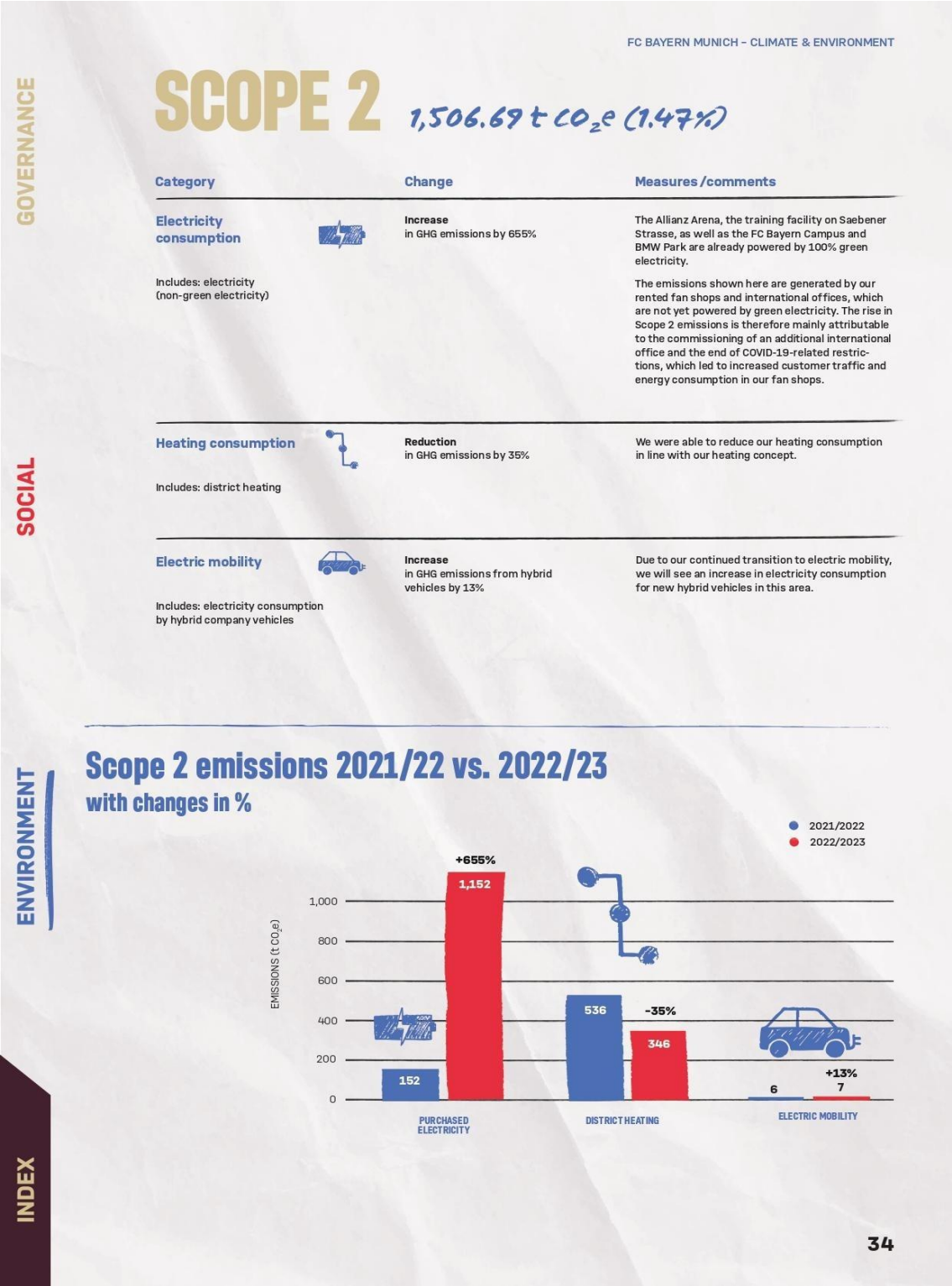
In Figure 2.6 we have the analysis comparing the year 21/22 and the year 23/24.

Figure 2.3. Mitnand Report, Scope 1, ESG, Environment.



Source: fcbayern.com, Mitnand report, pag. 33.

Figure 2.4 Mitnand Report, Scope 2, ESG, Environment.



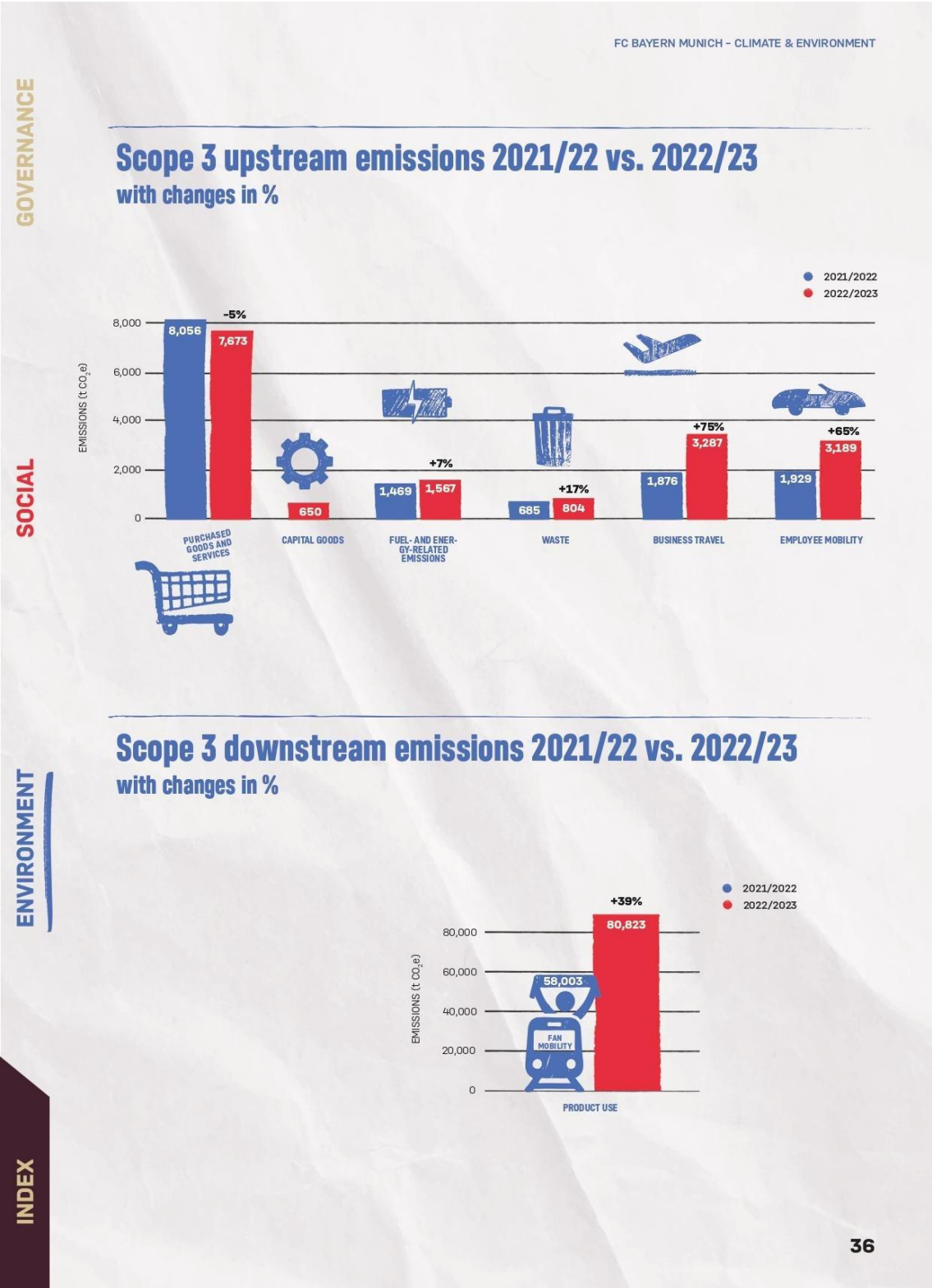
Source: fcbayern.com,Mitnand report, pag. 34.

Figure 2.5 Mitnand Report, Scope 3.1, ESG, Environment.



Source: fcbayern.com, Mitnand report, pag. 35.

Figure 2.6 Mitnand Report, Scope 3.2, ESG, Environment.



Source: fcbayern.com, Mitnand report, pag. 36.

In the 2021/2022 season, FC Bayern Munich recorded total GHG emission of 75 966 tonnes of CO₂e, evaluating its carbon footprint across all corporate entities according to the GHG protocol. The data shows that the vast majority of the club's climate impact is concentrated in the indirect value chain, whereas direct operations and purchased energy account for a very limited portion of the total emissions.

Regarding Scope 1, the data reports a total of 3 249 tonnes of CO₂e, which represents only 4.28% of the overall corporate footprint. This share is heavily driven by stationary combustion, accounting for 3.61%, which tracks the natural gas consumed for primary facility infrastructure such as undersoil pitch heating. Company-owned vehicles generate a low 0.63%, while refrigerants add a negligible 0.04%. This structural composition is explained by the technical baseline of running large-scale stadiums, though an unplanned deployment of certain stationary units due to technical issues slightly elevated the natural gas consumption during this period. To mitigate these emissions, the club converted the Allianz Arena pitch heating to heat pumps in October 2022, securing immediate energy savings and aiming to fully replace fossil gas with advanced technological solutions while progressively shifting the corporate car fleet to electric mobility.

For Scope 2, the calculations indicate a total of 695.84 tonnes of CO₂e, which stands as the smallest environmental category at just 0.92% of the total carbon profile. Within this section, district heating constitutes the main factor at 0.71%, while electricity consumption sits at 0.20%. This remarkably low footprint is explained by the fact that the club's main locations—the Allianz Arena, Säbener Straße, and the FC Bayern Campus—are already powered by 100% certified green energy. The remaining 0.20% of electricity emissions is solely caused by external, rented facilities such as detached fan shops. To manage this area, the club is auditing these remaining retail spaces to transition them to renewable tariffs while optimizing heating demands through automated efficiency benchmarks.

Looking at Scope 3, the analysis reveals that this is the broadest and most critical category, accounting for 94.8% of the entire carbon footprint with 72,021.39 tonnes of CO₂e. The data reports that fan mobility is the absolute driver of this segment, representing 76.35% of total emissions, followed by purchased goods and services at 10.61%. This heavy concentration is dictated by the global nature of the club's fan base,

as supporters travel an average distance of over 250 km per person to attend home matches, turning travel logistics into the primary indirect carbon liability. To address this challenge, the club is implementing behavioral incentives, such as expanding stadium bicycle facilities and offering free match-day bus shuttles, while mandating rail transport over domestic flights for internal corporate travel.

The Bayern Munich case is one example of how sustainability can be integrated into the governance and operational management of football clubs. More broadly, the German context shows how regulatory frameworks and club-level initiatives can encourage professional football organizations to incorporate environmental considerations into their long-term strategies.

This example also highlights the importance of acting proactively. For Italian football clubs, which still lag behind many European competitors in terms of infrastructure, governance and sustainability practices, the adoption of ESG-oriented strategies may represent an important step toward greater resilience and competitiveness.

The following section therefore examines the main governance and sustainability frameworks that can guide football clubs in the transition.

2.2 Governance and sustainability frameworks in European football

Two sets of guidelines provide a useful starting point for understanding the governance and sustainability transition of European football: UEFA's "Strength Through Unity 2030" framework and the EU Taxonomy. The former is directly connected to football governance and defines UEFA's strategic priorities in social, environmental and governance terms, while the latter provides a broader European framework for identifying sustainable economic activities, with potential implications for sports infrastructure, financing and investment decisions.

2.2.1 The UEFA "Strength through Unity 2030" framework

Before examining the framework in detail, it is useful to briefly contextualize UEFA's institutional role.

UEFA, the Union of European Football Associations, was founded on 15 June 1954 in Switzerland in response to the need for European national football associations to

coordinate the development of the game at continental level. Among those who played a decisive role in its foundation were Ottorino Barassi, president of the FIGC, José Crahay, general secretary of the Belgian Football Association, and Henri Delaunay, president of the French Football Federation.

The initial key objectives of this new body were as follows:

- The adoption of a common stance vis-à-vis FIFA;
- The appointment of European representatives within FIFA;
- The organization of a European competition every 4 years;
- The consideration of all matters relating to European football.

Over the following decades, the development of European competitions contributed to increasing UEFA's visibility and institutional relevance. The success of competitions such as the European Cup helped consolidate UEFA's role not only as an organizer of international tournaments, but also as a central actor in the governance and commercial development of European football.

The 1980s were a decade of profound transformation, marked by significant political, social and economic changes in Europe. Among the most significant events were the fall of the Berlin Wall (1989), the collapse of the Soviet Union and the adoption of the Single European Act in 1986, which effectively launched the project for the European single market. It was during this period that sports marketing, technological progress and the rise of sponsorship as a promotional tool also developed, all of which helped to strengthen sport's ability to engage and unite millions of people across Europe and beyond. These years also saw the formation of the first women's teams.

The 1990s opened new horizons for UEFA and European football, largely thanks to the developments in television rights and the growing importance of sponsorship. Added to these changes was the Bosman ruling, which helped to significantly alter the balance of power in European football. During those years, the organization's president, the Swede Lennart Johansson, immediately recognized the need to balance new commercial opportunities with the preservation of the traditional values of European football. It was in this context that, in September 1991, the decision was taken to renew the European Cup, replacing it with the UEFA Champions League, which was an instant success. Superstars and champions from all over the world began to attract ever-growing

numbers of fans, helping to make the competition one of the most watched sporting events in the world.

With the dawn of the new millennium and the continued growth of UEFA's influence, numerous agreements were signed and partnerships established across Europe with clubs, leagues and players' associations. During this period, several projects were launched, including UEFA HatTrick, a national-level program that redistributes over half of the revenue generated from the European Championship through initiatives managed by member associations. This decade also saw the strengthening of UEFA's role as the guardian of European football, partly through the introduction of new standards, starting with the club licensing system, the set of requirements that clubs must satisfy in order to participate in UEFA competitions.

Since 2007, UEFA has actively leveraged football as a driving force for social well-being, utilizing the sport to promote core ethical principles that align with the ESG framework. From the outset, the organization placed significant emphasis on the "Social" dimension by launching the "Respect" campaign, a dedicated initiative designed to combat racism and violence within stadiums.

Over the years, key measures have been introduced to ensure the long-term stability and sustainability of sport, including the club licensing system, financial fair play and ever-closer cooperation with European political institutions. These measures have helped to strengthen the principles of governance, financial accountability and regulation within the sector, laying the foundations for a more robust and forward-looking model for football.

Alongside measures essential for the stability and continuity of clubs, social impact programs have also been updated, with the aim of strengthening football's role as a tool for inclusion and development. Furthermore, from 2019 onwards, the foundations have been laid for a more structured promotion of women's football, through greater support for the federations, improved infrastructure, and increased visibility and recognition for clubs, partly thanks to the introduction of new competitions.

The following analysis shifts focus toward the technical and regulatory guidelines designed to guide clubs toward improving their future prospects.

The official framework, UEFA's Football Sustainability Strategy 2030, entitled "Strength Through Unity 2030", outlines the organization's long-term commitment to

sustainability. For the 2026-2030 period, this strategy transitions into its second implementation phase, often characterized as a collective effort to upgrade existing standards and look beyond immediate milestones. It integrates environmental, social and governance (ESG) considerations into European football, with the aim of generating a positive impact through collaborative action. The document is structured into sections such as context, guiding principles, policies, areas of action and KPIs, highlighting football's role as a platform for social and environmental change, with an emphasis on unity, measurability and leadership. This UEFA's framework strategy structures its ESG commitment around three interdependent pillars: social (S), environmental (E) and governance (G), with the aim of transforming European football into an inclusive, carbon-neutral ecosystem managed with transparency (UEFA Football Sustainability Strategy, 2026).

Social impact (7 key policies)

The social dimension focuses on inclusion and protection, with ambitions such as the complete eradication of discrimination by 2030 through training toolkits, matchday observers and sanction mechanisms integrated into UEFA licenses. The protection of children and young people involves dedicated officers in all clubs and a multilingual online platform for reporting and training, aiming for zero incidents of abuse. Equality, diversity and inclusion include equal pay certifications and annual audits, whilst Football for All Abilities mandates Disability Access Officers (DAOs) and guidelines for 100% accessible stadiums. Further policies cover health and wellbeing (Take Care programs), support for refugees (Unity EURO Cup) and rights/solidarity, with €89.9 million invested since 2021 to fund 590 SES projects across the 55 member associations.

Environmental sustainability (4 concrete policies)

On the environmental front, one of the core sustainability policies outlines a target to achieve a 50% reduction in greenhouse gas emissions across the European football ecosystem by 2030, encompassing both UEFA's internal operations and the activities of participating clubs and stakeholders. This framework is supported by mandatory carbon footprint measurements for all UEFA events and the establishment of a dedicated climate fund. The circular economy aims for zero single-use plastic and food waste through the 4R principles (Reduce, Reuse, Recycle, Recover), applied to operations and catering. Event sustainability introduces the ESPES (Event Sustainability Performance

Evaluation System) matrix for ESG, benchmarking across 100% of events, with mandatory venue sustainability managers. Sustainable infrastructure requires green audits for stadiums and guidelines for clubs, aligning with the European Green Deal and the UN Sports for Climate Action Framework.

Governance with responsible management

Within these guidelines, the governance dimension serves to support all institutional policies through structured ESG risk management, which includes an annual “Respect Report” certified by independent third parties and integrated into club licensing criteria. Concurrently, human rights considerations are embedded into organizational regulations, bidding processes, and strategic decisions, ensuring annual operational reviews and alignment with the UN Guiding Principles. The strategy emphasizes measurability (SMART KPIs), transparency (independent reports) and collaboration with stakeholders (leagues), for scalable “impact performance” beyond 2030.

Overall, the “Strength through Unity” framework reflects UEFA’s attempt to move beyond isolated social responsibility initiatives and toward a more integrated sustainability model. Its relevance for football clubs lies in the fact that it links ESG objectives to governance, reporting and operational practices, thereby providing a useful reference point for clubs seeking to align their strategies with emerging European sustainability standards.

Table 1. ESG Topic and Ambition of UEFA’S Framework by 2030.

Topic	Ambition 2030	Target	KPIs	Timing/Difficulty ***
<i>Anti-discrimination</i>	<i>Eradicating discrimination</i>	<i>Skill toolkit + review of regulations</i>	<i>Number of incidents; Advocacy yes/no</i>	<i>L 5</i>
<i>Child protection</i>	<i>A safe environment for children</i>	<i>Dedicated officers + online platform</i>	<i>Number of abuse incidents</i>	<i>L 5</i>
<i>Equality/DI</i>	<i>Inclusive Football</i>	<i>Pay equality certification</i>	<i>100% of requests met</i>	<i>L 5</i>

<i>Circular Economy</i>	<i>Zero plastic/waste</i>	<i>4R in operations/ events</i>	<i>Reduced recorded waste</i>	<i>L 5</i>
<i>Climate Advocacy</i>	<i>Reduce GHG emission by 50%</i>	<i>Measure and report emissions + climate funds</i>	<i>CO₂e emissions reduced by 50%</i>	<i>L 5</i>
<i>Sustainability Events</i>	<i>ESG Benchmark</i>	<i>ESPES Matrix Rollout</i>	<i>100% UEFA events at Level ESG 1-4</i>	<i>L 5</i>
<i>Human Rights</i>	<i>Incorporation into decisions</i>	<i>Annual review of regulations</i>	<i>Activity status</i>	<i>L 4</i>

*** Timing: S =short; M =medium; L=long term.

Difficulty from 1 (lowest) to 5 (highest)

Source: UEFA.com

2.2.2 EU Taxonomy and its impact on sports financing

The EU Taxonomy is a classification system developed by the European Union to identify environmentally sustainable economic activities. It sets technical criteria to assess whether an economic activity substantially contributes to at least one of the six environmental objectives: climate change mitigation, climate change adaptation, the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, and the protection and restoration of biodiversity and ecosystems. Crucially, to be deemed compliant, an activity must not only contribute to one goal but also adhere to the “Do No Significant Harm’ (DNSH) principle across the remaining objectives, while fulfilling Minimum Social Safeguards regarding labor and human rights. By establishing this standardized framework, the Taxonomy serves to channel institutional capital towards green transitions, whilst preventing greenwashing (European Parliament & Council, 2020).

Although the EU Taxonomy is not a sport-specific regulation, it can be relevant for football clubs in an indirect but important way. Its relevance mainly concerns areas such as stadium renovation, energy efficiency, renewable energy, sustainable infrastructure,

water management and access to green finance. In this sense, Taxonomy does not translate UEFA's sustainability objectives into binding requirements for clubs, but it may influence the way sustainable investments in sports infrastructure are assessed and financed.

UEFA's "Strength through Unity 2030" strategy establishes a two-way operational link with the EU Taxonomy, translating EU technical criteria into concrete requirements for football clubs, leagues and events. This alignment is not coincidental, but strategic, aiming to unlock green funding and position European football as a leader in the transition. The following section examines the main areas of convergence between the EU Taxonomy and UEFA's sustainability framework.

Environmental Policy Synergies (E)

- Climate mitigation → UEFA "Climate Advocacy" KPI (50% reduction in GHG emissions by 2030, carbon footprint measured for 100% of events);
- Circular economy → UEFA "Circular Economy" KPI (zero plastic, no food waste, 4Rs applied);
- Pollution prevention → ESPES (Event Sustainability Performance Evaluation System) matrix for all events;
- Sustainable infrastructure → Green stadium audits and Taxonomy-compliant guidelines for club licenses.

Indirect Social impact (S)

Taxonomy may also have indirect social implications. Clubs that are able to demonstrate both environmental and social impacts through a double materiality approach may strengthen the credibility of their sustainability reporting and improve their attractiveness to investors and financial institutions.

Shared governance mechanisms (G)

- UEFA Respect Report → Non-Financial Reporting Directive (NFRD) prototype, third-party certified;
- SES Licensing → implementation of the Taxonomy Regulation in club criteria;

- Bidding events → mandatory ESG matrix, with Taxonomy technical screening criteria.

The financial impact that a football club may experience, in accordance with the standards and guidelines set out in this framework, can be classified into four main mechanisms through which benefits can be derived.

1. Access to preferential green financing

EU Green Bond Standards: clubs may issue green bonds only for Taxonomy-eligible projects (renewable stadiums, energy efficiency). Lower interest rates (1-2% savings) compared to traditional bonds. Talking about financial Ecolabel, retail investment products with a “green label” favor certified sports assets, increasing demand for capital from compliant clubs (European Parliament & Council, 2023).

2. InvestEU and priority EU funds

Sustainable Infrastructure: modern stadiums fall within the four pillars of InvestEU. Guarantees of up to €26 billion cover 25-40% of green project costs.

3. ESG-driven cost of capital

Sustainability benchmarks: low-carbon and positive impact ESG indices penalize clubs with a high carbon footprint (stadium emissions, away travel). A non-compliance club with a low ESG rating used to be penalized with a spread of +50-100bp (BloombergNEF, 2023). The following practical example serves to clarify this concept. 1bp (1 basis point) = 0,01% extra interest per annum on debt, so +50bp=+0,50% and +100bp=+1 %; we have €50 M debt → so if we have:

Club A (good ESG rating) → €50 M loan at 4% = €2 M/year interest.

Club B (bad ESG rating) → € 50 M loan at 5% (100bp) = €2.5 M/year interest.

We have a difference of €500k per year based on interest. This is because the banks used to increase spread to cover the ESG risk (European Central Bank, 2024).

4. Disclosure and compliance obligations

Non-Financial Reporting Directive (NFRD): clubs with >250 employees must report on ESG from 2024. Non-compliance = fines + audit costs (goes from €50 to €200k per year).

For Italian football clubs, early alignment with the EU Taxonomy and the broader sustainable finance framework should be understood not only as a matter of regulatory compliance, but also as a potential strategic opportunity. In particular, it may support investment in more efficient infrastructure, improve the quality of sustainability reporting and strengthen the credibility of clubs in their relationships with investors, lenders, sponsors and public authorities.

In the short term, clubs that adopt these standards gain preferential access to sustainable financing channels, characterized by favorable interest rates and robust guarantees, enabling accelerated investment in facilities, youth academies and operational management. This creates a virtuous circle in which the green transition directly boosts competitive performance, setting these clubs apart from those that lag behind.

From a reputational perspective Taxonomy compliance act as a safeguard against criticism and disengagement, elevating the brand to a symbol of responsibility and commercial appeal. Looking ahead, pioneering clubs will position themselves as leaders, attracting investment from global ESG funds, building energy-self-sufficient stadiums with revenue from the network, and leveraging certifications as intangible assets for international expansion.

2.3 Risk matrix for football clubs (ESG)

ESG risk matrices applied to football clubs serve as comprehensive analytical tools designed to identify and prioritize sustainability-related vulnerabilities across the environmental, social, and governance dimensions. Within this holistic framework,

which integrates EU Taxonomy guidelines and UEFA compliance standards, climate-related risks represent a critical component of the environmental pillar, conceptually divided into physical and transition risks. Concurrently, the governance dimension encompasses the oversight of financial exposures, tracking how environmental and social liabilities translate into direct economic repercussions on balance sheets, financing costs, and corporate valuations. When mapped together, these interconnected categories allow clubs to evaluate their overall strategic resilience, as structured in Table 2.1.

Table 2.1. ESG Risk matrix architecture: Physical, Transition, and Financial vulnerabilities.

ESG Matrix Dimension	Risk Category	Operational Description and Vulnerabilities	Framework
<i>Environmental (E)</i>	<i>Physical Risks</i>	<i>Acute and chronic extreme weather events that directly threaten stadium infrastructure, pitch maintenance and matchday operations</i>	<i>UEFA Sustainability Strategy: Climate adaptation plans</i>
<i>Environmental (E)</i>	<i>Transition Risks</i>	<i>Legal, regulatory, and technological shifts driven by the transition to a low-carbon economy (+ energy efficiency)</i>	<i>EU Taxonomy Alignment: Green energy standards</i>
<i>Governance (G)</i>	<i>Financial Risks</i>	<i>Direct economic repercussion resulting from unmitigated ESG liabilities, impacting club's finance, external financing costs and corporate valuations</i>	<i>Corporate Financial Reporting: ESG reporting and preparation of Sustainability Report</i>

Source: UEFA, EU Taxonomy, Pwc.

These matrices enable clubs to prioritize actions, transforming potential threats into opportunities for compliance and competitiveness.

2.3.1 Physical risks: Climate change impact on infrastructure assets management

According to “Morningstar Sustainabilitycs²”, physical risks refer to the potential damages and losses to property caused by the physical consequences of climate change. These risks may result from acute climatic events, such as flooding, wildfires and extreme heat, but also from chronic climatic events like increase in the sea level rise. A key concern is that these types of climate risks are distributed very unevenly across the globe, and over time. Therefore, areas that currently have a low risk could become vulnerable in the future.

For football clubs, physical climate risks are particularly relevant because their activities depend heavily on physical infrastructure, including stadiums, training centers and matchday facilities. Main direct impacts include depreciation and losses in productivity, as one of the club’s main sources of income (matches) would be affected. The indirect impacts of physical risks extend to the valuation of football clubs: clubs with outdated and vulnerable infrastructure suffer significant depreciation, between 21 and 30% of property value (Savills,2023), compared to those that have invested in resilient modernization. This disparity makes “green-ready” clubs more attractive to strategic investors, sovereign wealth funds and global sponsors, who reward Taxonomy-compliant assets with higher EBITDA multiples and multi-year partnership.

From an asset management perspective, two main aspects should be considered in order to reduce exposure to physical climate risks. First, insurance premiums for stadiums classified as “high-risk” are rising by 50-80%, reflecting increasing climate-related exposure, whilst the protection gap amounts to 75% of catastrophic losses, according to EIOPA. This penalizes clubs with vulnerable infrastructure, prompting them to adopt proactive mitigation strategies. The second point concerns the retrofits (e.g. solar panels), including maintenance that requires an increase in the initial CAPEX but guarantees a return on investment (ROI) within 4-5 years through energy savings and

² <https://www.sustainalytics.com/investor-solutions/climate-solutions/physical-climate-risk-metrics>

reduced insurance premiums. This investment transforms emergency costs into added asset value (UEFA, 2021).

2.3.2 Transition risks: Carbon taxes, energy price volatility, and regulatory shifts

In line with the framework established by the Network for Greening the Financial System (NGFS), transition risks are understood as the financial liabilities and economic exposures that arise during the structural shift toward a low-carbon and climate-resilient economy. Rather than generic market friction, these risks are driven by systemic adjustments, including evolving regulatory policies, rapid technological breakthroughs, shifting market sentiment, and changing consumer preferences. For football clubs, this transition materializes when such macroeconomic and regulatory triggers directly impact operational costs, asset valuations, and long-term profitability.

Transition risks represent both a real threat and a unique strategic opportunity for Italian clubs. Those that meet regulatory deadlines by having already aligned their operations, structures and monitoring systems with ESG standards, and the two frameworks we have just examined, will not only regain their competitiveness with Europe's top clubs, but will also secure their long-term economic and financial viability through privileged access to green capital and enhanced valuations.

Carbon taxes (CBAM and the reformed EU ETS) impose a levy on CO₂e emissions of €50-150 per ton, affecting football primarily through private flights for away matches (Scope 3 ESG, accounting for 60% to 80% of a club's total emissions) (GHG Protocol, 2004; UEFA, 2022). A top Serie A club generates 10-20k tonnes of CO₂e per year from charter flights, resulting in operating costs of €0.5-3 million per season (calculated as tonnes x ETS price). The EU Taxonomy excludes carbon-intensive activities from green funding, whilst the UEFA framework incorporates penalties in the SES licensing ranking and the ESPES matrix for high-emission events (UEFA, 2022). Without mitigation measures, clubs risk a 5-10% decline in EBITDA, with their supply chains (sponsors and merchandising) vulnerable to Scope 3 obligations.

Energy price volatility arises from reliance on gas/methane for energy-intensive stadiums (i.e. lighting, AC, heating: 5-10 GWh/year for venues > 40k seats capacity), with spikes of +30-50% during the 2022-2025 (Ukraine-Russia war). The EU taxonomy deems stadiums without renewables non-green eligible, blocking InvestEU guarantees; UEFA guidelines mandate efficiency KPIs for club licensing. A concrete example for Italian teams regards Inter and Milan: San Siro floodlights cost €12k per night game, magnifying volatility across 20-25 matches/year. A possible solution in this case could be a photovoltaic retrofit to stabilize costs and unlock subsidized funding.

As highlighted, transition risks are intrinsically linked to regulatory shifts, a longstanding dynamic for football clubs: their evolution has always navigated through regulations and directives, a paradigm that will continue to shape their trajectory.

In accordance with IFRS S2 and TCFD framework, transition risks encompass market, reputational and supply chain dimensions driven by the shift toward a low-carbon economy. For professional football clubs, these dimensions materialize through two main channels:

- Reputational and market risk: Misalignment with sustainability expectations (i.e. sponsor or failing to meet Generation Z's ethical standards), can trigger consumer friction. This reputational fallout directly threatens commercial streams, leading to potential contractions in merchandising revenues and brand loyalty.
- Supply chain and legal risk: Vulnerabilities arise from indirect emission within the value chain, particularly when kit manufacturers fail to comply with Scope 3 decarbonization standards. Non-compliance with emerging European supply chain directives, coupled with subsequent exclusion from EU Taxonomy-aligned green financing, introduces severe financial liabilities by inflating operational costs and restricting access to sustainable capital.

2.3.3 Financial risks: ESG rating and the cost of capital (Green Loans vs Junk Bonds)

In corporate finance, financial risks refer to the range of threats that may affect an organization's ability to meet its financial obligations, to access capital on the desired terms, or to maintain a sustainable balance between income and expenditure over time. For a football club, this category of risk takes on a distinct character compared to that of a traditional industrial enterprise, due to a revenue structure that is heavily dependent on external variables and difficult to predict, such as sporting results, participation in European competitions, and the increased value of players on the transfer market. Those are combined with high fixed costs that are difficult to reduce in the short term, primarily staff costs.

In this context, the financial risks faced by a football club can be divided into three main categories. The first is liquidity risk, which arises when incoming cash flows are insufficient to cover short-term payment obligations, which is a situation that has affected several clubs in Serie A in recent years, forcing them to rely on forms of emergency financing to meet immediate deadlines (i.e. Juventus, Inter, Milan, Roma, Genoa, Como, etc..). The second is the risk of insolvency, which arises when debt levels reach thresholds that make it difficult or impossible to refinance the debt on sustainable terms. The third, and most recent, is ESG-financial risk: the gradual integration of environmental, social and governance criteria into credit assessment processes by banks, investment funds and capital markets is creating a new dimension of risk for organizations that are unable to adequately document their exposure to sustainability factors decisions.

In Italian football, this third dimension is still often underestimated. Many Serie A clubs are characterized by high debt levels, short-term financing needs and limited tangible assets, especially when they do not own their stadiums. This can make access to capital more expensive and increase dependence on instruments secured by television rights, player transfer receivables or future cash flows.

Rather than a mere compliance metric, the ESG rating is introduced within this sector as a direct indicator of financial risk, illustrating how sustainability underperformance

impacts creditworthiness. An ESG rating is a synthetic assessment of an organization's sustainability profile, provided by specialist agencies (i.e. MSCI) using alphanumeric or numerical scales that measure the organization's ability to identify, manage and report on environmental, social and governance risks and opportunities. The assessment is based on a set of quantitative and qualitative indicators that vary depending on the organization's sector. For professional football, the most relevant factors include energy management of facilities, carbon emissions linked to the club's operations, inclusion and diversity policies, the transparency of corporate governance, and the quality of non-financial reporting. A high ESG rating is not merely a certification of good environmental and social conduct, it is a signal that the financial markets interpret as an indicator of the organization's lower overall risk profile. A club with a robust ESG profile is perceived as one that manages its non-financial risks more effectively, is less exposed to sudden reputational events, and has a governance structure mature enough to anticipate regulatory changes rather than merely reacting to them. All these characteristics translate into more favorable conditions for accessing capital.

The relationship between ESG performance and the cost of capital has attracted increasing attention in recent years, with findings pointing to a consistent conclusion. Organizations with a stronger sustainability profile are able to secure funding on a consistently more favorable basis than those with a weaker profile. Academic research conducted on samples of American and European companies has confirmed that organization with high ESG scores enjoy lower costs of equity and debt, with the reduction in bond spreads becoming more pronounced as ESG criteria are increasingly integrated into the decision-making process of institutional investors (D. Ernst & F. Woithe, 2024). Applied to football, a documented and verifiable ESG strategy may help a club go beyond regulatory compliance and reputational positioning by strengthening its perceived risk profile in the eyes of lenders and investors. In a sector where access to credit is strategically important (for example, to finance transfer-market investments, refurbishing facilities or cover operating losses during periods of transition) improved transparency and risk management may contribute to more favorable financing conditions. In this sense, a credible ESG strategy can become a source of competitive

advantage, although its impact on the cost of capital depends on the club's overall financial position, the quality of its reporting and the criteria applied by lenders. .

The cost of capital for an organization is a variable that, in professional football, has distinctive characteristics compared to other economic sectors. It comprises two main components: the "Cost of Equity", which reflects the return expected by the club's shareholders or owners, and the "Cost of Debt", which reflects the interest rate charged by creditors on external financing. The weighted combination of these two elements produces the "Weighted Average Cost of Capital" (WACC), which represents the minimum rate of return a club must generate to simultaneously meet the expectations of both shareholders and creditors. The reason behind the high capital cost present in professional football is structural. The club revenues are subject to high volatility linked to sporting results, so, the base of tangible assets is often limited. In the absence of owned facilities, clubs have no collateral to offer creditors and dependence on a highly depreciable asset, such as footballer market value, makes the capital structure fragile. These factors combine with a level of financial transparency that has historically been lower than in other sectors, making it more difficult for lenders to accurately assess the organization's actual risk.

In the Italian context, the problem is particularly relevant. Serie A clubs that do not own their stadiums have no real estate assets to offer as collateral, forcing them to resort to forms of financing secured by their television rights or receivables from player transfers, which are instruments that carry significantly higher interest rates than the terms available to organizations with a structured ESG profile and a more solid capital base(EBA, 2020).

With regard to financing instruments, it is useful to distinguish between green loans and high-yield bonds. Both may be relevant in professional football, but they reflect different financing needs and different risk profiles.

Green Loans are financing instruments whose use is contractually restricted to specific, verifiable environmental purposes: the construction or refurbishment of sports facilities in accordance with energy efficiency criteria, the installation of renewable energy generation systems, the adoption of sustainable mobility solutions, and the

environmental certification of facilities. What sets these instruments apart is not only the intended use of the funds, but also the financial terms attached to them. Green Loans incorporate interest rate adjustment mechanisms linked to the achievement of predefined and verifiable sustainability targets, so that club that meets the agreed targets sees its cost of debt reduced, whilst those that fail to meet them are subject to an increase in the margin applied. This mechanism creates a direct link between the club's environmental performance and its cost of financing, transforming sustainability from a qualitative factor into an economic variable with measurable effects on the income statement.

High-yield bonds, often referred to as “junk bonds”, are bonds issued by organizations with a high-risk profile, typically with a credit rating below the investment-grade threshold. In professional football, the use of these instruments has become increasingly common, particularly among clubs that lack a solid financial foundation and require rapid financing under market conditions that are not always favorable. The interest rates applied to these instruments fall within a range of which, in recent European football, has in some cases reached 6,75% (Inter), levels which, when multiplied by debt burdens in the order of hundreds of millions of euros, generate significant financial costs for the clubs' accounts.

Continuing with the example discussed in section 1.3.2, relating to Inter and the “Senior Secure Bond” case, we know that following the change of ownership there was a significant reduction in the level of debt and in the interest rate on it (4,5%). This improvement was achieved solely through a change in corporate structure (owner), which makes it even more evident how much potential for reducing debt costs would remain untapped if Italian clubs were to invest systematically in a structured ESG profile, rather than waiting for a change of ownership to access better financing terms.

In summary, green loans and sustainability-linked financing instruments may be relevant for clubs that develop credible and measurable environmental projects or ESG targets. By contrast, a heavy reliance on high-yield bonds may reflect a higher-risk financial profile and can increase financial vulnerability, especially when combined with volatile revenues and high fixed costs. From this perspective, sustainability should not be

treated as separate from financial strategy, but as one component of a broader approach to long-term financial resilience.

Chapter III --- Research methodology and empirical analysis

3.1. The relationship between football clubs and ESG criteria

An analysis of modern football clubs in relation to ESG criteria reveals a sector undergoing significant transformation.

Until recently, many club initiatives were mainly associated with the concept of social responsibility. Today, however, ESG criteria are increasingly becoming part of the strategic and managerial framework of professional football. This evolution stems not only from renewed ethical awareness, but also from pressing market dynamics. Professional football is a global industry that requires capital, and institutional investors, like major international sponsors, operate under strict regulatory constraints that prevent them from associating with organizations lacking proven standards of sustainability and transparency. As a result, in order to remain competitive and continue to attract investment, clubs are shifting their focus from simply maximizing sporting success to establishing themselves as organizations that are managed in an ethical, inclusive and environmentally conscious manner. It is no coincidence that, globally, more and more clubs are signing up to institutional programs such as the United Nations “Football for the Goals”, which aim to align sporting strategies with the sustainable development goals.

Shifting the focus of analysis to the European landscape, it is possible to see how this global momentum is translating into practical and tangible guidelines. At a continental level, the integration of ESG criteria is becoming increasingly widespread, driven primarily by a top-down regulatory approach. UEFA, in particular, has increasingly emphasized that sustainability can no longer be treated as an optional choice. Through the licensing system for continental competitions, social and environmental requirements are acquiring growing relevance alongside the long-standing financial stability rules. Currently, to qualify for European tournaments, clubs are required to address specific parameters regarding inclusion, child protection and environmental sustainability. In the lower leagues, access to the resources needed to meet all of UEFA’s ESG criteria is still limited, and implementation will likely take a little more time.

The disparity in access to resources and investment capacity is clearly evident when examining the five major European leagues, which account for a significant share of global football's revenue. Although this leading group demonstrates the highest level of attention to ESG metrics, priorities for action vary significantly within it, based on the cultural, economic and regulatory specificities of each nation, creating a diverse yet interconnected landscape.

In England, the Premier League's vast financial resources have led to a recent strong focus on environmental impact. English clubs operate much like large organizations, closely monitoring their carbon emissions and setting ambitious climate neutrality targets for the coming decades.

Turning to Germany, the Bundesliga serves as an important benchmark for governance and social responsibility. This leading position is safeguarded by a unique regulatory provision, the "50+1" rule³, which stipulates that the majority of a club's voting rights must remain in the hands of its registered supporters, thereby curbing unchecked financial speculation and preserving the club's identity and connection with the local community.

Whilst the Premier League and the Bundesliga have already established more advanced ESG models, respectively driven by vast amounts of capital and deeply entrenched governance rules, the French, Spanish and Italian leagues are hampered by structural delays and significant internal disparities. In these three contexts, the integration of sustainability remains fragmented or confined to individual elite clubs, constantly limited by bureaucratic obstacles, inflexible infrastructure and marked economic disparities between teams. These factors prevent a uniform alignment with the standards of the two leading leagues. Focusing on the Italian landscape, this systemic stagnation is further validated by prominent industry leaders who advocate for a comprehensive overhaul of the national football architecture. Specifically, key institutional figures such as Giuseppe Marotta, president of Inter, and Aurelio De

³ 50+1 rule: it stipulates that football clubs must retain at least 50% plus one of the voting shares, thereby limiting the control exercised by private investors. This system safeguards the bond between the club and its supporters, ensuring that club members play a central role in governance.

Laurentiis, president of Napoli, have emphasized that the Italian Football Federation (FIGC) and the league governance must adopt a more innovative and forward-looking vision to overcome recent financial and managerial hardships. Similarly, international perspectives from former players who experienced the league, such as Oliver Bierhoff, confirm that Italian football has fallen behind alternative European models, reinforcing the urgent need for structural reforms tailored after successful international transitions, such as the one implemented in Germany.

The following analysis will focus especially on the Premier League, the Bundesliga and Serie A.

3.2 Research question

The critical issues relating to club management, infrastructure delays, bureaucracy and the difficulty of competing with the leading European clubs now represent some of the main obstacles to the growth of Italian football. In this context, there is a clear need to identify tools and strategies capable of fostering more sustainable and competitive development in the long term. This thesis therefore aims to analyze the following research question, “Can ESG criteria serve as a strategic tool for improving the sustainability and competitiveness of Italian football clubs?”.

The aim is to analyze the financial statements and economic-financial data of football clubs that have already integrated ESG criteria and objectives into their corporate strategies in a more structured manner, comparing them with the broader context of Italian clubs, where such practices remain relatively uncommon and, in some cases, only limitedly developed.

Through this comparative analysis, the thesis will seek to understand whether the integration of ESG policies can contribute not only to greater environmental and social sustainability, but also to the creation of economic value, the improvement of corporate governance and the strengthening of long-term competitiveness. The aim is not to regard ESG criteria as a single solution to the critical issues facing Italian football, but rather to assess their potential role as a starting point for a process of strategic, managerial and cultural renewal of the entire national football system.

3.3 Research Design and Comparative Approach

The data gathering process underlying this research focuses on three of the top five European football leagues, selected because they provide a representative overview of the main competitive and managerial dynamics within industry. The aim is to build a robust informational basis that enables a structured comparative analysis across different contexts, in order to highlight key ongoing trends and establish a meaningful reference framework for interpreting the characteristics of the league under examination.

Within this study, the comparative method is applied as a systematic analytical tool that allows different contexts to be evaluated through consistent criteria. This approach is designed to identify recurring patterns, significant differences, and broader evolutionary trends. As a result, it moves beyond isolated case analysis and supports a more comprehensive understanding of the sporting, economic and organizational dynamics present across the selected environments.

For each league and corresponding case study, the analysis will then focus on the main strategic transitions and decisions undertaken during the 2022, 2023 and 2024 seasons. The objective is to reconstruct the evolution of club-level strategies over time, with particular emphasis on identifying key success factors as well as structural weaknesses that have influenced both sporting outcomes and financial performance.

Finally, the analytical procedure incorporates an assessment of the impact of ESG-related policies and compliance requirements, with particular attention to the environmental dimension and the availability of CO₂e emissions data. This aims to evaluate the extent to which these factors shape long-term strategic decision-making and affect financial management practices, particularly in terms of balance sheet structure and the overall sustainability of club business models.

In addition, after the presentation of the for each team, the main partnerships (with ESG companies or related to ESG objectives) established by the respective football clubs will be examined, explicitly bridging the gap between the commercial analysis and the ESG framework. Rather than treating these dimensions in isolation, this section adopts a dual-lens approach to demonstrate how corporate sponsorship models interlock with

sustainability objectives, with a predominant focus on identifying eco-friendly and environmentally driven alliances. For each agreement, a brief description of the associated project will be provided in order to highlight the nature of the collaboration and its role within the club's overall strategies. This explicit connection guarantees that the qualitative review of sponsorships remains deeply anchored to the data gathering procedure outlined previously, allowing for a deeper understanding of how clubs integrate commercial initiatives and joint projects into their broader development models.

3.3.1 Selection of teams for analysis

The analysis conducted in this study includes a partial examination of the economic and financial data of nine professional football clubs. The selected sample has been structured in a way that ensures coherence and clarity in the presentation and comparison of the available data.

For methodological reasons and to enhance readability, the clubs have been divided into three main groups corresponding to three of the major European leagues: Premier League, Bundesliga and Serie A. Within each league, three clubs have been selected according to a criterion aimed at representing different levels of sporting and economic relevance. In particular, each group includes a leading club in recent sporting performance, a historically established top-tier club at national and international level, and a mid-to-upper tier club in terms of performance in recent years.

The presentation of the data will follow a progressive order by league, starting with the English clubs, followed by the German clubs, and concluding with the Italian clubs. Within each group, the order of presentation will also reflect the selection logic, beginning with the league winner, followed by the historical top club, and finally the mid-to-upper tier club.

The clubs included in the analysis are as follows:

- Premier League: Arsenal FC, Liverpool FC, Tottenham FC;
- Bundesliga: Bayern Munich, Borussia Dortmund, RB Leipzig;

- Serie A: Inter FC, Juventus FC, AS Roma.

The selection of Premier League and Bundesliga was also driven by the regulatory framework governing sustainability and ESG-related policies within these competitions. In both cases, compliance guidelines and sustainability-related requirements influence club management practices and reporting standards, making these contexts particularly relevant for the purposes of this analysis.

In particular, the Premier League represents one of the most competitive football leagues globally in terms of overall squad value, commercial strength and ability to attract top talent. The Bundesliga, on the other hand, is distinguished by its governance model and by the early introduction of structured sustainability-related requirements, partially anticipating the sustainability and governance priorities later formalized by UEFA through the “Strength through Unity 2030” framework. As a result, both leagues hold significant relevance for comparative analysis from both an economic and regulatory perspective.

Serie A is included as the main object of comparison for this thesis, given the structural, financial and infrastructural challenges affecting Italian football. Comparing Italian clubs with selected English and German clubs’ makes it possible to assess whether ESG integration may represent a useful strategic lever for improving the sustainability and competitiveness of the Italian football system.

3.4 Data Sources and Analysis Categories

The tables of each football club included in this analysis contain a set of financial and non-financial indicators aimed at providing a comprehensive overview of the structure and performance of the clubs under study.

First, total revenue is considered and further broken down into its main components. Matchday revenue includes income generated from ticket sales and season tickets. Broadcasting revenue refers to income derived from domestic league television rights as well as UEFA competition broadcasting rights. Finally, commercial revenue

encompasses sponsorship agreements, merchandising activities and broader marketing-related income.

Another category concerns tangible assets, which include physical resources owned by the clubs, such as stadiums, training facilities, land and operation infrastructure. Alongside these, intangible assets represent non-physical but economically significant resources, including player registration rights, licenses, trademarks, and other forms of intellectual and sporting property value.

Player trading refers to transfer market activities conducted during each transfer window, capturing the financial impact of player acquisition and disposals on club accounts.

Equity is also included and is defined as the difference between a company's total assets and its liabilities, including outstanding debts and financial obligations. This indicator is important for evaluating the financial stability of a football club, as a stronger equity position may reduce insolvency risk and support long-term resilience. Furthermore, a solid capital structure can improve a club's financial credibility, potentially facilitating access to financing opportunities and more favorable banking conditions, while also increasing its attractiveness to potential investors, sponsors, and commercial partners.

Finally, an ESG-related indicator is incorporated, represented by carbon dioxide equivalent emissions (CO₂e) measured in tonnes (t). This indicator incorporates three main scopes: Scope 1, covering direct emissions generated by club operations; Scope 2, referring to indirect emissions associated with energy consumption; and Scope 3, which includes all other indirect emissions across the value chain. This last category (Scope 3) is typically the most significant, accounting for approximately 70% to 90% of total emissions (UN Global Compact, 2024; GHG Protocol, 2022). Concurrently, to ensure alignment with the overarching ESG scope of this thesis, the Social (S) and Governance (G) dimensions are structurally integrated through a qualitative methodological approach. Consequently, while the environmental impact is measured via quantitative metrics, the social and governance frameworks are evaluated by analyzing non-financial disclosures, strategic corporate partnerships, stakeholder engagement policies, and

organizational reporting models, thereby providing a comprehensive mixed-method assessment of the clubs' sustainability profiles.

The data related to Revenue and its main components (Matchday, Broadcasting, Commercial) were primarily collected from reports published by Deloitte (Football Money League, 2026) to ensure as much homogeneity as possible. However, in the cases of AS Roma and RB Leipzig, complete data were not available within the Deloitte sources consulted. Therefore, the required information was supplemented through the analysis of the club's official statements and reports.

The remaining data used in the analysis were extracted from the official financial statements, annual reports and sustainability reports published on the respective club's websites. In some cases, however, certain values had to be estimated due to the absence of specific information related to the categories examined in this study. Whenever estimated data are used, this will be explicitly indicated and discussed in order to ensure methodological transparency and consistency in the interpretation of the results.

In addition, the tables include a "Delta" column positioned on the right side, expressed as a percentage. This indicator shows the percentage variation between 2022 and 2024 for each category analyzed, with the exception of the "Player Trading" section. In this case, the tables present an absolute numerical value derived from the difference between transfer expenditures and revenues generated through player acquisitions and sales over the 2022 and 2024 period.

The data related to the "Player Trading" category were collected from Transfermarkt.com and used as secondary market estimates. Since these data do not necessarily correspond to official accounting values or actual transfer fees reported in financial statements, they should be interpreted as supplementary indicators of transfer market activity.

3.5 Group A – English clubs

The analysis now focuses on the data collected for the three selected English clubs. The aim is to identify the main drivers of variation in the financial and non-financial indicators over the three-year period under review.

3.5.1 Arsenal FC

The first club analysed within the Premier League is Arsenal FC.

Table 3.1. Arsenal FC: key financial indicator and CO₂e data overview (2022, 2023, 2024).

Premier League				 DELTA% (2022-2024)
ARSENAL	2024	2023	2022	
REVENUE €	717 000 000	533 000 000	433 000 000	65,59
MATCHDAY	153 000 000	118 000 000	94 000 000	62,77
BROADCASTING TV & MEDIA	305 000 000	220 000 000	172 000 000	77,33
COMMERCIAL	258 000 000	195 000 000	167 000 000	54,49
TANGIBLE ASSETS €	388 874 000	388 644 000	389 041 000	-0,04
INTANGIBLE ASSETS €	486 643 000	417 044 000	149 449 000	225,62
PLAYER TRADING €	(193 394 000)	(149 49 000)	(86 444 000)	(429 287 000) €
EQUITY €	127 852 000	145 540 000	192 293 000	-33,51
Total GHG Emissions (tCO ₂ e)(In year 2024 they start to measure Scope 3)	22 243,05	3538	3943	-10,27 Related to year 22 & 23

Source: Author's own elaboration based on Arsenal FC, Deloitte, Transfermarkt.com.

Before examining the economic and financial data, it is appropriate to begin the analysis from the sporting dimensions. Understanding on-field performance and the related technical and managerial decisions enables a more accurate interpretation of many balance sheet items. Sporting outcomes may affect several indicators presented in the tables. This cause-and-effect approach, starting from sporting results and tracing their

economic implications, will be applied to all clubs considered in this study and provides the interpretative framework for the subsequent quantitative analysis.

In the season ending in June 2022, Arsenal finished fifth in the Premier League, qualifying for the Europa League in the following season. As a result, total revenues for that financial year were lower than those recorded in the following two seasons. Improved sporting and strategic planning enabled the club to secure back-to-back second-place finishes in 2022/23 and 2023/24, and therefore consecutive qualifications for the UEFA Champions League. This improved sporting performance produced notable increases in three recurring revenue components: matchday income, broadcasting revenues and commercial revenues (sponsorships and partnerships). The combined growth in these three subcategories therefore materially contributed to the rise in the club's total revenues in the subsequent periods (a 65,59% increase in 2024 compared to 2022 season).

The carrying amount of tangible assets remained effectively unchanged over the period analyzed. This may be explained by the fact that major infrastructure upgrades were undertaken only recently. Modernization works targeted both the Emirates Stadium and the club's training facilities and the academy structures, focusing on compliance with UEFA requirements and on improvements in data collection and environmental sustainability. As the present analysis does not cover the last two financial years, the balance-sheet impact of these investments is not yet reflected in the reported figures. It is also noteworthy that the club's baseline asset value is high relative to the European average, indicating substantial prior investment in quality infrastructure.

Intangible assets experienced a pronounced increase over the past two to three years, rising by 225.62% relative to the base year of the analysis. This growth can be attributed to two main factors: i) the club's internal ability to identify and acquire players that fit the sporting project, and ii) the improved on-field results. Qualification for the UEFA Champions League enhanced the club's market appeal, facilitating the signing of high-profile players. This trend was supported by significant financial resources allocated to incoming players trading. Investments in the squad have, over time, also generated substantial disposal values on player sales. Overall, the interaction between sporting

strategy, scouting capability and financial capacity coherently explains the observed increase in intangible assets during the analyzed period.

The club's equity fell due to a strategy that prioritized sporting success over net assets, the club has invested heavily and incurred further debt by signing new players; higher debt means lower equity value. This decline has been partly offset by returns from the 2025/26 league title and the Champions League final. Moreover, facility values have been rising since 2025, which supports the club's patrimonial position in the medium term.

Finally, regarding ESG and non-financial reporting, there is a noted improvement in CO₂e (t) management: a more rigorous and systematic calculation methodology was implemented prior to the maintenance and upgrading works. This approach enhances transparency and helps mitigate future risks, including economic ones.

In this case, in 2024, the total emissions divided by "Scope" are: Scope 1 with 2 314,66 t; Scope 2 with 2 956,22 t; Scope 3 with 16 972,17 t. The value of Scope 3 is commonly always the highest, as we will also see in the other cases. In this case, the subcategories highlight a significant value under "Category 9: Downstream transportation & distribution" with 12 261,49 t of CO₂e. Arsenal's emissions have been calculated by Carbon Responsible following the GHG protocols. In addition, the UK Government's 2023 emission factors (DEFRA/BEIS) have been used to quantify all emissions (Arsenal FC).

In alignment with traditional market dynamics, the football industry systematically leverages sponsorship and strategic alliance. In the business economics field, collaborations are defined as interactive relationships referring to particular cooperation between autonomous companies (Gitto, 2005). These companies have the common objective of achieving a specific result through each other's help. However, the success of such strategic endeavors strictly depends on a shared vision and on the value alignment of the brands involved.

Arsenal, focusing on the area related to sustainability, has "Octopus Energy" and "ZC Rubber" as its main partnerships. The collaboration with ZC Rubber is a three-year agreement and its goal is to become a premium partner of the club, finding space and

visibility on the advertising LEDs inside the stadium during every match. The collaboration provides an income ranging from 3 to 4 million pounds per year (Arsenal, 2023). The Chinese's tire manufacturing company signed this collaboration to create advertising for itself and because both companies have a common vision of environmental sustainability and eco-sustainable development. This company is very active in the field of environmental sustainability, it has received certifications that testify to this like: ISO 14001 in 2025; and also awards from car manufacturers such as "Saic Motors".

Octopus is instead a partner with whom Arsenal FC collaborated to improve its objectives inside and outside the Emirates Stadium. They helped make this club the first in the Premier League to switch to 100% green energy, through solar plants. Together they have also reduced their carbon footprint by 10,7 million kg of CO₂e from 2016 to today. Finally, they have developed other projects such as 80% waste recycling during matches, a 30% reduction in LED consumption, and social initiatives such as food charity for those in need. All of this has led the club to save money over the years and to be ready for the eco-sustainable future that UEFA wants to impose.

3.5.2 Liverpool FC

The second club analyzed within the Premier League sample is Liverpool FC, one of the most historically successful clubs in English and European football.

Table 3.2. Liverpool FC: key financial indicator and CO₂e data overview (2022, 2023, 2024).

Premier League				
LIVERPOOL	2024	2023	2022	DELTA% (2022-2024)
REVENUE €	715 000 000	683 000 000	702 000 000	1,85
MATCHDAY	132 000 000	103 000 000	112 000 000	17,86
BROADCASTING TV & MEDIA	240 000 000	282 000 000	314 000 000	-23,57
COMMERCIAL	343 000 000	298 000 000	275 000 000	24,73
TANGIBLE ASSETS €	310 400 000	274 600 000	233 272 000	33,06
INTANGIBLE ASSETS €	353 706 000	289 097 000	275 625 000	28,33
PLAYER TRADING €	(181 568 000)	(122 154 000)	(97 201 000)	(400 923 000) €
EQUITY €	151 592 000	194 728 000	201 669 000	-24,83
Total GHG Emissions (tCO ₂ e) (In year 2024 they start to measure Scope 3)	56 555	3421	3323	2,95 Related to year 22 & 23

Source: Author's own elaboration based on Liverpool FC, Deloitte, Transfermarkt.com.

Over the period analyzed, Liverpool finished second in 2022, fifth in 2023 and third in 2024. The lowest revenues were recorded in 2023, corresponding to the weakest sporting performance within the period considered. Nevertheless, total revenues showed a marginal increase of 1.85% over the three-year period. In the 2022 season, the club reached the UEFA Champions League final, losing 1-0 to Real Madrid. This helps explain why broadcast revenues were particularly high compared with the following two years. As more matches are played, revenues increase. Historically, the club has won six Champions League titles, placing it joint third with Bayern Munich, behind Real Madrid (15) and AC Milan (7).

The increase in tangible assets is primarily attributable to the expansion of the club's historic stadium (Anfield). The works, begun in 2022 and completed in 2024 season,

resulted in a steady rise in the carrying amount of the club's infrastructure, adding 77.128.000€ million to the balance sheet.

Intangible assets experienced a marked increase. This can be linked both to the acquisition of new players and increasing valuation of players developed within the club's sporting project (i.e. T. Alexander-Arnold). English clubs, supported by high annual revenues, have substantial financial capacity and routinely invest significant amounts to attract high-level talent to the domestic league. Accordingly, Liverpool's player trading activity has a material impact on its balance sheet.

Due to substantial investments in high-profile player acquisition, the club's equity, while remaining positive, has declined relative to its 2022 level, falling from over €200 million to €151.592 million in 2024. Infrastructure projects were not sufficient to fully offset this reduction; nevertheless, they contributed to preserving significant asset value for the club.

Regarding ESG and non-financial reporting, since 2024 the club has included Scope 3 emission in its reporting, acknowledging their substantial contribution to the overall emissions profile. A targeted strategy was developed to quantify and manage emission arising from the stadium expansion project. Subsequent work on the pitch was implemented to promote rainwater recycling. The club continues to pursue further improvements through its strategic program, "The Red Way". "The Red Way" strategy started in 2021 with the aim of translating everything good that had been done so far into an annual report, with the promise of being able to constantly improve. The main objectives of the club are 6 and are described within the report. The 6 objectives are divided in 3 parts, 2 per category, even though it is all a single project. "Our planet" (Environmental) has objectives 3 and 4; "Our communities" (Social) has objectives 5 and 6; and finally, "Our people" (Governance) is linked to the first 2 goals present within the documentation. They also use an external verification system with the aim of guaranteeing transparency and professionalism, so much so that they are the first football team at European level to have obtained a certification (ISO 20121) (Liverpool FC).

In their carbon emission targets, they also have a near-term goal and a long-term one. Near-term is a 50% absolute emissions reduction by 2030; long term is Net Zero emissions. Also in this case, what weighs more is Scope 3. To try to reduce team travel emissions, they have also decided to invest in Sustainable Aviation Fuel (SAF) to insert the emissions from their domestic charter flights (Liverpool FC, 2024).

3.5.3 Tottenham Hotspur FC

Tottenham Hotspur can be considered a strong upper mid-tier club in English football. Despite experiencing several challenging seasons and struggling to consistently compete for the European positions, the club achieved a significant international success by winning the Europa League in the 2024/25 season, defeating fellow English side Manchester United in the final.

Table 3.3. Tottenham Hotspur FC: key financial indicator and CO₂e data overview (2022, 2023, 2024).

Premier League				 DELTA% (2022-2024)
TOTTENHAM	2024	2023	2022	
REVENUE €	615 000 000	632 000 000	523 000 000	17,59
MATCHDAY	123 000 000	135 000 000	125 000 000	-1,6
BROADCASTING TV & MEDIA	195 000 000	235 000 000	182 000 000	7,14
COMMERCIAL	297 000 000	261 000 000	215 000 000	38,14
TANGIBLE ASSETS €	1 863 958 000	1 837 099 000	1 300 890 000	43,28
INTANGIBLE ASSETS €	420 480 000	295 516 000	279 053 000	50,68
PLAYER TRADING €	(223 637 000)	(135 087 000)	(91 963 000)	(460 687 000) €
EQUITY €	656 045 000	637 526 000	177 244 000	270,14
Total GHG Emissions (tCO ₂ e) (Only Scope 1 & Scope 2)	2 255,4	2576,2	3483,8	-35,26

Source: Author's own elaboration based on Tottenham FC, Deloitte, Transfermarkt.com.

During the period under analysis, Tottenham Hotspur finished fourth in the Premier League in 2022, eighth in 2023, and fifth in 2024. The club's development throughout this three-year period is particularly noteworthy, as it shows that financial performance is not always directly linked to sporting results on the pitch. Despite recording its lowest league position in 2023, the club progressively adopted a strategic approach focused on commercial development and the enhancement of its infrastructure assets. In this regard, Tottenham's Stadium has played a key role, functioning as a multifunctional venue designed to host not only football matches but also major international sporting and entertainment events.

Among these initiatives, the partnership with the National Football League (NFL) has been especially significant, allowing several NFL games to be staged at the London-based venue. This arrangement has generated economic benefits through increased commercial revenues and enhanced media exposure associated with broadcasting and event-related activities. At the same time, it has contributed to expanding the international visibility of the Tottenham brand, particularly within the North American market.

The Tottenham case therefore illustrates how a strategy focused on revenue diversification and the maximization of stadium utilization can reduce a club's dependence on sporting results alone, providing greater financial stability and strengthening its long-term value creation potential.

In line with this strategy, the value of tangible assets is significantly higher than that of many other clubs in the sample. This is primarily driven by the club's strategic focus on infrastructure development, aimed at ensuring long-term operational efficiency and organization's structural stability. This category includes core infrastructural assets, such as the stadium, training facilities, hospitality areas, and real estate components associated with the club, including hotels and land holdings. In addition, substantial investment has been allocated to technologically advanced equipment, representing a significant capital outlay. Overall, the total investment in Tangible Assets exceeded one billion euros.

Similarly to other English clubs, Tottenham recorded a steady increase in intangible assets, alongside transfer expenditures that remains consistent with the patterns previously observed in the cases of Arsenal and Liverpool. This trend reflects a broader characteristic of elite football, where the valuation and acquisition of player talent constitute a central component of investment strategies.

In this case, equity appears to be particularly high, as the club's value is underpinned by a strong base of tangible assets. Despite substantial costs and significant expenditure on player acquisition, there is still a pronounced increase in net equity, amounting to 270.14% (in 2024 compared to 2022 value), highlighting a strongly expansionary equity trajectory.

Although the club acted early by developing a modern stadium equipped with advanced technologies, it subsequently introduced a more structural environmental sustainability plan starting in 2025. The metric through which English teams calculate their produced emission is the same for all of them, the GHG Protocol; however, unlike the cases before, here the "Kyoto Protocol" is additionally followed for weight and quantity the total emissions (Tottenham, 2025). Inside the Scope 3 item, unlike what was seen previously in the Arsenal's case, the value is much higher (44 227 t CO₂e) and represents 73,1% of total emissions, but in this case, the subcategory that stands out the most is linked to point 1: "Purchased Goods and Services" with a value of over 28 000 tonnes. In the report, it is added that their goal will be to lower these values by trying to implement the tools through which they capture data. In addition, unlike other clubs, its strategic goal is to achieve a reduction in Scope 3 emission down to 6% by 2040 (quite close to zero). This target is particularly ambitious, as it anticipates by approximately ten years the "Net Zero" milestone established by key international sustainability frameworks (Figure 3.1).

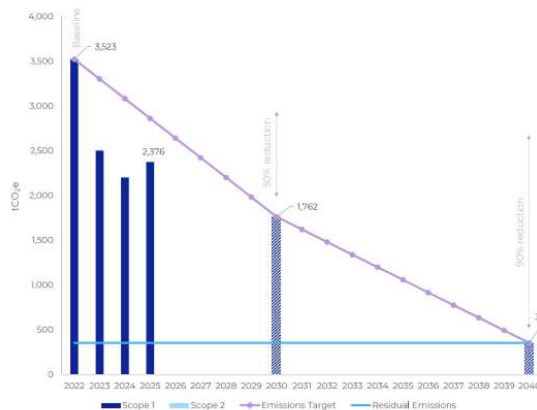
Figure 3.1. Tottenham's strategy report 2025 – The progress against targets.

Progress against targets

Scope 1 and 2

To hit the near-term reduction target, we will need to reduce absolute Scope 1 and 2 emissions (Market-based) by 50% compared to the FY2022 baseline. Since the baseline year, we have reduced our emissions by 32.6% and are on track to hit our near-term target. To hit our near-term target, we need to reduce our FY2025 emissions by 5.2% per year between FY2025 and FY2030. To hit our net-zero target, we will need to reduce our FY2025 emissions by 5.7% per year between FY2025 and FY2040.

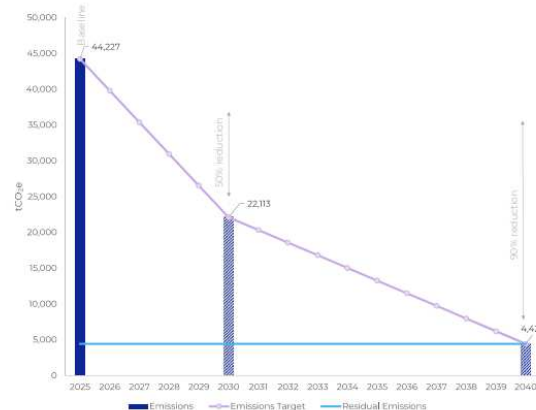
Figure 1: Progress against Scope 1 and 2 Targets



Scope 3

To hit the near-term reduction target, we will need to reduce absolute Scope 3 emissions by 50% compared to the FY2025 baseline. To hit our near-term target, we need to reduce our FY2025 emissions by 10.0% per year between FY2025 and FY2030. To hit our net-zero target, we will need to reduce our FY2025 emissions by 6.0% per year between FY2025 and FY2040.

Figure 2: Progress against Scope 3 Targets



Source: Tottenham FC.

In the following case, the timeline of the targets is slightly ahead compared to all the other clubs. They have drawn up 3 horizons: Short-term (2026) with an additional 4 actions to take; Medium-term (2027-2028) with 2 more goals to achieve per year; and the Long-term, which regards the years from 2030 onwards, in which they are just going to make continuous updates and reviews to create new modern policies for the project.

3.6 Group B – German clubs

The analysis now shifts towards Central Europe, specifically Germany, in order to examine three additional case studies.

3.6.1 FC Bayern Munich

Bayern Munich is widely regarded as the most successful and historically dominant football club in Germany, with six UEFA Champions League titles and 33 Bundesliga championships. The club has also won numerous domestic cups.

Table 3.4. FC Bayern Munich: key financial indicator and CO₂e data overview (2022, 2023, 2024).

 				
BAYERN MUNICH	2024	2023	2022	DELTA% (2022-2024)
REVENUE €	765 000 000	744 000 000	654 000 000	16,97
MATCHDAY	131 000 000	121 000 000	68 000 000	62,77
BROADCASTING TV & MEDIA	213 000 000	204 000 000	207 000 000	2,90
COMMERCIAL	421 000 000	419 000 000	378 000 000	54,49
TANGIBLE ASSETS €	202 700 000	207 700 000	165 300 000	22,63
INTANGIBLE ASSETS €	371 200 000	261 700 000	281 300 000	31,96
PLAYER TRADING €	(64 650 000)	(11 080 000)	(24 600 000)	(100 330 000) €
EQUITY €	557 200 000	536 500 000	504 000 000	10,56
Total GHG Emissions (tCO ₂ e)	~70 000	72 021	75 966	-7,85

Source: Author's own elaboration based on Bayern Munich FC, Deloitte, Transfermarkt.com.

Bayern Munich won the domestic league title again in both the 2022 and 2023 seasons, before finishing third in 2024. During this period, the club consistently reached the advanced stage of the UEFA Champions League, supporting a modest 2.89% increase in broadcasting revenues. Matchday revenues recovered more slowly than in other major European leagues due to the effect of post-Covid restrictions and the gradual return to full stadium capacity. At the same time, commercial revenues continued to grow steadily. Overall, despite a less favorable sporting outcome in 2024, the club's total revenues showed a notable increase.

The growth in tangible assets does not appear to be driven by a radical shift in the club's strategic project, but rather by a long-established model aimed at ensuring continuous upgrading of infrastructure, particularly the stadium and training facilities. This is further supported by gradual digitalization efforts, alongside a progressive reinvestment of post-Covid cash flows. The reported value is based on an estimate, as the data disclosed by the club were incorporated within broader accounting categories. For this reason,

data estimations were developed in this thesis to restore a criterion of homogeneity and ensure greater clarity in continuity with previous year. Essentially, the technical values present in the historical reports published by the club were integrated; however, unlike in 2023 and previous years, starting from 2024, the Bavarian club opted to separate these items. Consequently, this study involves a reclassification and recombination of the data to align them with the methodological structure adopted by the club in the past (Bayern FC). Therefore, the value presented in Table 3.4 under the item “Tangible Asset” for the year 2024 is derived from the following formula.

$$TA(t)=TA(t-1) +INV- DEP$$

Where:

TA = Tangible Assets;

t = year 2024;

INV = investment;

DEP = depreciation.

So $\rightarrow TA(t)= 207,7 + 15 + 20 = 202,7$ million.

As highlighted in table 3.4, the most significant upward trend recorded by the club over the three-year period relates specifically to this item, which experienced an increase of approximately 90 million euros.

In the case of Bayern Munich, intangible assets also show an upward trend. This development is partly driven by the increased economic valuation of players compared to previous periods. Nevertheless, despite consistently negative player trading value, a clear economic gap emerges when compared to the significantly greater spending capacity typically observed among English clubs.

As with tangible assets, the reported value is based on an estimate. The following formula was applied (Bayern FC; M. Mancin, 2009):

$$IA(t)=IA(t-1) + INV - AMO - DIS$$

Where:

IA = Intangible Assets;

t = year 2024;

INV = investments.;

AMO = amortization;

DIS = disposals.

So $\rightarrow 261,7 + 187,5 - 38 - 40 = 371,2$ million.

Equity shows a steady upward trend, as the club's main asset categories exhibit expansionary dynamics. This pattern reflects a governance structure characterized by strategic planning and an operational approach oriented towards continuity and long-term development. In this case as well, the value reported in the table is an estimate, as in 2024 Bayern Munich adopted a different reporting model, incorporating additional data categories beyond the purely corporate scope (Bayern FC). The following formula derives from the reconciliation equation of shareholder's equity, which states that the ending balance is calculated using the previous year's balance as a baseline, according to double-entry rules (IFRS 10). From an accounting perspective, net profit and capital increases expand equity and are recorded as Credit. Conversely, dividend distributions reduce corporate wealth and are recognized as Debit (Bayern FC, Financial Report 2024).

The formula:

$$E(t)=E(t-1) + NP - DIV + CAP$$

Where:

E = Equity;

t = year 2024;

NP = Net Profit;

DIV = Dividend;

CAP = Capital increase.

So $\rightarrow 536,5 + 35,7 - 20 + 5 = 557,2$ million.

From an ESG regulatory perspective, the Bundesliga has introduced structured measurement and reporting requirements for environmental data, including sanctions such as fines and point deductions in cases of non-compliance. Bayern Munich, in addition to complying with environmental regulations, has integration of dedicated ESG governance roles aimed at guiding and strengthening the club's strategic direction in this area. This evolution is embedded within a broader framework of strategic partnerships previously discussed. In terms of emissions, the club demonstrates continuous improvement, supported by collaboration with industry professionals, thereby reinforcing its long-term sustainability outlook.

This club is deeply committed to ESG principles; in fact, the "Allianz Arena" stadium project in 2006 was developed in conjunction with EMAS (Eco-Management and Audit Scheme), which represents one of the most stringent green management systems. The facility was designed through a forward-looking regulatory framework, utilizing data calculation software to actively monitor the energy consumption and emissions produced by the stadium (Mitnand, 2025). Their sustainability strategy is built upon 4 core pillars: Diversity and Inclusion, Health and Safety, Climate and Environmental, Material and Supply Chain. This approach demonstrates that the club's sustainability framework also thrives through cooperation with major corporate partners. As previously observed, in Chapter 2, Bayern Munich is consistently attentive to this

perspective and has partnered with Viessmann for years to pursue shared green goals. Another strategic partner of the clubs is “Einhell”, a leading company in technology and gardening, which meticulously manages the sustainable maintenance of the team’s playing field (Einhell).

3.6.2 Borussia Dortmund

Table 3.5. BVB 09: key financial indicator and CO₂e data overview (2022, 2023, 2024).

BORUSSIA DORTMUND				BVB 09 DELTA% (2022-2024)
REVENUE €	514 000 000	420 000 000	357 000 000	43,98
MATCHDAY	93 000 000	75 000 000	44 000 000	111,36
BROADCASTING TV & MEDIA	206 000 000	158 000 000	145 000 000	42,07
COMMERCIAL	215 000 000	188 000 000	167 000 000	28,74
TANGIBLE ASSETS €	198 269 000	182 251 000	172 453 000	14,97
INTANGIBLE ASSETS €	184 068 000	169 668 000	127 838 000	43,99
PLAYER TRADING €	(31 600 000)	68 800 000	(22 600 000)	14 600 000 €
EQUITY €	327 013 000	282 705 000	273 155 000	19,72
Total GHG Emissions (tCO2e)	45 495,8	34 486,2	7852,8 (Only Scope 1 & 2)	31,92 Related to years 2023 and 2024

Source: Author’s own elaboration based on bvb.de, Deloitte, Transfermarkt.com.

Over the analyzed three-year period, the club consistently secured qualification for the UEFA Champions League. It is noteworthy that this continuity at the European level was maintained despite a decline in domestic performance during the 2024 season, where the club concluded with a fifth-place finish in the Bundesliga. In the two immediately preceding seasons, the team had consolidated a top-tier position, securing second place on both occasions.

Despite a less favorable placement in the domestic league, the club recorded an overall increase in revenues, as evidenced across all the financial items presented in Table 3.5. This growth appears to be strongly associated with the club's progression to the UEFA Champions League final during that same season. Such an achievement generated a highly positive financial impact across multiple dimensions: firstly, the increased number of home matches led to a structural expansion in matchday revenues; secondly, advancing deeper into the tournament secured higher income from broadcasting rights, driven by the greater number of games and extensive European media coverage. Finally, the heightened international visibility significantly enhanced the sporting brand's attractiveness, drawing the interest of new commercial partners and stimulating further investments from sponsors (i.e. Rheinmetall).

Both assets' categories illustrated in the table exhibit an upward trend. This dynamic reflects, on the one hand, a strategic orientation aimed at consolidating structural financial stability, as expressed by the expansion of tangible assets. On the other hand, it demonstrates a continuous commitment to enhancing sporting competitiveness, evidenced by the growth of intangible assets, with a clear upward trend during 2024, recording an increase of more than 56 million euros compared to the data reported two years prior. A particularly noteworthy analytical aspect is that, despite the progressive financial efforts directed toward increasing the squad's technical value, the club successfully maintained a positive net balance in player trading operations throughout the three-year period under review.

The evolution of shareholders' equity reflects the robustness and effectiveness of the club's operational and managerial performance. Consistent with the other financial metrics examined, this indicator also exhibits a steady upward trend, underscoring the organization's progressive capital strengthening.

Regarding the evolution of environmental performance, Borussia Dortmund shows a development trajectory characterized by the progressive refinement of its climate impact indicators. As disclosed in the club's sustainability reports (BVB Sustainability Report, 2023-24), the quantitative increase in recorded emission is primarily

attributable to enhanced accuracy and granularity in data collection and mapping. This phenomenon particularly affects indirect emissions classified under Scope 3 within the overall carbon dioxide equivalent (CO₂e) accounting. This methodological approach underscores the managerial rigor, corporate transparency, and long-term strategic orientation that characterize the club's governance model. Furthermore, since 2021 the club has adhered to the 10 principles of the UN Global Compact (UNGC), which encompass objectives regarding human rights, labor rights, environmental protection, and anti-corruption under all its forms. The number of emissions generated by the club is classified and calculated based on the GHG Protocol and with the help of the German Environment Agency (Borussia Dortmund).

Among the various sponsors partnering with the club, on energy conservation they have "Solex Power", which collaborates on solar energy installations; and Polestar, which serves as the official supplier of the club's electric vehicles. This partnership aims to mitigate environmental impact around the facilities, thereby lowering transportation emissions generated by players and staff members.

3.6.3 RB Leipzig

The analysis subsequently focuses on RasenBallsport Leipzig, a football club founded in 2009 that has rapidly established itself at the pinnacle of the German league. The club stands out within the international landscape due to its integration into a corporate network structured around the Multi-Club Ownership (MCO) model, in which the parent group controls or is connected to multiple football clubs operating across different markets.

Table 3.6. RB Leipzig: key financial indicator and CO₂e data overview (2022, 2023, 2024).

Bundesliga					 DELTA% (2022-2024)
RB LEIPZIG		2024	2023	2022	
REVENUE €		467 000 000	395 000 000	347 000 000	34,58
MATCHDAY		62 000 000	50 000 000	47 000 000	31,91
BROADCASTING TV & MEDIA		245 000 000	215 000 000	195 000 000	25,64
COMMERCIAL		160 000 000	130 000 000	105 000 000	52,38
TANGIBLE ASSETS €		95 000 000	90 000 000	85 000 000	11,76
INTANGIBLE ASSETS €		275 000 000	240 000 000	210 000 000	30,95
PLAYER TRADING €		(50 300 000)	56 550 000	(23 220 000)	(16 970 000) €
EQUITY €		137 700 000	113 350 000	~137 000 000	0,51
Total GHG Emissions (tCO ₂ e)		25 782	32 000	45 000	-42,71

Source: Author's own elaboration based on Bundesanzeiger, RB Leipzig, Deloitte, Transfermarkt.com.

In terms of sporting performance, RB Leipzig consolidated its position in the upper tier of the Bundesliga, finishing fourth in 2022 and 2024, and third in 2023. This continuity secured consistent UEFA Champions League qualification that stabilized core revenue streams, with a big increase that goes from less than 350 million euros in 2022 to more than 465 million euros in 2024. Globally, the historic UEFA Europa League semifinal run in 2022 generated substantial extraordinary income, which was subsequently surpassed by higher revenues from reaching the Champions League round of 16 in the following seasons. The analyzed period culminated in their maiden major domestic trophy, achieved by defeating Bayern Munchen in the 2024 German Supercup.

As a recently established club, RB Leipzig benefits from relatively modern infrastructure, which has been subject to continuous upgrades. This helps explain the progressive increase in tangible assets reported over the period.

The development of young players, often sourced from affiliated clubs such as RB Salzburg, structurally increases the value of intangible assets, and, just like the other

German clubs included in the study, this category is growing significantly. Moreover, the negative net balance recorded in player trading operations reflects a talent retention strategy, confirming the club's growing ambitions for sporting competitiveness.

Shareholders' equity remained broadly stable when comparing the 2022 and 2024 fiscal years, although it experienced a temporary decline in 2023. This contraction may be linked to investments in stadium infrastructure, technology and organizational expansion. From a financial perspective, this initiative was structured through debt explicitly designated for capital expenditure (CAPEX) rather than the coverage of operational losses. This managerial decision was underpinned by a continuous growth in revenues, which enabled the club to finance long-term operations without undermining the equilibrium of its core operations.

Demonstrating how German clubs aim to establish themselves as benchmarks within the ESG sector, a highly significant reduction in CO₂e can be observed in the table 3.5. In this case, the club divides its Scope 3 CO₂e emissions into two macro-categories: Downstream and Upstream. The first component accounts for 40,9% of the total emissions and is driven by fan mobility; while the Upstream share (46,3%) encompasses all team travel, in addition to catering and merchandising activities. This club is also consistently booking for strategic partners to help them achieve their environmental goals; in fact, the calculation of transport related emissions is managed in cooperation with Leipziger Verkehrsbetriebe (LVB) group's team. This positive environmental performance is the direct outcome of targeted capital expenditures and sustainable investments allocated over the preceding financial years. The ESG criteria adopted by this club derive from a synergy between the Red Bull group's guidelines and principles, and the intrinsic values of German culture. The use of modern, cutting-edge facilities optimizes data tracking and promotes energy savings; furthermore, since 2021, the club has implemented the "PLAY. CARE. SHARE." project, a strategic framework detailing all operations and data aimed at driving the club's sustainable development (RB Leipzig).

3.7 Group C – Italian clubs

The final group of case studies focuses on Serie A, Italy's top professional football league. Serie A has historically hosted some of football's greatest players, despite experiencing a partial decline in its systematic ability to attract top global talent over the last two decades. This section examines the financial and non-financial, as well as the corporate governance models of Inter FC, Juventus FC and AS Roma.

3.7.1 Inter FC

The examination of the Italian case begins with FC Inter, the club recently crowned domestic league champions. Italy ranks second in Italy in terms of fanbase size, behind only Juventus FC. Nevertheless, over recent financial years, the club has recorded a steady upward trajectory in brand equity and commercial valuation, a development significantly driven by its positive sporting performance.

Table 3.7. Inter FC: key financial indicator and CO₂e data overview (2022, 2023, 2024).

Serie A				 DELTA% (2022-2024)
INTER	2024	2023	2022	
REVENUE €	391 000 000	379 000 000	308 000 000	26,95
MATCHDAY	81 000 000	90 000 000	44 000 000	84,09
BROADCASTING TV & MEDIA	198 000 000	216 000 000	177 000 000	11,86
COMMERCIAL	112 000 000	73 000 000	87 000 000	28,74
TANGIBLE ASSETS €	31 993 930	28 943 877	28 116 870	13,79
INTANGIBLE ASSETS €	409 999 839	412 999 419	546 795 971	-25,02
PLAYER TRADING €	54 580 000	(40 830 000)	165 600 000	179 350 000 €
EQUITY €	(99 724 930)	(161 978 000)	(85 372 658)	-16,81
Total GHG Emissions (tCO ₂ e)	-	-	-	-

Source: Author's own elaboration based on Inter FC, Deloitte, Transfermarkt.com.

Over the three-year period analyzed, Inter showed a clear progression in domestic league performance, finishing second and third before winning the league in the 2024 season.

Similarly to what was observed in the Bundesliga, Serie A was also heavily impacted by the prolonged restrictions introduced to mitigate the Covid-19 pandemic, which severely constrained live sports attendance. This context is empirically reflected in matchday revenues, which were markedly lower in 2022 compared to the following fiscal years. In 2023, despite an overall revenue expansion of 71 million euros, the primary bottleneck to commercial growth stemmed from the sponsorship sector. Specifically, the partnership with the main shirt sponsor, “Digitalbits”, was terminated prematurely due to the sponsor’s failure to fulfil its contractual payment obligations. This generated a significant shortfall within that specific revenue stream.

The 2023 financial year highlights significant growth in both matchday and broadcasting revenues. This expansionary trend is directly correlated with the club’s excellent competitive performance in the UEFA Champions League, culminating in reaching the final, an achievement that maximized both stadium attendance and broadcasting rights distribution. The 2024 financial year culminated in domestic league success, contrasted, however, by a premature exit from the knockout stage of the UEFA Champions League. Although this sporting setback partially constrained the expansion potential of revenue streams tied to continental competitions, overall total revenues nevertheless maintained an upward trajectory.

As mentioned in Chapter 1, the Italian football landscape is characterized by a low prevalence of club-owned stadiums. Consequently, within the tangible assets section, Inter does not report any capital assets related to the match facility, which is owned by the Municipality of Milan. Nevertheless, the club maintains proprietary ownership of its training centers and youth academy facilities. The historical trend of these assets exhibits a progressive, albeit moderate, increase in value, reflecting continuous capital expenditures aimed at enhancing the club’s real estate infrastructure.

Reflecting the persistent structural and financial challenges that have impacted the Italian football sector for several years, Inter’s intangible assets demonstrate a

downward trend. This contraction is indicative of a specific market strategy centered on self-financing and cost rationalization. The club generated substantial cash flow through player disposals, with more than €170 million in player trading revenues, while also prioritizing the acquisition of free agents or lower-cost players. This recruitment policy, often focused on more experienced profiles, results in a lower capitalization of registration rights on the balance sheet and reduces the future residual value of these assets.

Shareholders' equity has shown a negative balance since the 2019 fiscal year, reaching its largest deficit in 2023 with a negative value exceeding 160 million euros. In 2024, following the entry of the new ownership, the club's management implemented a strategic plan focused on structural restructuring and the progressive restoration of equity. This managerial policy aims to consolidate long-term economic and financial stability while simultaneously enhancing the club's attractiveness to prospective third-party investors.

Inter FC, unlike the case studies analyzed so far, does not have any publicly available documentation where data regarding the club's energy consumption and CO₂e emissions are calculated and disclosed. At present, the club is more focused on social initiative, which include the opening of several sport campuses worldwide; in 2024, for instance, a new Inter Campus was launched in the Maldives (Inter FC, 2024).

3.7.2 Juventus FC

The analysis proceeds with Juventus FC, historically the most successful football club in Italy and the club with the largest domestic fanbase. Juventus represents one of the most structured corporate entities in the Italian football landscape, also due to its status as a publicly listed company (Società per Azioni, S.p.A.). For this reason, its financial dynamics, capitalization strategies and governance model deserve specific attention.

Table 3.8. Juventus FC: key financial indicator and CO₂e data overview (2022, 2023, 2024).

Serie A						
JUVENTUS	2024	2023	2022		DELTA%	(2022-2024)
REVENUE €	356 000 000	434 000 000	401 000 000		-11,22	
MATCHDAY	55 000 000	58 000 000	32 000 000		71,88	
BROADCASTING TV & MEDIA	100 000 000	157 000 000	175 000 000		-42,86	
COMMERCIAL	201 000 000	219 000 000	194 000 000		3,61	
TANGIBLE ASSETS €	177 631 140	189 097 687	154 268 451		15,14	
INTANGIBLE ASSETS €	332 565 096	378 170 265	488 359 468		-31,90	
PLAYER TRADING €	(53 600 000)	792 000	(7 202 000)		(60 010 000) €	
EQUITY €	40 200 000	42 100 000	164 707 771		-75,59	
Total GHG Emissions (tCO ₂ e) (SCOPE 1 + SCOPE 2, NO SCOPE 3)	6166,92	6328,51	7701,30		-19,92	

Source: Author's own elaboration based on Juventus FC, Deloitte, Transfermarkt.com.

Over the three-year period analyzed, Juventus finished fourth in Serie A in 2022, seventh in 2023 and third in 2024. From a financial perspective, the 2023 fiscal year recorded the highest revenue of the period analyzed, driven by the positive European run that culminated in reaching the UEFA Europa League semifinals. The expansionary trend was further supported by the complete lifting of stadium capacity restrictions (after Covid-19), which optimized matchday revenues, alongside a historical peak in commercial partnership income, anchored by top sponsors such as Jeep and Adidas. The 2024 financial year recorded a generalized contraction across all revenue streams. This decrease is the direct consequence of disciplinary sanctions imposed by sports justice authorities in connection with the so-called “capital gains case”, which resulted in the club’s exclusion from UEFA competitions and a 20-million-euro fine. The absence from continental tournaments drastically reduced the overall number of matches played, severely penalizing both matchday and broadcasting revenues. Furthermore, several commercial partners decided to decline sponsorship renewals.

The value of tangible assets shows an overall upward trend compared with the 2022 fiscal year. This reflects the club's continued investment in infrastructure and facilities, although the evolution of this category should be interpreted separately from short-term fluctuations in revenues.

The dynamics of intangible assets reflect the broader structural and financial challenges affecting Serie A. Similarly to the findings for Inter FC, a steady decrease in the balance sheet value of these assets is observed. Nonetheless, in contrast to the previous case, Juventus FC reports a negative net balance from player trading. This strategic and accounting divergence does not stem from the recruitment of older, highly experienced players, but rather from the direct impact of on-field performances. The failure to meet projected sporting objectives triggered a depreciation in the market value of the squad, resulting in lower capital gains and impairment losses on the registration rights of the players within the portfolio.

Shareholders' equity shows a sharp decline compared with the 2022 financial year. This trend is partially related to the absorption of the capital inflows generated by the massive recapitalizations enacted by the governance in the preceding two years to counter the pandemic-induced liquidity crisis. Furthermore, until 2022, the club leveraged temporary regulator relief measures introduced by the government regarding the suspension of mandatory capital reductions due to losses. The expiration of these regulatory cushions, combined with sporting performances that fell short of projected targets, accelerated the erosion of equity reserves, significantly deteriorating the overall economic value of the company.

Juventus FC stands out within the domestic football landscape as one of the few Italian clubs to consistently publish a Non-Financial Statement (NFS), which details the strategic objectives tied to ESG criteria. Within this reporting framework, the club rigorously outlines its data collection methodologies and quantitative metrics regarding greenhouse gas emissions, specifically capturing Scope 1 (direct emissions) and Scope 2 (indirect emissions from purchased energy) framework.

Juventus FC is one of the few expectations in Italian football with regard to stadium ownership. Many of these infrastructures have achieved major environmental

certifications. The stadium obtained the ISO 14001 certification in 2029, followed by the training center in 2022. The club has also taken part in international sustainability initiatives, including the United Nations Framework Convention on Climate Change (UNFCCC).

The club aligns with CO₂e calculation methodologies adopted by the English and German teams, differing however due to the absence of structured data regarding Scope 3. Juventus FC specifies that its location-based method is based on national average emission factors related to electricity generation. Furthermore, the club notes that its market-based method reflects the specific CO₂e emissions of the energy vectors purchased directly from the supplier chosen by the organization (Juventus Sustainability Report 2023-24).

The club's major partnerships within the ESG framework involve Enel, for the development and optimization of sustainable energy facilities, and Alperia, through which the club has established the strategic target of achieving 100% renewable energy procurement (Juventus FC, 2021).

3.7.3 AS Roma

The analysis concludes with AS Roma, a Rome-based club founded in 1927 and characterized by a passionate fanbase and a glorious sporting tradition. Representing one of the most fascinating entities in Italian football, the recent history of the "Giallorossi" offers a compelling narrative to understand the evolution and international ambitions of the Serie A.

Table 3.9. AS Roma: key financial indicator and CO₂e data overview (2022, 2023, 2024).

Serie A AS ROMA				
AS ROMA	2024	2023	2022	DELTA% (2022-2024)
REVENUE € + Other operating income	301 764 000 (72 15 392)	277 057 000 (69 891 663)	206 421 000 (49 391 639)	46,19
MATCHDAY	55 464 711	49 243 985	25 520 950	117,33
BROADCASTING TV & MEDIA	104 146 581	109 325 538	92 951 860	12,04
COMMERCIAL	70 007 316	48 595 814	38 556 551	81,57
TANGIBLE ASSETS €	10 264 265	12 636 646	12 539 247	-18,14
INTANGIBLE ASSETS €	99 406 374	133 768 995	184 899 611	-46,24
PLAYER TRADING €	56 880 000	72 360 000	(114 810 000)	14 430 000
EQUITY €	(407 727 374)	(436 438 902)	(334 547 000)	-21,87
Total GHG Emissions (tCO ₂ e)	-	-	-	-

Source: Author's own elaboration based on AS Roma, Transfermarkt.com.

Over the three-year period analyzed, AS Roma showed relative stability in domestic league performance, systematically consolidating sixth place in the standings. Consequently, the fluctuations observed in corporate revenues are not attributable to domestic performance but rather reflect the club's trajectory in European competitions and the progressive recovery dynamics of the post-pandemic phase.

In the 2022 financial year, despite the economic and structural challenges affecting the whole football sector, AS Roma participated in the debut edition of the UEFA Conference League. The club secured the inaugural title of the tournament, the third-tier continental competition behind the Champions League and the Europa League, achieving a sporting success that generated significant positive impacts both in terms of brand equity and competition-related cash flows. In 2023, the club sustained its high-performance standard on the European stage, reaching the UEFA Europa League final. This significant sporting milestone provided a further upward impulse to corporate revenue streams, driven by the expansion of broadcasting and matchday receipts. The positive results achieved on the European stage triggered a strong resurgence in fan engagement,

leading to a consolidation of the systematic “sold-out” phenomenon at the “Stadio Olimpico”, which significantly impacted matchday revenues during the 2024 fiscal year. Concurrently, the club benefited from enhanced international visibility and brand equity, which boosted its commercial attractiveness to prospective corporate partners. This expansionary trend is reflected in the commercial sector, by the transition from “Digitalbits” to “Ryhad Season” as the main shirt sponsor, alongside the execution of a new, more lucrative technical partnership with Adidas.

The value of tangible assets, which was already limited in 2022, demonstrates a steady downward trend over the subsequent periods. The contraction is attributable to the progressive technical and structural debasement of the stadium, driven by a lack of significant capital expenditures for extraordinary maintenance or infrastructural development.

The value of the intangible assets almost halved over this three-year analysis. This downward trend is a direct consequence of the stringent regulatory constraints imposed by the Settlement Agreement executed with UEFA under the Financial Fair Play (FFP) framework, which from 2023 financial year onwards mandates the club to achieve a positive net balance in its player trading operations. To preserve sporting competitiveness despite these capital restrictions, the governance implemented highly flexible transfer market strategies, systematically leveraging market opportunities such as the recruitment of free agents and temporary loan agreements.

The analysis of AS Roma’s shareholders’ equity evolution over the 2022-2024 period highlights a structural economic paradox. The progressive expansion of operational turnover failed to halt the erosion of equity value. This phenomenon is rooted in the magnitude of accumulated losses, regarding 2022, where the debt part was partly stuck until the following year (some tax benefits due to pandemic conditions). Furthermore, the implementation of transfer market strategies focused on free agents or temporary loan agreements (i.e. P. Dybala and R. Lukaku) failed to alleviate financial pressures. Indeed, the substantial weight of these players’ gross salaries burdened core operating expenses, further accelerating the erosion of equity value. In addition, although the majority shareholder (the Friedkin Group) consistently injected hundreds of millions of euros into the corporate coffers, these cash flows were initially classified under balance

sheet liabilities as shareholder loans. From an accounting standpoint, these funds constituted a debt owed to ownership rather than an immediate capital reserve. This temporal mismatch in equity conversion meant that, in terms of balance sheet presentation, the capital structure of the Roman club constantly appeared severely strained.

AS Roma has not formalized the publication of a dedicated sustainability report or Non-Financial Statement. Consequently, structured data and systemic disclosures regarding energy consumption metrics and environmental impacts linked to ESG criteria remain unavailable within the public domain.

Similarly to Inter FC, the capital-based club lacks a structured reporting framework disclosing non-financial performance data and strategies. The only initiatives aligned with ESG criteria focus exclusively on the social dimension, taking the form of various community campaigns and solidarity projects, which range from providing aid to underprivileged individuals to promoting the values of respect and universal inclusion.

3.8 Result and Discussion

This section aims to analyze the results emerging from the analysis conducted on the football clubs examined, highlighting how the collected data allow meaningful conclusions to be drawn in relation to the objectives of the research. This result will be presented by distinguishing them according to their nature: the first subsection will discuss financial results, while the second subsection will focus on non-financial aspects, with reference to environmental, social and governance criteria, and specifically to GHG emissions as the only quantitative data considered within this subsection.

3.8.1 Financial Results

Building upon the empirical datasets and structured tables of football clubs presented in the preceding chapter, this study shifts toward a detailed evaluation of specific balance sheet items, examining their strategic relevance within professional football clubs. The analysis of the results isolates the economic framework systematically assessing: the impact and structural composition of revenue streams across the respective leagues; the comparative significance of tangible assets relative to intangible assets; the disparities in financial capacity regarding transfer market expenditures

among the different championships; and, finally the dynamics of equity, which serves as a core indicator of financial resilience interconnected with all prior variables.

Concurrently, the investigation transitions to the analysis of the final metric operationalized in Chapter 3 (CO₂e emissions), scrutinizing its financial implications and the strategic weight it carries for the long-term corporate sustainability of these sports enterprises.

A comparative analysis of the three leagues under consideration clearly reveals the Premier League's structural dominance, as it significantly outperforms the other leagues in almost all the metrics examined. This scenario is outlined in Figure 3.2. From a methodological perspective, whilst this type of comparison is traditionally applied at the micro-level (by comparing individual clubs with one another), this study adopts a macro perspective, taking the form of a competitor analysis of the three league systems as a whole. This analytical approach allows for the mapping of the respective structural strengths and weaknesses in relation to the main international competitors, identifying the critical areas for strategic intervention necessary to bridge the competitive gaps that have emerged (M. Porter, 1980).

Figure 3.2. Competitor Analysis: Premier League, Bundesliga, Serie A.

Competitor analysis			
Summary of the sum by the data of each club and grouped for each Nation.			
	English clubs	German clubs	Italian clubs
Revenue (highest)	✓	✗	✗
Tangible Asset (highest)	✓	✗	✗
Intangible Asset (highest)	✓	✗	✗
Player Trading - Positive value	✗	✗	✓
Equity - Positive value	✓	✓	✗
ESG data-driven ability (All scopes included in 2024)	✗	✓	✗

Competitor analysis			
Summary of the sum by the data of each club and grouped for each Nation. Divided for the 3 years. QUANTITATIVE COMPARISON			
	English clubs	German clubs	Italian clubs
Revenue (highest)	607 777 776 €	518 000 000 €	329 249 111 €
Tangible Asset (highest)	776 092 333 €	125 408 111 €	71 721 346 €
Intangible Asset (highest)	329 624 111 €	235 641 556 €	286 366 691 €
Player Trading - Positive value	-430 300 000 €	-34 230 000 €	44 590 000 €
Equity - Positive value	270 070 666 €	318 763 333 €	-142 111 111 €
ESG data-driven ability (All scopes included in 2024)	ARS & LIV has scope 3 included but not TOT. (in 2024)	All included since 2023.	No one include all the three CO ₂ e measurement emission.

Example of "Tangible assets Italian club" = Inter average (2022-2023-2024) TA value + Juv average TA value + Rom TA value.
 $(29\,684\,892 + 173\,665\,759 + 11\,813\,386) / 3 = 71\,721\,346\,€$

Source: Author's own elaboration based on data presented in Chapter 3.

The comparative analysis reveals that Italian clubs maintain a competitive edge solely and exclusively in "player trading", highlighting a strong strategic reliance on capital gains and the transfer market. Bundesliga clubs, by contrast, demonstrate a more balanced and diversified structural performance. In addition to solid economic and

financial stability (Equity), the German system stands out clearly in the environmental dimension (Environment); thanks to advanced monitoring and data collection capabilities, the Bundesliga is the only context under analysis in which all the clubs examined systematically include “Scope 3” emissions within their ESG reporting.

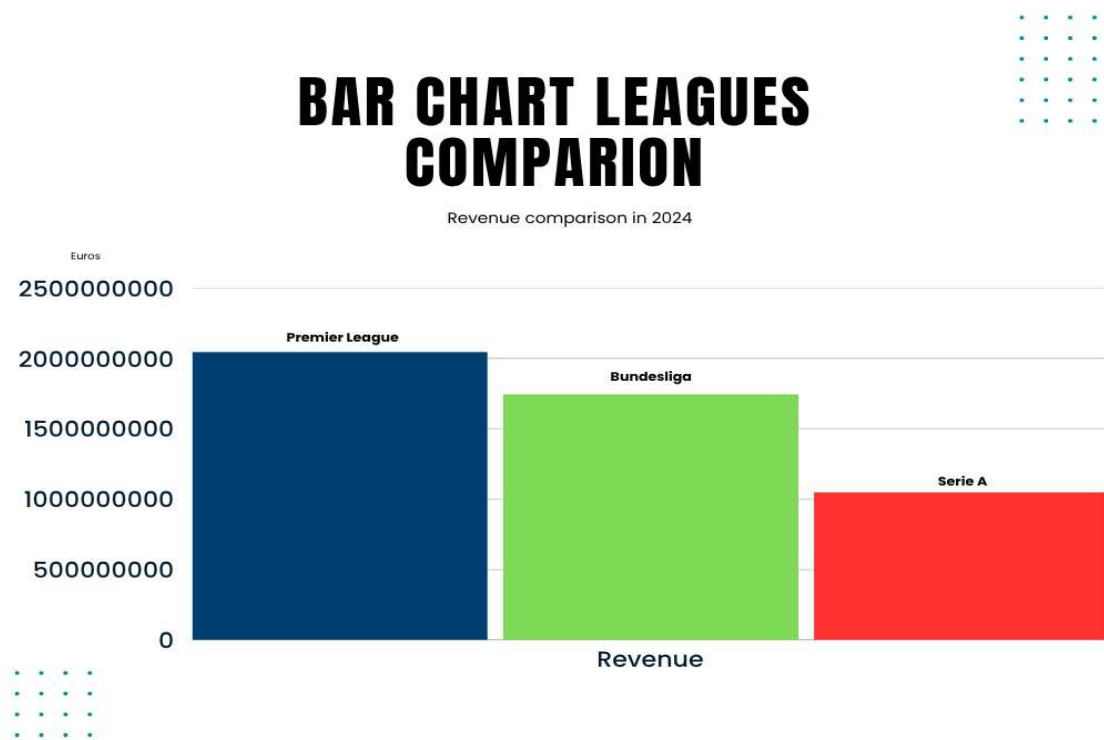
3.8.1.1 Revenue

An analysis of revenue requires careful consideration of the unique nature of football club financial statements, which differ structurally from the financial reports of traditional corporate governance.

This uniqueness is effectively summarized by Fabrizio Bava, who notes that “the financial statements of football clubs are to other financial statements as Venice is to other cities”, highlighting the presence of operational and accounting dynamics that are unique and cannot be replicated in other industrial sectors (F. Bava, 2023). Historically, football business models have prioritized sporting success over financial balance. However, since the post-pandemic period, which began around 2023, we have observed a paradigm shift: clubs are now pursuing a dual strategy aimed at combining competitiveness on the pitch with rigorous financial sustainability. In this context, maximizing and diversifying cash flows across all business channels become fundamental pillars. Finally, it should be noted that the revenue items shown in the tables in Chapter 3 do not aggregate the company’s total revenue, but rather isolate its most representative components; the data relating to these items (Matchday, Broadcasting, Commercial) are all sourced from the same provider (Deloitte) to ensure methodological consistency and comparability between them.

Figure 3.3 aggregates the data on commercial and operating revenue recorded within each league for the 2024 financial year. The empirical evidence once again highlights the competitive imbalance and structural gap separating Serie A from its main European competitors. This gap in revenue streams highlights the difficulties faced by the Italian football system in generating commercial performance in line with international benchmarks, directly affecting the spending capacity and long-term financial sustainability of the member clubs.

Figure 3.3. Total revenue of the teams under analysis, split by the league they belong to in 2024.



Source: Author's own elaboration based on data (Revenue) presented in Chapter 3.

Looking at the financial figures in more detail, Serie A's total turnover of €1 048 764 000 is roughly half that of the Premier League, which has consolidated its leading position with €2 047 000 000. Although the Bundesliga remains the second-largest league in terms of internal revenue generation (in this analysis), with a total of €1 746 000 000, it still lags significantly behind the English league. This marked financial disparity highlights the differing levels of commercial penetration and internationalization of television and sponsorship brands across the three European leagues.

3.8.1.2 Tangible Asset, Intangible Asset and Player trading

The empirical evidence emerging from the analysis of these specific financial metrics is crucial for assessing the financial health and strategic positioning of clubs. These indicators do not merely reflect the clubs' level of international competitiveness; they also reveal the focus of their business model and their effectiveness in securing the revenue streams essential for ensuring business continuity and long-term operational stability.

Intangible assets comprise a wide range of rights, licenses and assets without physical substance, among which players' registration rights stand out in terms of strategic importance. A high amount of this item reflects the technical strength of the squad, indicating the club's operational potential in pursuing its sporting goals. However, the main challenge with intangible assets comes from their intrinsic and marked volatility. An athlete's market value is subject to sudden fluctuations driven by unpredictable factors, such as serious injuries. In this regard, scientific evidence shows that only 80% of professional footballers who suffer severe injuries manage to recover their pre-injury performance levels, a process that can take up to three years (Forsythe, 2023).

By contrast, tangible assets refer to a company's infrastructure assets. Although European football clubs, particularly in Italy, have historically not regarded infrastructure as their primary asset, we are now experiencing a redefinition of these business models. Many clubs are seeking to consolidate their financial base through strategic property investments in order to stabilize their enterprise value. The key example in the Italian landscape is Juventus, which has complemented its own stadium with the development of sports centers, a museum and a dedicated medical facility (J-Medical). This asset diversification reflects a clear strategic focus aimed at mitigating and offsetting the depreciation of intangible assets, which have naturally declined following less successful sporting seasons (F. Bava, 2023).

Based on the empirical evidence outlined in the previous chapter, a significant infrastructure gap emerges between the three football leagues that is unlikely to be bridged: the Premier League clubs included in the sample significantly outstrip those in the other two leagues in terms of tangible assets. A striking example is that of Tottenham Hotspur, which ranks at the very top thanks to the high value of its tangible assets, a trend driven by a unique strategic vision that places the club's own stadium at the heart of its business model. The substantial investments made in the construction of the new stadium were aimed at creating a sustainable competitive advantage; the underlying logic seeks to maximize the monetization of assets not only through traditional sporting events, but by transforming the facility into a multifunctional hub operating all year round, thereby securing and optimizing the club's long-term financial sustainability (Zaccaria, 2026).

Revenue from "player trading" constitutes a distinct category of income, centered on the sale of players' sporting rights with a view to generating capital gains. Within the sample examined, Italian clubs stand out for their systematic application of this financial strategy. This approach is not purely optional but stems from a structural necessity: due to a significant shortfall in ordinary operating cash flows (the three traditional components of revenue), Serie A clubs are frequently forced to monetize their most valuable assets on the transfer market. This policy of technical divestment is essential to ensure a balanced budget, avoid administrative penalties and comply with the requirements of UEFA's Financial Fair Play (FFP)⁴ regulations.

Conversely, clubs with higher revenue streams benefit from greater spending power, enabling them to make more substantial investments in player transfers and offer salaries capable of attracting the best international talent. This phenomenon triggers a virtuous macroeconomic cycle: the progressive concentration of top players within a single league exponentially amplifies its media and commercial appeal. Consequently, the high competitiveness of the league as a product generates a corresponding increase in revenue from television rights and sponsorship, further consolidating the financial supremacy of the clubs belonging to that league.

3.8.1.3 Equity

An analysis of the equity results reveals a clear divide in terms of financial stability, which significantly disadvantages the Italian context. By 2024, in fact, both Inter FC and AS Roma will have negative equity, indicating a capital deficit accompanied by debt restructuring. As for the Premier League, excluding Tottenham Hotspur's outstanding financial performance, there is a slight downward trend, with marginal but visible declines in the balance sheets of Liverpool FC and Arsenal FC.

By contrast, the Bundesliga stands out as the most solid model, characterized by a consistently positive trend. This increase in assets reflects a governance philosophy focused on modernization and financial discipline: although German clubs generate

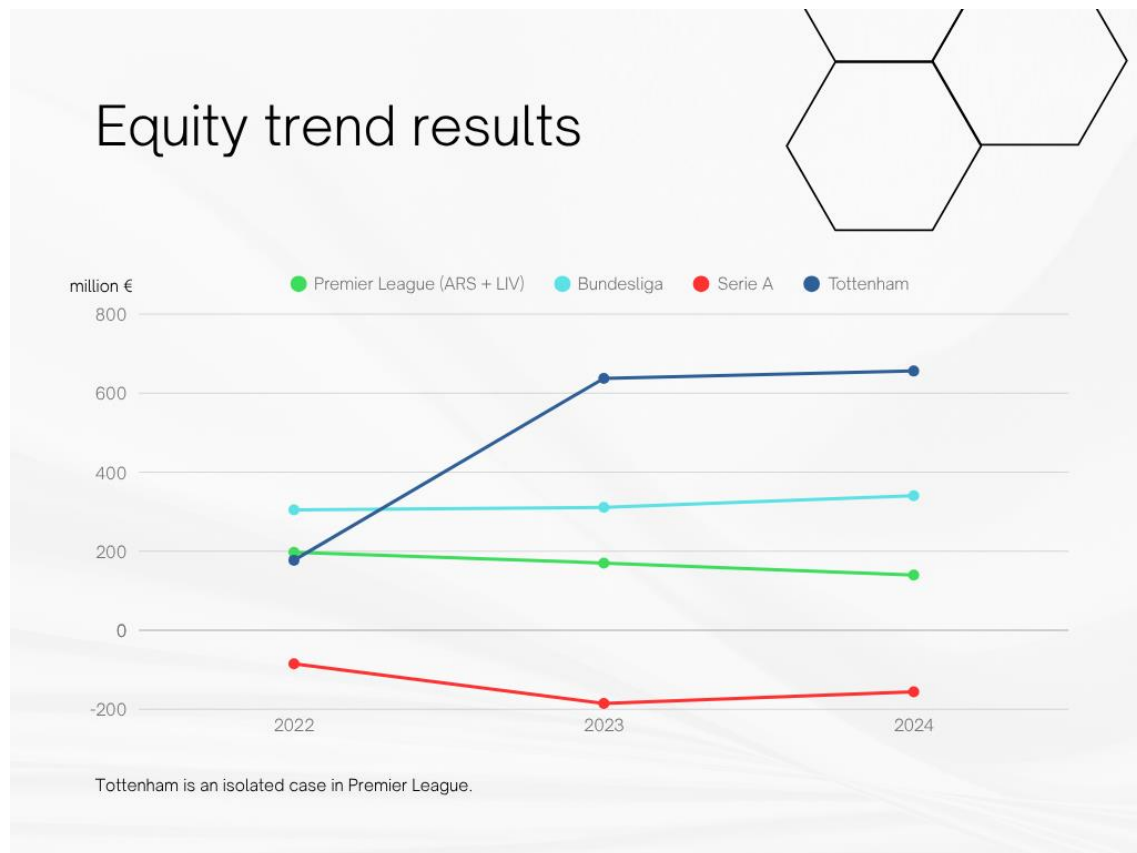
⁴ Financial Fair Play is a regime that clubs wishing to participate in UEFA competitions agree to abide by and is based on the clubs' cooperation in disclosing a complete and truthful financial position (UEFA, 2018).

lower revenues and have lower valuations than their English counterparts, they adopt controlled spending policies, avoiding runaway operating costs and maintaining significantly more balanced and sustainable player transfer balances.

Within financial statements, equity represents the difference between assets and liabilities, effectively summarizing the net worth of the company. This indicator is of vital importance in the assessment of investment strategies. Equity is, in fact, a crucial variable for supporting sustainable growth processes and ensuring the structural soundness of the capital structure in the medium to long term (Banca Ifis, 2025).

The final analysis of the economic and financial dimension concludes with an examination of the average trend in equity for the clubs in the sample, aggregated by league (Figure 3.4). In this context, Tottenham Hotspur represents a clear statistical outlier; the exceptional nature of its financial performance constitutes an isolated case that does not reflect the general macroeconomic trend and the contraction observed in other Premier League clubs.

Figure 3.4. Average equity value for the 3 leagues & Tottenham Hotspur case.

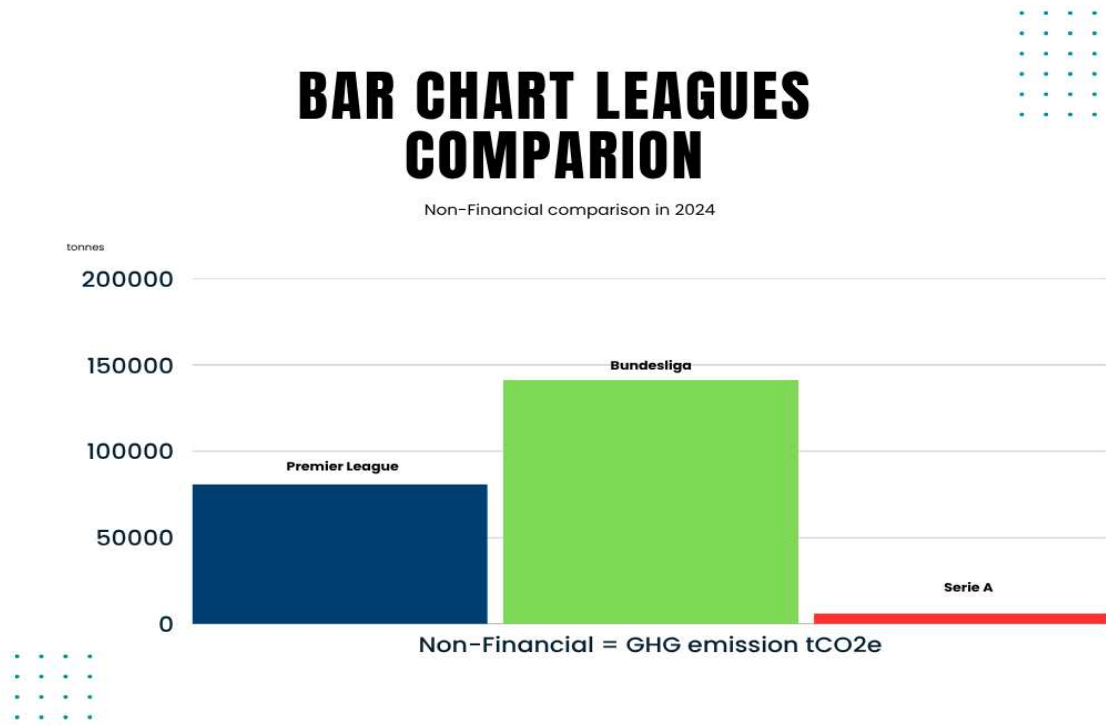


Source: Author's own elaboration based on data presented in Chapter 3.

3.8.2 Non-Financial Results (ESG)

A comparative analysis of the tables relating to the clubs examined in the previous chapter reveals a marked discrepancy between clubs in different European leagues in terms of non-financial aspects.

Figure 3.5. Bar chart showing the only non-financial item. Total data for teams in 2024, broken down by league (Scope 1 + Scope 2 + Scope 3).



Source: Author's own elaboration based on data presented in Chapter 3.

The analysis of the Bundesliga (in Figure 3.5) highlights how almost all of the clubs examined – with the sole exception of Borussia Dortmund in 2021 – have historically had estimates and structured data covering the entire spectrum of CO₂e emission categories (141 277,8 tonnes). In addition to this methodological study, the three German football clubs under consideration share the same strategic orientations as the most modern global corporations, actively focusing on the pursuit of a future-oriented, eco-sustainable operating model.

The English football landscape is undergoing a significant transformation, with the substantial financial resources available to Premier League clubs acting as a strategic driving force to position the league not only at the pinnacle of sporting competitiveness, but also at the forefront of the global ecological transition in the coming years. In this

context, the case of Tottenham is emblematic: the substantial structural investments completed in recent years reflect a synergistic vision in which economic stability is combined with environmental sustainability and social wellbeing, as formalized in the club's non-financial strategic plan. At the same time, Arsenal and Liverpool also demonstrate solid continuity in their non-financial reporting, publishing consistent annual reports and pursuing the same environmental objectives through different but complementary methodological approaches. On the one hand, Liverpool favors an integrated and all-encompassing strategy, known as "The Red Way", which brings together all programs related to ESG criteria; on the other, Arsenal directs its strategy towards targeted annual reports, focusing on the analytical breakdown of the three macro-areas of sustainability. The total result in 2024 is 80 898,43 tonnes of CO₂e.

By contrast, Serie A lags significantly behind its main European competitors, not only in economic and financial terms but also in the integration and reporting of non-financial metrics. In the Italian analysis, Juventus is the only club that has long since succeeded in embedding a structured sustainability vision within its operational model; the following analysis identified a total of 6 166,92 tonnes of CO₂e in 2024 (the total figure for Serie A in Figure 4.3). Nevertheless, even Juventus FC highlights certain areas where improvements are recommended in its sustainability report: in fact, there is no analysis of Scope 3, which includes as many as 15 of the categories required by the GHG Protocol, namely everything relating to the aspect that generates the greatest environmental impact, attributable to indirect greenhouse gas (GHG) emissions generated along the value chain and linked to the company's activities, but not directly controlled by it.

In order to better understand the various strategies identified through the analysis of clubs in the Bundesliga, the Premier League and Serie A, it is worth breaking down the three key areas that make up the ESG criteria.

3.8.2.1 Environmental

There is a total of twenty-two subcategories used to quantify CO₂e emissions within the analysis, as can be easily seen, for example, in the report compiled by Arsenal. These subcategories are divided into four categories relating to direct emissions (Scope 1),

three relating to indirect emissions under the control of the football club (Scope 2) and fifteen focusing on indirect emissions arising from the value chain and not controlled by the club (Scope 3). In this regard, it is clear that numerous clubs have adopted specific operational strategies aimed at minimizing the impact of the first two categories of emissions. Many clubs have, in fact, entered into targeted strategic partnerships: Arsenal has collaborated with Octopus Energy to mitigate Scope 2 emissions, whilst Bayern Munich has developed a partnership with Einhell to tackle Scope 1 emissions. Italian clubs have also taken steps in this direction with targeted initiatives: Juventus has entered into agreements with Alperia and Enel for energy supply (Scope 2), whilst a recent example is Inter, which, through its collaboration with BYD, has provided first-team players and management with fully electric vehicles for logistical and club-related travel (Inter FC, 2026).

3.8.2.2 Social

From the perspective of the “Social” dimension of ESG criteria, the various European leagues have historically worked in synergy, promoting initiatives with a significant impact. Among the most significant are programs to combat racism: the most famous example is the “Black Lives Matter” movement which, following the George Floyd case in the United States, saw the Premier League formally join the cause, introducing the symbolic gesture of players taking a knee before kick-off (Premier League, 2020). Still about combating discrimination, in the broadest sense, the Bundesliga has recently launched the “TOGETHER! Stop hate. Be a team” program (Bundesliga, 2026). In Serie A, meanwhile, the “#unrossoallaviolenza” initiative stands out: an awareness-raising project against violence against women that sees players, coaches and referees take to the pitch with a red mark on their cheek as a sign of solidarity and support; this is complemented by other institutional activities to combat racial discrimination, such as the “Keep Racism Out” campaign.

Focusing on the clubs covered by this analysis, it becomes apparent that each club is particularly active in the social sphere. Their respective non-financial reports document initiatives of great significance, ranging from international campus projects designed to

offer young people from all over the world the opportunity to play sport and share educational experiences, to inclusive programs aimed at the integration and active involvement of the fanbase, with the aim of strengthening the sense of identity with the club. In this context, some clubs stand out for the scale of their structural investment; Bayern Munich, for example, has developed a vast youth academy (FC Bayern Campus) where sporting and educational principles are instilled from a very young age. This facility provides young athletes with comprehensive support, including ongoing psychological support to address all needs related to personal and professional development (Mitnand, 2025).

Football clubs that do not have an official sustainability report communicate their social initiatives through press releases and dedicated sections on their official websites (Inter FC and AS Roma).

3.8.2.3 Governance

Governance is the fundamental pillar and the central hub for the coordination of all corporate activities. Without an appropriate corporate governance structure geared towards strategic planning that effectively balances financial and non-financial performance, it becomes difficult to ensure transparency, ethical conduct and corporate social responsibility.

In this regard, initiatives promoted by the United Nations, such as the seventeen Sustainable Development Goals (SDGs) set out in the 2030 Agenda, can only be translated into concrete results through timely and forward-looking planning; this approach must be based on innovative criteria that reflect the development of the organization's activities through a systematic commitment to safeguarding and integrating ESG parameters (UN, 2015).

In order to put this theoretical framework into context, it is necessary to examine the practical application of this concept in greater detail, by analyzing the operational governance mechanisms adopted by the various sports clubs under consideration.

Arsenal FC's report reveals a vision focused on sustainable development. The document outlines the various governance roles and bodies that work synergistically to achieve the set targets. The structure is organized around six key figures, divided into two macro-functional levels: the "Strategic Oversight" area comprises the Board Director and the Managing Director; the "Management Level" includes the Chief Operating Officer, the Director of ESG and the Executive Committee. The Operational Governance Committee acts as a link between these two decision-making spheres. This structured corporate framework works in a coordinated manner to map and assess the club's business risks and opportunities, ensuring full compliance with ESG criteria (Arsenal FC, Climate-related report, 2023–24).

Liverpool FC stands out in the Premier League as the first and only club to have achieved official certification for its management system standards. In terms of governance, the report "The Red Way" states that the commitment to excellence and continuous improvement is ensured by the establishment of the "Sustainability Steering Committee", a dedicated governing body that oversees decision-making processes to ensure full compliance with sustainable development strategies (Liverpool FC, The Red Way report 2024).

Tottenham states that it has established a comprehensive governance framework specifically designed to manage the challenges associated with climate risks. The strategic objective, as previously highlighted, is to invest substantial sums of money in facilities and staff with the aim of achieving the "Net-Zero" target by 2040. The section on Governance in the company report details both "Management Roles", setting out operational roles and responsibilities, and "Board Oversight", which outlines the various supervisory tasks.

Bayern Munich's sustainability report stands out as the most comprehensive and analytical of those examined. In addition to highlighting the presence of professional staff and governance bodies with responsibilities like those found in Premier League clubs, the club's report emphasizes the strategic importance of commercial partnerships. The German club highlights strong cooperation with globally renowned brands such as Adidas and Audi, partnerships structured to support the club in achieving its sustainability objectives. Furthermore, the document introduces an internal

regulatory framework which establishes, with effect from 1 January 2024, the club's formal commitment to systematically verify and document all information relating to respect for human rights and environmental protection, with the dual aim of increasing corporate transparency and establishing itself as a benchmark for other companies (Bayern FC, Mitnand project 2025).

Borussia Dortmund's non-financial reporting is also characterized by a comprehensive and analytical approach. Focusing on the governance dimension, it is evident that there is a robust corporate governance system in place, within which various professionals work together to identify and assess the club's sustainability risks and opportunities. Among the various indicators and documented elements, the club includes both a mapping of partner organizations and a list of supported international programs, notably including formal membership of the United Nations Global Compact (UNGC) (BVB, Sustainability Report 2024).

RB Leipzig's sustainability report appears less detailed than those of the other two German football clubs; nevertheless, the document highlights the work of a board of directors focused on achieving the set targets. This body is notable for its large membership, reflecting the club's strategic decision to invest in substantial human capital to optimize the efficiency of business processes. This report also contains references to strategic partnerships, but the emphasis is placed on the perfect alignment between the club's principles of transparency and success and the global guidelines defined by the Red Bull Group (RB Leipzig, Sustainability Report 2024–25).

Juventus' sustainability report stands out for its extensive scope and high level of transparency, stemming from the methodological choice of linking each strategic objective to its corresponding budget, whether already allocated or budgeted for individual activities. The Turin-based club's aim is to ensure maximum disclosure, promoting the dissemination of its corporate values amongst all stakeholders. From a technical perspective, the section dedicated to Governance and risk assessment provides an extremely detailed map of the potential critical issues faced by the club. For each item listed, a detailed description, the nature of the event (Risk or Opportunity), the time horizon and the level of significance attributed by the club are specified (Juventus FC, Sustainability Report 2024–25). Conversely, the report does not go into

detail regarding individual operational roles or the specific allocation of workloads, just as the timeframes do not indicate precise deadlines but rather indicative schedules.

Whilst Inter FC does not currently have any official sustainability report or financial statement based on ESG criteria, AS Roma has produced a report which, although structured in a purely qualitative and general manner, formalizes the club's intention to align itself with the Sustainable Development Goals of the UN's 2030 Agenda. From a governance perspective, the document highlights the club's strategic commitment to producing an annual non-financial report; this is accompanied by a clear commercial strategy aimed at the selection and systematic search for commercial partners who share the same corporate ethics and eco-sustainability targets as the "Giallorossi" (AS Roma, Sustainability Report 2026).

The evidence emerging from the governance analysis fully confirms the picture outlined in the comparative tables in the previous chapter. German clubs demonstrate the most robust, detailed and comprehensive non-financial reporting structure, closely followed by English clubs which, although their reporting is less extensive and detailed, provide precise data on consumption and clearly define their future objectives. In contrast, the Italian landscape reveals a marked lack of disclosure: the only partial exception is Juventus FC, even if it suffers from the information gaps highlighted earlier, whilst the other clubs examined show a significant lag in reporting this data. This scenario confirms that governance constitutes the central strategic asset, the only one capable of coordinating and giving effectiveness to all initiatives related to the ESG universe.

3.9 Methodology model limitations

In addition to the limitations discussed so far, it should be noted that a substantial part of the information used in this thesis is based on reports and documents published directly by the clubs. Although these sources are official, they may be affected by differences in reporting standards, disclosure practices, data availability and, in some cases, the absence of independent external verification. This is particularly relevant for

ESG-related data, where measurement boundaries and reporting methodologies may vary significantly across clubs and leagues.

For this reason, the findings of this study should not be interpreted as a fully objective measurement of ESG performance, but rather as an analysis based on the information publicly disclosed by the clubs. The lack of homogeneous reporting frameworks, especially about CO₂e emissions and Scope 3 data, limits the degree of comparability between the cases examined.

As an additional external benchmark, this study also considers the “RESPONSIBALL⁵” ranking, which evaluates football clubs according to Environmental, Social and Governance (ESG) criteria since 2011. This ranking does not replace the empirical analysis conducted in this thesis and should not be considered a direct validation of the underlying data. However, it provides a useful external point of comparison.

The 2024 RESPONSIBALL country ranking places Germany in first position, England in fourth position and Italy only in thirteenth position, a result that is broadly consistent with the comparative findings of this study.

Looking at the individual clubs examined in this study, the global ranking shows the following distribution: Liverpool FC (8th), RB Leipzig (20th), Borussia Dortmund (21st), Tottenham Hotspur (24th), Juventus FC (29th), Bayern Munich FC (31st), Arsenal FC (60th), AS Roma (128th) and, finally, Inter FC (159th). These results further support the interpretation that Italian clubs, while showing some relevant individual initiatives, remain less advanced in structured ESG disclosure and performance compared with several English and German counterparts.

⁵ <https://responsiball.org/index.php>

Conclusions

The analysis conducted in this thesis highlights the structural weaknesses that continue to characterize the Italian football system. The limited ownership of modern stadium infrastructure, the persistence of bureaucratic constraints, the slow adoption of innovative business models and the financial fragility of several clubs have contributed to a competitive gap between Serie A and other major European leagues, particularly the Premier League and the Bundesliga. This gap is not only sporting, but also economic, organizational and strategic.

The comparative analysis shows that international clubs are moving toward a more structured integration of ESG criteria within their long-term planning.

In the Premier League, this process is often supported by strong commercial capacity, diversified revenue streams and advanced infrastructure. In the Bundesliga, ESG integration appears closely connected to governance models, stakeholder involvement and more developed sustainability reporting practices. By contrast, the Italian clubs examined in this study show a more fragmented approach. Juventus represents a partial exception within the domestic landscape, due to its more structured non-financial reporting, stadium ownership and sustainability-related initiatives. Inter and AS Roma, instead, reveal more limited availability of quantitative ESG data, especially with regard to environmental indicators such as CO₂e emissions.

Based on the empirical evidence examined throughout this study, investments in new infrastructure designed according to environmental and operational sustainability principles may generate a dual strategic benefit. On the one hand, they can support the modernization of the club's business model; on the other, they can help transform some of the new challenges facing the industry into opportunities for growth, including for Serie A clubs.

The ownership of a modern stadium managed in line with ESG standards can produce multi-dimensional impact. From a reputational perspective, it may strengthen the club's legitimacy among stakeholders and increase its attractiveness to potential commercial partners. From an economic perspective, it can support the asset-building process and

contribute to the expansion of matchday revenues, while reducing the dependence on facilities owned by local municipalities. Furthermore, alignment with ESG criteria can also serve as a risk management tool, helping clubs address both physical risks linked to climate impacts on infrastructure and transition risks associated with evolving regulatory and technological frameworks.

Beyond its impact on cash flows, stadium ownership may contribute to increase in tangible assets, thereby strengthening the club's balance sheet structure. Similarly, investment in modern training facilities can support athletic performance, injury prevention, and player development, with possible positive effects on the value of intangible assets. If combined with stronger governance, improved reporting and sustainability-oriented partnerships, these investments may enhance the club's financial capacity and support a more competitive sporting project over time.

It is worth noting, however, that investments in innovation and ESG sustainability do not automatically generate immediate sporting results, as football remains inherently unpredictable. Nevertheless, such a strategy can help build a more solid corporate foundation, reducing the club's exposure to volatility of sporting results. In this sense, alignment with ESG criteria may contribute to strengthening the club's brand, improving its credibility and attracting long-term investors.

A methodological limitation must also be acknowledged. This research is based on a limited sample of clubs and therefore cannot provide a definitive conclusion for the entire football industry. Consequently, the relationship between sustainability and competitiveness should be interpreted as a plausible and relevant connection emerging from the cases analyzed, rather than as an absolute or universally valid outcome. Further research could expand the sample to include all clubs in the leagues examined and investigate the specific corporate characteristics of each organization in greater detail.

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