

Sports Infrastructure, Design and Operation – A1

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Task B



Mission statement:

Trawsnewid Addysg . . . Trawsnewid Bywydau
Transforming Education . . . Transforming Lives

Questions for Venue (Attach to Assignment Appendix)

DATE - FACILITY ADDRESS – (Allianz Arena, Munich) FACILITY CONTACT -

What type of events take place within the venue and how are they funded?

Within this facility numerous events take place, the most obvious being FC Bayern Munich's home fixtures and a percentage of the German National Team home fixtures. Outside of matches, the arena hosts numerous other events such as stadium tours and museum visits. Away from football events like business conferences, exhibitions, corporate hospitality events, private functions and community events. It is also used for concerts and media launches. Funding comes from venue hire fees, broadcasting rights, ticket sales, conference bookings, sponsorship agreements, guided tour tickets, museum admissions, food and drink sales, parking sales, naming right sponsors from Allianz and merchandise sales from the Megastore which attracts visitors even when the arena is not hosting any form of event.

How do they market activities & manage consumer/ participant demand?

The venue will market and promote events held there via the official FC Bayern Munich website, social media. email campaigns and tourism partnerships. The demand is managed using online advance ticket sales, membership priority access, season tickets, digital ticketing, price tiers and pre-booking stadium tours to control the number of visitors allowing the quality to be to the expected standards.

Observe the environment and list 3 key features?

1. The stadium's exterior is made from thousands of inflated ETFE panels which can be illuminated in different colours. This aesthetic creates a beautiful appearance for the exterior, makes the venue have a unique identity and makes the arena stand out more than any other venue, especially at nighttime. The colour of illumination can be changed to correlate to any event being held.
2. The stadium was built in a modern bowl-shaped design with steep seating tiers, this helps to ensure that all seats have a perfect view of the pitch / stage, slow incline for each row also allows the fans to create a better atmosphere on matchdays with accessories like TIFOs.
3. The Allianz Arena has excellent transport links, including direct access from the Munich "U-Bahn" network. Wide walkways around the facility and clear signage with organised

entry points help thousands of visitors arrive and leave safely and efficiently on match days where a seated capacity of 66,000 can attend.

Is the facility fit for purpose?

All things considered, the Allianz Arena is highly fit for purpose. It is designed for large-scale sporting and entertainment events, with excellent spectator views, modern facilities, strong security systems and efficient transport links. The arena successfully meets the needs of players, fans, media and any other event organisers.

What key challenges do they currently face?

Key challenges which the arena faces can include traffic congestion and crowd management on busy matchdays, maintaining high security standards, rising operating and energy costs, ongoing structural maintenance and balancing sustainability with the demands of frequently hosting a variety of large events.

List three Health and Safety practices e.g. crowd control, alcohol, risk management, evacuation procedures, maintenance etc.

1. Crowd control through stewarding, security checks upon entrance, ticket and ID checks, live CCTV cameras covering the entirety of the venue and designated entry and exit routes.
2. Alcohol management with controlled sales, for example x amount of beverages per person / transaction. Trained staff and security monitoring to reduce anti-social behaviour.
3. Emergency procedures including fire safety systems, clear evacuation routes, regular risk assessments and routine maintenance checks.

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Questions for Venue (Attach to Assignment Appendix)

FACILITY ADDRESS - Spotify Camp Nou

What type of events take place within the venue and how are they funded?

The Camp Nou is the home of Spanish football club FC Barcelona; it is a multi-purpose stadium that hosts a wide range of events outside of football. Due to the large capacity, it is frequently used for major concerts and festivals, cultural and religious gatherings and the stadium's facilities are also used for corporate events like conferences and business meetings. Camp Nou also attracts thousands of tourists every year for their stadium tours and museum visits where the history of the club is on show.

These activities are funded via multiple revenue streams, Ticket sales being the primary source of income. Sponsorships and partnerships with global brands such as Spotify who paid roughly £235m as part of their sponsorship deal with the club which granted them naming rights for the stadium to be officially called "Spotify Camp Nou" and have their branding on kits and training gear. In addition, broadcasting rights for all televised events. External organisers will also pay venue hire fees to host events at the stadium which produces further income. Additional income is generated through the sales of merchandise and food and beverage sales within the facility.

How do they market activities & manage consumer/ participant demand?

At the Camp Nou, marketing activities and managing consumer demand are essential to ensure both, high attendance and consistent revenue for footballing events and any other form of event being held at the stadium. As the stadium is the home of FC Barcelona it will constantly benefit from a globally recognised brand, which plays a key role in its marketing strategies. Marketing is mostly driven through digital platforms like social media and the official website where they will promote any events taking place which will reach a massive audience. Collaborations with travel companies are also a huge way to market their events as that will then reach international visitors.

To manage consumer demand, pricing strategies are often used, this is where ticket prices will depend on the popularity of the event, the opposition team and the timing of the event. Season tickets help to guarantee a stable core audience and allows loyal fans to secure priority tickets to any non-footballing event. For large events, timed entry systems, crowd control measures and advanced booking platforms are used to maintain visitor safety and enhance the overall experience of guests. Combining all these strategies this allows the stadium to maximise attendance whilst simultaneously controlling the high demand.

Observe the environment and list 3 key features?

The stadium includes wide concourses, this is useful as it allows the large crowds to efficiently move to and from seats and enter and exit the stadium with congestion unlikely, this makes the environment much safer.

The pitch level is slightly below ground level which helps with increasing capacity without making the stadium look excessively tall from the outside.

The iconic phrase “Mes que un club” which translates to “More than a club” is printed throughout the stadium and written within the stands by using different colour seats.

Is the facility fit for purpose?

Overall, the facility is definitely fit for purpose that largely being down to the size of the facility, which accommodates 62,000 fans for every game now which has been reduced from 80,000 due to redevelopment, once the work is complete the capacity is projected to reach 105,000 which would make it the largest stadium in Europe in terms of capacity. Not only is it fit for footballing purposes, but it is consistently successfully operating as a multi-purpose venue.

What key challenges do they currently face?

In recent years, the stadium has faced a lot of criticism, this is down to the infrastructure becoming outdated in comparison with newer stadiums, comfort, accessibility and facilities such as hospitality areas have been the areas in which the criticism has been received for. Major redevelopment work has been planned to modernise the stadium to ensure that the overall spectator experience is improved.

List three Health and Safety practices e.g. crowd control, alcohol, risk management, evacuation procedures, maintenance etc.

1. The stadium has detailed evacuation plans with clearly signposted emergency exits and well-trained members of staff at each exit point who are ready to direct spectators in the emergence of any incidents. Regular drills are undertaken to ensure that all alarms are always working as they should be.
2. Routine inspections of seating, structure and all electrical systems are carried out to help prevent any hazards which can be controlled. Before any event takes place at the stadium a risk assessment will be completed, issues which are covered during these assessments are fire safety, structural integrity and any crowd related risks. This covers the stadium as it makes sure they are compliant with safety regulations.
3. The stadium is fitted with communication systems which can efficiently report any issues to all in attendance, these systems come in the format of large tv screens, announcement systems and even mobile alerts.

Task C

Question one shows that 51% of participants who attend Ospreys games are season ticket holders, having a consistent following through season tickets is crucial to clubs as it generates a reliable source of income each season as well as providing the stadium with a good atmosphere. In future seasons the club will need to retain these customers a way of doing so could be by handing out incentives or discounts for each renewal as well as possible discount on official merchandise as the profit margin on that is so large the club could afford to give loyal fans something back.

Results show from question 2 that only 31% of people who have a child within their party have memberships for 'Ozzie's Army'. For the club that would be quite a blow as the main goal of Ozzie's Army is to draw in and retain younger fans, if younger children are not engaged within the club then there is serious potential for future generations to continue being uninterested which is not good for the club in terms of supporters which will lead to financial issues. However, the other 69% is split 40% no and 20% provided no response, this could be due to lack of advertising, maybe if they focussed more on promoting Ozzie's Army more people would sign their children up for it.

Question 3 findings show that 53% of supporters were aware of a ticketing system change in 2014 with the club selling tickets through Ticketmaster. 47% answered no, although that figure is high it is not too worrying for the club as a lot of people will turn up on the day and buy a ticket at the stadium. Again, that could be a lack of communication with supporters and not enough promotion of the change, to improve on these figures the club should utilise tools such as social media and also send out frequent emails to fans who have signed up to anything with their email address, the more promotion the club sends out the more likely people are to not only remember about important changes but also be aware key dates, prices and times etc.

The contents of question 4 is asking the supporters about their experiences with ticketing during that season ranking from 1-5 poor to high. 1 receiving 0 votes and 5 receiving 16. 3 received the highest numbers of votes which suggests that the experience is bog standard, nothing to complain about whilst remaining not impressive. The club should be aiming for consistent 4s and 5s if they are wanting to retain custom. When buying tickets, it is important to make the purchase as hassle free as possible with speedy service and a reliable purchase method. Being user friendly is important as not everyone who will want to attend games will be tech savvy, if the process is deemed difficult by elder fans this may be a reason for the lower figures received in previous questions.

Question 5 is asking fans what their method of purchasing tickets is, there are 7 different boxes available to tick, the most common method of purchase is in person, this is likely down to the fact that you can just go to the ticket office, talk to a member of staff and have everything sorted for you easily on the spot. The second highest response was online; a lot of people are

comfortable with the digital world and would prefer to purchase their tickets through this method as you can do it from home and have everything sent to you almost straight away through email confirmations. Phone, school initiatives, rugby clubs, employers and half term activities make up the rest of the methods with through rugby clubs being the 3rd most common response, this shows that the club are aware of their target audience and also have connections with local clubs which can produce more fans to attend games.

For question 6, results show that only 35% of supporters were aware of the flexi-ticket offer the club provide, this is where you purchase tickets for 4 separate fixtures at once and receive 25% off the overall cost. This is a great deal provided by the club but the fact that 65% of supporters are unaware of the deal again suggests areas for improvement within the marketing department. If every fan was aware of money saving offers like this then they would see a considerable increase in ticket sales. Email campaigns, social media and partnerships with rugby clubs would be a good way to promote this offer.

Question 7 is split into 2 questions, only applicable to those who purchase their tickets online. Finding out how many people requested for their tickets to be sent to them at home or through an e-ticket which you need to print off at home yourself. 50% wanting tickets sent to them, 38% having e-tickets and 12% providing no answer. Part B asks if those who voted via post are aware of e-tickets with 300% answering yes, 31% answering no and 39% non-responding. The easiest way to receive your ticket is for it to be sent straight to you as not everyone has access to a printer which may be why people are not interested in e-ticketing.

Question 8 is again is split into 2, part a asking for ranking, this time on usability of online ticketing purchase site, 1 and 2 being the lowest received 0 responses whilst 3 received 43, 4, 39 and 5, 18. Part B was for anyone who chose 1 and 2 to explain why they rated so low but as no one gave 1s or 2s part b required no data. The middle point of 3 being the most rated suggest again that nothing is bad, but nothing is special while buying tickets online but that means there is always room for improvement from the club and their partners.

Supporters were asked to rate the new entry control scanners that were installed at the stadium in Question 9a. All respondents rated the technology as 3 (34%), 4 (44%), and 5 (22%), indicating generally favourable sentiments. Once more, 9b requested that individuals who voted 1 or 2 provide justification for their responses; however, as no one did so, there is no need to examine those responses. Efficient entry procedures are essential because they reduce wait times, improve crowd control, and make matchday more fun. The positive outcomes suggest that fans appreciated the more efficient and well-organized stadium access process. Investments in technology can boost operational effectiveness and customer happiness when done correctly.

In response to question 10, 66% of respondents stated that they would be interested in the club offering online preorders for food, drinks, and merchandise during game days in the concourse, while 34% expressed no interest. On matchdays, fans desired quicker service and cheaper prices. Fans may not be able to fully enjoy the event if there are long queues during halftime. Fast track collection systems would reduce wait times and boost convenience. This would also benefit the firm by increasing food and beverage spending and productivity. Ospreys Rugby should give this approach considerable consideration because the study's findings indicate that there is a significant customer desire for faster service options.

For the final question, it asks if pre purchases were employed by the club 46% said they would mainly use it to purchase alcohol, 54% said they wanted meal packages, and an extra 34 more participants say that they would also want to purchase matchday programmes. This implies that during events, price and convenience are highly valued by fans. Promotions for food and drink are likely to boost consumer satisfaction and stimulate higher expenditure. The decline in popularity of matchday programs could be attributed to the increasing use of digital media in place of printed content. Ospreys Rugby should concentrate on providing family meal deals, student discounts, and appealing food and drink packages. Enhancing supporter experiences and promoting repeat attendance need offering value for money.

Task D

Numerous social, economic, environmental, and technical elements are influencing how sports and recreational facilities will grow in Wales in the future. The significance of developing inclusive, sustainable, and financially stable facilities that may boost participation and enhance public health outcomes has been emphasized more and more by national governing organizations like Sport Wales and the Welsh Government. Sports facility development must alter to meet future demands as Wales deals with issues including physical inactivity, growing energy costs, climate change, and shifting participation habits.

One of the main underlying driver for future facility development in Wales is the need to improve public health and physical activity levels. Wales continues to experience significant health challenges linked to obesity, mental health, and physical inactivity. Sport Wales' national strategy highlights that sport and physical activity contribute significantly to improved mental wellbeing, reduced healthcare demand, and healthier communities (Sport Wales, 2025). The organisation estimates that sport generates over £621 million annually in healthy outcomes within Wales through illness prevention and improved wellbeing (Sport Wales, 2025). Consequently, future sport facilities are increasingly being designed as community wellbeing hubs rather than adopted the traditional leisure centre vibe.

Accessibility and social inclusion are significant motivators as well. Future facilities must be inclusive and accessible for all demographic groups, regardless of age, gender, disability, ethnicity, or socioeconomic status, according to Sport Wales' vision for sport (Sport Wales, 2025).

According to research, women, people with disabilities, and members of underprivileged groups frequently have lower levels of involvement. Because of this, contemporary facilities are increasingly developed with reasonable pricing structures, accessible spaces for people with disabilities, inclusive changing facilities, and multipurpose areas. By fostering a friendly atmosphere that promotes social interaction, facilities are also meant to promote community cohesion.

The growing emphasis on sustainability and environmental responsibility is also a major driver for future sport facility development in Wales. The Welsh Government and Sport Wales have both committed to ambitious net-zero carbon targets, requiring sports infrastructure to reduce environmental impact. Sport Wales' Environmental Sustainability Plan identifies climate change as a major threat to the future of sport due to flooding, extreme weather, and rising temperatures affecting participation and facility operations (Sport Wales, 2025). As a result, low-carbon technologies including solar panels, heat pumps, rainwater harvesting systems, LED

lighting, and energy-efficient building materials are being used more frequently in future projects.

Another important aspect influencing the provision of facilities in the future is financial sustainability. Wales's local government recreation centers are under more and more strain due to rising operating costs, especially energy expenditures. Many outdated recreational facilities are costly to maintain and don't adhere to contemporary efficiency standards. As a result, adaptable multipurpose spaces that can produce numerous revenue streams are becoming more and more important in future constructions. In order to maximize usage throughout the day, facilities today frequently mix gyms, sports halls, swimming pools, cafes, health services, and communal areas into one location. In order to protect recreation centers from future financial strains, Sport Wales recently invested 3.3 million on upgrading sports facilities, with a particular emphasis on energy efficiency and long-term sustainability (Sport Wales, 2025).

Future sports facility operations and design are also being impacted by technological developments. Consumers today are expecting more and more digital integration in recreational settings. These days, facilities are using energy management software, smart access systems, virtual exercise courses, online booking systems, and performance tracking technologies. By assisting institutions in monitoring energy consumption and cutting expenses, technological advancements also enhance operational efficiency. Furthermore, social media and digital marketing have revolutionized the way facilities interact with communities and draw people in.

Changing participation trends are another key driver for future development. Traditional single-sport participation models are declining, while demand for flexible recreational activity is increasing. Many people now prefer casual fitness, gym memberships, group exercise classes, and informal recreational activity over a structured club sport setting. Sport Wales highlights the importance of “needs-led” provision where facilities respond directly to community demands rather than relying on traditional participation models. (Sport Wales, 2025). This means future facilities must provide adaptable spaces capable of supporting a wide range of activities including fitness classes, recreational games, rehabilitation programmes, and social activities.

Urban regeneration is also increasingly linked to sport facility development within Wales. Governments and local authorities recognise that investment in sports infrastructure can stimulate economic growth, increase employment, and improve deprived communities. Recent Welsh Government investment programmes have focused on upgrading underused facilities and creating modern community sports hubs within deprived areas (Welsh Government, 2025). The redevelopment of sports facilities is often used to support wider regeneration projects by increasing footfall, attracting visitors, and improving community identity. For example, recent

redevelopment proposals linked to sporting infrastructure in Swansea and Wrexham demonstrate how facilities are increasingly integrated into broader economic and cultural regeneration strategies (Welsh Government, 2025).

Finally, partnership working is becoming essential for future sport facility development in Wales. Due to financial pressures on local authorities, facilities are increasingly reliant on partnerships between councils, universities, schools, national governing bodies and private organisations. Collaborative funding models allow facilities to share costs whilst maximising community usage. Sport Wales repeatedly highlights partnership approaches as essential for delivering long-term sustainable facilities capable of meeting future participation demands (Sport Wales, 2025).

In conclusion, the future development of sports and leisure facilities in Wales is being driven by a combination of health priorities, sustainable goals, financial pressures, changing participation trends, and technological innovation. Future facilities must be flexible, inclusive, environmentally sustainable, and financially resilient to meet the changing needs to play an important role in increasing participation, improving public health, and supporting economic regeneration across Wales.

Task E

This facility development plan proposes the construction of a new community sport and fitness centre in Swansea to increase sports participation, improve public health, and support community regeneration. The proposal is based on the design principles and cost guidance produced by Sport England with supported guidance from Sport Wales. Sport England emphasises that modern, affordable and accessible sports facilities can significantly improve community participation and long-term health outcomes (Sport England, 2025).

The proposed development would consist of:

- A four-court sports hall
- A 60-station fitness gym
- Multi-purpose studio spaces (Dance, Yoga etc)
- Community changing rooms with showers
- Cafe and social area
- Outdoor 3G multi-use games area
- Parking
- A 25-metre eight-lane swimming pool
- Pool spectator seating

This facility would primarily target younger people, university students, families and deprived communities within Swansea where unfortunately participation rates are significantly lower than the Welsh average.

After researching vacant land within Swansea, I have located an suitable area within Fabian Way (SA1 8pt). This land was previously developed industrial land with good transport links and plenty of available development opportunities. The location is ideal due to it being close to the city centre and inbetween 2 universities which will attract students who live near campus or want something to do when they have finished lectures. There are already benefits from public transport access as well as a lot of homes within the area.

Sport Wales (2025) states that facilities should be accessible, affordable and located near target participation groups.

Facility Design:

The facility design allows the affordable sports hall model developed by Sport England. Their guidance recommends flexible multi-sport spaces capable of supporting badminton, basketball, volleyball, indoor football, fitness classes, and community events. Sport England guidance also recommends flexible, programme-led spaces to maximise community use and long-term sustainability (Sport England, 2025).

In order to align with the Welsh Government decarbonisation targets the building will include:

- Solar panels
- LED lighting
- Rainwater harvesting
- Low-carbon heating systems.

Not only do these sustainability measures align with Welsh Government regulations but they will also reduce operational costs over time.

Several barriers will need to be addressed along the way to increase sports participation, these barriers are accessibility, the location of the site allows access for young adults, students and deprived communities who may be limited to organised sporting events.

Affordability with membership deals including:

- Student discounts
- Junior memberships
- Community pay and play sessions
- Free school partnerships during term time and hours

Another barrier is community engagement, to combat this there are a number of partnerships within the community which we can form in order to increase the engagement levels, partnering with local schools, Swansea University, community clubs and disability sport organisations would increase usage throughout the day time and support long-term financial sustainability.

Due to Wales' continuous increase of obesity and physical inactivity levels, greater access to affordable sports facilities has been identified as a way to improve physical and mental wellbeing and coinciding with that obesity levels would drop too. Not only is the facility built to support physical health but improving mental wellbeing is crucial too.

In order to create a cost breakdown all figures are projected costs based on Sport England facility cost guidance and recent sports hall development models.

Item	Cost
Land preparation and remediating	£750,000
Four-court sports hall	£3,500,000
Gym and studio facilities	£1,200,000
Changing rooms and reception	£850,000
Cafe and social spaces	£300,000
Outdoor 3G MUGA	£650,000
Car parking and landscaping	£400,000
Sustainability features	£350,000
Professional fees and planning	£500,000
Contingency	£850,000.
	TOTAL: £9,350,000.

Annual Operational Costs:

Staffing	£420,000
Utilities	£150,000
Maintenance	£90,000
Cleaning and Security	£70,000
Equipment Replacement and Repairs	£40,000
Marketing	£30,000
TOTAL	£800,000

In order to create revenue to cover operational costs this will be achieved through multiple revenue streams, these include memberships, sports hall hire, fitnesses classes, income from food and beverages from the café, partnerships with university and local authority funding. The projected annual income is estimated to be in the region of £950,000, this creates a sustainable operating surplus.

Funding will be a vital part of the project, there are multiple potnetial funding sources available to use. Sport Wales can offer up to £2million, Swansea Council regeneration funding £1.5million, National Lottery funding £2million, University parternship contributions £1million, Private investment and sponsorship £2million and in addition we could gain further funds through community fundraising. Sport England suggests that in order to have a successful large-scaler community sport development, partnership funding is crucial.

Not only will this project be beneficial in a physical aspect but there will be a lot of economic and social benefits too, creation of 40-50 jobs within the facility and support for local businesses

Picture of the facility with a floor plan:



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