

SFN Team · Feb 8, 2024

# Architectural Design of Squash Facilities: A Cornerstone for Successful Business Planning



In the competitive world of fitness and recreation, the architectural design of a squash facility plays a pivotal role in its success. A thoughtfully planned squash and fitness center not only enhances the athletic experience but also contributes significantly to operational efficiency and profitability. From the layout of the courts to the integration of fitness amenities, every architectural decision impacts customer satisfaction and business performance.

This post explores the critical architectural considerations when planning a squash facility, providing insights that will strengthen your business plan and set the foundation for a thriving enterprise.

## Summary for the Design Planning of the Squash and Fitness Facility

Geneva, known for its high-income population and a strong focus on health and fitness, offers an ideal environment for launching a squash and fitness facility that emphasizes quality and variety. The diverse demographic characteristics of this city highlight the importance of a broad offering to meet the varying needs and preferences. A market gap in specialized squash facilities presents an excellent opportunity to differentiate by combining top-class squash courts with an extensive fitness program.

The facility aims to offer more than just sports activities by incorporating additional services that make it a central hub for health, sport, and social interaction. Specifically, the offerings target professionals aged 25 to 50, including experts and international officials who value health consciousness, quality, and exclusivity.

The facility is planned to include the following high-quality amenities:

- 7 squash courts,
- A fitness equipment area and studios with the same footprint as squash,
- A welcoming reception area combined with a shop for sports gear and accessories,
- A central bar that serves as a social gathering point as well as offering light meals and catering for events,
- Changing areas with a sauna that provide comfort and relaxation after sports,
- A childcare facility that allows parents to balance sport and family,
- A multifunctional event room for events and workshops.

## Architectural Design Planning

In the design planning, special attention is paid to the functional and commercial viability of the facility to ensure that the spatial layout meets both the users' demands and operational requirements. This strategic orientation ensures that the facility not only meets the expectations of the target group but also secures long-term success in the dynamic environment of Geneva.

The plot of 1,350 square meters, measuring 45 meters in width and 30 meters in depth, with a permissible construction height of up to 7 meters, offers all the prerequisites for implementing the business model. There are sufficient parking facilities in the vicinity available for the visitors of the facility.

A central element of the design is the creation of a core area that serves as the hub for all activities within the facility. This central area includes a welcoming entrance area with reception and an integrated sales area for sports goods. This area is complemented by a bar with additional seating, together forming an atmospheric unit. This concept promotes social interaction and allows efficient management of the facility even during low usage times with minimal staff.

The strategic arrangement of the premises requires visitors to pass through the central area to reach the changing rooms on the first floor. This passage increases the dwell time of the guests and offers additional opportunities for sales and the use of the bar, potentially increasing revenue.

The planning also takes into account the visitor capacities by including the sports of squash and fitness. With a capacity of an average of 70 players per squash court and a calculation basis of 2 to 3 members per square meter in the fitness area, a target membership number of about 1,400 up to a maximum of 2,500 members for the facility can be projected. These figures highlight the potential of the facility to attract and serve a large member base.

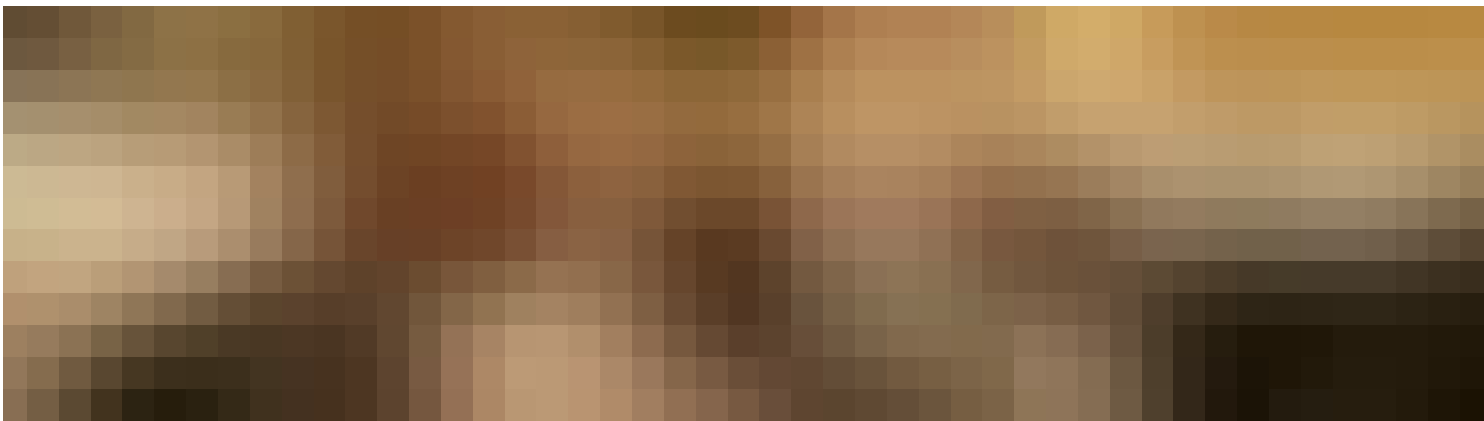
In summary, the design plan offers a well-thought-out solution for the use of the property that considers both the functional needs of the facility and its commercial aspects. By creating a central area that serves as the social and commercial heart of the facility and by optimally utilizing the available space, an attractive offer is created for a wide target audience. Overall, an open space design should ensure that one can quickly understand what the different areas of the facility are about.

## Ground Floor



In the design plan for the ground floor, the following key elements were specifically designed with special attention to ensure an optimal combination of functionality and ambiance:

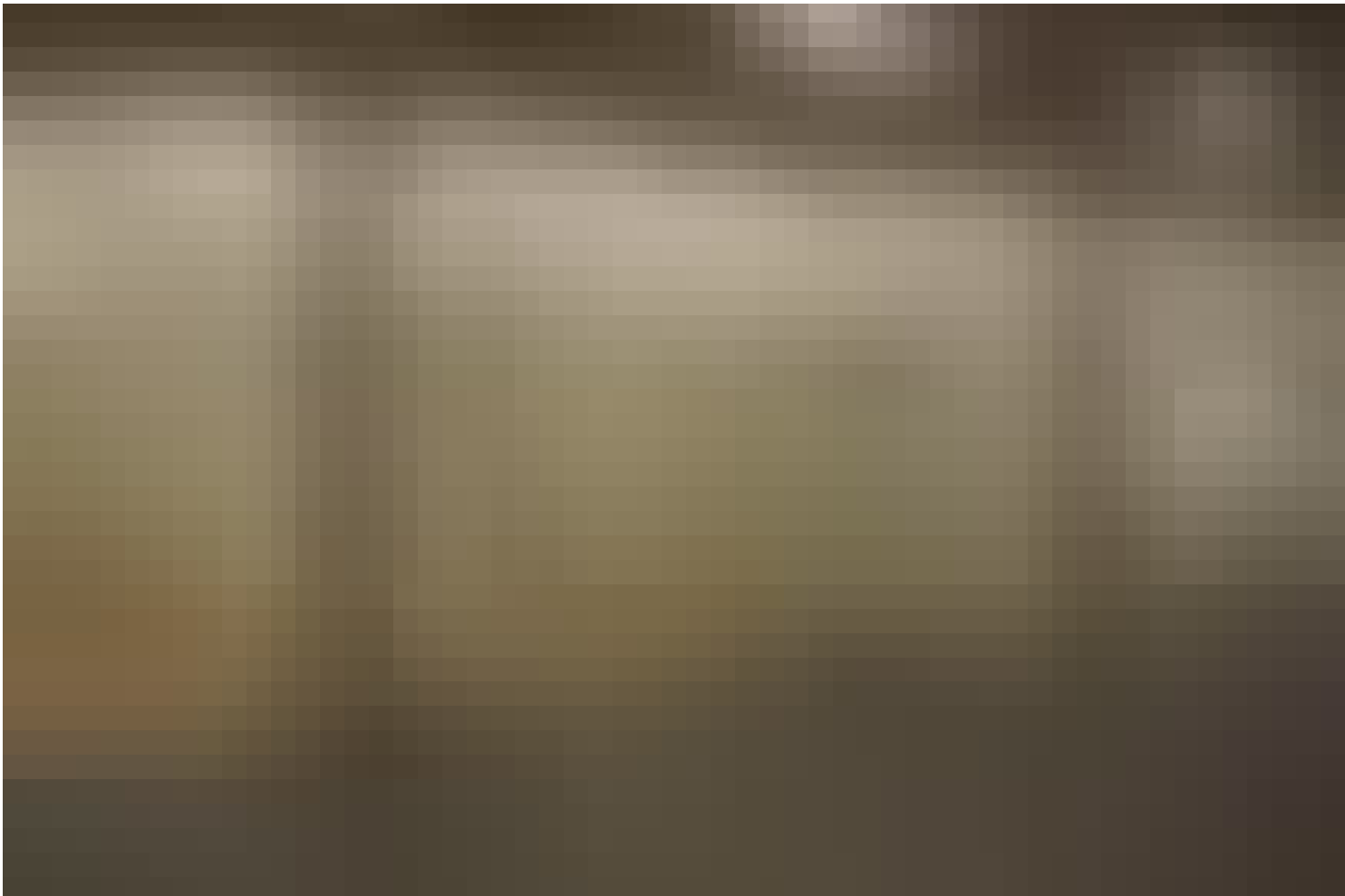
**Access and entrance area:** The entrance is strategically designed to direct visitors directly into the vibrant central area. This includes a reception area with an integrated shop and leads seamlessly into the bar and restaurant area. This lobby is not only practical but also designed to be welcoming and representative.



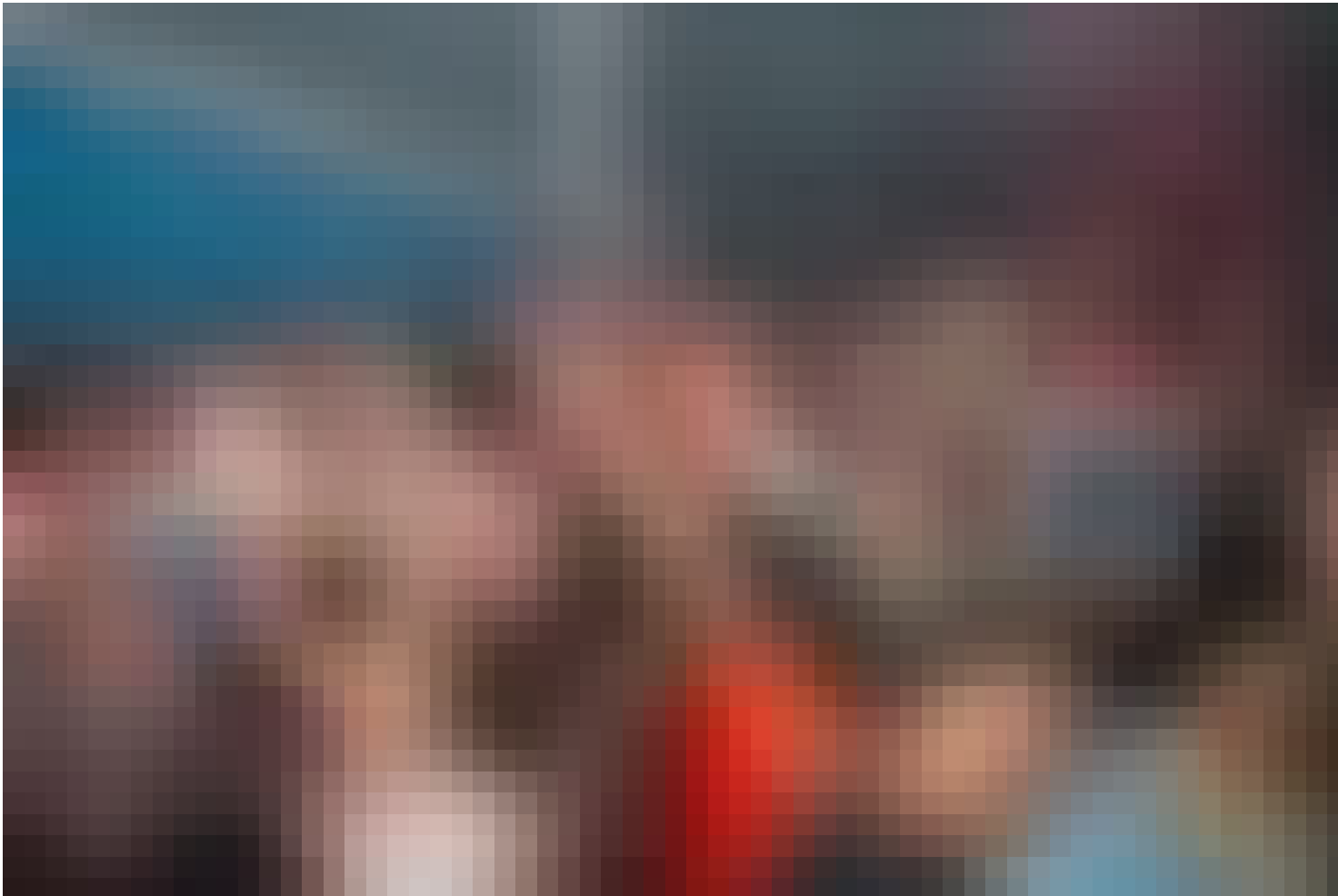
**Squash Courts:** Surrounded by the central area, the squash courts are divided into two blocks. On the left side, there is a block with four courts, and at the end of this row of courts is the center court with capacity for 150 spectators. This specially equipped court with cameras allows for coaching, live streaming to the bar area or on social media, and makes it the ideal location for tournaments of all kinds.



The second block, with three additional courts located in front of the bar area, features movable side walls to allow for flexible use, such as for doubles squash or as a 190 m² sports hall for various activities.



This innovative design promotes a dynamic, athletic ambiance and enables the conversion of the courts into a dance floor for events.



**Bar:** Designed with 60 seats, the bar forms the social heart of the facility. Its size is optimal for a leisure facility of this dimension. The adjacent kitchen, although not designed for large-scale gastronomy, supports the provision of small dishes and enables efficient catering for events.

**Fitness Area:** The fitness area covers around 450 m<sup>2</sup>, divided into two studios of just over 110 m<sup>2</sup> each and 140 m<sup>2</sup> for fitness equipment. Additionally, there are approximately 80 m<sup>2</sup> for consultation and medical testing purposes. Studio 1 is located on the ground floor, while Studio 2 is placed on the upper floor, balancing the space allocation between squash and fitness.

**Additional Spaces:** In addition to the main areas of use, essential spaces such as toilets, offices, and a technical room have been efficiently arranged to minimize investment costs while ensuring optimal functionality. Special attention was paid to the water installations, which are located on the ground floor directly beneath those on the upper floor, to reduce construction costs.

## Upper Floor



The detailed planning of the upper floor shows a meaningful extension and complement to the concept started on the ground floor.

**Studio II:** The second large studio of 114 m<sup>2</sup> is versatile and ideal for courses such as aerobics, yoga, or dance. If necessary, the studio can be divided into two smaller studios. This flexibility allows for accommodating the diverse interests of the members and creating a wide range of courses.

**Childcare:** A 104 m<sup>2</sup> area specifically designed for childcare makes the facility particularly attractive to families. This service underscores the facility's commitment to meeting the needs of all family members.

**Event Room:** With nearly 70 square meters, it offers a space for corporate presentations, seminars, and other events. Moreover, this room provides additional space during squash events, for example, for tournament organization or medical treatments.

**Changing Rooms:** The spacious changing rooms, totaling 207 m<sup>2</sup>, provide ample space for comfort and privacy. The provision of 20 showers meets the demand according to the number of squash courts, while 250 lockers far exceed the necessary amount and offer the possibility to provide exclusive membership options with private lockers.

**Storage Rooms:** The importance of adequate storage facilities is often underestimated. Special equipment needed for events, such as boards or promotional materials, requires appropriate storage spaces.

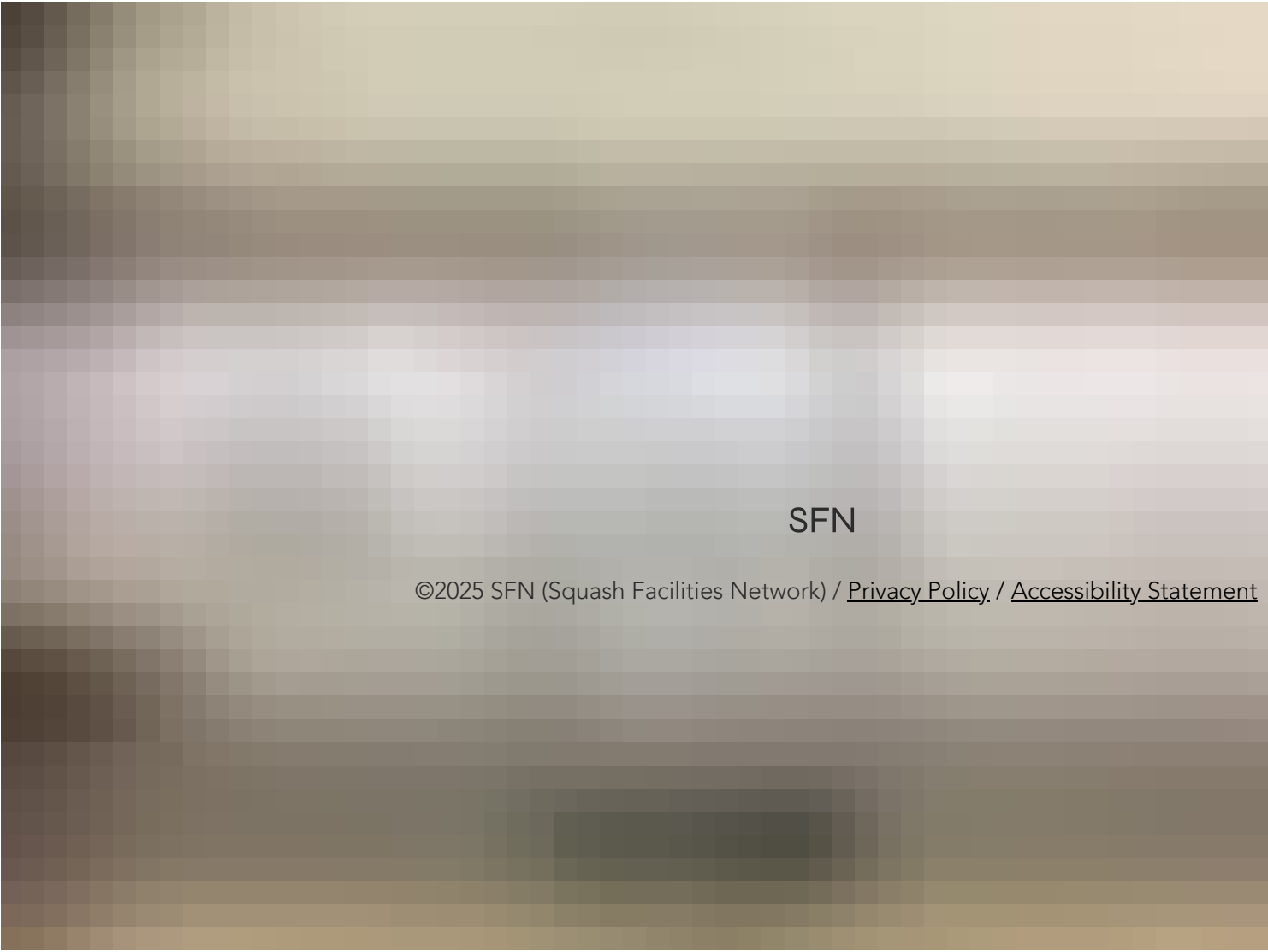
**Balcony Area:** The upper floor offers a balcony area for referees and spectators, providing an optimal view over squash courts 2, 3, 5, 6, and 7.

Considering practical aspects such as energy efficiency, acoustics, and lighting is crucial for the operating costs of a squash and fitness facility. Here is a detailed examination and expansion of the most important topics for a squash and fitness facility:

**Sound and Lighting Conditions:** Acoustic design is of central importance, as the noise level in a squash court can reach up to 100 dB during play. To prevent interference with other areas of the facility, targeted architectural measures are required. This can be achieved by using sound-absorbing materials on ceilings to dampen the sound. Additionally, careful planning of the lighting is necessary to minimize glare and ensure even illumination of the courts, improving play quality and increasing safety.

**Energy Efficiency:** The energy efficiency of a sports facility requires a tailored concept that considers both the climatic conditions of the location and the specific requirements of the used spaces.

For the squash courts, in addition to maintaining the minimum temperature of 15° Celsius, with an ideal range between 18 and 20° Celsius, it is important to consider. The use of glass back walls extending to the ceiling can help increase energy efficiency by reducing the need for heating and noise levels.



This should be complemented by a state-of-the-art heating, ventilation, and air conditioning (HVAC) system that allows for efficient temperature control while ensuring adequate air circulation to manage the humidity caused by the sweating of participants. Inefficient ventilation in squash courts can lead to problems with the unsealed wooden floors for squash. There is a risk that the wood will expand due to high humidity, making the floor unplayable.

Comprehensive planning that incorporates advanced technologies and materials can not only significantly reduce energy costs but also create a more pleasant and healthier environment for all users. Smart lighting systems based on LED technology are today's standard in squash.

**Conclusion**

The planning of the squash and fitness facility demonstrates excellent space efficiency and is carefully tailored to the needs of the users. With a total area of 2,030 m², divided into 1,350 m² on the ground floor and 680 m² on the upper floor, almost half of the space – precisely 900 m² – is dedicated to the core sports areas of squash and fitness.

This goal-oriented design not only offers members a wide range of activities in a welcoming atmosphere but also pays attention to sustainability and economic efficiency. This strategic orientation of the facility creates added value for both users and operators.

In the next post of our series, the Squash Facilities Network (SFN) will shed light on the financial considerations crucial for the realization of this ambitious project. Under the title "4. Investment and Revenue Forecast," we will address the economic conditions that will be decisive for the success of the facility.