

The Development of Stadiums as Centers of Large Entertainment Areas. The Amsterdam Arena Case*

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Abstract

On August 14th 1996, the opening ceremony of the Amsterdam Arena took place; the first stadium intended to be a multifunctional structure, a place where to host a wide variety of events, with a highway passing underneath the pitch and with a sliding roof.

The Amsterdam Arena case represents a successful example of private-public partnership. A win-win solution has brought benefits to both parties.

In today's competitive global markets, the event itself is no longer sufficient to motivate consumers to pay expensive tickets and parking fees. To be worthwhile, spectators expect to be immersed in an experience.

AFC Ajax remains the stadium's anchor tenant, Nevertheless the Amsterdam Arena case also demonstrates the role that a stadium can play as a catalyst for urban renewal.

Keywords: Sport Management; Sport Marketing; Stadium Management; Stadium and Urban Development; Real Estate Management; Project Financing; The Amsterdam Arena Case

1. Sports and Stadiums

The usage of stadiums and arenas as place where to host events and entertain people is not new. The birth of sport venues occurred in the fifth century B.C. during the Classic Period of Ancient Greece. Designed for fast races and field events, they pre-dated the Roman Circus and Amphitheater. Although these ancient venues still have much in common with their modern counter parts, football stadiums have undergone an intense evolution during the last century, as in the Amsterdam Arena.

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On August 14th 1996, the opening ceremony took place, which generated great interest and curiosity. At the time when stadiums were expected only to be functional - clean, safe, good view of the game and reasonable line at the concession stands -, the first stadium with a highway passing underneath the pitch and with a sliding roof was intended to be a multifunctional structure, a place where to host a wide variety of events. A lot had to be done, the Amsterdam ArenA was a big challenge!

2. The Background of the Amsterdam ArenA

The opening ceremony was the epilogue of a long process that had begun much earlier. In 1983, the Netherlands was a candidate for hosting the Olympic Games. To be awarded the Games, a stadium had to be built according to the Olympic Committee's requirements. An initial design was produced for an open-air stadium (50% of the seats covered), with the Olympic layout (including running track), linked to an events hall. In October 1986, the prospect of hosting the Olympic Games disappeared, and with it the immediate need for a new stadium.

In 1987, Stichting Amsterdam Sportstad¹ commissioned a plan for a new stadium in a new, different location with 55.000 seats - all covered -, with two parking levels and an events hall. The plan didn't gain the approval of all the parties involved.

In May 1990, the design presented was based on both the 1986 Olympic Stadium design and the 1987 Stichting Amsterdam Sportstad design. It had a running track, fully roofed (to increase the usage potential), high comfort (skyboxes, restaurants, finishing, etc.) and a main building (with restaurants, rooms, a museum, etc.). The project also included the events hall next to the stadium.

In the same period, AFC Ajax asked for a quick decision. Their own stadium no longer met their needs and the management of the football team realised that a modern facility could provide vital revenue for the team. Expansion works would have been necessary if they kept using the existing structure.

The construction costs were estimated to be about 109 million euro. Amsterdam City Council, AFC Ajax and ABN AMRO would provide the financial basis for the stadium as investors. The city council's contribution of more than 27 million euro was of major importance. A share issue was intended to raise a large proportion of the remaining financing required. Launched on December 14th 1990, just before the Gulf War broke out, the share issue did not generate the anticipated yield. As a result, the design² needed to be changed to generate a cost saving of 18 million euro.

In 1991, the stadium was going to be built right on the border between two councils, Ouder-Amstel municipal council and Amsterdam city council, but the former didn't want to agree to the construction of the stadium without knowing the results of a number of reports (particularly the Environmental Impact Statement). The output from the previous design process was then re-examined, and this resulted in the stadium being moved to a different location. The Transferium concept (parking under the stadium) was then developed, offering a high quality point for transfers from car to various forms of public transport.

In 1992, the Supervisory Board of Stadium Amsterdam NV approved the construction of the stadium. The financing was more or less in place. The construction price of 92 million euro was reconfirmed by the consortium of

builders, made up of Ballast Nedam Utiliteitsbouw and BAM Bredero Bouw (combined in Bouwcombinatie Stadion Amsterdam). In April 1992, the city council approved the plan.

On November 26th 1993, before the first foundation was sunk, founders contracts were already signed between Stadium Amsterdam NV and Grolsche Bierbrouwerij Nederland B.V., Philips Nederland B.V., PTT Telecom BV (now called KPN Telecom) and Bouwcombinatie Stadion Amsterdam v.o.f., consisting of Ballast Nedam Utiliteitsbouw and BAM Beredero Bouw³.

In February 1996, all guided tours organised by the information centre on the construction site were fully booked. The level of interest was overwhelming. The 100,000th paying visitor to the stadium was welcomed on the 15th of May. On May 25th 1996, some 7,000 people were given the opportunity to see the latest progress on the construction work before the stadium opened officially in August.

The ambition level was clearly defined: the ArenA had to be a venue for world class sport and non-sport events, open 7 days a week and set to become the second city centre of Amsterdam. The development principles of the ArenA were the following:

- AFC Ajax, the anchor tenant, would invest only in football, its core business; the team would finance the exploitation of the stadium off balance, with the lease agreement;
- the City of Amsterdam would consider the ArenA as a urban development project, where the stadium was the catalyst of the urban development of the area; the commercial development of the surrounding area would partly finance the construction of the facility;
- a public-private partnership would manage the financing and operation of the project.

The stadium that opened the 16th of august 1996 had a total capacity of around 52.000 seats, spread across two rings. It had 9 founders skyboxes, 54 skyboxes, 8 skylounges⁴, 12 skyrooms⁵, 20 VIP seats, 1.500 business seats. There were no standing terraces.

The Amsterdam ArenA had to deliver a higher comfort compared to the previous home, bringing the fans noticeably closer to the action on the field. Furthermore, seats were organised into 'seating neighbourhoods'. According to segmentation criteria, different levels of service had to be provided to the various sections. Luxury boxes, suites and club seats were created in order to increase the average spending and to attract new segments.

The Amsterdam ArenA had about 3.000 m² of restaurants for corporate hospitality during the events and for the business-to-business activities on non-event days. The quality of the food was intended to be on high-class level.

Public walkways had been created behind the stands. These enclosed concourses enabled visitors to get fast food and beverages in the one of the 75 outlets. The walkways featured some 200 television monitors which would make it possible to pop out for refreshments during an event without missing the show. Over 12.000 parking spaces, including the Transferium, the two parking levels with 2.200 spaces located under the Amsterdam ArenA, are situated in the surrounding area. The stadium was also easily accessible by public transport. Several metro and train

stations were present in the immediate vicinity, together with a number of bus stops.

3. The Financing of the Project

The construction of the Amsterdam ArenA had a final cost of around 127 millions euro. It was financed by the City of Amsterdam (26% - approx. 33 millions euro), by AFC Ajax (7% - approx. 9 millions euro), with Government subsidies (4% - approx. 5 millions euro), through the emission of depositary receipts to which rights are attached (21% - approx. 27 millions euro), by companies (16% - approx. 20 millions euro) and the remaining 26% with a loan.

A large proportion of the financing of the Amsterdam ArenA was generated by funds in the form of limited partnership contributions from eight major companies. These companies are founders⁶ of the Amsterdam ArenA and hold a number of rights for a period of 10 years, such as the right to use a 10 person lounge overlooking the pitch, exclusive publicity rights and the supply of goods and services.

The emission of depositary receipts⁷ was also extremely successful. All depositary receipts for Stadion Amsterdam shares were sold by Stichting Administratiekantoor Stadion Amsterdam. Depositary receipt holders have the right to seat in the Amsterdam ArenA, but a separate admission ticket needs to be bought for every event staged in the stadium, which was open to the public⁸. A and B depositary receipt holders were offered the opportunity to join the Ajax Business Associates (ABA)⁹, at the ABA's discretion and subject to payment of the membership fees. The five types of receipts¹⁰ and their main characteristics are described in the following table.

Table 1: *Types of Depositary Receipts*

Type	Nominal Value	Rights
A	€ 113.445,05	Skybox
B	€ 6.806,70	Business seat
C	€ 3.630,24	Seat in the east main tribune
D	€ 2.722,68	Seat in the east side tribune
E	€ 1.134,45	Seat in a short side section

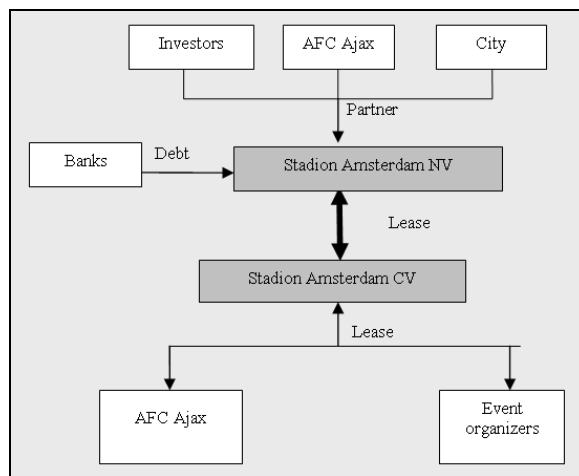
Source: Amsterdam ArenA

The need to combine the investments in the construction of the stadium with a balanced financial structure determined the sale of the depositary receipts with no time limit on their exclusive right. A too heavy debt situation would have made the operation of the stadium financially not viable¹¹.

The public party played an important role in the financing of the Amsterdam ArenA. The local government and the federal government contributed a large sum to encourage the development of the area. The city of Amsterdam bought also the parcel of the old Ajax stadium, with which AFC Ajax contributed to the financing of the new stadium. The ground for the Amsterdam ArenA was sold by the city for a low price, below the market value. The city prepared the ground and the infrastructure for free.

The financing of the Amsterdam Arena has presented a new model for financing stadiums. Originally, the city was the one who planned, built, financed and operated the stadium. But due to increased investment costs and to the will of the government bodies to give operational tasks to private parties, other investors were needed to finance the stadium. In the Amsterdam Arena case, with banks and private companies forming part of the financing of the building, a public-private partnership has led to a win-win solution. The construction costs were financed via equity (AFC Ajax, Founders, Depository receipts), gifts (City of Amsterdam and Dutch Government) and debt (loan from the bank). The model is described in Figure 1.

Figure 1: Amsterdam Arena. Financing Model¹²



Source: Amsterdam Arena

4. The Legal Structure

The owner of the Amsterdam Arena is the Stadion Amsterdam N.V., which rents the stadium to Stadion Amsterdam C.V., a limited partnership in charge of the exploitation of the facility. The separation between ownership and exploitation is mainly based on two aspects: the separation of risks and the distinction between control and operation. If the exploitation makes losses which lead to a bankruptcy of the Stadion Amsterdam C.V., the control over the stadium by the Stadion Amsterdam N.V. will normally not be affected. Furthermore, this structure gives the exploiter the possibility to operate fast in the daily operation, while it is controlled periodically by the ownership.

The limited partnership, Stadion Amsterdam C.V., consists of two kinds of partners, managing partner, Stadion Amsterdam B.V., and silent partners, the founders of the stadium. The founders are like a stakeholder in the corporation. Figure 2 explains the legal structure of the Amsterdam Arena.

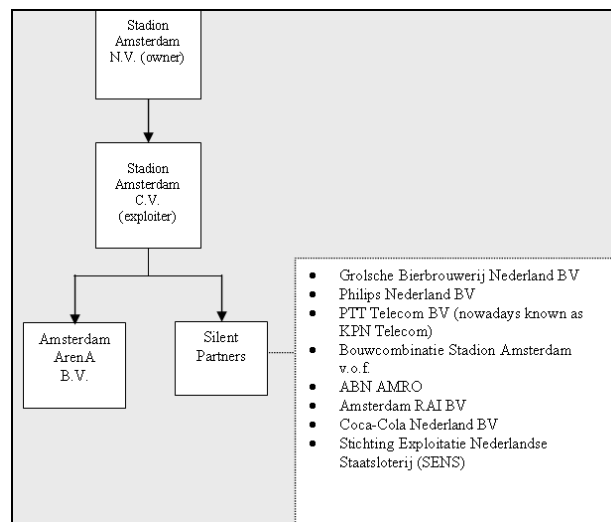
Stichting Administratiekantoor Stadion Amsterdam, a foundation which is the only shareholder in Stadion Amsterdam N.V., issued registered share depository receipts (made up of various types of share – A, B, C, D and E – as described previously) against this shareholding. Unlike other share depository receipts, the

return on investment is often not the primary reason for buying depositary receipts. The main reason for buying a depositary receipt lied in the fact that the depositary receipt holder was assured a seat in the stadium at every public event.

The depositary receipt is negotiable and its value is highly depending on the sport performance of AFC Ajax, the anchor tenant as well as the most important client for the Amsterdam ArenA. Considering the prices offered in response to the most recent sales, the certificate holders largely profited from the subscription of the shares. Certificates A, for example, has lately been sold for between three and six times their nominal value.

A distinction has then been made between shareholders and holder of certificates. The former holds the rights for control and voting, while the latter has financial rights (i.e. payment of the dividend).

Figure 2: Amsterdam ArenA. Legal Structure



Source: Amsterdam ArenA

When Stadion Amsterdam N.V. makes a profit and the Meeting of Shareholders decides to pay out dividend, the dividend is paid out to the foundation. The foundation can decide to pay out the dividend to the holders of certificates.

5. The Operational Structure

The Amsterdam ArenA, as the operator of the building, is responsible for acquiring and facilitating events, many of which are organised by other parties, as well as the day to day exploitation of the facilities of the Stadium such as office space, restaurants, conference facilities, parking, etc.

The Amsterdam ArenA has appropriately skilled management in place in the field of:

- facility management;
- sales;
- events (event production support);
- tour & museum organization;
- administration.

The Amsterdam Arena has signed rental agreement with several event organisers in order to assure a base income and minimise financial risks.

As anchor tenant, AFC Ajax regards the Amsterdam Arena as their home for all football events of the first team. An agreement is in place between the two parties, that provides a long term rental agreement of the stadium for facilitating home matches and rental of office and training facilities by A.F.C. Ajax.

KNVB, the Dutch Football Association, Mojo Concerts, major event organisers, and the Amsterdam Admirals, the American football team participating to the EuroLeague, also each guarantee a minimum number of events per year.

The Amsterdam Arena uses services from third parties for the operation of the stadium. This ensures high technical skills and competences, reduces overhead risks and gives flexibility to the stadium operation company organisation. These contracted service areas are concessions (that involve food and beverage, kiosks and all the public catering inside the stadium and in its surroundings), Ho.Re.Ca. (that stands for hospitality, restaurant and catering for VIP and business areas), cleaning and security.

The stadium operation company charges its clients variable services costs on an event-to-event basis, for the provision of the above mentioned professional services as well as for event related variable costs e.g. utilities, cleaning, communication, etc.

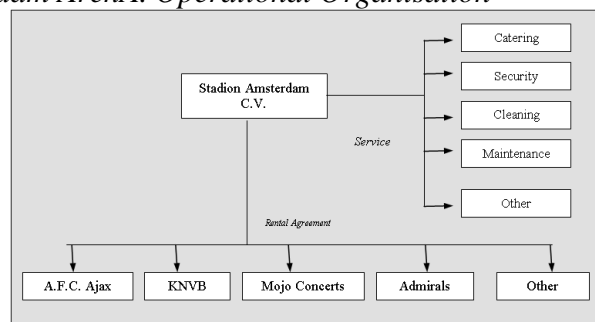
The parking Transferium, situated underneath the stadium, is, instead, operated by the City of Amsterdam, while the internal ticket selling – to certificate holders - is managed by the Amsterdam Arena.

In summary, the Amsterdam Arena tasks and responsibilities are:

- delivering all facilities to the event organisers;
- maintaining the building;
- cleaning the building;
- securing the building;
- insurance;
- acquiring sport or non-sport events;
- facilitating all events in the stadium;
- daily exploitation of the tour & museum;
- daily exploitation of the conference and restaurant facilities;
- daily exploitation of the exhibition facilities;
- daily exploitation of all other facilities of the stadium.

Figure 3 shows how the operational aspects are organised.

Figure 3: Amsterdam Arena. Operational Organisation



Source: Amsterdam Arena

6. The Management Structure

The Amsterdam ArenA has adopted a functional structure. The organisation has constantly been growing since the opening. Table 2 shows the personnel growth during the years. The number of people working during an event is larger and depending on the type of event¹³.

Table 2: *Amsterdam ArenA. Personnel*

	1996/97	1997/98	1998/99	1999/2000	2000/01	2001/02	2002/03	2003/04
Fixed person.	36	41	41	46	48	47	51	51
Temporary person.	10	16	12	13	9	4	3	3

Source: Amsterdam ArenA

The stadium is managed by the Managing Director and a management team of four managers, that are in charge of the four main departments: Financial, Marketing & Sales, Facility and Events department. The staff functions (public relations, human resources, legal affairs) directly report to the Managing Director.

The Human Resources department also takes care of the recruitment, education and formation of the stadium employees and relates with Temporary Work agencies to find additional workers when needed (especially during events).

The primary responsibility of the Marketing and Commercial department is to sell the stadium as a venue for events. Next to this task, the department is also involved in setting up events with partners. This activity includes different areas, such as definition of the event concept, promotion of the event to potential sponsors, involvement of media partners and organisation of the ticketing activities. Since the stadium is able to host a wide variety of events, this department has to deal with different types of event organisers, from agencies specialised in small events to big international event promoters for concerts of international stars. The organization of this department follows this market segmentation, with people responsible for the relationships with agencies for small / medium events, others for big concerts with international promoters.

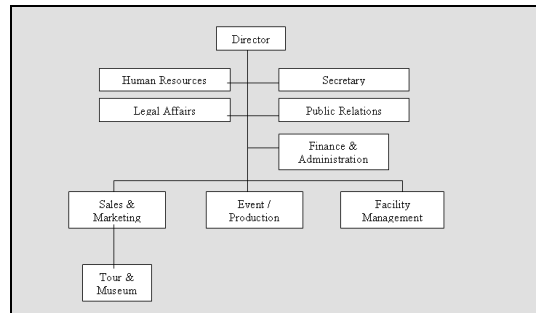
An ad-hoc department has been created to coordinate the Tour & Museum business. The department consists of permanent staff responsible for bookings, sales to tour operators and hotels, coordination and training of the personnel hired through temporary work agencies.

The primary responsibility of the Events department is to follow the event from its start to its finish. Its main tasks include project management, people management and coordination, financial control and reconciliation of the event. This area offers support services to the promoter, ranging from safety & security and cleaning services to technical coordination and internal ticketing service. All the services are charged separately to the client-promoter.

The Facility Management department is responsible for maintenance, up-keeping and replacement. Its primary objective is to provide a clean, well-organized facility with available equipment for events, lessees and patrons. This means, on one hand, the daily care for the stadium and the usual maintenance and, on the other hand, guaranteeing that the stadium stays state-of-the-art.

The Finance and Administration department takes care of the administration and the financial control of the stadium activities.

Figure 4: *Amsterdam Arena. Organisational Chart*



Source: Amsterdam ArenaA

7. The Exploitation of the Arena

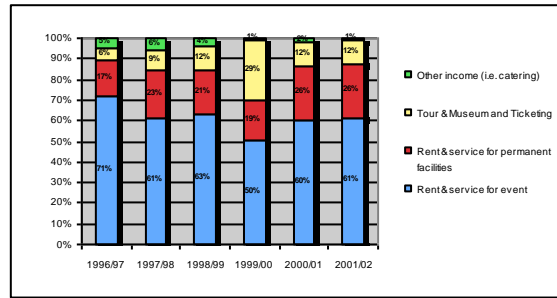
As clearly declared in the mission statement¹⁴ of the Stadion Amsterdam C.V., the Amsterdam ArenaA had to be:

- state-of-the-art: it was a building compliant with highest level of technology available, in order to make the structure versatile and the visitor experience really good;
- multifunctional megatheater: not simply a stadium, it was intended to be a large theatre where to host a wide variety of events, available for a large variety of events and clients;
- internationally known: by hosting large-scale events, famous stars, the ArenaA had to become a symbol of the Netherlands, something to be proud of;
- focused on the long-term: it was not meant to be a 'one occasion venue', like those stadiums realised for hosting special, large-scale events like the Olympic Games. It had to become a facility that would serve its clients for many years;
- considerate of the need of the City, Founders and certificate holders: Stadion Amsterdam C.V., the Stadium Operation Company, had to reach the long-term objectives by satisfying its shareholders;
- close cooperation with AFC Ajax, anchor tenant, the catering organisation and the other partners: if hosting a wide variety of events represented the core business of the stadium, the ArenaA had to be like a big airplane, which had to fly as much as possible and which had to be as full as possible. To do that, Stadion Amsterdam C.V. had to establish a close and productive collaboration with its direct clients, the content providers.

Hosting a wide variety of events in the building represents the core business of the stadium. Stadion Amsterdam C.V. rents its facilities to organisers of various sport and non-sport events. To this end, the stadium operation company normally charges the event organisers a fixed rent, in order to avoid any risk from the organisation of the event¹⁵. As shown in Figure 5, the main source of income comes from renting the building to event organisers.

Among event related income, the revenue stream coming from football events¹⁶ is the most important. The Amsterdam Arena can also count on non-event related income, such as the stadium tour & AFC Ajax museum¹⁷ and the daily functions of the stadium (rent of office, conference rooms).

Figure 5: *Amsterdam Arena. Turnover Breakdown*



If that is the core business, it is clear that the value of the stadium is not determined by the building cost, but by the performers playing in it. A group of regular users were built in order to assure a base income and minimise the financial risks. Several multiple-year rental agreements were signed with event organisers before the opening ceremony. The regular users of the Arena are:

1. AFC Ajax;
2. KNVB;
3. Amsterdam Admirals;
4. Mojo Concerts;
5. D&T;
6. EP.

Football events represent the main content for a stadium like the Arena and AFC Ajax its main client and tenant. The long term operation and viability of the stadium is to a large extent dependent on the development of the football team. Football remains the main client and the events planning considers the football season schedule¹⁸ as first priority. It goes without saying that the agreement with AFC Ajax was conditional to any further agreement.

The Amsterdam football club plays all home matches in the Amsterdam Arena. AFC Ajax highly benefited from moving to the new structure. The new stadium represented a unique opportunity to further improve their match day revenue by attracting more fans to the new facility. The higher level of comfort and amenities offered in the Arena and factors like curiosity and the image of the building increased more than 100% the turnover related to the match.

A better facility also enhanced the potential for sponsoring and corporate hospitality, by providing facilities and services more in line with the corporate segment. The issue of certificate holders increased AFC Ajax fan base, linking the supporters to the team in the long-term.

Besides AFC Ajax home matches, the Dutch Supercup¹⁹, organised by KNVB, is always played in the Amsterdam Arena.

The American football club, the Amsterdam Admirals, also plays their NFL Europe games in the stadium (5 a year). Apart from sport events, Mojo Concerts, one of the biggest and most important entertainment companies in the Netherlands²⁰, stages several concerts a year in the stadium. Every year ID&T²¹

organizes the biggest Dance Parties of Europe, called Sensation White and Sensation Black.

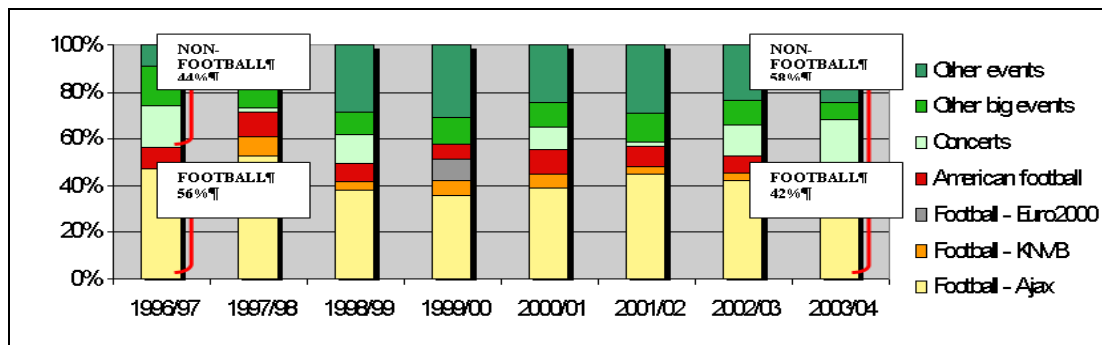
(6) International Event Partnership (IEP), an English event organiser, organises, since 1999, the Amsterdam Tournament, a two-day pre-season tournament²² where AFC Ajax is measuring against football teams coming from other countries.

In this way, the Amsterdam ArenA has about 34 events per year guaranteed.

Besides these events, a whole range of different big scale activities takes place in the Amsterdam ArenA. Over the past years, the Amsterdam ArenA has been remodelled some 1.500 times already. As a consequence, the stadium is not only known as a location for large events²³ – above all, football –, but also as a place where to host smaller events such as product presentations, theatrical performances, sales training and company celebrations.

Alltogether the Amsterdam ArenA hosts about 70 major events per year, with around 2 million visitors in total. During the years the number of non-sport events has been growing, allowing the stadium to acquire the image of multifunctional stadium as well as reducing the dependance of the economic and financial results of the stadium operation company on AFC Ajax sport results²⁴. Figure 6 shows the distribution of different types of event per year.

Figure 6: Amsterdam ArenA. Types of Events Organised



Source: Amsterdam ArenA

As a consequence of its versatility, the Amsterdam ArenA has to deal with many clients and actors. Marketing has then resulted as one of the most complex and comprehensive functions within the stadium management.

Before the opening of the stadium, the primary objectives of the Marketing function were:

1. to create interest in and consent around the project, in order to receive the approval from the public opinion and to overcome resistances against the new construction. The positioning has underlined the social benefits, from the more intensive usage of a public facility and the stadium being open to everybody everyday to the creation of new job opportunities and the benefits for the Bijlmer area²⁴;
2. to promote the stadium among potential investors for the sale of business seats, skyboxes and founders packages. Road shows, Public Relations activities and direct marketing initiatives were organised, inviting potential investors to be part of this new venture;

3. to promote the facility among event organisers in order to sign multiple-year rental agreement and to assure a minimum number of events per year guaranteed.

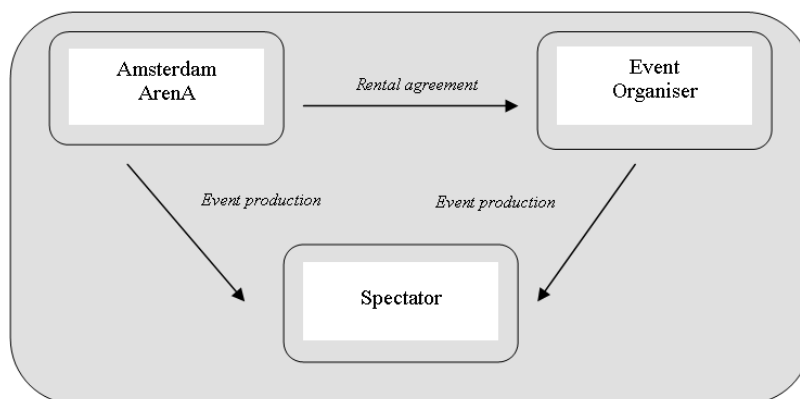
After the opening of the stadium, the main tasks of the Marketing function are to sell the ArenA as the perfect place where to host events and to attract visitors on a continuous basis. As a consequence of its versatility, the stadium has to deal with clients with different needs and requests:

- the organiser of the event (or the promoter representing the performer) is the client that brings the content to the ArenA; a state-of-the-art facility as well as its catchment area and image are fundamental factors to attract this segment;
- the spectators of the event represent the first client and main source of revenue for the event organiser; in this context, the ArenA is directly influencing the visitor satisfaction by providing a clean, comfortable and accessible facility.

Since the ArenA receives, in the majority of the cases, a fixed fee for hosting the event, spectators do not represent a first, direct client for the ArenA. Nevertheless, a safe, comfortable, known facility is influencing the spectator participation (quantity) and satisfaction (quality), and, as a consequence, the event organiser satisfaction. The concept is described in Figure 7.

The Amsterdam ArenA has recently launched a project called ‘Closed Circuit Customer’, which intends to establish a stable and direct connection with ArenA potential spectators. The project includes the development of a web-based platform, directly connected with companies based in the Amsterdam area. The Arena intends to offer extra events or reserved ticket sales to the employees of these companies. In this way, companies can offer a special benefit to their employees and the ArenA can rely on and interact with a numerous base of potential spectators. The development of this circuit could allow the ArenA to increase the number of events directly produced, by minimising the risk associated. At the same time, the stadium will look even more attractive to event organisers. A reverse marketing, where the ArenA is offering to event organisers not only the facility but also the spectators, can be individuated.

Figure 7: *Relations among ArenA, Event Organiser and Spectators*



Source: Amsterdam ArenA

Other clients of the ArenA are:

- the catering organisation, made up of Maison van den Boer, that operates the VIP catering, and the Catering Club, that operates the sale of food & beverage at the concession stands. This two catering organisations need proper facilities (like lounges, restaurants, bars, stands, concessions, payment system) where to organise their activities as well as a warehouse where to store their products;
- the founders and the depositary receipt holders hold special rights (depending on the type of receipt, seat in the ArenA at every public event, skybox, lounge, parking place, eating, etc.) that the ArenA has to satisfy;
- companies, like AFC Ajax and Maison van den Boer, have their offices in the ArenA;
- media are important in order to guarantee an appropriate exposure to the event; on the other hand, spectators experience the event by a whole range of methods, from traditional television to internet and UMTS. The intent is to create two buildings: a facility providing action for the live audience, and a studio serving the remote audience.

Design and technology have highly contributed to the necessary versatility of the building. A clever design has allowed the stadium to be adapted to the size of the event, *'from 2 to 70.000 guests'* as the slogan says. During the planning phase, potential users of the ArenA, like the football sector, concert organisers, catering organisation, media, etc., have been involved, in order to develop a structure compliant with their requirements and needs.

The use of technology has certainly helped the Amsterdam ArenA to increase the versatility of the facility and to enhance the visitor experience. Many new innovations and cutting edge technologies have been installed during the operational period.

Furthermore, technology was intended to provide amenities and sources of entertainment in addition to the on-field action. Hereunder a list of technologies incorporated in the Amsterdam ArenA and their benefits:

- (retractable roof): the use of a retractable roof has an important impact on the stadium operation, both economically – it prevents lost revenues due to event cancellation in case of bad weather – and for the visitor experience;
- (turf): the Amsterdam ArenA faced different problems because of lack of sunlight and air into the facility that makes maintenance harder and more expensive. As a result of the 'closed' design of the stadium and intensive use of the pitch, in fact, the recovery capacity is limited and the pitch needs to be replaced a number of times each year using re-turfing technique developed in-house. With the important developments in artificial turf in the past few years, Amsterdam ArenA and AFC Ajax have decided to take the lead and have defined a project to develop a state-of-the-art artificial turf football pitch, specifically tuned to the wishes and requirements of AFC Ajax and within the limitations of the conditions set by UEFA, FIFA and De Koninklijke Nederlandse Voetbalbond (KNVB), the Dutch football association. Specialist companies were chosen who were willing to function as partners by combining efforts and – on the basis of the expertise and experience of users – to test, develop and improve their products and/or

components. In the coming years, official matches will be played on artificial turf. The Amsterdam ArenA will certainly benefit from this, both in terms of maintenance costs reduction as well as less time required for staging an event (that means more events a year);

- (safety & security system): the safety & security system helps to ensure fans of a safe and good time at events, being able to effectively locate troublesome fans and locations. Tests are currently taking place in order to use in the next future advances in technology like the biometric reader;
- (video): two large video screens are installed in the stadium to involve the spectator during the visit and to provide additional information – video and data – during the event²⁵. The videos can be placed at several heights. Live pictures, but also special graphics can be displayed. Permanent power points for cameras and a fully-equipped studio make the possibilities of the screen unlimited;
- (payment system): the Amsterdam ArenA has adopted the smart-card system, which combines access-control and internal payments in one. This system improves customer service by allowing management real-time (de) activation of all event access parameters such as last minute ticketing, manual adding of tickets, anti passback and double seat checking. Everywhere in the stadium the visitor can proceed payment at payment terminals. Part of these are mobile, offering payment opportunity when, for example, drinks are delivered to the seat;
- the system is also used for financial control on visitor payments during events. It enables management to keep track of cash flow. Additionally, it provides custom-made, extensive reports and analyses, giving insight into the visitor flow per event. The system speeds up transactions and reduces cash handling costs. It increases the level of stock control and overall sales. Furthermore it consolidates customer profiles and payment data. This combines a versatile and reliable management system with a powerful marketing tool.

Additional technologies are currently tested in the ArenA. Something similar to a Research & Development function, made up of stadium personnel as well as specialists of the sector, is constantly working to keep the ArenA a state-of-the-art stadium. The Amphi – later described – and the ‘black box project’ want to provide the building with new event settings, allowing the ArenA to host properly different scales of events. Internet is also going to play an important role in the stadium, as a way to entertain and educate fans about sports as well as to further enhance the spectator’s overall entertainment experience²⁷.

The building can be organised according to six different settings depending on the type and scale of the event:

1. football / American setting, with a capacity of 52.000 seats;
2. concert in-round setting, with a capacity of 70.000 seats;
3. concert end show setting, with a capacity of 52.000 seats;
4. concert panorama setting, with a capacity of 30.000 seats;
5. concert amphi setting (Amphi Theater²⁸), with a capacity of 12.000 seats;
6. concert dance setting, with a capacity of 35.000 seats.

To enable smaller events such as theatre-shows or product presentations in a more

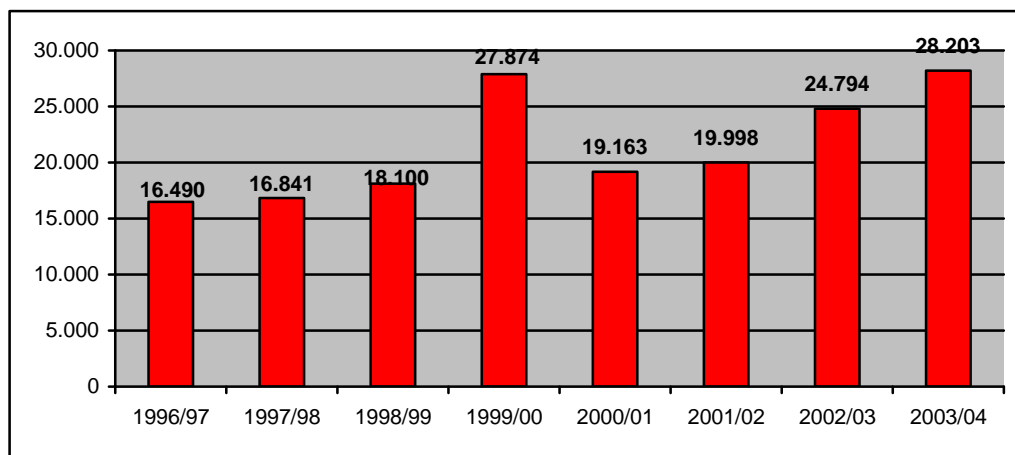
intimate atmosphere, the development of the Amsterdam ArenA Amphi has started. The Amphi setting is the combination of the prestige and quality that characterizes Amsterdam ArenA and an intimacy that perfectly suits medium-sized events.

This brand new amphitheatre with a variable capacity (depending on the event, from 50 to 14.000 people) has been built within the walls of the Amsterdam ArenA. A back wall and a lowered ceiling separate Amphi from the rest of the ArenA. During the event, the area can be completely darkened allowing light effects to be used to full effect.

The surface of the stage grounds may vary, depending on the explicit conditions required for the event. With the playing field centred on the stage, all different kinds of sporting events are possible, such as tennis tournaments or volleyball competitions. Dance performances, ice shows and operas, as well as large and small business events, can also be organised. At the back end of the first and second stadium rings, in the galleries, there are sufficient permanent outlets with varied assortments of food and drink.

Results after eight years are extremely positive. The ArenA has become one of the leading and most famous stadium in the world. Furthermore, this achievement has been combined with positive economic and financial results. The turnover has constantly grown and reached an amount of more than 28 million euro in 2003/04 (Figure 8). Year 1999/2000 result has been positively influenced by the organisation of the European Football Championships in the Netherlands and in Belgium.

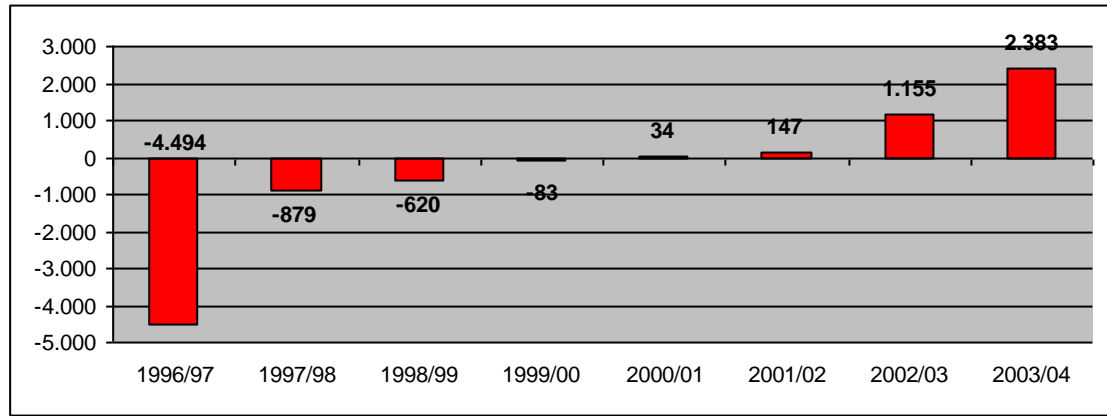
Figure 8: Amsterdam ArenA. Turnover



Source: Amsterdam ArenA

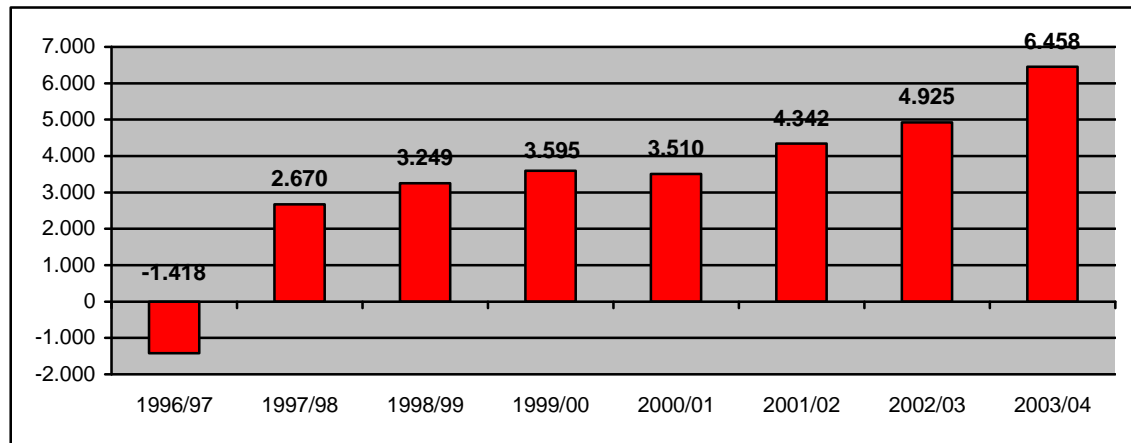
As described in paragraph 2., the financial structure has revealed fundamental for the operation of the stadium. During the first years, additional investment had to be made, impacting negatively on the operational result as well as on the cash flow. Furthermore, the availability of a positive cash flow from year 2 allowed the management to make important investment to keep the stadium updated²⁹. The net results as well as the cash flow are in Figure 9 and 10 described.

Figure 9: Net Result (euro '000)



Source: Amsterdam ArenaA

Figure 10: Cash Flow (euro '000)



Source: Amsterdam ArenaA

8. The ArenaA Boulevard

The opening of the Amsterdam ArenaA did not only provide the City of Amsterdam with a modern building where to host major events, but also highly contributed to the development of the ArenaA Boulevard, the area located around the stadium, from which the name derives.

The ArenaA Boulevard represents one of the most developed areas in the Netherlands and an example of integration between different usage destinations, such as shopping, sport and entertainment, living and working.

The area, specialised in providing fun and entertainment, is 'temporarily permanent', since the event production facilities (hardware) are present all year long, while the event has a limited duration (software).

The ArenaA Boulevard is becoming a destination known internationally.

The entertainment facilities located in the area include a cinema complex³⁰, two concert halls³¹ and the Amsterdam ArenaA. GETZ, an entertainment centre on a

grand scale will be built within 2009^{32 33}. In 2003, a museum, Living Tomorrow, has been realised, where to see how social and technological developments will influence the work- and lifestyles of tomorrow³⁴.

The shopping area includes more than 350 shops and it is organised in different locations. The existing commercial centre, Amsterdamse Poort, has been renovated and expanded. A shopping promenade, the ArenA Arcade³⁵, and the world biggest home furnishing centre, Villa ArenA³⁶, have been realised in 2001 and 2002.

The ArenA Boulevard has also become the base of many companies as well as a place where to live. Modern buildings for offices have been³⁷ and will soon be constructed^{38 39}. The residential area includes around 240 apartments dislocated inside a park.

The accessibility of the area benefits from the infrastructure realised for the stadium. The railway expansion, started in 1995, will double the amount of track between Amsterdam and Utrecht⁴⁰ and provide a direct link with Schiphol airport. The new station will form a completely new transport junction for train⁴¹, metro and bus travel, and will be used by 60.000 travellers per day in 2007⁴².

Table 3 includes the main features of the facilities located in the area, while the following figure shows the different usage destinations.

Table 3: *Usage Destination, Financing and Operation of the Various Activities Located in the ArenA Boulevard*

	Opening	Capacity	Destination	Financing	Operation
Amsterdam ArenA	1996	52.000 seats	E	Public - Private	Private
Heineken Music Hall	2001	5.500 seats	E	Private	Private
Pepsi Stage	2002	2.000 seats	E	Private	Private
GETZ Entertainment Center	2009	Entertainment area + 200 apartments	E / L	Private	Private
Music Dome	2009	15.000 seats	E	Private	Private
Living Tomorrow	2003	-	E	Private	Private
Pathè ArenA	2000	3.250 seats	E	Private	Private
ArenA Arcade	2000	4 megastore	S	Private	Private
Villa ArenA	2001	around 70 shops	S	Private	Private
Amsterdamse Poort	1990	around 250 shops	S	Private	Private
Rainbow Offices	2000	-	W	Private	Private
ArenA Office Towers	2001	-	W	Private	Private
Oval Tower	2001	-	W	Private	Private
ArenA Academie	2001	250 students	S	Public	Public
HES	2003	6.200 students	S	Public	Public
ROCA	2003	3.000 students	S	Public	Public
Apartments	2009	12.500 apartments	L	Private	Public – Private
Infrastructure	2007	60.000 visitors per day		Public	Public

Legenda: E = entertainment, L = living, S = shopping, S = education, W = working.

Source: Amsterdam Southeast District

A clear vision has guided the local development. The public authorities wanted to renew and provide new social and economic impulse to a degraded area, Bijlmer.

During the realisation of the project, the good co-operation between public and private parties assured the success of the project. As shown in the following figure, public entities, like the City of Amsterdam and the Dutch Government, and private parties, like AFC Ajax, companies and private people, have worked together, fully capitalising their participation.

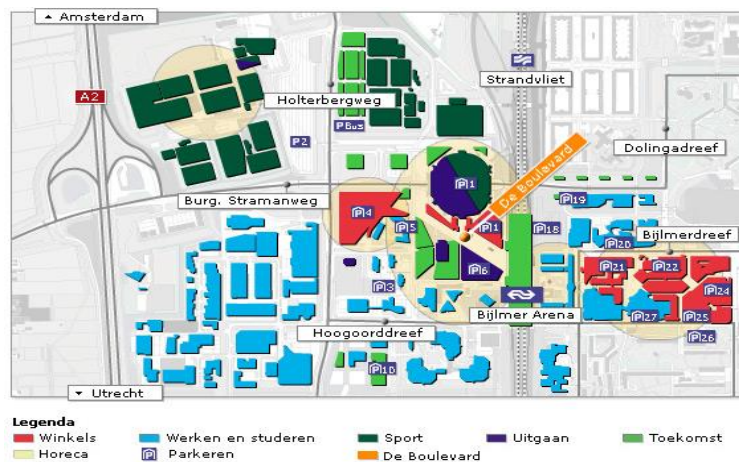
The construction of the stadium had a positive fiscal and economic impact. The City of Amsterdam has seen the value of the area increase enormously and obtained an economic return from the concessions paid by the companies that settled down in the area, as well as from the real estate development activated. This sport facility has revealed as a powerful magnet for attracting companies to the neighbourhood. These new businesses have created additional jobs and generated consumer spending. Today owners and developers are realising the profit potential not only from building a stadium, but also from developing the land around it.

The Amsterdam ArenA is also an important component of the community and cultural infrastructure, benefiting the city's quality of life, creating civic pride, and providing space for a multitude of diverse public events. In this way, the facility is similar to such community assets as parks, zoos and libraries.

The image and the awareness of Amsterdam have certainly increased due to the availability of a state-of-the-art facility, able to host internationally known events. The facility has brought unmeasured media identification and credibility to the community (value of media exposure).

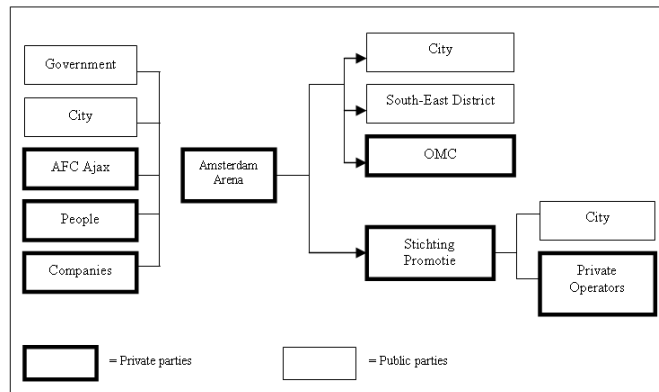
Tourism in Amsterdam also profited from the availability of a destination, completely dedicated to fun and entertainment. About 4,1 million visitors visited the area in 2002. The management of the area intends to further invest in this positioning as 'the leisure and entertainment destination'. Various activities have been run in order to promote the ArenA Boulevard as a 'short-break' destination and as a hub for long-distance trips (Figure 11).

Figure 11: *ArenA Boulevard. Usage Destinations*



Legenda: □ Shopping □ Office and school □ Leisure and entertainment
 ■ Restaurant, cafe ■ Sport

Figure 12: *Arena Boulevard. Public-Private Cooperation*



Source: ArenA Boulevard

Furthermore, the construction of the Amsterdam ArenA and the development of the surrounding area have contributed to the renewal of the near neighbourhood, Bijlmermeer, as described in the next paragraph.

Private parties certainly benefited from the area development. The new stadium has increased the average attendance during AFC Ajax home matches, as well as its match day income. The other operators based in the area received adequate returns on their investments, thanks to the synergy created and to the availability of high-quality infrastructure (Figure 12).

9. The Stadium as Catalyst for Urban Development

The development of the Amsterdam ArenA did not only foster the cultural, recreational and tourism market in Amsterdam. The stadium was also used as the main centrepiece for the urban development of the Bijlmermeer, a downtrodden neighbourhood.

The construction of the stadium and the creation of the ArenA Boulevard (see previous paragraph for more details) have certainly contributed to the economic and social growth of the area. The stadium has become an urban magnet and stimulated growth for the neighbourhood. Peripheral development, infrastructure improvement and the concentration of people in a central business district have taken place during the last decade.

The Bijlmer construction, which started in 1966, attracted worldwide attention, as it concerned a large scale, and therefore unique ‘functional town’, based on the concept of the architect Le Corbusier. In the lay-out of this functional town, living, working, traffic and recreation were separated⁴³.

However, soon after the Bijlmer construction had started, it became already clear that the way of building (high-rise blocks) was not in accordance with the market; the people for whom it was meant did not move to the Bijlmer. This resulted in a lack of occupancy. Moreover, these vacant apartments attracted many people who for some reason could not easily find a place to live elsewhere. In the middle of the 1980s, many fringe groups, such as refugees, migrants, illegal foreigners, and so on, found refuge in the Bijlmer area⁴⁴. Whereas the area had become known for its unique spatial organization (separation of traffic, the lay out of (semi-) public

space), this particular spatial organization turned out to promote and support unsafety, vandalism and an increasing drug abuse.

Different events, at the end of 1980s, activated the renewal process, still going on.

In 1992, the crash of cargo plane into a high-rise apartment complex in the district of Bijlmer⁴⁵ made known to the public opinion the low living conditions of the area.

The choice of an area close to Bijlmer as location where to realise the new stadium was also motivated by the intention of improving the area.

In September 1995, this renewal process was fostered by the approval of the European Community 'URBAN Bijlmermeer program', a urban renewal plan that included, among others, the improvement of the working opportunities and of the quality of life in the area⁴⁶.

The 'URBAN Bijlmermeer Program' also attracted further investments: the Dutch Government decided to dedicate special funds to the zone and private investors joined the project, collecting a total of about 65 million euro.

Since 1992, Amsterdam City Council, Southeast District Council and Patrimonium/Nieuw Amsterdam Housing Association have been working on the renewal of the Bijlmermeer. The renewal has been approached as a whole. Besides environmental renewal, management and socio-economic aspects have also been renewed.

Four components have been considered in order to improve the livability, investibility and visitability, as shown in Figure 13.

The urban design has been modified. Nearly 6.500 high-rise flats have been demolished. At least 7.340 new flats will take their place. All remaining high-rise complexes (circa 6.000) are undergoing a renovation. More individuality, public security and comfort make the flats attractive to a wide public. The greatest part of the remaining high-rise apartments will remain in the controlled-rent sector. Another part will be sold after renovation, with present tenants having the first option. Part of the complexes will be completely cleared and redeveloped for sale.

The infrastructure has been improved, making of Bijlmer station one of the most important node in the Amsterdam region, as described in paragraph 7.

The place also demanded good public services. Poor services, especially education and police protection, created problems for the place livability. Quality public services were then considered as place's primary attraction and product. New educational initiatives have started in the area, like the ArenA Academie, the Hogeschool voor Economische Studies (HES), with around 5.000 full-time students and 1.200 part-time, and the Regionaal Opleidingscentrum Amsterdam (ROCA), with around 3.000 students⁴⁷. Moreover, in 2003, 95% of Bijlmer inhabitants obtained high-school degree, while the average in Amsterdam is 90%⁴⁸.

The renewal operation also aimed to improve the socio-economic position of the population. Education, supervision and work experience projects have improved the labour market prospects. Unemployment is falling more quickly than elsewhere in the city.

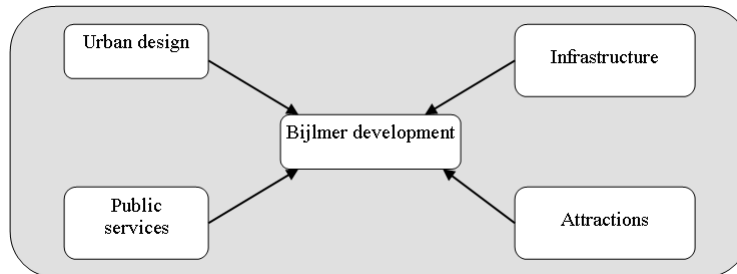
Besides this, the population has been stimulated to take part in cultural and social life.

The overall quality of life has improved, as recognised by the satisfaction level of the inhabitants⁴⁹ and by the research conducted periodically⁵⁰.

Last but not least, the availability of attractions certainly contributed to the renewal of the area. The Amsterdam Arena first and later the other entertainment

and shopping facilities brought new content to the Bijlmer inhabitants, attracted investors and companies and created new jobs.

Figure 13: *Bijlmer Area. Urban Renewal*



Source: Amsterdam ArenA

10. Conclusions

The Amsterdam ArenA case represents a successful example of private-public partnership. The development of the stadium and the surrounding area has taken place following a mixed model, where responsibility has been shared between the public and the private sector. A win-win solution has brought benefits to both parties.

Future plans of the ArenA include the increase of the number of events hosted every year. In 2008, the stadium aims to organise 90 events, while the objective for 2011 is 120 events. To do this, the versatility of the facility will be further improved by:

- developing the 'ArenA-Box' setting: a new setting that will make of the ArenA a black box, improving the acoustics of the venue,
- developing the artificial turf, that will reduce conversion times and consequently improve the efficiency of the event production.

The Amsterdam ArenA also intends to enhance the visitor experience in the next future. With its close-ups, replays, commentary and interviews, televised coverage of events provides a better view of the action. The critical element which sets live attendance apart from television is the sense of community a stadium creates. This live experience is the product the ArenA sells, a product unique in modern life. To this end, the stadium operation company is now improving accessibility by building extra escalators and elevators, and expanding the hospitality area by 3.500 m².

Furthermore, in today's competitive market the event itself is no longer sufficient to motivate consumers to drive many kilometres, to pay expensive tickets and parking fees. To be worthwhile, spectators expect to be immersed in an experience. In this context, the Amsterdam ArenA is considering the total spectator experience. This includes provisions for meals, pre- and post-event entertainment, opportunities to participate to the event, and providing attractions to keep the spectator on the premises for as long as possible. Elements tied together with a consistent approach.

Technology will certainly play an important role in the management of the spectator experience. The progress of digital processing will allow signals to be

narrowcast to small personal receivers. A number of services will be delivered via seats wired up to fiber optics as well as portable devices like mobiles. Expert commentary, analysis and interviews, as well as extra services like ordering meals, booking a flight or receiving financial information will fill the game.

Nevertheless, AFC Ajax remains the stadium's anchor tenant. From this point of view, the Amsterdam ArenA intends to work close with the football team in order to establish a close mutual collaboration, to organise cross activities and to run common new projects capitalising the strength of the two brands.

The Amsterdam ArenA case also demonstrates the role that a stadium can play as a catalyst for urban renewal. Born as a versatile stadium, the ArenA has revealed a powerful tool for real estate development. The value of the surrounding area has increased enormously since the opening of the stadium.

From this point of view, the Amsterdam ArenA, together with AFC Ajax and real estate developers, has developed a preliminary plan for the construction of 'Ajax City', an area completely dedicated to football, where companies and football live in the same place.

Other new business initiatives run by the Amsterdam ArenA include the set up of the Amsterdam ArenA Advisory, the independent consulting arm, that intends to assist international clients in the planning, development, management and operation of stadium facilities, by transferring them the expertise and practical know-how gained during the development of the ArenA.

The Amsterdam ArenA has also been the perfect spin-off for the entire surrounding area, able to create numerous jobs and stimulate business opportunities.

Future developments of the area include the market of the ArenA Boulevard as a destination for fun and entertainment. To this end, a company, that should act as Destination Manager, will define the positioning, combine the offer of the different actors present in the area into one experience and market it to tour operators and final clients.

Discussions are still ongoing on how to address all the different needs of the operators of the area. The idea is to develop a place of entertainment where people (some of whom may not be interested in sport) can take their families or business acquaintances for an enjoyable day or evening. A new challenge is now present, wider and bigger!

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Notes

¹ Stichting Amsterdam Sportstad is the Amsterdam Sports City Foundation. It was formed with the aim of promoting top-class sport in the Amsterdam region.

² Namely (1) a stadium without a running track, with a smaller circumference; (2) a modified load-bearing structure (with four vertical main pillars); (3) the movable roof open lengthways instead of widthways; (4) 600 parking spaces under the stadium; (5) 50,000 places (bucket seats) in the stadium.

³ On 5 July 1995 four new founder contracts were signed on the Amsterdam ArenA construction site with ABN AMRO, Amsterdam RAI BV, Coca-Cola Nederland B.V. and Stichting Exploitatie Nederlandse Staatsloterij (SENS).

⁴ The skylounges are located on the east side of the stadium, between the first and second ring. The skyounge (87 m²) has an adjoining balcony with 20 seats. Facilities include electricity, a cable connection, telephone and the right to purchase 10 Transferium slots (parking spaces beneath the Amsterdam ArenA). As a skyounge lessee you are also obliged to purchase 20 Ajax season tickets.

⁵ The skyrooms are located on the east side of the stadium, between the first and second ring. The skyroom (26 m²) has 10 seats on the terrace in front, offering a fantastic view of the pitch. Facilities include electricity, a cable connection, telephone and the right to purchase 5 Transferium slots (parking spaces beneath the Amsterdam ArenA). As a skyroom lessee you are also obliged to purchase 10 AFC Ajax season tickets.

⁶ The Founders of the Amsterdam ArenA are Philips Nederlands B.V., Bouwcombinatie Stadion Amsterdam vof (Ballast Nedam Utiliteitsbouw B.V. and Koninklijke BAM NBM N.V.), Grolsche Bierbrouwerij Nederland B.V., KPN Telecom B.V., Amsterdam RAI B.V., ABN-AMRO Bank N.V., Coca-Cola Holding (Nederland) B.V., Stichting Exploitatie Nederlandse Staatsloterij. The Founders paid an amount of € 2,27 million, except Philips that paid € 4,55 million.

⁷ This form of fund raising is different from the share issue launched, unsuccessfully, by the City of Amsterdam in 1990. Main features of non-exchangeable registered share depositare receipt are described in paragraph 2. and 3..

⁸ If the depositary receipt holder has no interest in Ajax events, Ajax is free to rent out skyboxes and business seats for Ajax events for one year periods. In the case of the C, D and E depositary receipts/seats, the same applies to the rental for the KPN Eredivisie (Premier League). If the depositary receipt holder does not wish to purchase admission tickets for other events, the management of Amsterdam ArenA has the right to sell the seat (for that event only) to third parties (with the exception of skyboxes).

⁹ The Ajax Business Association is an exclusive business club, where business people can meet during Ajax matches.

¹⁰ Price level on 22 April 1991.

¹¹ The Toronto SkyDome was a perfect example of the need of a balance financing structure. Opened June 3, 1989, the stadium project ended up costing approximately \$ 600 million, more than 2,5 times the contracted cost. The SkyDome lost \$ 31,7 million in 1991, as the stadium's onerous debt eliminated revenues gained from the 4 million baseball fans in attendance – one of the biggest annual attendances in baseball history. Interest payments, business taxes and depreciation reached \$ 61,5 million in 1991. That total canceled out an operative profit of \$ 29,8 million which had improved 9% from 1990, but the net loss of \$ 31,7 million in 1991 still was an improvement from the \$ 39,2 million deficit in 1990. The SkyDome suffered a net loss of \$ 21,6 million in 1992. The operating profits increased 14% to \$ 34 million for 1992, but interest expenses of \$ 26,9 million, taxes of \$ 10,6 million and depreciation of \$ 18 million left it with additional losses.

¹² A more detailed description of the legal construction is described in paragraph 3., as well as the difference between Stadion Amsterdam N.V. and Stadion Amsterdam C.V..

¹³ For a large event the Amsterdam ArenA employs approximately 1.500 persons: 400 stewards, 100 private security guards, 50 maintenance/ cleaning staff, 250 VIP-catering staff, 700 Food and Beverage staff.

¹⁴ The Mission Statement of Stadion Amsterdam: 'Stadion Amsterdam exploiteert de Amsterdam ArenA, het 'State of the Art' multifunctionele megatheater van internationale allure voor het brede publiek, gericht op continuïteit, rekening houdend met de belangen van de Gemente Amsterdam, de founders en de overige certificaathouders, in nauwe samenwerking met de hoofdhuurder AFC Ajax, de cateringorganisaties en de andere partners, door onderdak te verschaffen aan allerlei multiculturele groot- en kleinschalige evenementen, waarbij een hoge mate van service en publieksvriendelijkheid wordt geboden'.

¹⁵ Besides the net rental, all variable event-related costs are charged to the event organiser. These costs include event related cleaning, security staff and an allocation for utilities. These costs have almost zero effect on the cash-flow and P&L of the stadium.

¹⁶ Mainly made up of stadium rental income, box income and catering income.

¹⁷ The Tour & Museum registers on average 100.000 visitors per year.

¹⁸ The stadium is used by AFC Ajax about 30 days a year.

¹⁹ The Supercup - Johan Cruijff Trophy is traditionally held in the month of August each year. This match is contested by the Dutch league champion and the cup winner, and forms the official start of the football season.

²⁰ Mojo Concerts is responsible for 95% of all the concerts staged in the Netherlands. Founded in 1968, the company's core activities are: concert organisation, artist bookings, festival organisation and creation and development of new events. On a yearly basis, it organises some 200 concerts, attracting a total of around one million spectators.

²¹ ID&T is a world-class entertainment company, whose large-scale dance events attract some 400.000 young ravers annually. ID&T also runs its own radio station and a couple of trendy locations.

²² The tournament attracts more than 80.000 spectators and live broadcasts or highlights are shown in no fewer than 105 countries with over 175 million viewers.

²³ A part from football, pop stars like Michael Jackson, Tina Turner, Rolling Stones, Bon Jovi, Robbie Williams, U2, as well as classical concerts like Aida, Carmen, Boccelli and Pavarotti, have performed in the Amsterdam ArenA.

²⁴ The sports results of the football team inevitably have a direct impact on the economic and financial results of the Stadion Amsterdam C.V.. Although the risk is minimised by having a minimum annual rent guaranteed, positive sport results of AFC Ajax attract more spectators and consequently increase the income from ticket sales and catering. On the other hand, the availability

of a state-of-the-art stadium has contributed to the increase of the match day revenue and as a consequence to the success of the football team.

²⁵ The benefits for the Bijlmer area are more in details described in the following paragraphs.

²⁶ Videos are, for example, used during the American football matches. Rules of the game are not completely known and the screens are constantly explaining what's happening on the field.

²⁷ In the next future, VIP and business seats will be provided with in-seat technology offering fast network connections. Per seat, a small television screen offers information on the event (score, statistics), instant replays, interactive ordering food and drinks and several other services.

²⁸ The end of the Amsterdam ArenA is separated on the north side with flexible walls and a ceiling. The separated area is behind the playing field's touchline. The area's roof is made of sailcloth that can be slid open and closed. The vertical separation is made of similar sailcloth but has a velvety flock finish. The back wall is attached to trusses suspended from the catwalk by motorised tackles.

²⁹ Important investments have been made recently. New escalators will be added before the end of 2005 in order to facilitate the entrance of spectators to the second ring.

³⁰ Pathè ArenA cinema multiplex has been opened on April 2000. It has a capacity of 3.250 seats, distributed in 14 halls. It also includes a parking with 400 places.

³¹ Heineken Music Hall, opened on march 2001, has a capacity of 5.500 seats. It can host a wide variety of events, from concerts to company happenings, parties, etc.

In the summer of 2002, a temporary structure, Pepsi Stage (waiting for the GETZ Entertainment Center), has been added to the Heineken Music Hall, with a capacity of 2.000 seats. The integration of the two facilities has widened the event facility offer present in the ArenA Boulevard.

³² The plans for the GETZ Entertainment Center include a theatre, a casino, discos, hotel, offices, a high-class residential centre and two social and cultural centres.

³³ The GETZ Entertainment Center should contribute to create more 'traffic' during the day, attracting visitors to its various entertainment places.

³⁴ The project has been completely financed by 40 private companies. The project leaders are HP, LogicaCMG and Unilever.

³⁵ The ArenA Arcade includes 4 megastores for MediaMarkt, Decathlon, Perry Sport and Prenatal.

³⁶ Villa ArenA has been opened in April 2001 and includes about 70 shops.

³⁷ The ArenA Office Towers, base of PriceWaterHouse Coopers, and the Oval Tower, base of Abn-Amro. In the surrounding area, many other companies have decided to settle down, due to the notoriety of the area and to the excellent accessibility.

³⁸ A 150 meter high tower will be built at the entrance of the ArenA Boulevard. It will be the highest building in Amsterdam and it will be destined to living and working functions.

³⁹ The offices of small companies are grouped in one building, called rainbow offices.

⁴⁰ The railway track between Amsterdam and Utrecht, about 35 kilometers long, realised in 1843, had already reached the full capacity.

⁴¹ Bijlmer station will be directly connected with the Amsterdam airport, Schiphol (20 minutes), with Utrecht (30 minutes) and with the centre of Amsterdam (20 minutes). Furthermore, the high-speed trains coming from France, Belgium and Germany will stop at the Bijlmer station.

⁴² The ArenA Boulevard is located close to 3 highways, making the access with auto and public transports easy. The area has also many parking places, directly operated by the public bodies and promoted as transfer point with public transports in order to reach the city centre.

⁴³ The Bijlmer mainly consisted of high-rise (10-floor) deck-access apartment blocks in a honeycomb pattern. Of the total of 18,000 units, 13,000 were built in this way. Between the large, high-rise apartment blocks, spacious green parks were developed, traversed by bicycle and pedestrian routes. Car traffic was led above ground level and metro lines crossed the roadways

(Projectbureau Vernieuwing Bijlmermeer, 1994; Stadsdeel Zuidoost et al., 1995; UBO URBAN Bijlmermeer, 1999).

⁴⁴ Between 1970 and 1975, preceding the independence of Surinam (a former colony of the Netherlands), many Surinamese came to the Netherlands and settled in the Bijlmer. Other immigrants, from the Netherlands Antilles, followed. As rents were high, people shared dwellings, which caused overpopulation in some blocks. Especially among the ethnic minority groups, the educational level was low and the level of unemployment considerable. People who could afford it, left the Bijlmer area and were replaced with an influx of deprived, many of whom newcomers.

⁴⁵ On October 4, 1992, the Israeli El Al cargo plane crashed into a high-rise apartment complex in the poor district of Bijlmer, shortly after takeoff from Schipol Airport. The Boeing 747 ploughed a 150-foot hole through the 11-storey building, killing four crew members and at least 39 people. The exact death toll is still unknown since the apartment complex contained many unregistered immigrants.

⁴⁶ The European Regional Development Fund (ERDF) and the European Social Fund (ESF) participated to the financing of the project for a total of 9,85 million guilders (circa 29 million euro).

⁴⁷ Source: De Bijlmer Monitor 2003, DSP – Amsterdam.

⁴⁸ Source: De Bijlmer Monitor 2003, DSP – Amsterdam.

⁴⁹ In 2003, 63% of Bijlmer inhabitants were satisfied with the quality of life of the area, against the 51% of 1997. The satisfaction level is even higher if included services (satisfaction level 70%) and public services (satisfaction level 63%). Source: De Bijlmer Monitor 2003, DSP – Amsterdam.

⁵⁰ Like, for example, the average living period in the area (from 8 years in 1997 to 11 years in 2003), the percentage of residents that left the area (from 32% in 1997 to 24% in 2003), the average number of requests per each apartment available (from 50 in 2000 to 84 in 2003), the average number of denunciations reported to the police department (from 174,5 every 1.000 inhabitants in 1999 to 146,5 in 2003) - Source: De Bijlmer Monitor, DSP – Amsterdam.