

OVG Manchester

Due diligence report

Volume I: UK Arenas and Manchester market overview

2 March 2020



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OVG Manchester Limited
55 New Bond Street
London
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Dear Sir/Madam,

Subject: Project Bradford

In accordance with our agreement dated 23 October 2019 (Appendix 1) we report on our work in connection with the potential development of a 20,000 seat multi-purpose arena located on the Etihad Campus in Manchester.

Our work has focused on various studies previously commissioned into the proposed arena development, as part of your potential planning application. In addition to these reports, we have considered the various public sources of arena and tour attendance data used by you to prepare your business plan, supported by additional publicly available data where available. As part of our work we did not consider the strategic position, competitive environment or economic impact of the new and existing arenas, nor did we assess the market demand for two arenas from the perspective of event attendees and performing artists or their agents, as agreed with you. Important details regarding the scope and process of our work are included in Appendix 2.

Our report comprises two volumes. This volume covers a UK Arenas and Manchester market detailed overview, whilst volume II is a confidential report for management covering the Business model and financial forecasts.

Save as described in the agreement or as expressly agreed by us in writing, we accept no liability (including for negligence) to anyone else or for any other purpose in connection with this report and it may not be provided to anyone else.

Yours faithfully

PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

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Contents

Transmittal letter	3
At a glance – our views	5
Executive report	9
1 Data sources and analysis	10
2 UK Arenas background	11
3 Live Events market	18
4 Manchester market	35
Selected information	53
Appendices	58
1 Agreement	59
2 Our scope and process	66
Glossary	69

To navigate this report on-screen (in pdf format)

From any page – click on the section title in the header navigation bar

From this Contents page – click on the title of the section or sub-section

From the contents listing on any section divider – click on the title of the sub-section

At a glance – our views

OVG is proposing to construct a new, state-of-the-art, arena at the Etihad Campus in Manchester, which it expects to increase event numbers and attendances in the city and to attract additional and more diverse events owing to its location, facilities and flexible design. In the last five years, there has been growth in the UK live music and arena markets, which has been in the range of 3.6% to 6.5%, according to the sources we have reviewed

1 OVG is planning to construct a new arena at the Etihad Campus site in Manchester with a capacity up to 23,500

In 2018, there were 22 UK arenas who were members of the NAA with capacities ranging from 5,000 to 21,000. Manchester Arena is one of the longest running with the largest official capacity (21,000), albeit we understand that owing to its design this is rarely fully utilised (fewer than 50 events had more than 15,000 attendees from 2014-18).

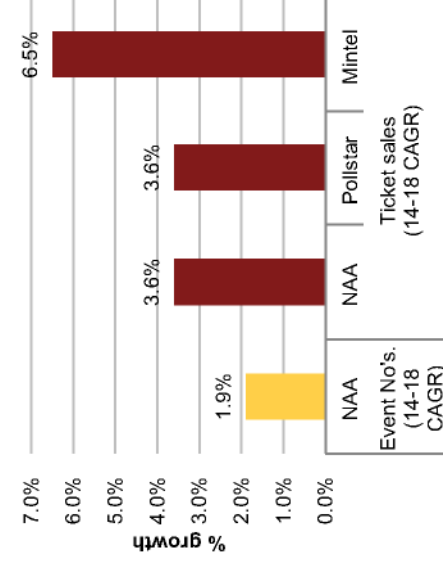
There has been continued historical investment in UK arenas to improve the quality of existing facilities and the associated customer experience as well as growing overall market capacity. Reinvestment at existing facilities has varied, but the opening of nearby sites (i.e. Leeds, the O2) has seemed to act as a catalyst for refurbishments.

OVG's proposal is for a venue with a capacity of c.20,000 (extendable to 23,500 for certain events). The new arena proposals include a number of features, such as flexibility of space, large flat floor, external concourse space and a range of catering options that are distinctive from the existing city centre arena. OVG expects that this will attract attendees from a wider catchment and capture events currently not hosted in the city.

2 In the last five years, there has been growth in both the live music and arena markets in the UK, with the latter also supported by growth in sports and family events and the development of a number of new innovations in event formats

To assess historical growth in the UK arena market, we have drawn on a range of sources including the European and National Arena Associations ("EAA") and ("NAA"), Pollstar and Mintel. Whilst each of these sources has a slightly different focus, all of them highlight historical market growth in terms of ticket revenue, albeit at slightly different levels (CAGR growth between 3.6% and 6.5% from 2014-18).

Historical arena / live music market growth



Revenue from music events has also increased despite event numbers and attendances remaining broadly flat, reflecting an increase in average ticket prices.

The last five years has seen growth in a number of emerging live event formats. The most significant of these is E-Sports which has experienced a high level of growth from 2014-2018 (albeit off a low base) and appears to have gained significant popularity among arena operators.

The emergence of such events provides a broader and more diverse pool of options that arenas can target when scheduling events, which can be supportive in locations where multiple arenas are operated in close proximity.

At a glance – our views

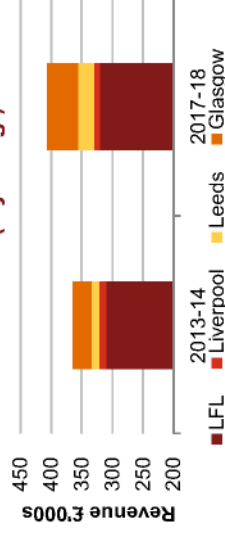
When new venue openings (i.e. Leeds and Glasgow) are separately analysed, increases in supply have been a key driver of historical market growth, but have had a limited impact on existing arenas. For the future, UK arena growth is expected to continue, albeit at a slightly lower rate than recent years. If projected growth rates were to continue to 2030 this would be sufficient to support a number of new arena openings that Manchester would be well-placed to capture

● There is historical evidence of supply-led growth in the arena market

Whilst 2014-18 was a stable period for arenas in terms of openings, 2013 saw major new sites opened in Leeds and Glasgow.

These openings have delivered most of the growth in ticket revenue and event numbers since 2013-2014, which suggests that market growth has been primarily supply-led. Like for like arenas have also demonstrated growth over this period suggesting that new arenas are additive to the market and not simply taking attendees from existing sites.

LFL ticket sales revenue (2 yr. avg.)



The Manchester Arena seems to have been relatively unaffected by the opening of arenas in Liverpool (2008) and Leeds (2013). Events at the Manchester Arena have remained stable and revenue has grown modestly at 0.3% CAGR. Combined event numbers across the three venues increased by 98 (+4.4% CAGR) and ticket revenue by c.£30m from 2014 to 2018.

● Market sources and promoter discussions support a continuation of historical growth

Whilst our reviewed sources are slightly different in their specific focus on the UK market, each expects continued growth, albeit at a slightly lower rate than recent years.

The EAA forecasts UK arena growth in the region of c.2.2% to 2021 in its latest Arena Yearbook. Mintel prepares market projections that run to 2024, covering the wider live music market, and estimates base case growth of 5.9% CAGR. Given that EAA forecasts look at growth for the existing arenas only, it would be reasonable to assume a higher growth rate as new arena capacity becomes available from around 2023, all other factors being equal.

The overall conclusions from our promoter discussions reinforce these assumptions, and highlight that this growth is expected to be driven by further market innovation in terms of both event format and content. It was noted that a more modern arena with state-of-the-art facilities and a flexible layout would be well-placed to capture emerging content as well as some of the growth in non-promoter led content (primarily sports and some family / theatre events).

● Evidence suggests that the UK market should be able to sustain new arena developments and that a new state-of-the-art arena in Manchester will be well placed to exploit this market potential

Based on the average arena attendances in 2018 per the NAA, CAGR growth of 1.1% would be required by 2030 to support three additional arenas of “average” size and 1.7% to support five such venues. This does not appear unreasonable in light of the historical growth rates noted earlier, which are over a period with limited increases in supply. Any such additional arenas (including the potential new site in Manchester) would reflect an increase in supply, which has proven to be a key growth driver in the past.

Market growth will require an increase in total event numbers which will be supported by emerging forms of market content and events. Manchester has historically been a strong market for live events and is a popular destination among existing touring acts which should position it well to seek to capture new events, replicate newer formats such as residencies which are highly attractive to artists and expand into events (e.g. ice hockey) historically displaced to smaller venues due to the strength of the live music offering.

At a glance – our views

Manchester is the second most popular tourist destination in England after London and has seen year-on-year growth in visitor numbers, as well international tourism increasing by 9.1% CAGR 2014-18. In addition it is seen as a key location for most touring artists, but event numbers have remained stable historically, resulting in a decline in market share due to growth in other regions

Manchester continues to grow in popularity as a tourist destination and remains important for touring artists

In addition to positive tourist data, CityCo highlights that 40 million customers visit the retail district every year, a student population of 100,000 along with £3 billion of new property sites under construction and £300 million of cultural projects in process as evidence of a buoyant city centre economy. These factors combined with the prominent cultural, musical and sporting heritage of the city, provide a supportive backdrop for facility investment.

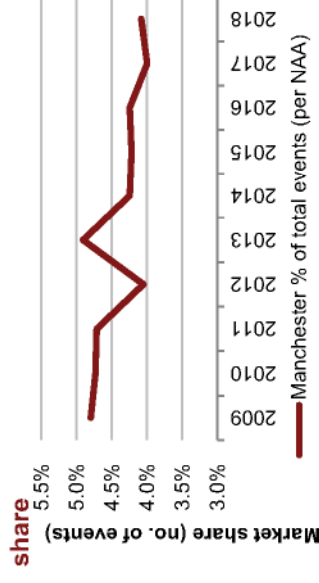
Given these positive demand factors, the Manchester Arena is the most commonly played venue for touring artists outside of London, with 64% of acts that played the O2 in the last five years also playing Manchester. Very few acts which played the O2 and then toured the UK excluded the arena in favour of other venues.

However, 36% acts which played the O2 did not play Manchester, indicating the potential to attract a greater number of acts. Additionally, as outlined overleaf, our discussions with industry professionals have identified events not able to be hosted in Manchester up till now, supporting the incremental benefit of a modern, flexible arena, to accommodate the demand for a variety of events to be held in Manchester (across both arenas).

Manchester Arena is second only to the O2 in terms of attendance, but has been losing market share

In spite of event numbers remaining largely stable, Manchester's arena market share has been declining, partly due to supply led growth in the market previously outlined, but also potentially due to Manchester Arena specific factors (including changing ticket agents, name change and facilities that arguably have not kept up with market expectations).

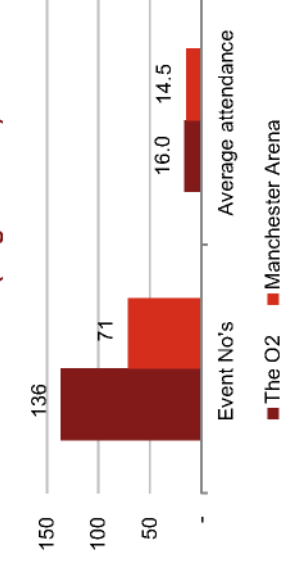
Manchester arena events market



Manchester Arena was originally constructed as a sports venue, but in response to the growth in live music was converted to accommodate concerts. However, despite an official capacity of 21,000, this is rarely achieved in practice owing to the complexity of stage layouts and seating configurations for many major touring acts.

The majority of larger tours that have played both the O2 and Manchester over the last five years either sold out or were near full capacity at both venues. Larger touring artists (which achieved average attendances in excess of 15,000 at the O2), typically played a greater number of nights (136 vs. 71) and achieved higher average attendances (16.5k vs. 14.0k per night) at the O2 than in Manchester, despite both arenas having a similar capacity, for which the reduced flexibility of the Manchester arena may be a factor.

The O2 v. Manchester (large events)



This suggests that a new, more flexible, arena that can accommodate more complex stage layouts without compromising on capacity, could present an opportunity to increase attendances, which could in turn increase the attractiveness to promoters of putting on additional performances for larger acts.

At a glance – our views

There are a number of cases where two arenas in close proximity, both jointly or separately controlled, have historically been operated successfully, often demonstrating a differentiation in events mix between the venues. Despite a degree of adaptation being required in some circumstances (the Manchester arena has recently announced plans for refurbishment), we have not identified an instance where a new opening has led to an existing arena closing

Other “two arena regions” support our conclusion that a new arena in Manchester should provide a fillip for growth of the overall market

There are a number of regions within the existing arena market that demonstrate the ability of two arenas in close proximity to operate successfully.

Birmingham provides an example of a city in which two arenas operate successfully (both with c.15,800 capacity), achieving growth in both revenue and events numbers. This may be facilitated, in part, by common control of the venues allowing for more efficient programming decisions.

Leeds and Sheffield present another example of two arenas operating with a large catchment overlap. Since the opening of the First Direct Arena in 2013, there has been overall growth in event numbers and revenue between the two arenas combined, albeit we note that there has been a decline in Sheffield which has needed to adapt its event mix (although a change in operator in 2015 has likely impacted this too).

London provides a further example where two arenas have operated simultaneously, with different operators (up to 2017), with overall growth in event numbers and ticket sales.

A common theme across the two arena models is that the arenas have adapted their event mix to accommodate the presence of two venues.

Whilst a similar adaptation may be required in Manchester, where this has been seen elsewhere, both arenas have remained viable.

There are a number of events not currently hosted in Manchester due to either the availability or suitability of existing facilities. This includes examples like national and international sports and award events which, in addition to ongoing growth in core events markets and emerging event content, would support the ability of two arenas in the city to increase total event numbers and provide a broader variety of content.

Events hosted in both arenas, should provide an incremental benefit to the wider economy through both increased visitor numbers to the city and additional employment opportunities. For both arenas, good access to a range of modes of transport and Travel Plan measures to promote sustainable transport choices should ensure benefits are achieved across the city centre as the hub for arriving visitors.

There are instances in other regions where a proposed new development has prompted investment and redevelopment of existing venues. Manchester Arena has recently announced a proposed refurbishment, which supports the view that it considers the arena to be viable in the longer-term, and the refurbishment works should also provide further economic benefits to the city.

Executive report

Executive report	9
1 Data sources and analysis	10
2 UK Arenas background	11
3 Live Events market	18
4 Manchester market	35

For our work we had access to a number of independent reports, most notably the reports prepared by Ekosgen and Grant Thornton, which assessed various matters pertinent to the proposed development of the OVG arena

PwC view – *These reports are reasonably prepared and are fit for purpose, albeit have limitations given their specific scope and timing. We have set out below those areas we considered as outstanding and addressed through our review*

Whilst we did not consider any of the reports to contain fundamental flaws, there were areas in which we consider additional data or an alternative basis of analysis to be more appropriate to consider. These primarily relate to updating the time series for a number of areas to include latest data up to 2018, as well as for the following points:

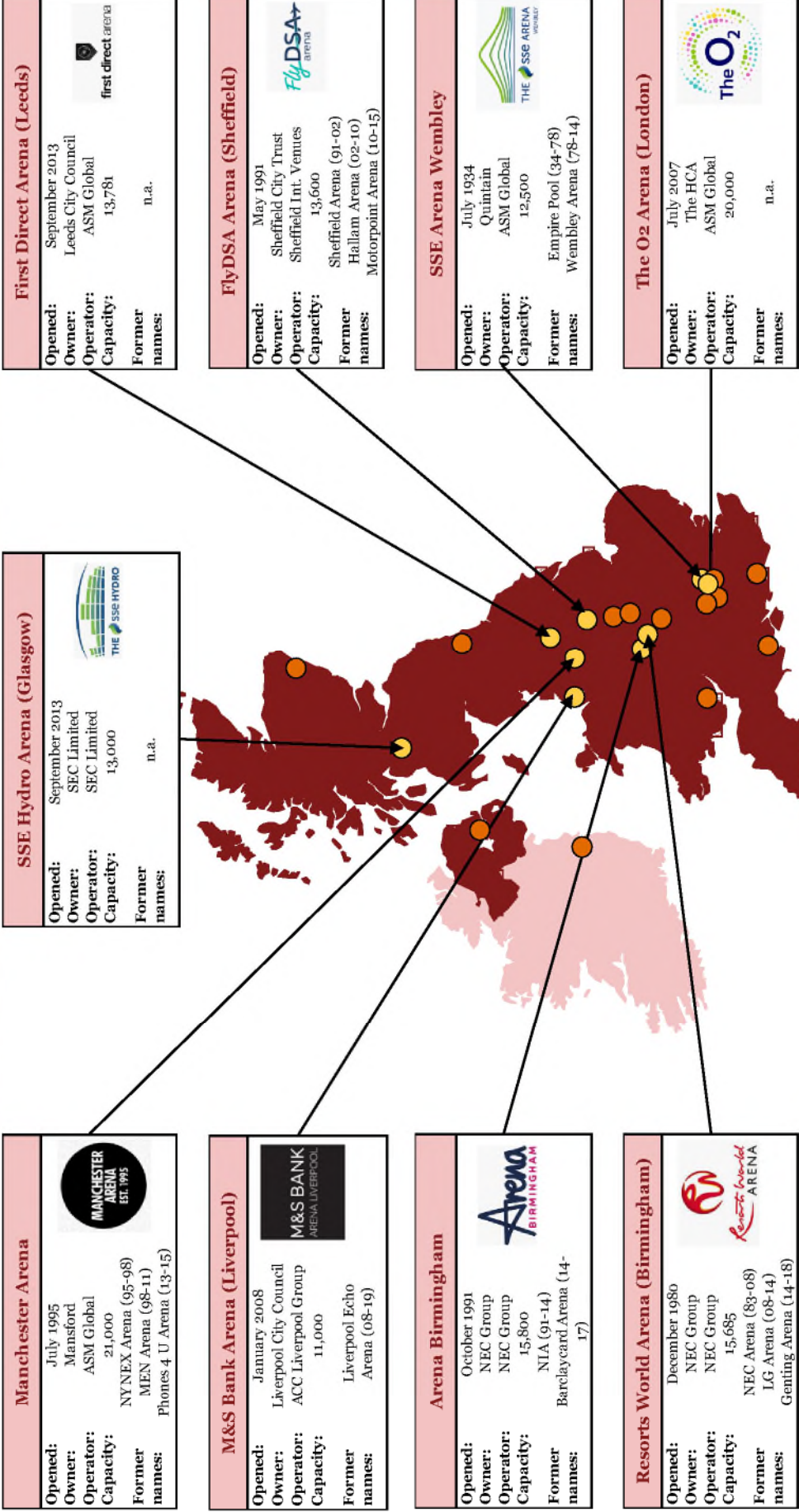
- Grant Thornton previously contended that catchment areas should be assessed using 1 hour off-peak drive times. Based on our analysis, discussions with promoters and the start times of many events, we believe this overstates the primary catchment areas for many events and also excludes other modes of transport. We have reassessed this analysis based on 1 hour peak drive times, which is also a reasonable proxy for typical train journey times once travel to the venue is added;
- This analysis also compares catchment area population to the number of arenas. Whilst, based on our comment above, we believe Leeds should not be considered as serving the Manchester market, we also highlight the assessment for London only considers the two existing arenas. This overlooks the fact that there are ongoing discussions/applications relating to two potential additional arenas in London (one announced – The MSG Sphere) which would impact the ratios reported and how they were positioned;
- Previous reports and studies have primarily focused on a comparison to the opening of the O2 and the impact on the Wembley Arena following its refurbishment, whilst we also highlight there are other regions supporting two arenas that should be considered – notably Birmingham and Leeds/Sheffield; and
- We consider the customer survey undertaken by Grant Thornton is based on a skewed sample as it was using visitors to the existing arena, and therefore excluded any of the potential visitors to the new arena but not currently attending events (i.e. the incremental benefit). The findings also appear inconsistent with the proposed transport arrangements for the new arena, whereby the City Centre will be used as the primary arrival hub for the majority of visitors.

It should be noted that a significant element of our analysis utilised NAA data as this captures all arena events held for the 22 members. This does not permit arena by arena reporting, and consequently we undertook a manual exercise to add to the Pollstar promoter reported data to ensure a greater proportion of sporting events were considered as part of our analysis at an arena level

UK Arenas background

Summary of existing UK arenas – In 2018 there were 22 arenas in the UK and Ireland which were members of the National Arena Association (“NAA”) with official capacities ranging from 5,000 – 21,000. The majority of the larger arenas are operated by ASM Global or the NEC Group (Birmingham)

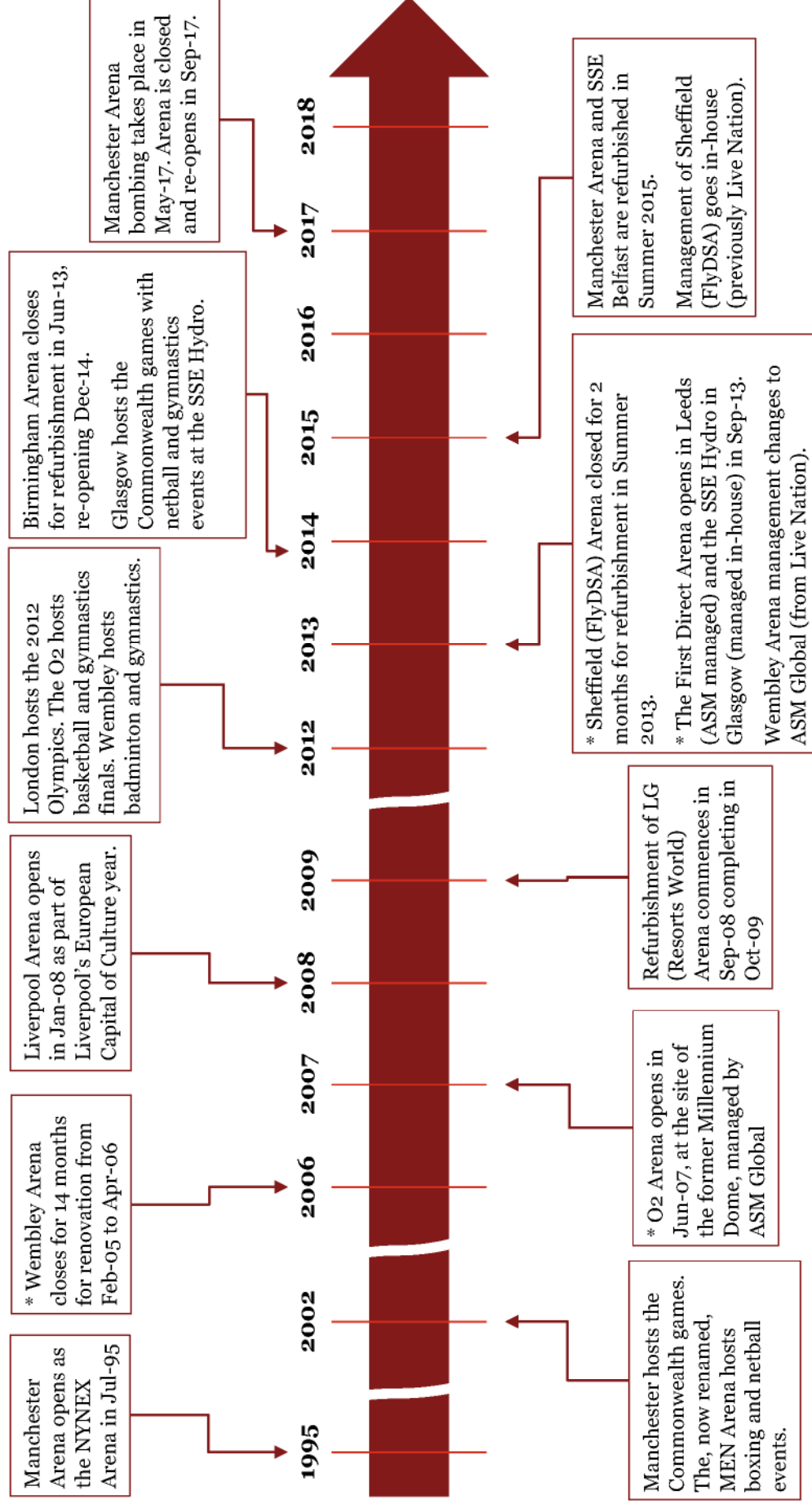
PwC view – The Manchester Arena is one of the longest running in the UK (along with Birmingham’s arenas and Wembley) and has the largest official capacity, albeit we understand from promoter discussions that, owing to its design, this cannot be fully utilised for the majority of events (avg. attendance of 11.7k per event 2016-18)



Note: Details of smaller venues (marked in orange) are set out in the Selected Information

UK arena timeline – The existing arena in Manchester opened in 1995. Since this time, there has been considerable investment in new arena openings (Liverpool, Leeds, Glasgow) and the redevelopment and refurbishment of existing sites (Resorts World, Arena Birmingham, Wembley)

PwC view – *There has been continued historical investment in the arena market across the UK to both improve the quality of existing facilities and grow overall market capacity. Reinvestment at existing facilities has varied by site, with the opening of competitor sites seeming to act as a catalyst for refurbishments (see *)*



Arena business operating model (1 of 2) – The arena market is dominated by a small number of key players in terms of both venue owners and operators and events promoters. The main sources of income for arena are sponsorship, premium and club offerings and events/attendance driven income (e.g. rent, ticket rebates, concessions)

PwC view – *The key players in the market have been subject to further consolidation in recent years with the growth of Live Nation and the merger of AEG Facilities Inc. and SMG. In an attempt to maintain / maximise their earnings, arenas have introduced new measures, such as facility and renovation fees levied on ticket prices*

Key market participants

An arena's profitability is typically driven by the number of events which it hosts. For live music, this is typically agreed between tour promoters, who will identify the venues that they want the acts to visit on a tour (in conjunction with the agents for the act) and the venue operators who will ultimately book the acts based on availability.

The market is dominated by a relatively small number of major players whose roles include artist management, promotion, venue operation, ticketing and some provision of food and beverage.

Key examples of this are:

- Live Nation: artist manager, promoter, venue operator and the owner of Ticketmaster.
- ASM Global: following the merger of AEG Facilities Inc. and SMG.

There are a number of other larger promoters which, in addition to the above, dominate the market (e.g. SJM Concerts, Kilimanjaro, AEG Presents).

Other key arena suppliers include support functions such as catering firms (e.g. Compass, which provides catering at the SSE Hydro and the O2), but this can also be managed by venues in-house.

Sources of arena income and costs

Arenas generate income through a number of streams but these can be broadly categorised between sponsorship related income, premium / club seating, and event-based income. The key drivers are also set out diagrammatically overleaf.

Sponsorship: Typically an arena will have a naming rights sponsor and then a number of smaller sponsorship partners that will provide a fixed annual revenue over a defined term.

Premium/Club: Income generated from premium seating options (VIP boxes and club seats). Historically, this was typically charged to consumers as an annual membership or subscription and excluded the price of event tickets which had an incremental cost. However, more recently, this has also related to premium tickets for individual events, which come with certain premium features (boxes, balcony seating etc).

Events related income: Revenue that is typically determined by the total number of events and attendance at those events. This includes:

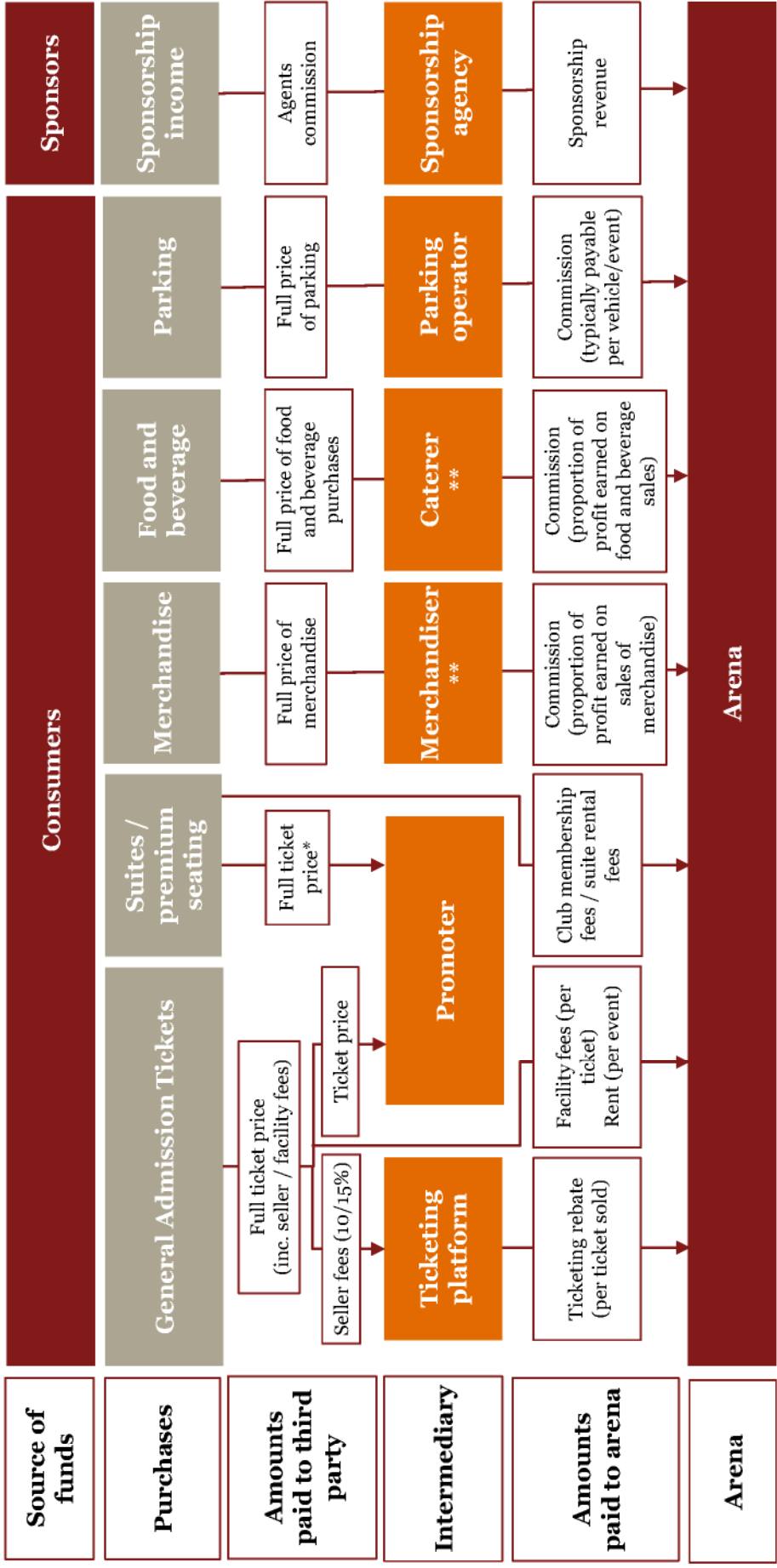
- Rent – payable by acts on an event by event basis. The rent which can be charged will depend on the nature of the event held and the timing (i.e. evenings / weekends may attract a greater fee).
- Ticketing rebates / facility fees / renovations fees – amounts receivable based on attendance and will typically be received per person in attendance. For ticketing rebates this will be subject to the number of tickets sold by a particular vendor (e.g. Ticketmaster).
- Concessions – this will either reflect a proportion of F&B profits made by the caterer, or revenue from F&B sales less running costs.
- Merchandise – a proportion of official merchandise sales sold on site is often payable to the venue operator.
- Parking – to the extent that onsite parking is owned, further revenue can be generated from car parking.

Operating costs: the main operating costs typically relate to staff costs (both for event days and administrative) and facility running costs such as rent, rates, heating and utilities and maintenance.

Arena business operating model (2 of 2) – The arena market is dominated by a small number of key players in terms of both venue owners and operators and events promoters. The main sources of income for arena are sponsorship, premium and club offerings and events/attendance driven income (e.g. rent, ticket rebates, concessions)

PwC view – Event attendances are a major driver of a number of arena revenue streams meaning that the ability to attract and deliver high quality events is key to arena performance. As well as the short-term and directly effected secondary sales, this will impact an arena's ability to attract top level premium and sponsorship income

UK arena model: Sources of income



*Arenas will often retain an element of income from suites and premium seating such that promoters will not receive 100% of ticket sales in all cases

** In some instances, arena merchandising and catering will be performed in house rather than through a third party

Arena evolution – Over the course of the last two decades, UK arenas have evolved from relatively simplistic structures with sporting facilities to more complex premium facilities focussed on live music which are designed to target more up-market audiences and meet changing expectations

A number of the older UK arenas, built during the 1980's and 1990's, were primarily intended to be sporting venues (e.g. Manchester – as part of a failed Olympics bid, Birmingham – to host indoor sporting events, Sheffield – to support a local ice hockey team and sports events), with music events considered to be a supplemental source of income. This has altered with the growth in popularity of live music with concerts becoming the main focus (and source of income) of the majority of major arenas.

In response to a changing market, and an increase in the popularity of live music, UK arenas have undergone a number of developments and advances in key areas such as:

- **VIP / premium offering:** with concerts becoming the main focus, the importance of VIP offerings has increased. The majority of arenas now offer VIP suites providing hospitality for small groups and premium / club memberships, which gives priority access to higher quality seating options and specialised food and beverage alternatives.
- **Flexible layouts:** touring shows and other events are becoming increasingly elaborate such that greater flexibility is now required in terms of seating / standing configurations and stage layout to allow artists and other performers to get closer to concertgoers. Newer venues are placing increased importance on proximity to the stage and 'perfect line of sight' for the maximum number of seats possible. Arenas are also now developed with 'plug-and-play' built in to give greater flexibility and reduce event set-up times.
- **Technology:** technology continues to advance in areas such as sound quality, lighting, audio-visual effects and pyrotechnics with shows increasingly being designed with a focus on audience immersion.

PwC view – *The need for flexibility of arena layouts and the availability of modern technology is becoming increasingly important as the complexity of touring shows develops to allow arenas to make best use of their theoretical available capacity and accommodate the greatest possible attendance*

- **Food, beverage and wider retail offering:** as expectations of the service offering at arenas increase with arenas targeting more up-market audiences, the importance of a quality food and beverage offering has also increased, with certain newer sites including bar and restaurant facilities on-site rather than simple concessions. Retail has historically been limited to merchandise, with the exception of the O2 arena which includes a separate retail space on site.
- **Additional events spaces:** a number of arenas now contain additional events spaces beyond the main performance area, reflecting a demand for exhibition space, conference centres and also more intimate concert type events, residencies or spoken word events.
- **Mix of events:** in addition to changes to the nature of live music events, there are further mix changes with a growth in the number of non-music events (family, dance, comedy) each with differing requirements in terms of stage and seating configuration, placing an even greater demand for flexibility.

The changes above are notable in more recent arena openings (SSE Hydro, First Direct Arena) which have been purposely built to accommodate a number of these features. The longer established arenas have gone through refurbishments in order to respond to these changing demands and remain competitive, but are at times limited in certain areas such as flexibility due to their original location / design. Based on our analysis of event capacities, it appears that this is the case in the Manchester Arena which struggles to achieve its full capacity given the range of events it generally caters for. This has been echoed through comments from certain promoters.

New arena proposal – OVG is planning to construct a c.20,000 seat arena (extendable to 23,500 for certain events) at the Etihad Campus site in Manchester

PwC view – *The new arena, as currently proposed, will offer a number of distinctive features from the current city centre arena, particularly where it is restricted based on its age and design (e.g. flexibility, external space / wider facilities), which may be beneficial in attracting new events currently not hosted in the city (see later)*

The proposed new development would see Manchester following a model similar to the existing position in Birmingham (although Resorts World is less proximate to the centre), with one arena based in the heart of the city centre and one within the more widely defined regional centre. In both locations there is good connectivity to the city's existing transport infrastructure and the new arena would additionally benefit from being within walking distance of the centre.

The members of the OVG team that have been involved in the design of the new venue have previous experience in senior roles at AEG or the O2 in London. OVG believes that the key features which will differentiate the new arena from the existing one will be:

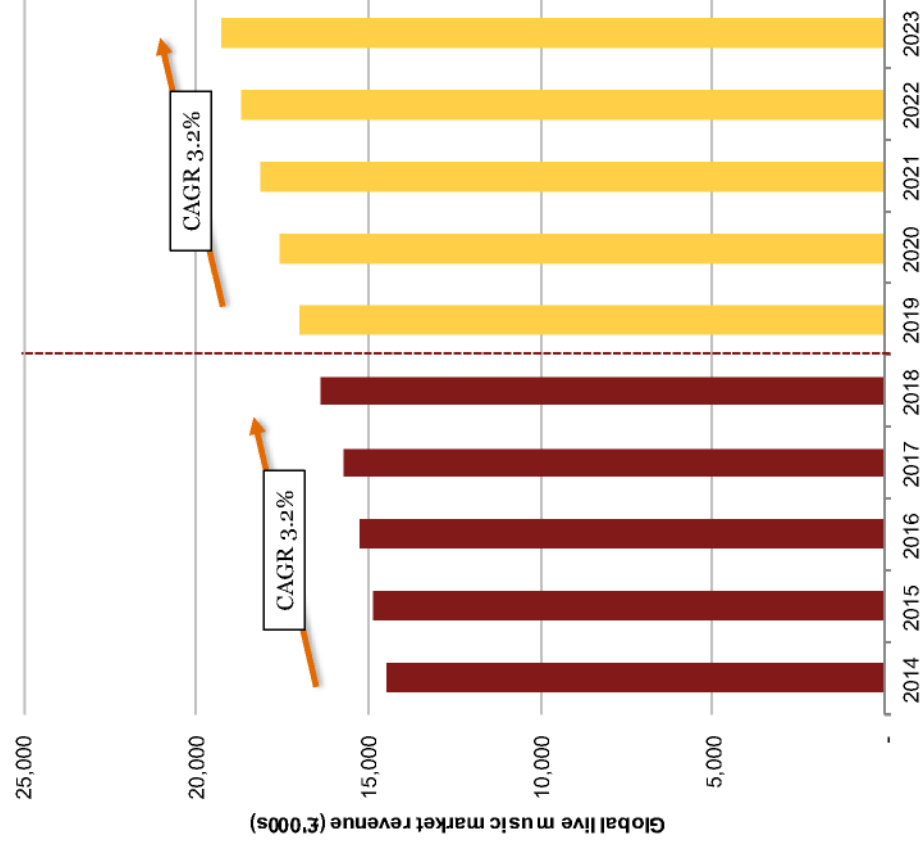
- **Flexibility of design:** flexible to maximise capacity at a variety of event types (seated/standing concerts, major sporting events, family shows) with capacity by event type to be in excess of those achieved by the current Manchester Arena, which in spite of a large nameplate capacity is often restricted by the layout of events (less than 10% of shows from 2014-18 achieved greater than 15,000 attendees) and similar to that achieved by the O2 in London.
 - **Proximity / accessibility:** seating will be in closer proximity to performers with improved sightlines for a greater number of seats when compared to the existing arena.
 - **Food and beverage:** in addition to standard concessions, the arena will include a food-court with a premium food offering for general admission concertgoers in addition to a number of bars offering a variety of beers, wines and cocktails. This is intended to be more of a social space during an event rather than a simple food concession area.
 - **Pre / post-event experience:** the event space will be designed so that visitors are immersed from the moment of arrival, with pre-event entertainment and opportunities for social media interaction, to the moment of departure, with after-show spaces to help manage egress.
 - **VIP offering:** superior quality VIP offering split between suites and club seating with access to a range of exclusive bars, casual dining and fine dining options.
 - **Transportation links:** the venue will benefit from the transport links already in place given the site currently houses a major Premier League football stadium, which also hosts concerts. This includes direct access to the city centre via the Metrolink tram network, good connectivity to local motorways with a major international airport in close proximity and existing on-site parking facilities.
 - **Access to additional space / wider facilities:** as the venue will sit on the Etihad Campus, this will allow additional space for any “wrap-around” support required (i.e. training facilities for major sporting events such as tennis, swimming, cycling) which cannot currently be accommodated by most existing arenas, although some can partially meet such requirements through temporary structures. We believe, based on our discussions, that this may allow the city to host certain events, particularly in terms of sports, which have previously not been able to be hosted. This is discussed in greater detail later.
- The new arena will increase total capacity for events in the city which OVG believes is currently restricted due to limited availability, for the most in demand tour dates (weekends, certain seasonal periods).

Live Events market

Global and European market trends (1 of 2) – The global live music market has grown over the last five years at a CAGR of 3.2%. Growth in Europe, has been supplemented by emerging markets such as Japan/Korea and South America

PwC view – *Although emerging markets offer musicians with additional global touring options, our discussions with promoters indicate this does not appear to have impacted the popularity of the UK market*

PwC Entertainment and Media – Global live music market



Wider global trends

The PwC E&M report indicates that the global live music market (including arenas, stadia, festivals and smaller venues) has grown, with a CAGR of 3.2% from 2014-18 and suggests this will continue at a similar rate over the period from 2019-23.

The market for live music events has experienced strong growth particularly in areas such as South East Asia (Japan, Korea) and South America (Brazil etc.). This offers artists an opportunity to tour additional venues outside of the UK. This may suggest a potential supply side challenge but our understanding from discussions held with promoters is, whilst artists may look to supplement their world tours in these territories, the UK remains one of the most popular global locations to perform.

Additionally, for territories such as Korea and Japan, there is increasing popularity for their local acts to tour other countries with a growth seen in performances of “K-Pop” and “J-Pop” in countries like the UK.

Some trends were noted in terms of an increase in international music tourism, with certain larger shows attracting international visitors, particularly at stadia with good airport links (i.e. the Etihad). This is supported by Mintel who suggest overseas tourists see UK shows as better value for money due to the impact of uncertainty on the pound.

European trends

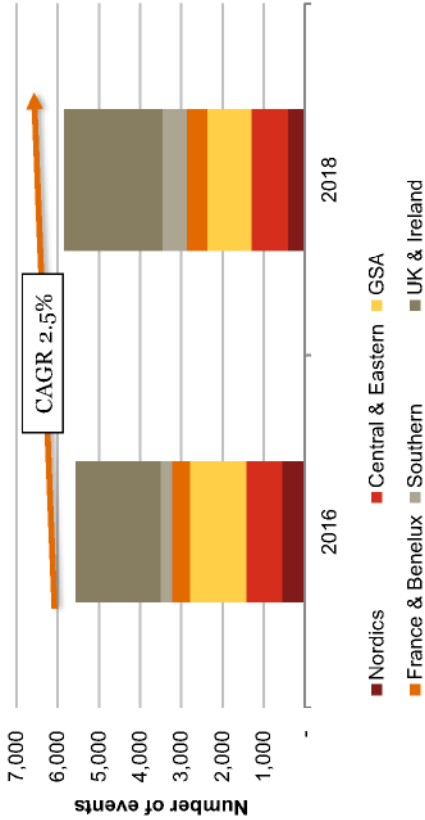
We have assessed European arena market growth in revenue and event numbers as reported by the European Arenas Association (“EAA”), in their annual European Arena Yearbook from 2016-2018.

The EAA has noted both revenue and events growth over the 3 year period, and cites the volume and variety of events, aimed at different market demographics as the main growth driver.

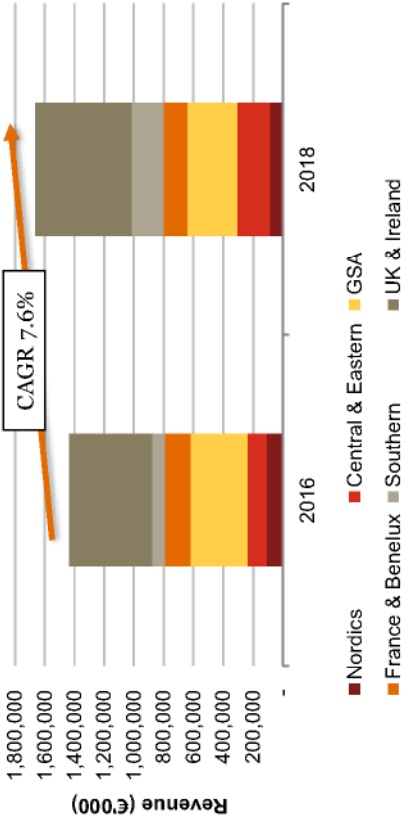
Global and European market trends (2 of 2) – The European Arena Association (“EAA”) yearbook reports growth in the European arena market of 2.5% CAGR from 2016-18 in terms of number of events and 7.6% CAGR in terms of revenue. The UK and Ireland, Southern, Central and Eastern Europe have been the key drivers of this growth

PwC view – *The UK and Ireland is a key component of the European arena market and has significantly influenced historical trends. The EAA remains confident of future growth in the arena market, albeit highlights that competition is increasing with investment in new state-of-the-art venues*

Number of events across Europe 2016-2018



Revenue from events across Europe 2016-2018



Source: Public Information, PwC Analysis

European trends (continued): It highlights that competition is increasing across Europe with new venue openings and a number of new state-of-the-art facilities planned (e.g. London, Milan, Valencia) and a period of consolidation in particular the merger of SMG and AEG Facilities Inc. to form ASM Global.

The EAA notes that confidence is particularly high in the European markets, with promoters expecting the market to grow in future years, driven by an increase in variety of events, the proposed construction of new arenas, and incremental increases in attendance and ticket prices. However it highlights an awareness among arenas that the capital cost of technological investment and production costs are increasing but does not suggest that this is yet impacting overall market growth.

The UK is a key contributor to market trends as the region accounts for c.40% in total number of events and revenue, across the period. As such, overall European trends generally follow the UK market. UK trends are discussed in greater detail on the following pages.

Growth in event numbers has been driven by Southern Europe (44.2% CAGR), primarily due to growth of sporting events, the UK and Ireland (7.9% CAGR), driven by growth in sport and family events, and France and Benelux (7.6%) driven by growth in music events. Growth has been broadly flat, or negative in the remaining regions.

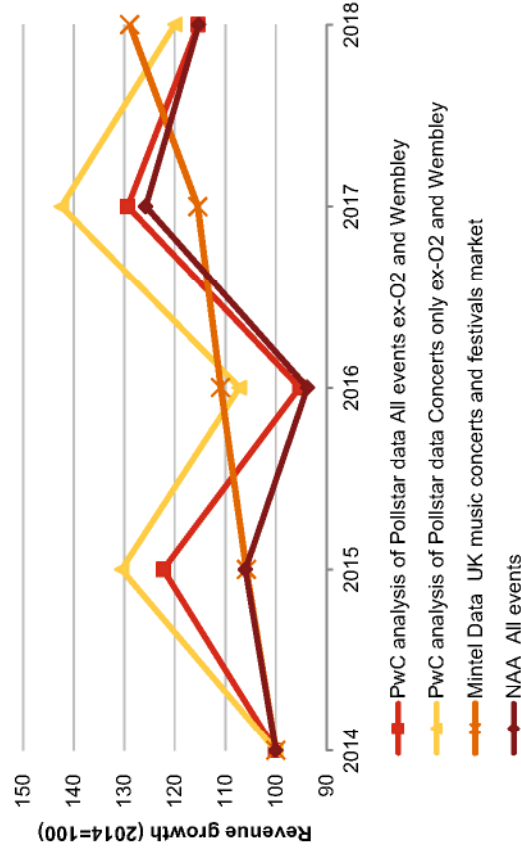
Revenue has grown broadly in line with the number of events (although slightly in excess due to increasing ticket prices) with the Southern region returning a CAGR of 52.9%, followed by 8.2% in the UK and Ireland.

UK market historical growth summary (1 of 2) – The NAA and Pollstar suggest that the UK arena ticket revenues have grown at 3.6% CAGR from 2014-2018. Mintel, which assesses the market for live music in the UK as a whole (i.e. including stadia and festivals), shows growth of 6.5% CAGR over the same period

Revenue comparison across major event organisations

Organisation	2014	2015	2016	2017	2018	CAGR 2014-18
NAA						
All events (£'mn)	509	539	477	640	586	3.6%
PwC analysis of Pollstar data						
All events ex. The O2 and Wembley (£'mn)	266	325	253	344	307	3.6%
Concerts ex. The O2 and Wembley (£'mn)	182	237	195	259	218	4.7%
Mintel						
UK concerts & festivals market (£'mn)	1,908	2,019	2,116	2,202	2,459	6.5%

Revenue growth (Index 2014=100)



Source: Public Information, PwC Analysis

PwC view – Whilst each of the sources considered draw on different data sets, each with certain merits and drawbacks, all of the sources reviewed indicate that there has been an ongoing trend of growth in the UK market for arenas and live music performances

We have assessed historical growth in the UK arena and live music markets by considering a number of sources. We have used the five year period from 2014 to 2018 to assess historical growth trends. There is inherent cyclicality in the market and, as such, the time period selected can have a bearing on growth rates identified (i.e. a time series ending at 2017 would likely give a higher growth rate given that this was a strong year). Additionally, there were certain major venue openings in 2013 (Leeds and Glasgow) which would distort historical growth trends if 2013 were included, whereas no major openings have occurred in 2014-18. We have considered the following sources:

National Arenas Association (“NAA”): The association which represents major arenas in the UK. The NAA produces an annual research report comprising total event numbers, attendances and revenue for all of its members (22 in 2018). On the basis that this includes data for all events at all major UK arenas, this could be considered to be the most relevant source to directly assess historical trends in the UK arena market, and forms the basis of most of our market analysis on the following pages.

The key limitation is that data is presented on a combined basis only, so cannot be used to assess individual arena performance for which we have used data provided by Pollstar (see below).

The NAA reports arena revenue growth from 2014-18 at 3.6% CAGR.

Pollstar: Pollstar is a trade publication for the concert industry that holds information on the majority of concerts and certain other events at UK arenas (and other venues) which it receives from agents, managers and promoters. Since July 2017, it has been owned by OVG.

We have been provided with Pollstar’s events data which includes all of the major arenas in the UK. This is separated by venue which allows for comparisons between individual arenas, as set out later in this report.

UK market historical growth summary (2 of 2) – The NAA and Pollstar suggest that the UK arena ticket revenues have grown at 3.6% CAGR from 2014-2018. Mintel, which assesses the market for live music in the UK as a whole (i.e. including stadia and festivals), shows growth of 6.5% CAGR over the same period

We have made an assessment by taking the Pollstar data for the equivalent arenas used in the NAA analysis. We have assessed global growth based on the Pollstar data by excluding the O2 and Wembley (owned by ASM who did not report in 2018). Over 2014 to 2018 this shows a ticket revenue growth CAGR of 3.6% in line with the NAA. This provides a degree of confirmation that, despite the limitations described above, the Pollstar data is directionally reliable for the purposes of our analysis (see later).

Where we have used Pollstar data throughout the remainder of this report, revenue and attendance figures are unadjusted. In terms of events numbers, less than 20% of sports events are captured by the Pollstar data and consequently we performed a manual exercise to identify sports events which have taken place in the arenas from 2014-18 and have added these into our data model. As there is no attendance and revenue data for these events we have only used them as part of our analysis of event numbers. Including these events increases this coverage of sports events to c.80% of the NAA numbers.

We are aware that changes in the value of the pound compared to other major international currencies from 2016-18, could have impacted international attendances. We do not have sufficient data to analyse the potential impact of this but believe that international attendees form a relatively immaterial part of current UK event attendances.

Mintel: Mintel assesses growth in the live music market in its UK Concerts and Festivals report. The figures set out earlier are taken from the August 2019 edition which includes actual figures to 2018. As well as arenas, the Mintel data includes other live music locations such as festivals and stadia (which is typically considered to serve a different market), but does not include non-music events. Again this is on a combined basis for the UK and is not reported by venue type.

PwC view – *Whilst each of the sources considered draw on different data sets, each with certain merits and drawbacks, all of the sources reviewed indicate that there has been on an ongoing trend of growth in the UK market for arenas and live music performances*

Mintel reports historical growth in the live music market at 6.5% from 2014-18. This includes both ticketing and ancillary spend, albeit ticketing is separately identified as having grown at 6.7% across the same period.

The live music market as a whole has shown year-on-year growth from 2014-18 (per Mintel) whereas, the arena market has experienced overall growth but with a degree of cyclicity (per the NAA and Pollstar). This reflects the fact that major artists typically undertake arena tours in certain years and then other event types in subsequent years (festivals / stadia). This does not affect overall market performance but will impact on arena performance.

We note that the PwC E&M report, also provides an assessment of UK historical growth in live music ticketing revenues at 0.3% CAGR. The Live Music sales reported by PwC's E&M report in the UK are three times those covered by NAA and covers both festivals and many small venues and therefore, given our focus on arenas, is less relevant for this analysis. We understand that the results of smaller venues, has adversely impacted these growth trends.

UK arena market summary (NAA) – The NAA shows modest growth in overall events of 1.9% CAGR driven by sports (10.8%) and family events (6.4%), partially offset by a reduction in the other events market (-6.4%). Revenue shows a similar trend with overall market growth of 3.6% CAGR, mainly driven by the growth in sports (15.0%)

PwC view – Sports and family events have been key to the development of the UK arena market in recent years. Revenue from music events has also increased despite event numbers remaining broadly flat. The growth in sports and family events offers a greater potential pool of events when considering a two arena model

Events by category NAA

Events	2014	2015	2016	2017	2018	CAGR 2014-18
Concert	1,101	1,111	1,087	1,121	1,098	(0.1%)
Family	526	523	524	578	673	6.4%
Sport	222	285	303	281	334	10.8%
Other	354	257	132	344	272	(6.4%)
Total	2,203	2,176	2,046	2,324	2,377	1.9%
<i>Number of venues</i>	<i>21</i>	<i>20</i>	<i>20</i>	<i>22</i>	<i>22</i>	

Revenue by category NAA

Revenue (£'mn)	2014	2015	2016	2017	2018	CAGR 2014-18
Concert	327	366	321	439	380	3.8%
Family	74	79	80	74	89	4.7%
Sport	29	38	51	46	51	15.0%
Other	79	57	25	81	67	(4.0%)
Total	509	539	477	640	586	3.6%
<i>Number of venues</i>	<i>21</i>	<i>20</i>	<i>20</i>	<i>22</i>	<i>22</i>	

Source: Public Information, PwC Analysis

We have presented opposite a summary of number of events and revenue by event category based on NAA data.

Total events have grown at 1.9% CAGR 2014-18, driven by growth in sports and family (10.8% and 6.4% respectively). The NAA suggests a flattening of the concert market in terms of events numbers (marginal decline of -0.1% CAGR), with a more pronounced decline in the other market of -6.4%, which primarily consists of comedy events as well as some dance and miscellaneous events (speeches, conferences etc).

Revenue follows a similar trend to events, showing 4 year CAGR growth of 3.6%. This is principally due to the growth in sports events (15.0%), supported by family (4.7%) and concert (3.8%). Other revenue has declined from 2014 to 2018 but has shown considerable variability year on year.

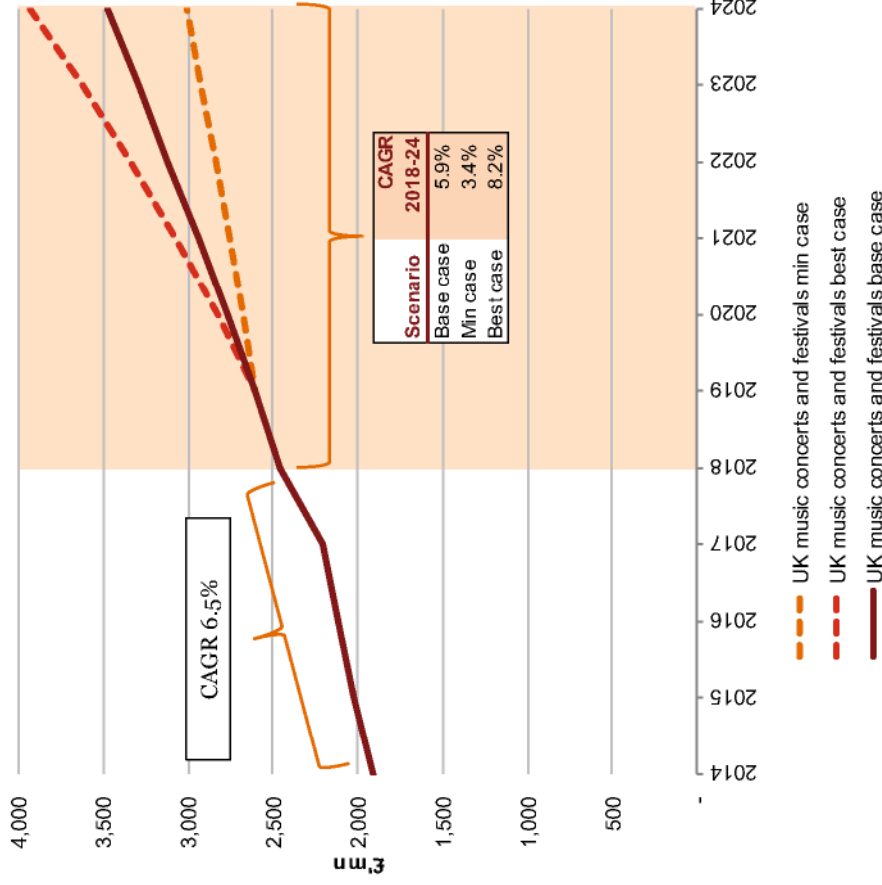
There is a small amount of variability in the number of venues where data has been collected from in each year, due to changes in the venues that are members in any given year. We understand from review of the European Arena Yearbook, where the results are summarised, that this relates to smaller arenas (c.5k capacity) and is therefore unlikely to materially impact the results.

As noted above, sport events have been a key driver of historical growth. Given the existing level of support and wrap-around sporting facilities at the Etihad Campus and its sporting heritage, this may mean that an arena at this location is well placed to capitalise on opportunities to host sporting events. This is considered in greater detail later.

We set out further details by event category on the following pages.

UK concerts market – The concert market including stadia and festivals has grown at CAGR 6.5% from 2014-18 according to Mintel. Mintel have projected that a base case/most likely forecast level of growth is 5.9% for 2019-24, with a worst case growth of 3.4% CAGR and best case growth of 8.2% CAGR

UK music concerts and festival markets historical and forecast



Source: Mintel concerts and festivals report, August 2019

PwC view – The Mintel analysis provides a range of cases for the projected growth, with base case growth of CAGR 5.9%, roughly in line with the historical performance CAGR 6.5%. This is in excess of the NAA data, likely reflecting the inclusion of larger events such as stadium shows and festivals

The market analysis provided within the Mintel report was published in August 2019 and examines the market for live music performances, predominantly in a concert format held in arenas, stadia and festivals. We understand that Mintel also draws on some smaller venues but it is not broken down at this level to enable this to be verified.

Mintel considers historical growth to be 6.5% CAGR. Mintel highlight the factors underlying this growth to be an increase in popularity of festivals, a weak pound keeping UK residents at UK events (rather than overseas) and attracting attendees from abroad, in addition to tighter regulation on secondary ticketing markets.

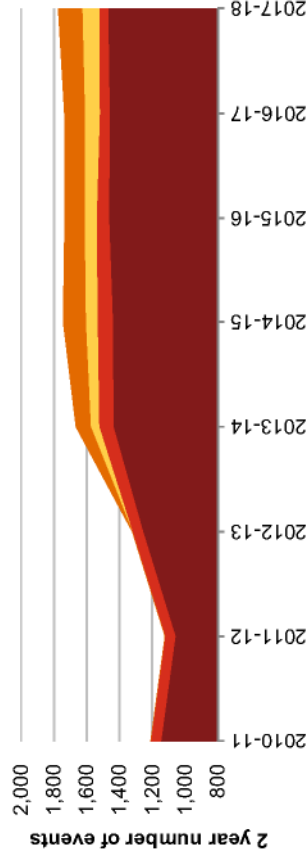
Mintel has produced their forecast projections by using their own market database, which is then supplemented by macro and socio-economic data from external sources (ONS, Bank of England, etc).

Mintel expects the UK market to be valued at approximately £2,603m by the end of 2019, with a base case growth to £3,473m by 2024 (CAGR of 5.9%). Mintel also predicts a best case of £3,936m (CAGR 8.2%), and a minimum case of £3,011m by 2024 (CAGR 3.4%) based on a confidence interval of likelihood of each event occurring. Mintel's base case growth projections are roughly in line with the period from FY2014 to FY2018.

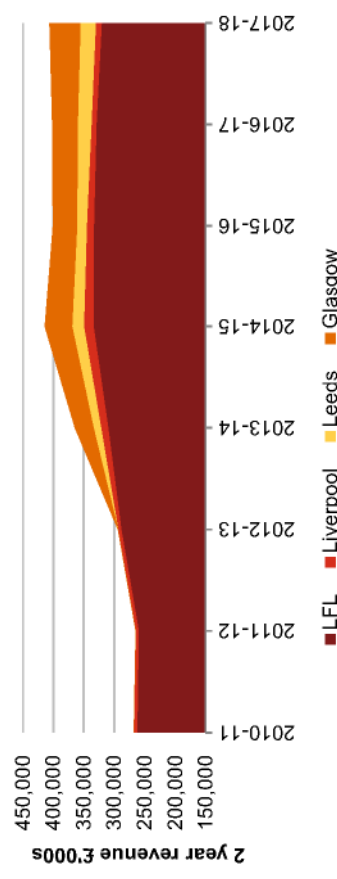
UK market – new entrants – Like for like arenas events and revenue have grown steadily over the historical period. New arena openings in Leeds and Glasgow (2013), have incrementally added to total revenues and events and accounted for the majority of growth, primarily due to their distinct locations

PwC view – Arena openings have contributed the majority of growth since 2013-2014, which suggests that market growth has been primarily supply led. In spite of this, LFL arenas have also demonstrated growth suggesting new arenas are not simply taking attendees from existing sites but instead offering a greater range of events to fulfil demand

LFL 2 year average events 2010 - 2018



LFL 2 year average revenue 2010 - 2018



2 year average events	2010-11 to 2017-18	CAGR	2013-14 to 2017-18	CAGR
LFL	5.6%	(2.3%)	0.6%	(11.7%)
Liverpool	N/A	N/A	12.2%	N/A
Leeds	N/A	N/A	N/A	N/A
Glasgow	N/A	N/A	N/A	N/A
Total	7.9%	1.6%	7.4%	2.8%

Source: PwC Analysis of Pollstar data

We have used data provided by Pollstar excluding the O2 and Wembley (see earlier) to present a like for like ("LFL") analysis to demonstrate the impact of new arena capacity on the market. We have used a 2 year rolling average, to help account for the cyclical nature of the live music market in particular.

LFL event numbers have increased from 1,148 in 2010-11 to 1,471 in 2017-18 at a CAGR of 5.6%. Following the opening of both Leeds (serving the Yorkshire market) and Glasgow (serving a wider Scottish market), in late 2013, the CAGR between the periods ending 2014-2018 falls to 0.6%. This implies that the rate of growth has slowed in LFL arenas which may in part reflect a limited impact of the new capacity in the market. However, in spite of this, there has still been a level of growth in events numbers over this time. Since their opening in 2013, Leeds and Glasgow event numbers have grown at 18.8% and 13.0% respectively to 97 and 153 respectively in 2018

The 2 year average revenue for LFL venues also follows a similar pattern with a CAGR of 3.6% between 2010-11 to 2017-18. However, following the opening of both Leeds and Glasgow, the CAGR then drops to 0.8% from 2013-14 to 2017-18. During the same period, Leeds and Glasgow provided a CAGR of 19.0% and 14.1% respectively.

This suggests that despite new arena openings, there has still been a level of underlying growth in existing arenas. New openings have then provided incremental growth on top of this which suggests that they are not simply taking demand from existing venues and that this market growth is supply led. Although there is a small sample size of new venues, this was the case in both instances suggesting that demand can be generated through new openings without preventing the existing market from continuing to grow.

UK market – new events – The last five years has seen growth in a number of emerging live events formats. The most significant of these is E-Sports which as a UK market has experienced significant growth from 2014-2018

PwC view – E-sports appears to have gained significant popularity among arena operators and could provide an opportunity for events growth in addition to a number of other emerging trends. Taking advantage of this growth could provide a greater pool of events for a location to draw on

The prevalence of E-sports in UK arenas has started to grow. John Drury, General Manager and VP of the SSE Wembley, states in the latest European Arena Yearbook that E-sports was equal to 5% of their “contribution” in 2018, whilst Steve Sayer of the O2 also supports the view that E-sports is “coming to the fore”. Guy Dunstan of NEC Group quotes 3 major events held at the Birmingham venues which attracted over 70,000 attendees in 2018. We have separately identified one of these events reported by Pollstar showing a gross revenue of c.£400k. The PwC E&M report predicts that the UK overall market for E-sports will grow at 18.4% CAGR to 2023, whilst the ticketing market will grow to £5m (+20.8% CAGR). By nature, E-sports are geographically more mobile, and therefore there is the potential for the UK to gain or lose market share relatively to the rest of the world, depending on whether the arena offering responds to the organisers’ requirements.

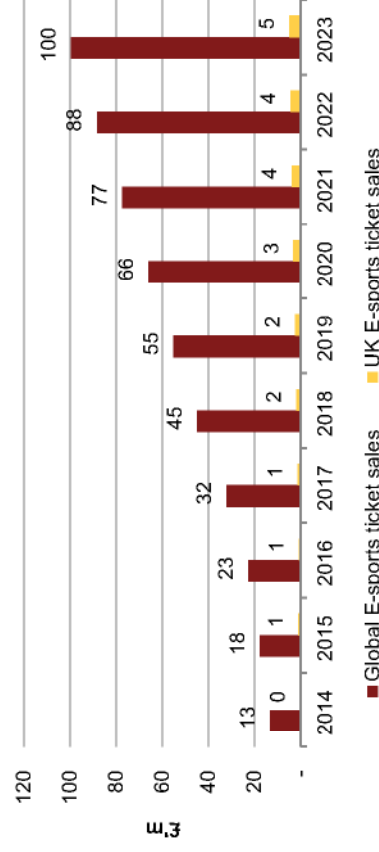
Other events

There has also been the introduction and trialling of a number of other sporting events in recent years with an increase in popularity of Arenacross, UFC, 5/7-a-side football, Nitro Circus and Rugby X, an indoor version of rugby 7’s due to be launched at the O2 in 2019.

Through our discussions with industry participants and review of publications such as the Arena Yearbook we have identified increasing popularity of alternative event formats. Promoters explained that arena content is constantly evolving to reflect market trends and innovation.

One such instance is residencies which have seen growth in existing venues such as the O2 (Drake and Ariana Grande in 2018) but with the acknowledgment that there is also increased demand for specialist venues suitable for this format (such as the proposed “Sphere” by MSG). K-Pop and J-Pop are also seeing a rise in popularity in addition to spoken word events (motivational speakers, podcasts etc.).

Global and UK E-Sports ticket sales



Source: PwC Global E&M Report

E-sports

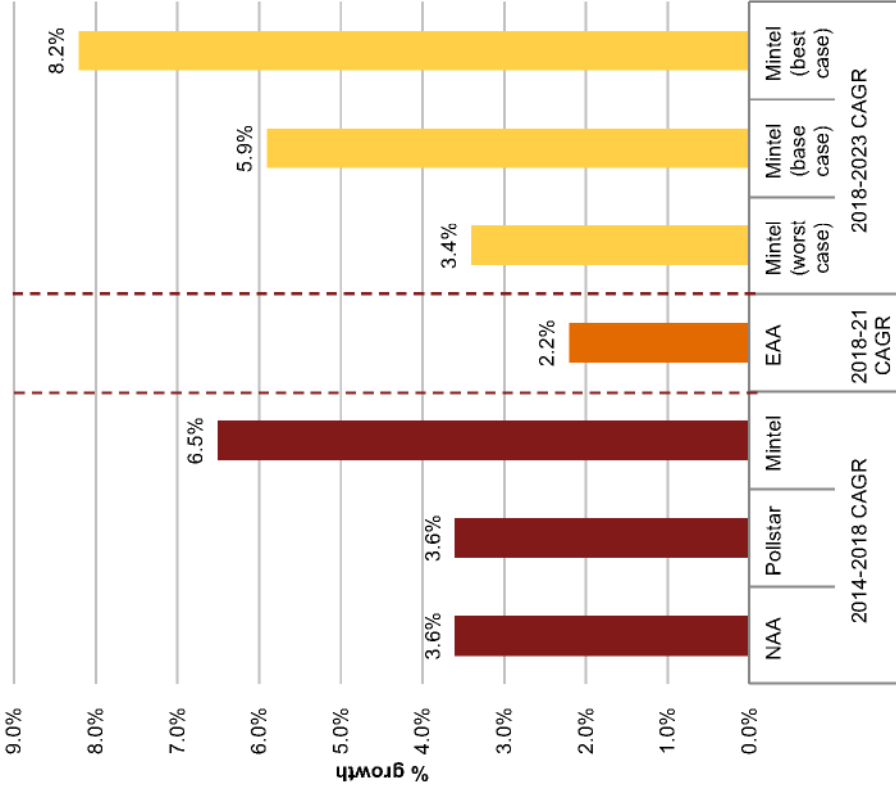
A key growth area for the arena market is considered to be E-sports (competitive video gaming). According to PwC’s E&M report, the global market for E-sports including all revenue streams (consumer contribution, ticketing, sponsorship etc.) is valued at just under £600m in 2018, a 41.3% CAGR growth from 2014. Within that market, ticketing revenue was estimated to be worth £45m which has generated similarly significant growth of 35.7% CAGR over the same period.

Whilst the key territories driving this growth are the US and Asia (Japan), the market in the UK has started to grow with the overall E-sports market considered to be worth £22m in 2018 with ticketing accounting for c.£2m.

UK market – projections (1 of 3) – The EAA forecasts UK arena growth in the region of 2.2% to 2021 in its latest Arena Yearbook. Mintel’s market projections run to 2024, covering the wider live music market, and estimate growth between (3.4% and 8.2% CAGR)

PwC view – *Whilst our reviewed sources have subtleties in their specific focuses, in terms of a basis to assess growth in the UK arena market, each states that it expects the market to continue to grow, albeit at a potentially reduced rate than recent historical trends*

Historical and projected market growth



Source: EAA, NAA, Pollstar, Mintel

Our assessment of a range of historical sources shows that the UK live music and arena market has grown in the last 5 years.

Although the NAA and Pollstar data is the most relevant for this assessment, neither of these organisations produce market projections.

The EAA includes high level projections for the European and UK and Ireland arena markets in the 2018 edition of the European Arena Yearbook. The yearbook estimates growth in the UK of 2.2% average to 2021. This compares to historical growth of 3.6% from 2014-18 based on historical data from the NAA, although we understand that this relates in both cases to like-for-like arenas who are members of the NAA, and consequently excludes growth from new entrants.

Mintel’s historical review and projections relate only to live music, (rather than other event types) and also cover larger events such as stadia and festivals.

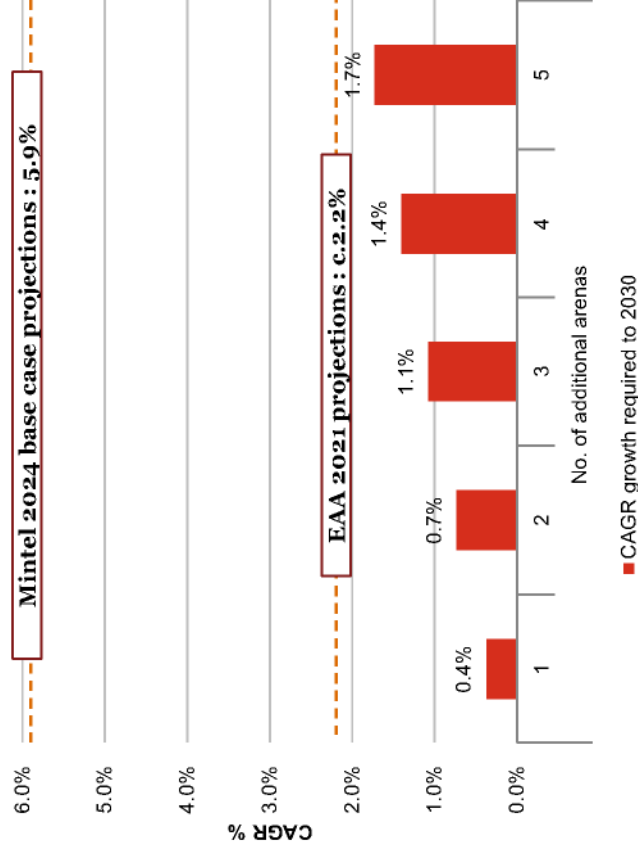
Mintel suggests a range of potential growth rates to 2023 from a worst case of 3.4% to a best case of 8.2% CAGR. As part of this assessment they provide a “base case” or most-likely view which is CAGR growth of 5.9% CAGR.

In both the case of the EAA (vs. the NAA) and Mintel, the base case projection reflects a slight softening of historical trends but expects that growth in the market will continue, supporting the expectations of promoters that additional capacity will be required to meet latent customer demand. As noted earlier, demand is also heavily influenced by the available of supply and should support overall market growth.

The PwC E&M report forecasts growth in the UK live music ticketing revenues at 0.2% to 2023. As noted earlier, music sales in the E&M report cover both festivals and many small venues (which we understand has impacted historical growth rates but are expected to be much lower in the near term) and therefore, given our focus on arenas, is less relevant for this analysis.

UK market – projections (2 of 3) – Based on the average revenue and attendance per arena from 2018 NAA data, the market would need to grow at 1.1% CAGR to 2030 to support three additional “average sized” venues and 1.7% CAGR to support five such venues, assuming no like for like growth

Illustrative market growth required to support new arenas at an average capacity of 11,200 and average attendance of 600k p.a. per arena in line with 2018 NAA averages



	No. of additional arenas				
	1	2	3	4	5
FY18					
Ticket revenue (£m)	586.1	612.7	639.4	666.0	692.7
Attendance (m)	12.7	13.3	13.9	14.4	15.0
No of arenas	22	23	24	25	26
					27

Source: PwC analysis of NAA data

PwC view – *The required growth to support a number of new arenas in the longer term (outside of like for like growth) appears to be well-aligned with current industry projections and historical growth rates observed*

Based on NAA reporting, the average ticket sales for an arena in 2018 was c.£27m and average attendance was c.600k. Based on these we have considered the total ticket revenue and total attendance required to sustain between one and five additional arenas of average size.

We have then used this to assess the level of CAGR growth required by 2030 in order to achieve this as set out opposite. We have used 2030 as a basis for assessment, to reflect the time taken for new venues to be planned, constructed and become fully operational. We have considered the growth required for between one and five additional arenas but note that, for each incremental arena of average size beyond this, a further 0.3-0.4% CAGR growth would be required.

When comparing the CAGR growth rates required by 2030 to recent market projections, this supports the ability of the UK market to sustain new arena developments (1.7% for five new average sized arenas vs. 2.2% CAGR growth per the EAA).

We note that this is based on an average sized arena per the NAA which includes both larger venues such as the O2 and Manchester and smaller venues such as Bournemouth and Brighton such that the average capacity of the NAA venues in 2018 was 11.2k. Whilst the proposed new site in Manchester would have a larger capacity than the 2018 average (c.20,000 extendable to 23,500 in certain circumstances), this would likely be offset by other smaller proposed venue openings with a capacity below the current average (e.g. Bradford – c.4,000).

We highlight the illustration opposite assumes no growth is allocated to existing arenas. However, as above, current projections are in excess of the CAGRs required which would allow some capacity for this growth to be absorbed by existing arenas. As set out earlier, like for like arena growth based on Pollstar data from 2013-14 to 2017-18 was 0.8% CAGR.

UK market – projections (3 of 3) – Based on the average revenue and attendance per arena from 2018 NAA data, the market would need to grow at 1.1% CAGR to 2030 to support three additional “average sized” venues and 1.7% CAGR to support five such venues, assuming no like for like growth

PwC view – Industry forecasts suggest that the arena market will experience revenue growth by 2024, which will likely reflect growth in event numbers and attendances (in addition to ticket prices). It should be considered whether Manchester Arena can support growth in event numbers under its existing model, which have been flat 2008-18

The market projections do not distinguish where growth will arise by geographical region, but to the extent that part of this is in the North West, and the existing Manchester Arena’s capacity (in terms of event numbers) could not support this, then without the additional capacity provided by a new venue, these additional events would likely be held in other cities. Given event numbers at the Arena have not significantly changed over the last ten years, this may indicate it has limited scope to service additional demand or indeed attract more numbers for the range of events it currently provides. Our discussions have highlighted instances in the past where this has been the case and Manchester has missed out on certain events due to calendar constraints (considered in greater detail later).

The Grant Thornton report states that if the Manchester Arena were to experience a 45% loss in events numbers then arena would reach a breakeven position. Taking this into account and based on our review of OVG’s business Plan there would only need to be limited growth in total event numbers from existing for both arenas to be at breakeven or better and therefore remain viable - at least in the short-term.

We also highlight certain risks not directly taken into account in our analysis which could impact the market for a new (or existing) arena:

- Risk of economic downturn – an economic downturn could reduce disposable income and consumer spending on attendance at live events including both the new and existing arena, although our consumer surveys in the past have shown that such spending is prioritised over other discretionary items.
- New competition – in addition to the proposed Manchester arena there are other potential additional arena openings including the MSG Sphere in London, which could provide additional competition for events.

UK concerts market – The concert market in UK arenas has been relatively flat in terms of total number of events and total attendance with a CAGR of -0.1% and 0.5% respectively. Revenue has grown at a CAGR of 3.8%, mainly driven by an average ticket price increase from £45 per event in 2014 to £52 in 2018

PwC view – *The growth in music events revenue has been led by an increase in ticket prices, rather than an increase in event numbers or attendance figures. It should be considered to what extent further price inflation is sustainable, and will continue to be accepted by the market in future years*

Music events NAA

	2014	2015	2016	2017	2018	CAGR 2014-18 (0.1%)
Total number of events	1,101	1,111	1,087	1,121	1,098	
Total attendance ('000)	7,209	7,739	7,046	8,253	7,342	0.5%
Average ticket price (£)	45	47	45	53	52	3.4%
Total revenue (£'000s)	326,654	365,921	320,523	438,508	379,597	3.8%
Average attendance						
Overall	6,548	6,966	6,482	7,363	6,687	

Top events/attendances 2018

Event name	Number of performances	Total attendance
BBC Proms	75	285,747
Arctic Monkeys	17	238,046
Stereophonics	16	144,951
The Script	16	165,160
War of the Worlds	16	N/A
Paloma Faith	15	N/A
X Factor	14	N/A
Kylie	14	123,640
Sam Smith	14	191,822
Def Leppard	N/A	129,655
Jeff Lynnes ELO	N/A	120,925
Jess Glynne	N/A	115,201

Source: Public Information, PwC Analysis

The UK concerts market per the NAA predominantly relates to musicians/touring artists (dominated by pop and rock music) but also includes, orchestral and choral performances and certain musical theatre events. The research report provides details of the top 10 events in each year based no. of events and attendance. The top 10 events for FY18 are set out opposite.

There is limited variability in event numbers year-on-year, likely reflecting a largely consistent set of arenas with no major openings to increase capacity for number of events held. However, there is significant variability in year on year attendances (e.g. 8.3m in 2017 vs. 7.3m in 2018) reflecting a degree of cyclicity in arena events, with major tours/performers sometimes opting to perform in arenas in one year, and stadia or festivals in the following years (or touring overseas venues or not touring).

Performance appears to be driven by the nature of major artists which are touring in a given year. 2017 was a bumper year for touring “pop” artists with tours by Little Mix, Take That, Olly Murs, Bruno Mars and Ed Sheeran each selling between 200-500,000 tickets, whilst in 2016 only 3 artists achieved sales in excess of 200,000 tickets. Feedback from our promoter discussions was positive about the ongoing strength of the concert market at arenas and growth is expected to continue.

From 2014-18, BBC Proms is the only event which falls into the top 10 events by attendance in each year, with c.75 performances attracting c.300k attendees. Other notable events include the X-factor live shows, making the top 10 in event numbers every year, but only registered in the top 10 events by attendance in 2015 with c.175k attendees.

UK sports market (1 of 2) – The market for sports events has grown at the greatest CAGR of any category from 2014-18 in terms of event numbers (10.8%), attendance figures (10.8%) and revenue (15.0%). Average ticket prices increased at 3.8% CAGR

PwC view – *The sports market is likely to be a key driver of overall arena revenue growth in the future due to a higher volume of events and attendances. A new arena should consider the flexibility required to host a wide range of sporting events in order to take advantage of this opportunity*

Sports events by type NAA

Events	2014	2015	2016	2017	2018	CAGR 2014-18
Ice Hockey	97	97	109	114	126	6.8%
Tennis	26	25	28	23	31	4.5%
Darts	15	37	31	30	23	11.3%
Boxing	21	31	38	24	39	16.7%
Other	63	95	97	90	115	16.2%
Total number of events	222	285	303	281	334	10.8%
Attendance ('000)						
Ice Hockey	318	348	386	354	433	8.1%
Tennis	205	199	204	198	194	(1.3%)
Darts	88	150	181	166	186	20.4%
Boxing	80	141	168	109	169	20.6%
Other	220	281	296	400	390	15.4%
Total attendance	910	1,120	1,234	1,227	1,372	10.8%
Average ticket price (£)	32	34	41	37	37	3.8%
Total revenue (£'000s)	29,066	37,573	51,188	45,959	50,849	15.0%
Average attendance						
Overall	4,100	3,928	4,074	4,366	4,109	
Ice Hockey	3,273	3,589	3,537	3,102	3,435	
Tennis	7,866	7,951	7,293	8,622	6,264	
Darts	5,892	4,051	5,848	5,522	8,074	
Boxing	3,814	4,563	4,414	4,536	4,343	
Other	3,489	2,961	3,048	4,450	3,395	

Source: Public Information, PwC Analysis

Sports events have shown the strongest growth of all event categories according to the NAA. The NAA reports events each year between the four largest categories and other:

- **Ice Hockey** – three arenas in the population host UK Elite Ice Hockey league teams (Sheffield Steelers, Nottingham Panthers, Belfast Giants) who each play 30-40 home games per season.
- **Tennis** – Predominantly relates to the ATP finals currently held at the O2 in London but also includes certain other ad hoc matches (i.e. Davis Cup home ties).
- **Darts** – Largely relates to Premier League Darts held at Alexandra Palace but a number of other arenas host one-off darts events.
- **Boxing** – events are hosted at a number of venues (Manchester, Liverpool, Birmingham, the O2 etc.).
- **Other** – Primarily relate to UFC/MMA events held mainly in Belfast, Glasgow and The O2.

The number of events has increased at an overall CAGR of 10.8%, driven by boxing (16.7%) which continues to increase in popularity at arena venues, and the other category (16.2%), which continues to grow as a wider range of sporting events are introduced in UK arenas such as Arena Cross, UFC, Rugby-X and E-Sports.

Total attendance is impacted by arena configuration with ice hockey and boxing events, only accommodating a smaller audience but events such as darts and tennis, can entertain much larger audience size.

UK sports market (2 of 2) – The market for sports events has grown at the greatest CAGR of any category from 2014-18 in terms of event numbers (10.8%), attendance figures (10.8%) and revenue (15.0%). Average ticket prices increased at 3.8% CAGR

PwC view – *The sports market is likely to be a key driver of overall arena revenue growth in the future due to a higher volume of events and attendances. A new arena should consider the flexibility required to host a wide range of sporting events in order to take advantage of this opportunity*

Attendances have followed a similar pattern to events with an overall CAGR of 10.8%. Attendance per event, has shown strong growth in darts and boxing highlighting their growing popularity in an arena environment. Tennis events have shown a slight decline in attendance of CAGR of 1.3% during the period reflecting lower attendance per event. Other attendances have grown largely in line with number of events with a slight decline in per event attendances, albeit this is likely to be the impact of a change in events mix.

Average ticket prices have grown in the line with the overall events market, but do show peaks and troughs. Average ticket prices are lower than that of music events but the overall price inflation has been at a similar level over the historical period.

UK family market – The market for family events is varied and has shown growth in events numbers (6.5% CAGR) and revenue (4.7% CAGR) from 2014-18. Average attendance per event has fallen from 3.9k per event to 3.2k due to a reduction in Disney on Ice and growth in other smaller events which have a lower average attendance

PwC view – The popularity of family events continues to grow and has seen an acceleration in 2017 and 2018. Family events are likely to provide a further opportunity to increase events numbers at new and existing arenas, although the relatively lower attendances will make such events more commercially challenging for larger, or less flexible, arenas

Family events NAA

Events	2014	2015	2016	2017	2018	CAGR 2014-18
Disney on Ice	138	185	170	112	128	(1.9%)
Cirque du Soleil	102	63	66	96	140	8.2%
Strictly Come Dancing	32	31	30	30	30	(1.6%)
Other	251	244	258	340	375	10.6%
Total number of events	523	523	524	578	673	6.5%
Attendance ('000)						
Disney on Ice	601	837	732	349	429	(8.0%)
Cirque du Soleil	238	155	209	288	362	11.0%
Strictly Come Dancing	173	186	212	221	232	7.6%
Other	1,026	954	927	1,024	1,153	3.0%
Total attendance	2,038	2,133	2,080	1,883	2,177	1.7%
Average ticket price	36	37	38	39	41	3.0%
Revenue (£'000s)	73,768	79,151	79,967	73,562	88,579	4.7%
Average attendance						
Overall	3,896	4,079	3,969	3,257	3,235	
Disney on Ice	4,353	4,526	4,305	3,117	3,355	
Cirque du Soleil	2,333	2,465	3,166	3,002	2,585	
Strictly Come Dancing	5,421	6,016	7,074	7,371	7,738	
Other	4,086	3,911	3,592	3,013	3,076	

Source: Public Information, PwC Analysis

Family events account for c.25-30% of all events in UK arenas. There are certain major events which recur in each year (Disney on Ice, Cirque du Soleil, Strictly Come Dancing) with the remaining events mix highly varied with a number of sports-related entertainment events (e.g. WWE, Harlem Globetrotters, Horse Shows) and events primarily aimed at children (e.g. Paw Patrol and pantomimes)

The total number of events has grown year on year by 6.5%, driven by the large volume of Cirque du Soleil performances, increasing by 102 to 140 in 2018 (CAGR 8.2%). Other key events include Disney on Ice and Strictly Come Dancing which have fallen slightly during the period (CAGR -1.9% and -1.6% respectively, albeit attendance numbers for the latter have increased strongly). The growth in other events, in 2018, is driven by children's events such as Walking With Dinosaurs (69 events), Jack and the Beanstalk (48 events) and Paw Patrol (38 events).

Growth in attendances has been more modest at CAGR 1.7% overall. Cirque du Soleil and Strictly Come Dancing provide the highest CAGRs of 11.0% and 7.6%. The other category has seen modest growth of CAGR 3.0% but with falling average attendances. This could be the result of lower attendance per show or an increase in smaller events with a lower potential capacity, albeit we do not have further data to understand the drivers of this change.

Average ticket prices have grown at CAGR 3.0%, roughly in line with the overall events market.

UK other market – The other market comprises of comedy, dance and miscellaneous events, which includes motivational speakers, and conventions. Both events numbers and attendances have fallen at 6-7% CAGR from 2014 to 2018 with revenue fallen at a slightly lower rate (4.0)% reflecting increasing ticket prices

PwC view – *The other events market is one of the smaller components of the market. Although 2014-18 CAGR shows a reduction this is quite a variable part of the market*

Other events by type NAA

Events	2014	2015	2016	2017	2018	CAGR 2014-18
Comedy	258	208	65	272	187	(7.7%)
Dance	60	25	35	33	29	(16.6%)
Misc	36	24	32	39	56	11.7%
Total number of events	354	257	132	344	272	(6.4%)
Attendance ('000)						
Comedy	1,949	1,382	360	1,979	1,379	(8.3%)
Dance	158	49	101	97	71	(18.1%)
Misc	274	275	252	319	343	5.8%
Attendance	2,381	1,707	713	2,395	1,793	(6.8%)
Average ticket price	33	33	35	34	37	3.0%
Total revenue (£'000s)	79,065	56,581	24,979	81,483	67,093	(4.0%)
Average attendance						
Overall	6,726	6,641	5,400	6,961	6,593	
Comedy	7,556	6,646	5,539	7,275	7,377	
Dance	2,626	1,973	2,874	2,937	2,446	
Misc	7,607	11,461	7,879	8,181	6,124	

Source: Public Information, PwC Analysis

The other market principally consists of comedy performances, which largely determine the overall trends. Dance and miscellaneous events make up a relatively smaller proportion of total events, and whilst these have also fluctuated, have less bearing on the overall trends.

Total number of events has fallen by CAGR 6.4%, driven by comedy events (CAGR -7.7%, 71 events) and dance events (CAGR -16.6%, 31 events). This is largely due to variability of comedy events, with major comedians tending to tour during the same years over the review period. Furthermore, prominent dance troupes such as Diversity have lost some of their attraction in recent years, and have tended to perform in smaller venues.

Attendances have fallen in line with events, with a CAGR of -6.8% over the period. Although it can be noted that average attendances of comedy shows have remained relatively flat as event numbers have dropped.

The average ticket price has risen by CAGR 3.0%, offsetting the fall in total revenue, which stands at CAGR -4.0%.

Manchester market

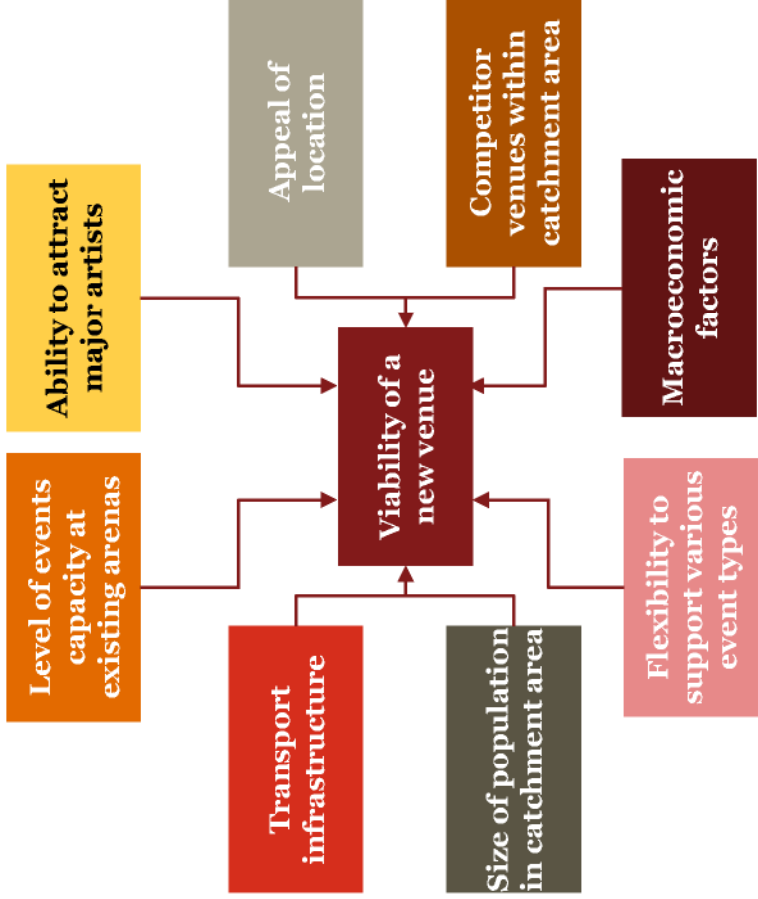
Viability of a new arena – A number of factors will have a bearing on the potential viability of a new arena in Manchester. These include the appeal of the location to attract both acts and attendees, the existing competitive landscape, sufficiency of the population within the venue's catchment area and the suitability of local infrastructure

PwC view – We have assessed a number of factors impacting the potential viability of a new arena in Manchester. The ability of the city to attract major artists and event attendees appear to be key to the overall viability of the new arena in addition to the response to local competition

Significant factors influencing the viability of a new arena

On the following pages we have:

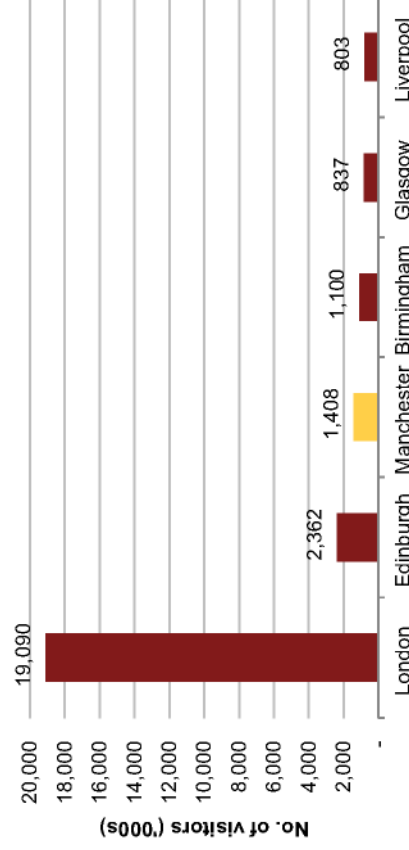
- considered the wider appeal of Manchester as a tourist / visitor destination;
- set out the positioning of Manchester Arena as destination for touring artists and considered the interaction between Manchester and the O2 in terms of the size of the events and the current capacity utilisation achieved;
- assessed the impact on the Manchester Arena of new arena openings in its vicinity at Liverpool and Leeds, which has been raised as a potential area of challenge by other market reports; and
- reviewed existing scenarios where a two arena model is in operation, specifically in Birmingham and in the Leeds/Sheffield area.



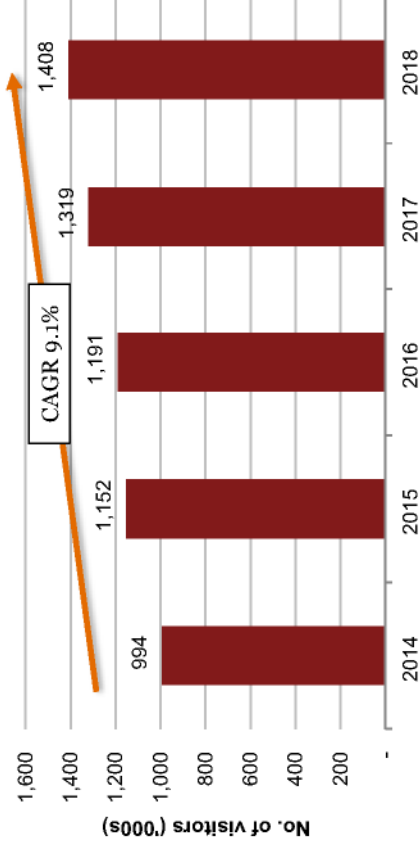
Manchester as a destination (1 of 2) – Greater Manchester is the second largest metropolitan area in the UK by population and the city centre is the second most visited in England. The city is home to a number of established music and football venues and has a well-developed transport network

PwC view – Manchester remains a highly popular tourist destination and has seen year-on-year growth in visitor numbers. Its transport infrastructure is well-invested and already connected to the potential new arena site which should facilitate good access for event attendees and ease their travel to/from the city centre

Top UK cities by overseas visitor numbers 2018



Manchester overseas visitor numbers 2014 - 2018



Source: VisitBritain.org

Overview: The City of Manchester, has a population of c.535,000 residents with approximately 2.8m residents in the Greater Manchester area making it the second most populated region in the UK after Greater London. The closest major cities are Liverpool (35 miles), Sheffield (40 miles), Leeds (45 miles) and Birmingham (85 miles).

Tourism: Manchester, is the second most visited city in England by international visitors with 1.4m visitors in 2018, and an annual growth rate 7.1% since 2010 according to ONS. With Manchester being a centre for sport, arts and music, there is also a high level of domestic tourism, albeit these numbers are not officially recorded.

Top tourist attractions in Manchester include museums (e.g. MOSI), art galleries (e.g. the Lowry) and theatres, second in density only to London. In addition, a number of recently redeveloped sites and some of the largest football stadia in the country have also helped bolster visitor numbers.

Music: A key attraction to Manchester is its arts and music scene with at least 10 arenas or halls that can host sizeable music events. These include the Manchester Arena (21,000 capacity), Bridgewater Hall (2,341), O2 Apollo Manchester (3,500) and Victoria Warehouse (3,500) in addition to the recently opened Mayfield Depot (10,000) and the Factory (6,500 - currently under construction). Major music events have also been held at the Etihad Stadium (55,097 seated capacity), Old Trafford (76,000 seated capacity) and the Emirates Old Trafford cricket ground (26,000 seated capacity extendable to 50,000), but these capacities can be higher for concerts with additional standing capacity. Manchester is also the home to a number of internationally renowned music artists including Oasis, the Stone Roses, the Smiths, New Order and Take That, and was seen by many as the birthplace of the “house” music scene at the legendary Hacienda Nightclub in the 1990s.

Manchester as a destination (2 of 2) – Greater Manchester is the second largest metropolitan area in the UK by population and the city centre is the second most visited in England. The city is home to a number of established music and football venues and has a well-developed transport network

Sport: Manchester is one of the largest cities for sporting events outside of London. Given the prominence of Manchester City and Manchester United as Premier League football clubs, this creates a level of “football tourism” with supporters travelling from both national and international locations to watch games.

Based on a 2015 study of football tourism by VisitBritain.org, 11% of tourists visited the North West with over 140,000 visitors attending Old Trafford and the Etihad. This arguably provides Manchester with an advantage over some neighbouring cities (i.e. Leeds, Birmingham), whose sports teams typically attract lower, more local, attendances. Manchester played host to the 2002 Commonwealth Games, with approximately 85 million total visitors to Manchester, over £2bn worth of income generated during the year. As part of the legacy of the games Manchester retains state-of-the-art sporting facilities including a tennis and football centre and a velodrome based at the Etihad Campus, the site of the proposed new arena.

Transport links: Another key factor, which has facilitated the number of visitors to Manchester is the quality of transport links. Manchester is surrounded by six major motorways linked to the M60 ring road and there are also three major train stations including Piccadilly, the busiest station in the North West of England. Intercity transport has transformed in recent years, with the Metrolink supporting 40 million passenger journeys per year, and each of the stadia and arenas have at least one station within walking distance.

On the Southern outskirts of the city lies Manchester Airport, the third busiest airport in the UK, providing both short and long haul flights, allowing easy access for international visitors to the city.

PwC view – Manchester remains a highly popular tourist destination and has seen year-on-year growth in visitor numbers. Its transport infrastructure is well-invested and already connected to the potential new arena site which should facilitate good access for event attendees and ease their travel to/from the city centre

Future development: The City of Manchester is expected to continue to thrive. A report prepared by the Greater Manchester Combined Authority (“GMCA”) suggests that GVA for the region is expected to grow at 1.7% CAGR to 2036, with the hospitality, tourism and sport sector growing at 1.4% CAGR, an increase of c.£1bn. Over the same period the population is assumed to grow from its current levels (535,000) by a further c.190,000.

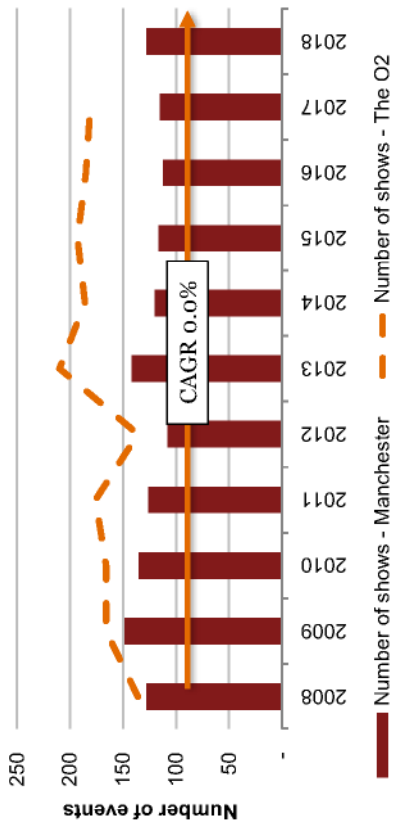
This is supported by investment in the region with CityCo reporting that c.£3bn worth of major new property sites are under construction and £300m worth of cultural projects also in process. A £1bn regeneration and expansion of the airport is currently ongoing as part of wider transport improvements of c.£1.8bn.

OVG believes that the development of its proposed new arena will support this growth, and notes that its planning has taken into account the sustainability of the city centre, in terms of the ease of connectivity for visitors to the arena to the city centre through existing transport links.

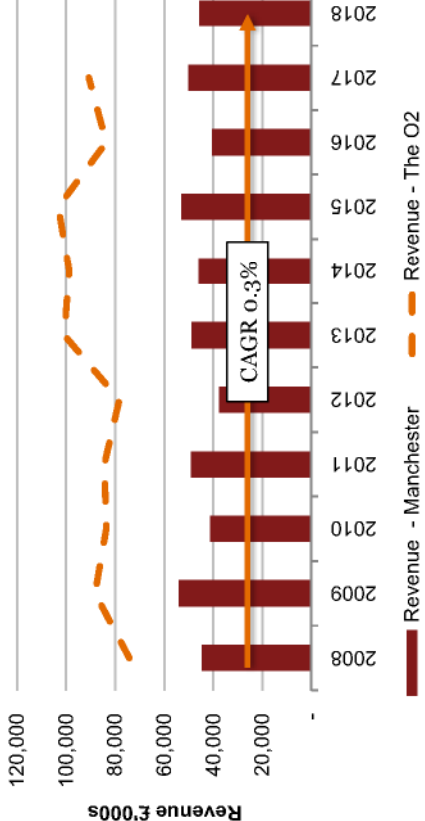
Manchester Arena (1 of 2) – The existing Manchester Arena has been relatively stable over the last ten years with event numbers remaining flat and revenue growth of 0.3% CAGR

PwC view – *The Manchester Arena has not achieved revenue growth over the last ten years despite increasing ticket prices, reflecting a reduction in audience numbers, with event numbers being maintained. The O2, which has a similar capacity, has seen growth in events and revenue over the corresponding period*

Manchester - number of events 2008-2017



Manchester - revenue 2008 - 2018



Source: PwC analysis of Pollstar data

Manchester Arena opened in 1995 as the NYNEX Arena but is best known as the MEN arena, a name that it held from 1998 to 2011. The arena is owned by, and benefits from the access to group resources of, ASM Global, a facility management and venue services company that operates over 300 venues globally. The arena has the theoretical largest capacity of any UK arena at 21,000 and has historically been one of the busiest in UK and Europe. The arena was originally intended as part of failed bids by Manchester to host the Olympic Games in 1996 and 2000 but was used as part of the 2002 Commonwealth Games in the city hosting boxing and netball events.

The arena was therefore originally designed to host sporting events and has historically housed two ice hockey teams and a basketball team, albeit this is no longer the case and the focus of the arena has shifted to concerts, given the popularity of Manchester as a touring city.

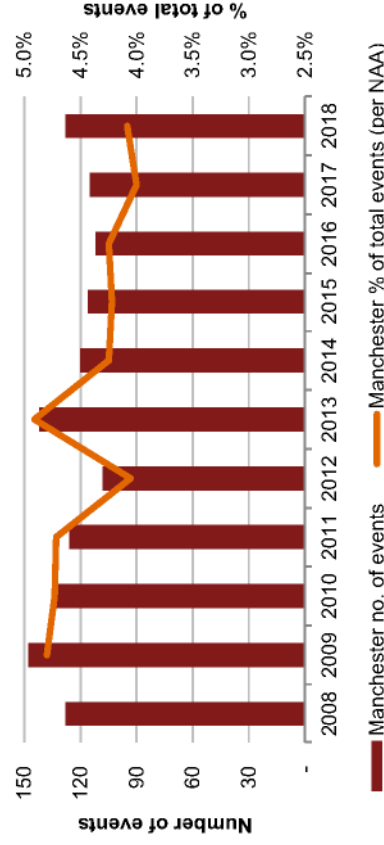
Over the last ten years, events numbers at the arena have remained flat whilst revenue has marginally increased at 0.3% CAGR. This reflects inflation in ticket prices more than offsetting a reduction in overall attendance. By comparison the O2, opened in 2006, has seen both total events numbers and revenue grow by 3.5% and 2.3% CAGR over the nine years to 2017 respectively (Manchester event numbers fell by (1.2)% CAGR and revenue grew by 2.3% in this period).

Overall event numbers have remained consistent reflecting the fact that Manchester remains one of the most popular touring locations (see later). Consistent with trends we have noted in the overall market, Manchester has been subject to cyclicalities. This is largely owing to the touring habits of major acts with the highest revenue years corresponding with a greater number of major touring acts. We have considered the major touring artists later.

Manchester Arena (2 of 2) – The existing Manchester Arena has been relatively stable over the last ten years with event numbers remaining flat and revenue growth of 0.3% CAGR

PwC view – Our discussions with industry professionals suggest there is an incremental benefit of a modern and flexible arena, to accommodate the demand for a variety of events to be held in Manchester, some of which may have not been secured in previous years due to either location, flexibility of format or other reasons

Manchester arena events market share



Source: PwC analysis of Pollstar data and NAA

From our discussions with promoters and industry professionals, we understand that the Manchester Arena remains a popular venue on tours owing to its capacity and location, but the venue is considered to be less advanced than a number of its, contemporaries including newer arenas (SSE Hydro / First Direct Arena) and established arenas which have seen more historical investment (Birmingham / Resorts World).

This does not appear to have affected the appetite for major acts to play the venue to date, but there is a sense among promoters that other venues are positioning themselves to overtake Manchester (particularly the two Birmingham venues operated by the NEC group). It was also felt, that Manchester has been affected in recent months, following the arena bombing in 2017, and subsequent, ongoing, inquiry which has led to greater security procedures still in place and may have impacted consumer confidence.

It should also be noted that Manchester Arena has maintained event numbers but is losing overall market share, largely owing to new arena openings, meaning that, although the market is growing, much of this growth is being captured in other geographic regions.

Despite a large theoretical capacity, this is rarely achieved in practice owing to the reduced flexibility of the venue layout due to its original design as a sporting venue. Due to the busy schedule of the arena and restrictions in flexibility owing to its city centre location, there are a number of events, particularly in the sporting space, that the city has been unable to secure, set out in greater detail overleaf.

It was considered that it may have been possible to hold some of these events under a two arena model owing to greater capacity for events and also increased flexibility and extended customer facilities for sporting events and the ability have wrap-around support (e.g. practice courts for tennis, training pools for swimming) which represents an incremental opportunity for the city as a whole.

As previously mentioned, the Manchester Arena was also formerly home to an ice hockey team, which we understand was displaced due to increasing concert demand. Greater arena capacity in the city could also provide an opportunity for ice hockey to return to the city centre, with c.30 matches per year in the cities which have teams.

We note that, under a two arena scenario, certain acts which currently play the existing arena would likely move to the new venue (although it's not possible at this stage to specifically identify which acts this would be), but we consider that the existing arena is equipped to backfill with alternative content if this were the case.

Event opportunities – Our discussions with industry professionals have identified a number of event opportunities which could have been held in Manchester but were ultimately not secured owing to restrictions at existing venues

Summary of recent events not secured

Nature of event	Date	Reason not secured
Tennis	Nov 2016	Could not secure dates for length of tenancy
Tennis	Noc 2017	Could not secure dates for length of tenancy
Netball	Apr 2018	Dates not available
Netball	Apr 2019	Dates not available
Athletics	Feb 2020	Could not secure dates for length of tenancy
Tennis	Feb 2020	Venue too large and hire costs prohibitive
Tennis	Mar 2020	Could not secure dates for length of tenancy
Athletics	Spring 2020	Venue hire costs prohibitive
Tennis	Nov 2021	Additional facility requirements

Future potential event opportunities

Sport	Event
Athletics	IAAF World Indoor Athletics Championships
Badminton	World Individual Badminton Championships
Basketball	FIBA Basketball Olympic Qualifiers
	NBA Pre Season
Boxing	European Boxing Paris 2024 Qualifiers
	British Gymnastics Championships
Gymnastics	European Gymnastics Championships
	World Artistic Gymnastic Championships
	Gymnastics World Cup
	Netball International Series
Netball	Netball Quad Series
	Netball Super League Finals / Semi Finals
	Netball World Cup
Swimming	FINA Swimming World Championships
Table Tennis	World Table Tennis Championships
	ATP Tour Finals
Tennis	Davis Cup Tennis Finals
	Fed Cup Tennis Finals
	WTA Tour Finals

Source: Information provided by market sources

PwC view – The recent opportunities not secured and future potential opportunities identified below highlight a currently untapped pool of events that could be targeted by Manchester if operating in a two arena model. A number are high profile and would likely have an incremental benefit to the city

Through our discussions with industry participants, we have been provided with details of a number of recent sporting events (both past and forthcoming) which have either been offered directly to Manchester or which Manchester has bid for but has ultimately not secured.

We understand that the reasons for this are varied but are often driven by scheduling restrictions, as some opportunities require a continuous period of availability which is often not possible, whilst others can arise at short notice making it difficult to secure the desired dates. It was additionally noted, that in some instances, there was not sufficient space to provide wrap-around facilities required (e.g. practice tennis courts, training pools).

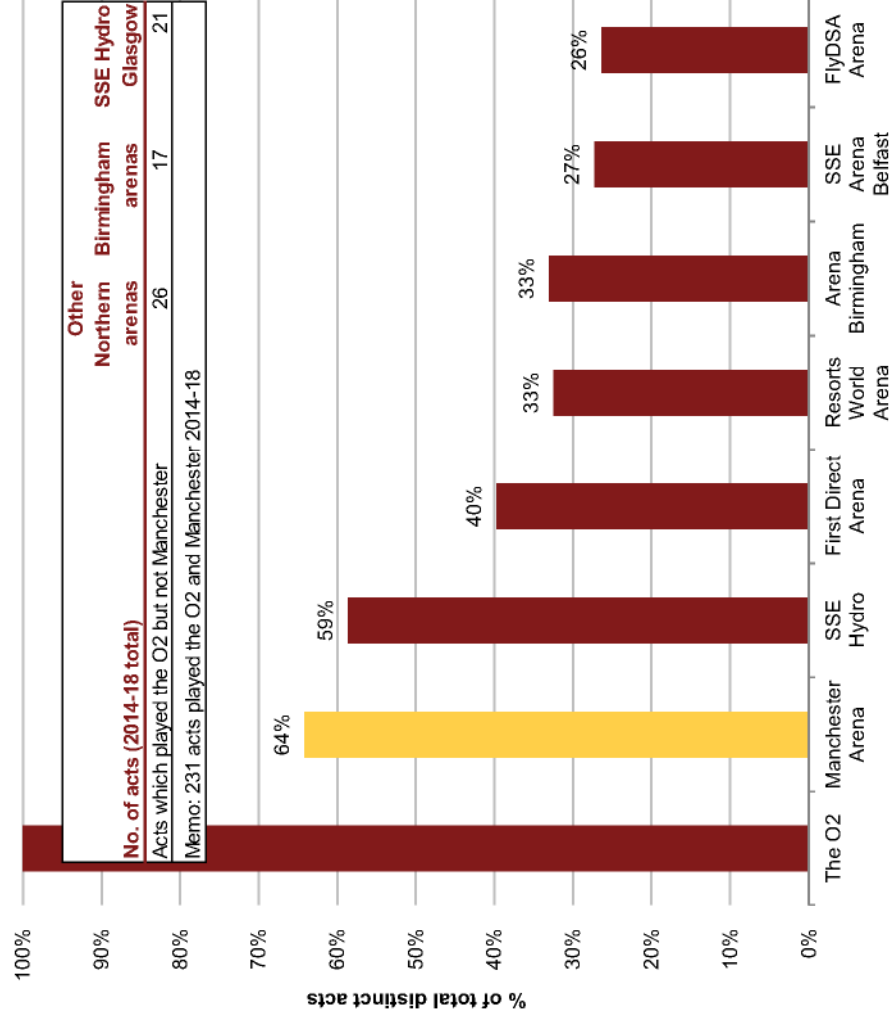
Details of upcoming events which could potentially be held in Manchester going forwards was also provided. In addition to the sported events presented opposite, we understand that opportunities also exist to host national and international award events (e.g. major music awards).

The presence of a second arena in Manchester could be supportive in securing such events on the basis that there would be additional capacity between the two venues which would increase the likelihood of meeting availability requirements. Additionally, to the extent that an event required wrap-around facilities, the new arena would likely be well-placed to provide these given that it is located on the Etihad Campus with access to much of the legacy Commonwealth Games facilities (e.g. Velodrome, Tennis and Football Centre etc.).

Manchester positioning: Top tours – From 2014 to 2018, 360 distinct acts have played the O2 Arena in London. Of those acts, 64% also played the Manchester Arena, the highest of all other UK arenas

PwC view – *The Manchester Arena remains one of the most popular venues for touring artists, with very few acts which played the O2 and then toured the UK in the last five years having excluded the arena in favour of others. This supports Manchester being an attractive destination and key market for larger acts to play*

Proportion of acts which played to O2 playing other UK arenas (2014-18 avg.)



To assess Manchester's market position, we have considered the touring habits of major acts based on the data provided by Pollstar. Particularly we have considered the behaviour of those acts playing at the O2 London, largely on the premise that this would be the most popular venue for a major act, and the extent to which those acts select Manchester as a tour venue. Our review has identified that:

- From 2014 to 2018, 360 distinct acts have played the O2 Arena in London. Of those acts, 64% also played the Manchester Arena.
- The proportion of acts playing the O2 which also played Manchester was higher than the SSE Hydro in Glasgow (59%), the First Direct Arena in Leeds (40%) and both Resorts World and the Birmingham Arena (each 33%) and, in fact, only combining the two Birmingham arenas would give a comparable coverage of these acts to Manchester (66%).
- There are a limited number of acts which have played the O2 in the last five years and have played other major UK arenas but not Manchester (26 played other Northern arenas, 17 played Birmingham and 21 played Glasgow across all 5 years). In some cases where this did occur this may be specific to the artist (i.e. Paul McCartney played shows in Liverpool in 2015 and 2018, The Kaiser Chiefs played Leeds in 2017).

We have also reviewed Pollstar's top 100 worldwide tours list for 2017 and 2018. For the top 25 tours in each year that did tour the UK and visited arenas, all acts played Manchester.

Source: PwC analysis of Pollstar data

Manchester positioning: Capacity analysis (1 of 2) – From 2014 to 2018 a total of 164 events sold in excess of 12,000 tickets per night at the Manchester Arena, of which 49 sold in excess of 15,000 tickets and 8 in excess of 18,000. Average capacity utilisation for these shows ranged from 95-100% with an average attendance of c.14.4k per show

Manchester arena - major events

No of tickets per night	No. of events	tickets sold	Total capacity	Utilisation
2014	26	363,978	374,785	97%
12,000-14,999	19	255,045	263,632	97%
15,000-17,999	7	108,933	111,153	98%
2015	48	665,272	694,647	96%
12,000-14,999	41	557,722	584,020	95%
15,000-17,999	7	107,550	110,627	97%
2016	26	384,339	397,547	97%
12,000-14,999	15	202,611	213,782	95%
15,000-17,999	9	143,951	145,707	99%
>18,000	2	37,777	38,058	99%
2017	37	549,190	561,190	98%
12,000-14,999	24	333,116	341,817	97%
15,000-17,999	9	142,553	144,249	99%
>18,000	4	73,521	75,124	98%
2018	27	393,527	407,326	97%
12,000-14,999	16	215,076	227,868	94%
15,000-17,999	9	141,600	142,608	99%
>18,000	2	36,851	36,850	100%
Grand Total	164	2,356,306	2,435,495	97%
12,000-14,999	115	1,563,570	1,631,119	96%
15,000-17,999	41	644,587	654,344	99%
>18,000	8	148,149	150,032	99%

Source: PwC analysis of Pollstar data

Note: Capacity utilisation based on individual event capacity rather than total theoretical arena capacity.

PwC view – *The majority of larger tours which attended Manchester over the last five years either sold out or were close to full capacity, even for those tours which played multiple nights. This implies that there may be an opportunity to increase attendances and revenues with a venue that can provide a higher capacity for such events*

Based on the data provided by Pollstar, we have analysed the events with the highest attendance per night over the last five years at the Manchester arena which we have sub-classified into those in excess of 12,000, 15,000 and 18,000 attendees per night.

Our analysis has identified that:

- there appears to be a baseline of c.25-30 major events in each year. 2015 was buoyed by a residency from Take That (a run of 8 performances) and Peter Kay (a run of 12 performances). 2017 was reflective of a greater number of major acts touring but there was no individual artist which significantly contributed as was the case in 2015.
 - in the last five years, 49 events at Manchester Arena have achieved attendance in excess of 15,000 and only 8 of those in excess of 18,000. The highest attendance at any event was 19,423. This compares to a theoretical capacity of 21,000.
 - in each year, the acts playing Manchester with an average attendance in excess of 12,000 had a total utilisation of 96-98%, averaging c.97% across the whole period. Events in excess of 15,000 capacity had an average utilisation of 99%.
- On the basis that the majority of larger events at the existing arena were either at or very close to capacity, and that this capacity was in all cases lower than the total theoretical capacity of the arena, this indicates that there may be an opportunity to increase attendances and revenues with a venue that can provide a higher capacity for such events.

Manchester positioning: Capacity analysis (2 of 2) – The O2 held 136 events from 2014-17 which achieved attendances in excess of 15,000, with 13 of these in excess of 18,000. The number of shows for the equivalent acts in Manchester over this period was 71

PwC view – *The largest acts which played the O2 from 2014 to 2017 have historically played fewer shows in Manchester than in London. For these events, average attendances in the O2 were higher, despite both arenas achieving nearly full utilisation suggesting a further opportunity to increase overall attendances*

O2 top shows (2014 - 2017)

	No. of events		Avg. tickets per night		Capacity Utilisation	
	The O2	Manchester Arena	The O2	Manchester Arena	The O2	Manchester Arena
2014	26	19	16,235	12,520	97%	93%
15,000-17,999	26	19	16,235	12,520	97%	93%
>18,000	-	-	n.a.	n.a.	n.a.	n.a.
2015	32	13	16,160	13,192	98%	95%
15,000-17,999	32	13	16,160	13,192	98%	95%
>18,000	-	-	n.a.	n.a.	n.a.	n.a.
2016	31	17	16,247	14,757	97%	98%
15,000-17,999	26	15	15,827	14,206	98%	97%
>18,000	5	2	18,433	18,889	94%	99%
2017	47	22	17,023	15,143	95%	97%
15,000-17,999	39	18	16,644	14,785	95%	97%
>18,000	8	4	18,870	16,757	99%	100%
Total	136	71	16,492	13,991	97%	96%
15,000-17,999	123	65	16,259	13,670	97%	95%
>18,000	13	6	18,702	17,467	97%	100%
Memo:						
Total tickets sold at events >15,000 at the O2				2,242,960		
Total tickets sold by the same acts in Manchester				993,381		
Manchester tickets sold as a % of the O2				44%		

Source: PwC analysis of Pollstar data

Note: Capacity utilisation based on individual event capacity rather than total theoretical arena capacity.

We have carried out a similar analysis to the one set out on the previous page for the O2 to show events which achieved in excess of 15,000 attendees per night. Our assessment covers 2014 - 17 based on the availability of Pollstar data. The comparative Manchester Arena columns demonstrate where Manchester also hosted the equivalent act to the O2 and does not represent all events in this category for Manchester which are set out on the previous page.

This shows that 136 shows had an average attendance of over 15,000 at the O2 2014-17 with 13 of these over 18,000. This compares to 49 in Manchester, with 8 over 18,000 (per previous page). For these events, Manchester hosted some of the same acts with a total of 71 shows (of the 136 shows at the O2, 16 related to acts which did not play Manchester).

The majority of events noted opposite were close to sold out with an average capacity of 96% in Manchester compared to 97% in the O2. In spite of this, and the fact that they relate to comparable shows in arenas with a comparable theoretical capacity, the average attendance achieved at these larger shows was c.16.5k in the O2 compared to 14k in Manchester – c.2.5k fewer tickets per event. Given both were at nearly full capacity, this implies that it is owing to the reduced flexibility of the Manchester arena to accommodate larger shows without compromising on seat numbers. By extension, this suggests that a more flexible arena may have achieved greater attendances for these events in Manchester.

Impact of new arena openings: catchment areas (1 of 2) – 5.8m people fall within a 60 minute peak driving time of the existing Manchester arena. This is largely comparable to Leeds (6.4m), and the Birmingham Arenas (5.6-6.2m). 1.4m people fall within the catchments of both Manchester and Leeds arenas, 25% of Manchester’s catchment

PwC view – *Based on a 60 minute peak drive time, there is limited crossover in catchment areas between Leeds and Manchester arenas. However, this is a significant contrast to Leeds/Sheffield and the Birmingham arenas where the overlap is significant (see later)*

Catchment area analysis

No. of people	Peak Driving 60 mins	Off Peak Driving 60 mins
Manchester Arena	5,841,777	7,375,629
of which in First Direct catchment	1,452,397	2,529,206
Overlap % with First Direct Arena	25%	34%
of which in M&S Bank Arena catchment	2,581,854	3,750,236
Overlap %	44%	51%

Memo:

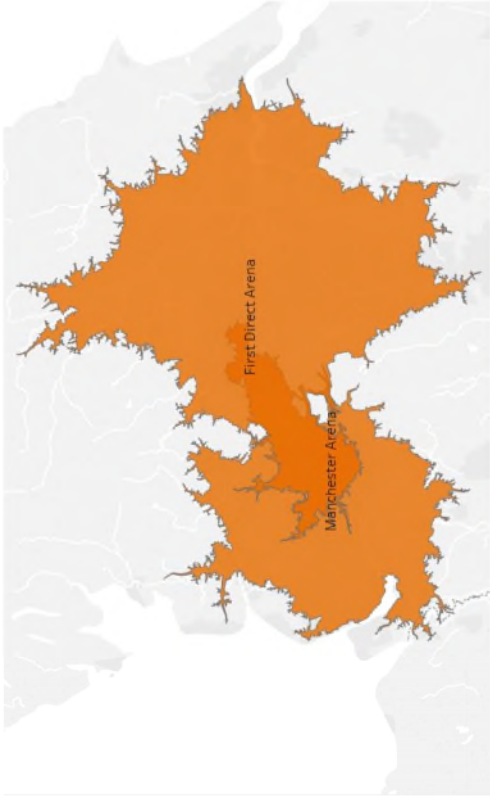
First Direct Arena
Resorts World Arena
Birmingham Arena

6,354,525
7,381,853
6,912,839

To assess this, we have presented opposite a travel time analysis which draws on ONS data, to identify the population of the catchment area for the major areas and the number of people within a catchment which fall into the catchment of two arenas.

The overall catchments within a 60 minute peak drive time for Manchester and Leeds arenas are broadly consistent and are largely consistent with those of the two Birmingham areas, all falling within a range of c.5.6m-6.4m people. Of the 5.8m people in the Manchester catchment, only 25% can also access the First Direct Arena within a peak drive time of 1 hour. Equally, only 44% can also access the M&S Bank arena. Note that given the location of Liverpool, the opposite does not apply, with 71% of people in the Liverpool catchment able to reach Manchester Arena within an hour.

By comparison, the overlap between the Leeds and Sheffield arenas is c.60-70% and between the Birmingham arenas is c.80% (see later). This suggests that there is limited crossover between the First Direct and Manchester arenas in terms of overall catchment.



Source: PwC analysis of ONS data

Impact of new arena openings: catchment areas (2 of 2) – 5.8m people fall within a 60 minute peak driving time of the existing Manchester arena. This is largely comparable to Leeds (6.4m), and the Birmingham Arenas (5.6-6.2m). 1.4m people fall within the catchments of both Manchester and Leeds arenas, 25% of Manchester's catchment

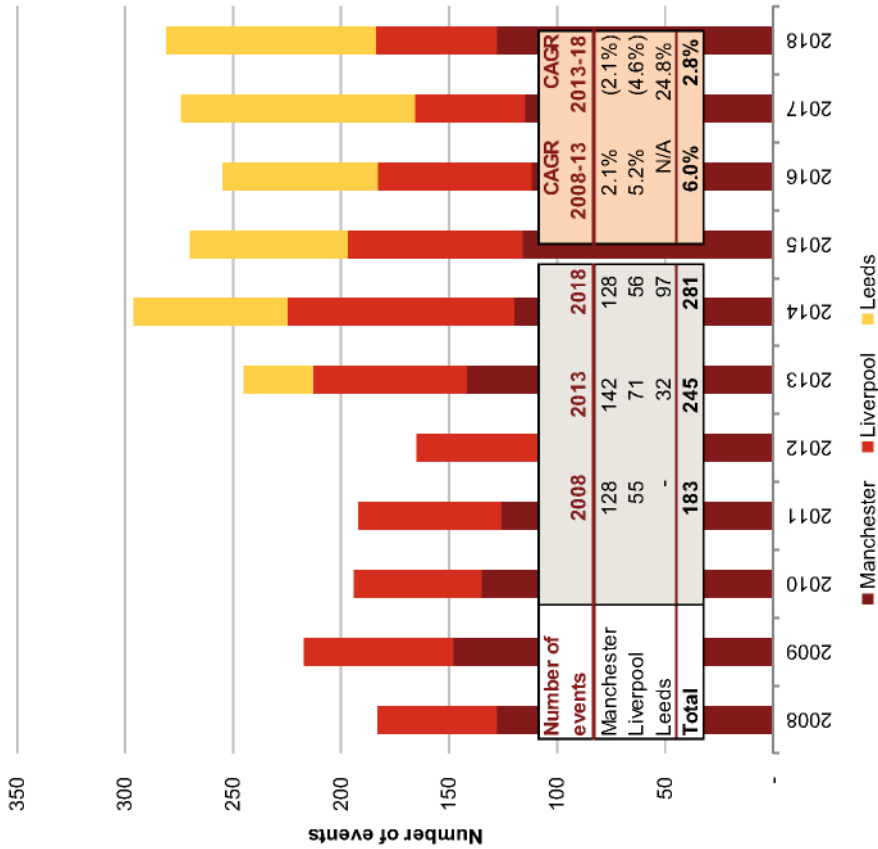
PwC view – *If the new arena in Manchester could be seen as an “iconic” venue, similar to the O2 in London, then there may be the potential to increase the catchment area to a 90 or 120 minute drive time, which could increase its potential catchment pool by up to c.10m people*

If the peak catchment for Manchester were extended to 90 minutes or 120 minutes the population would increase to c.10m and c.15m respectively. Promoter discussions indicate that the O2, can attract attendees from greater distances as it is seen as an “iconic” venue. If the new arena in Manchester were designed in such a way that it is viewed to be similarly iconic, then it may also be able to benefit from access to wider catchment area, attracting visitor from inside and outside the main catchment area (although these would likely be dispersed across a number of regions).

This may be the case in particular for the premium and club offering. This can be noted at the Etihad Stadium which, according to the club, offers a range of premium match day experiences, and whilst a large proportion of the Club's supporters travel from the Greater Manchester area, a significant number also travel from locations around the UK, and internationally too.

Manchester vs Liverpool vs Leeds (1 of 2) – The opening of the M&S Bank Arena in Liverpool and First Direct Arena in Leeds has increased combined Manchester, Liverpool and Leeds events numbers from 183 in 2008 to 281 in 2018. Revenue during the same period has grown from £47.9m in 2008 to £77.2m in 2018

Manchester, Liverpool and Leeds number of events 2008-2018



Source: PwC analysis of Pollstar data

PwC view – New arena openings in the North appear to have led to market growth without a significant adverse effect on the results of the existing Manchester arena, which have remained within a relatively consistent range since 2013

In addition to the catchment analysis presented earlier, we have considered the impact on Manchester of the opening of Liverpool and Leeds arenas based on performance.

The M&S Bank Arena in arena was launched on the eve of Liverpool becoming the European Capital of Culture in 2008, with a maximum capacity of 11,000. The arena is owned by Liverpool City Council and has been operated in house by ACC Liverpool Group.

The First Direct Arena in Leeds was opened in September 2013, and positioned itself as a city arena with state of the art facilities, albeit with a lower capacity than Manchester at 13,781. Leeds is currently managed by the same operator as Manchester, ASM Global.

Number of events

Events numbers in Manchester have remained flat from 2008 (when Liverpool opened) to 2018. This included growth in event numbers of 2.1% CAGR to 2013 when the First Direct Arena opened followed by a decline of 2.1% CAGR to 2018, although the fluctuations noted have been in line with historical cyclicity although this does not necessarily imply that the opening of the arena in Leeds led to this. Interviews with promoters do not suggest that Leeds is regarded as an alternative venue to Manchester, but may impact the likelihood of some artists playing multiple nights in Manchester.

Liverpool has followed a similar pattern showing strong growth from first opening to 2013 as the arena become more established, at 5.2% CAGR, but then declining at -4.6% CAGR to 2018. We understand from discussions with those connected to the arena that this was led by market forces with promoters of major tours favouring larger arenas in recent years.

Manchester vs Liverpool vs Leeds (2 of 2) – The opening of the M&S Bank Arena in Liverpool and First Direct Arena in Leeds has increased combined Manchester, Liverpool and Leeds events numbers from 183 in 2008 to 281 in 2018. Revenue during the same period has grown from £47.9m in 2008 to £77.2m in 2018

Leeds has shown considerable growth since opening, by 8.1% CAGR 2014 to 2018 (24.8% CAGR from 2013-18 overall includes the impact of 2013 only representing four months worth of events). Leeds has averaged 84 events per year between 2014-2018.

Revenue

Manchester revenue trends have followed events in terms of growth to 2013 followed by a decline to 2018 with a 0.3% CAGR overall from 2008-18.

Liverpool, however, despite event numbers being relatively flat, has grown at a rate of 12.0% per annum to 2013, then 13.7% to 2018, suggesting strong attendance growth with a reasonable average ticket price growth (c.3%, in line with the market), although this may also be impacted by events mix in early years as the arena became established.

Leeds has grown strongly since its opening in 2013 to revenue of £20.1m in 2018. This reflects a combination of growth in events numbers, attendances per event and ticket prices.

Summary

From 2008 to 2018, combined events numbers for the three arenas have increased by 98 from 2008 to 2018 with no impact on Manchester (128 in both periods), whilst total ticket revenue has increased by c.£29.7m over the corresponding period again with Manchester showing underlying growth. As noted earlier, although Manchester has remained stable, its market share has declined reflecting that growth has been realised in other areas.

PwC view – Whilst Manchester's results have remained relatively stable, there has been clear growth when considering the three arenas combined, reflecting that an increase in supply has been a catalyst for growth in the regional market. However, this has led to a decline in Manchester's overall market share in terms of events

Two arena model: Arena Birmingham vs. Resorts World (1 of 2) – Birmingham has two arenas with one in the city centre and one on the outskirts. Both arenas have a distinct event mix, reflective of common management by the NEC Group

PwC view – Birmingham provides an example of a city which has historically successfully operated two arenas over a long period of time, demonstrating growth in both revenue and events numbers. This may have been facilitated, in part, by common control of the venues allowing for more efficient, complementary, programming decisions

Birmingham catchment areas

No. of people	Off Peak Driving 60 mins	Peak Driving 60 mins
Resorts World Arena	7,381,853	6,181,795
of which not in Birmingham catchment	1,243,335	1,369,204
Overlap %	83%	78%
Birmingham Arena	6,912,839	5,624,699
of which not in RW catchment	582,100	526,968
Overlap %	88%	84%

Source: PwC analysis of ONS data

Arena Birmingham and Resorts Worlds events by category 2018



Source: PwC analysis of Pollstar data

Birmingham is a relevant case study to consider the impact of a two arena model on the basis that it has a long history of operating two arenas, with one in the city centre and one on the outskirts, a model which Manchester will mirror following the opening of the new arena, albeit the Manchester sites will be located much closer together. The Birmingham arenas have a catchment of c.5.6-6.2m people within a 60 minute peak driving time which is similar to Manchester (5.8m) and there is significant crossover in the catchment pools (over 80%).

Arena Birmingham is located in the city centre. Opened in 1991, and best known as the NIA (as it was until 2014), it has a current capacity of 15,800. It was initially opened as an indoor sporting venue, but quickly transformed to provide a full range of entertainment offerings.

Resorts World Arena was built in 1980 as part of a larger complex which includes a shopping centre, casino and various other amenities. The arena has a capacity of 15,685 and is located to the east of the city centre, five minutes from a major motorway (the M42) and ten minutes walking distance from Birmingham International railway station.

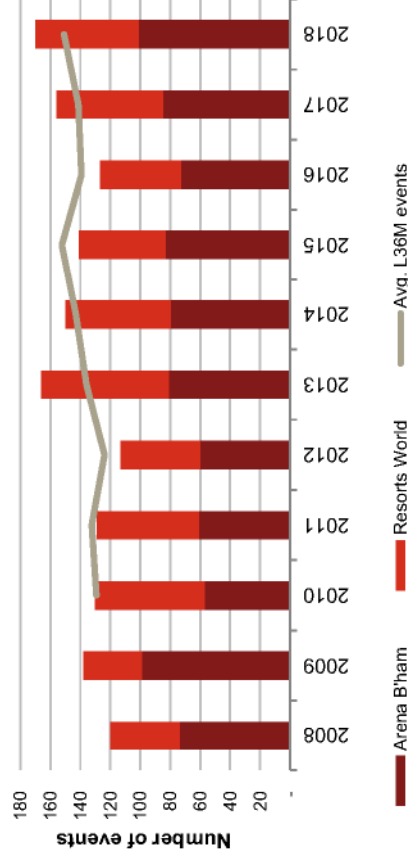
It should be noted, that both arenas have been operational throughout the long term historical period set out opposite but there have been periods of refurbishment for each with Resorts World closed for significant remodelling in 08/09 and Birmingham Arena in 13/14.

The two arenas are operated by NEC Group meaning that programming for both arenas is under common control. As such the two arenas demonstrate a distinct but complementary events mix (see opposite) with Resorts World more focussed on larger concerts, owing to slightly more modern facilities and ample on site parking (c.16,000 spaces), whilst the Arena Birmingham has a greater proportion of family shows and other events, based on this data . Based on our review of Pollstar data, major artists will typically only play one of the venues.

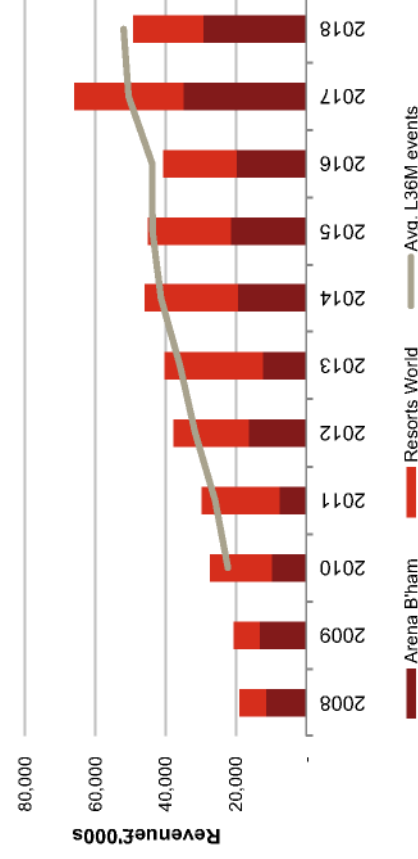
Two arena model: Arena Birmingham vs. Resorts World (2 of 2) – Birmingham has two arenas with one in the city centre and one on the outskirts. Both arenas have a distinct event mix, reflective of common management by the NEC Group

PwC view – Birmingham provides an example of a city which has historically successfully operated two arenas over a long period of time, demonstrating growth in both revenue and events numbers. This may have been facilitated, in part, by common control of the venues allowing for more efficient, complementary, programming decisions

Arena Birmingham & Resorts World - Number of events 2008 - 2018



Arena Birmingham & Resorts World - revenue 2008-2018



Source: PwC analysis of Pollstar data

Despite a degree of cyclical, the total number of events has steadily increased over the period, with Arena Birmingham showing a CAGR of 3.2%, and Resorts World CAGR at 4.1%. This amounts to an increase of 50 events from 2008, to 2018 (170 total events). The split of events has been c.55:45 in favour of the Birmingham Arena over the historical period.

Over the same period, revenue has increased significantly supported by increasing attendances (CAGR 6.7%), and increasing ticket prices (CAGR 3.2%). Arena Birmingham has a revenue CAGR of 9.8%, with Resorts World outperforming slightly at 10.2%. Revenue contribution is slightly more varied, with arenas alternating in which years that they provide over half of total revenue, with Resorts World on average, contributing slightly more (53%) despite a smaller number of events reflecting that more major concerts are hosted at the venue.

This demonstrates that a city can operate with a two arena model as both arenas have contributed to their own individual and collective growth over the historical period. However, we would highlight that combined events in Birmingham averaged 151 in the last 36 months and revenue averaged just under £49m p.a. over the same period. This compares to Manchester's existing arena which averaged 118 events and revenue of £46m p.a. over the same period which suggests a step up would be required from what Birmingham currently delivers. However, Manchester's established cultural heritage in relation to arts and live music events suggest that it should be capable of achieving greater events numbers than Birmingham.

Further to this, the Manchester arenas would not be under common control which would could affect programming decisions. We have considered the impact of two venues with different operators in Leeds and Sheffield overleaf.

Two arena model: Sheffield v. Leeds (1 of 2) – Since the opening of the Leeds Arena in 2013, there has been an increase in total revenues and total number of events. Event mix has changed also, with the Sheffield arena hosting more sporting events following the opening of the Leeds arena

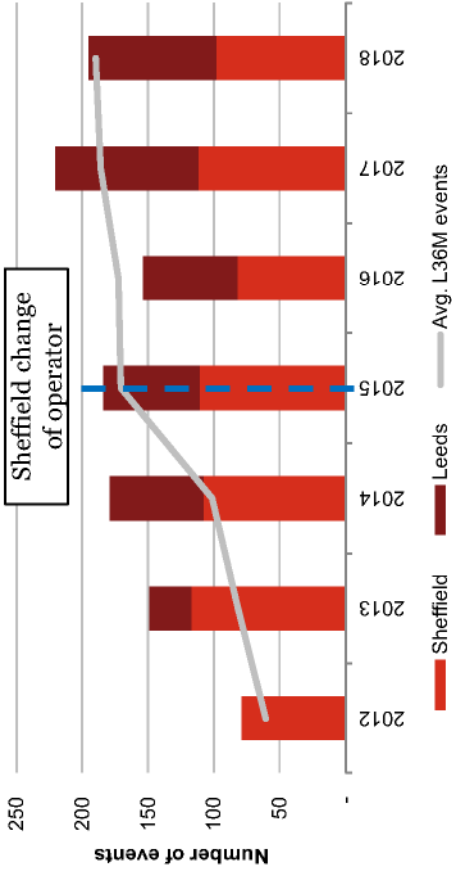
PwC view – Leeds arena appears to have had an impact on the Sheffield arena, with Sheffield having a reduced total level of events and revenue, following a shift in their service offering to focus more on sporting events. This may also have been influenced by Sheffield moving from Live Nation to an in-house operating model in 2015

Leeds / Sheffield catchment areas

No. of people	Off Peak	Peak	Driving	Peak Driving
	60 mins		60 mins	
First Direct Arena	7,716,931			6,354,525
of which not in FlyDSA catchment	2,868,123			2,715,428
Overlap %	63%			57%
FlyDSA Arena	5,977,923			4,826,172
of which not in First Direct catchment	1,640,829			1,391,302
Overlap %	73%			71%

Source: PwC analysis of ONS data

Leeds & Sheffield - Number of events 2012-2018

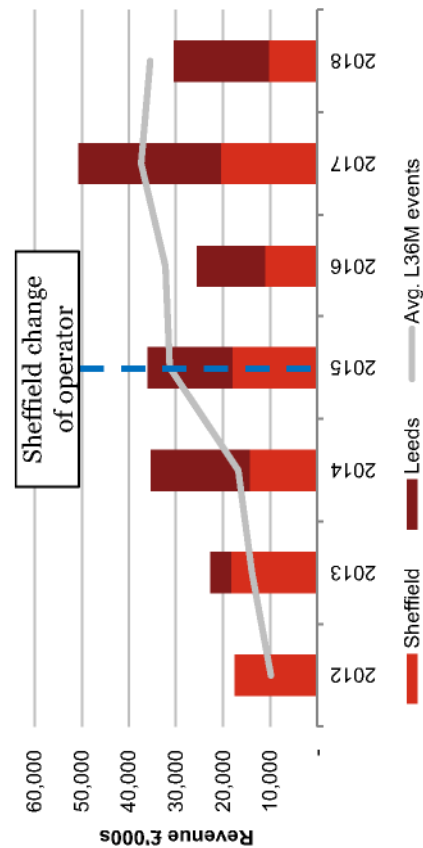


Source: PwC analysis of Pollstar data

Two arena model: Sheffield v. Leeds (2 of 2) – Since the opening of the Leeds Arena in 2013, there has been an increase in total revenues and total number of events. Event mix has changed also, with the Sheffield arena hosting more sporting events following the opening of the Leeds arena

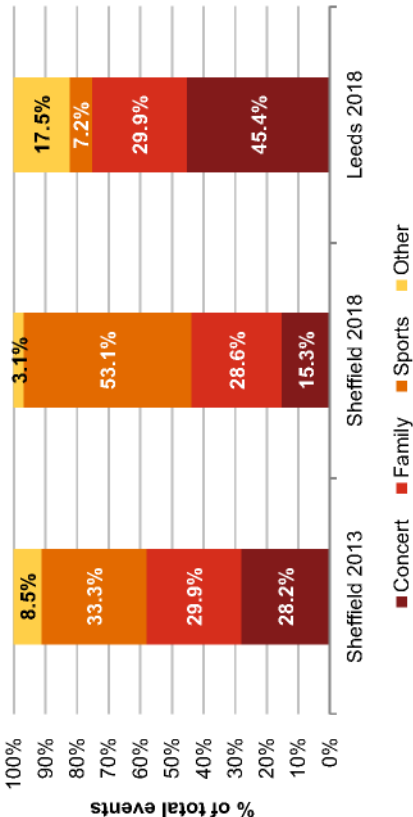
PwC view – *Despite a reduction in events numbers and revenue at Sheffield specifically, there has been overall growth in the total number of events and revenue between the two arenas combined (and therefore in Yorkshire), implying that an increase in supply in the area, has led to growth in overall demand*

Leeds & Sheffield - Revenue 2012-2018



Source: PwC analysis of Pollstar data

Leeds and Sheffield events by category 2013-2018



Source: PwC analysis of Pollstar data

Total revenue has grown markedly since the opening of Leeds, which has experienced significant revenue growth since its opening in 2013, reaching a high of £30.1m in 2017, with an average of £20.7m 2014-18. Sheffield's revenue has been lower on average over this time, but has achieved its pre-Leeds levels in certain years (i.e. 2017). The majority of the reduction occurred after Sheffield took its operations in-house (from Live Nation), which may be a factor due to access to fewer market relationships. Events numbers and revenue have reduced substantially in 2018, due to fewer artists touring (as seen in other arenas). Sheffield hosts fewer major artists than the larger arenas and appears more susceptible to cyclicality.

The event mix in Sheffield has changed since the opening of the First Direct Arena. Initially, there was an almost even split between concert (28.2%), family (29.9%) and sporting events (33.3%). Following the opening of Leeds in 2013, the event mix has become more focused on sports events (53.1% of total events), with fewer concerts being performed in Sheffield (15.3% of total events).

This is due to Leeds specifically focusing on concerts (45.4%), and having the relevant technological infrastructure to accommodate more complex music tours. Secondly, the FlyDSA Arena has been known to have extra flexibility to accommodate sporting events since its refurbishment in 2013, making it a key attraction for sporting events that require complex stage arrangements.

Overall, this demonstrates again a scenario where two arenas are operated within a largely similar catchment, and have demonstrated overall growth, although there has been a requirement for Sheffield to adapt its offering. As noted above, Sheffield has seen a decline in 2018 but it is not possible to confirm the extent to which this is cyclical or relates to other factors (i.e. change of operator to in-house).

Selected information

Selected information

53

UK arenas (1 of 3): In 2018 there were 22 arenas in the UK and Ireland which reported to the National Arena Association (“NAA”) with official capacities ranging from 5,000 – 21,000

Arena Name	Opened	Owner	Operator	Capacity	Former names
3 Arena Dublin	December 2008	Apollo Leisure Group, Ltd	Live Nation Ireland	13,000	The O ₂ (2008–14)
Aberdeen Exhibition and Conference centre	1985 (Closed June-2019)	Aberdeen City Council	N/A	8,500	AECC Arena (1985–2002), Press & Journal Arena (2002–2012), and the GE Oil and Gas Arena (2012–17)
Alexandra Palace (London)	May 1875	Alexandra Park and Palace Charitable Trust	Alexandra Park and Palace Charitable Trust	10,250	N/A
Arena Birmingham	October 1991	NEC Group	NEC Group	15,800	NIA (1991-2014), Barclaycard Arena (2014-2017)
Bournemouth International centre	September 1984	Bournemouth Borough Council	BH Live	4,045	N/A
Derby Arena	March 2015	Derby City Council	Derby City Council	5,000	N/A
First Direct Arena (Leeds)	September 2013	Leeds City Council	ASM Global	13,781	N/A
FlyDSA Arena (Sheffield)	May 1991	Sheffield City Trust	Sheffield International venues	13,600	Sheffield Arena (1991-2002), Hallam Arena (2002-2010), Motorpoint Arena (2010-2015)

UK arenas (2 of 3): In 2018 there were 22 arenas in the UK and Ireland which reported to the National Arena Association (“NAA”) with official capacities ranging from 5,000 – 21,000

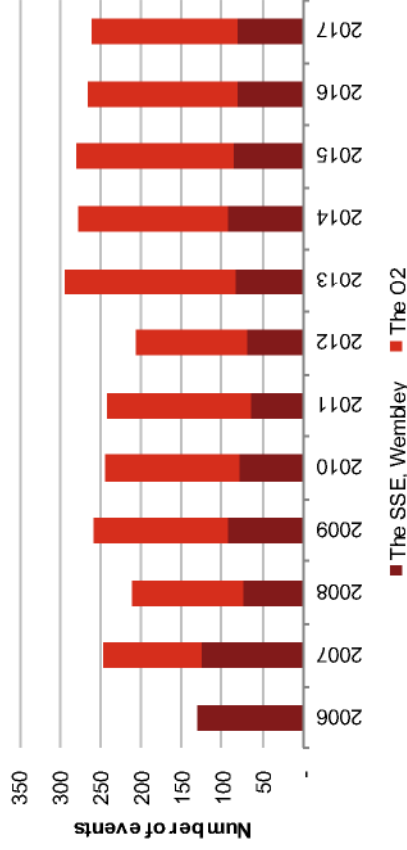
Arena Name	Opened	Owner	Operator	Capacity	Former names
M&S Bank Arena (Liverpool)	January 2008	Liverpool City Council	ACC Liverpool Group	11,000	Liverpool Echo Arena (2008-2019)
Manchester Arena	July 1995	Mansford	ASM Global	21,000	NYNEX arena (1995-1998), MEN arena (1998-2011), Phones 4 U Arena (2013-2015)
Motorpoint Arena Cardiff	September 1993	Live Nation UK	Live Nation UK	7,500	Cardiff International Arena & Convention Centre (1993–2000)
Olympia conference centre (London)	December 1886	Consortium	N/A	10,000	National Agricultural Hall
Resorts World (Birmingham)	December 1980	NEC Group	NEC Group	15,685	NEC Arena (1983-2008), LG Arena (2008-2014), Genting Arena (2014-2018)
Ricoh Arena (Coventry)	April 2005	Wasp Holdings Ltd	Arena Coventry Limited	N/A	City of Coventry Stadium(2012 Summer Olympics only)
Royal Albert Hall (London)	March 1871	The Corporation of the Hall of Arts and Sciences	N/A	5,272	N/A

UK arenas (3 of 3): In 2018 there were 22 arenas in the UK and Ireland which reported to the National Arena Association (“NAA”) with official capacities ranging from 5,000 – 21,000

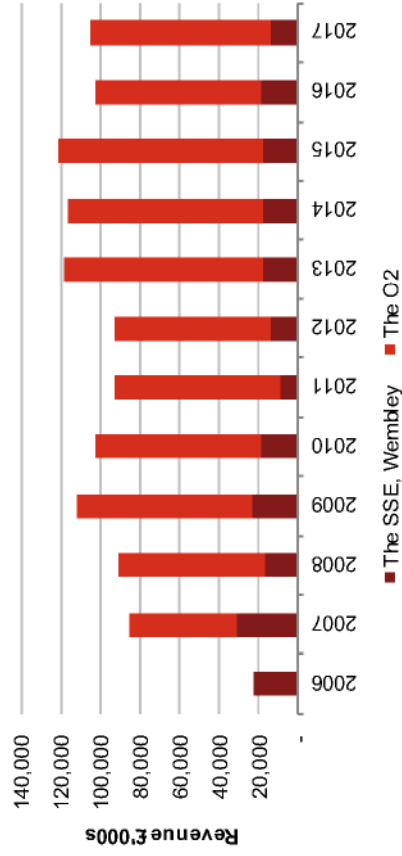
Arena Name	Opened	Owner	Operator	Capacity	Former names
SSE Arena, Wembley	July 1934	Quintain	ASM Global	12,500	Empire Pool (1934-1978), Wembley Arena (1978-2014)
SSE Hydro Arena (Glasgow)	September 2013	SEC Limited	SEC Limited	13,000	N/A
The Brighton Centre	September 1977	Brighton & Hove City Council	Brighton & Hove City Council	4,450	N/A
The Motorpoint Arena Nottingham	April 2000	Nottingham City Council	Nottingham Ice Centre Ltd	10,000	Nottingham Arena (2000–08)
The O2, London	July 2007	The HCA	ASM Global	20,000	N/A
The SSE Arena, Belfast	December 2000	Odyssey Trust Company Ltd.	Odyssey Trust Company Ltd.	10,800	Odyssey Centre (2000–13)
Utilita Arena (Newcastle)	November 1995	ASM Global	ASM Global	11,000	Newcastle Arena (1995–1997) Telewest Arena (1997–2004) Metro Radio Arena (2004–2019)

***The O2 vs. SSE Wembley** - Combined revenue and event numbers have increased significantly following the opening of the O2 in 2006. SSE Wembley has experienced a reduction in event numbers and has become more focussed on family and sporting events*

The O2 & Wembley number of events 2006-2017

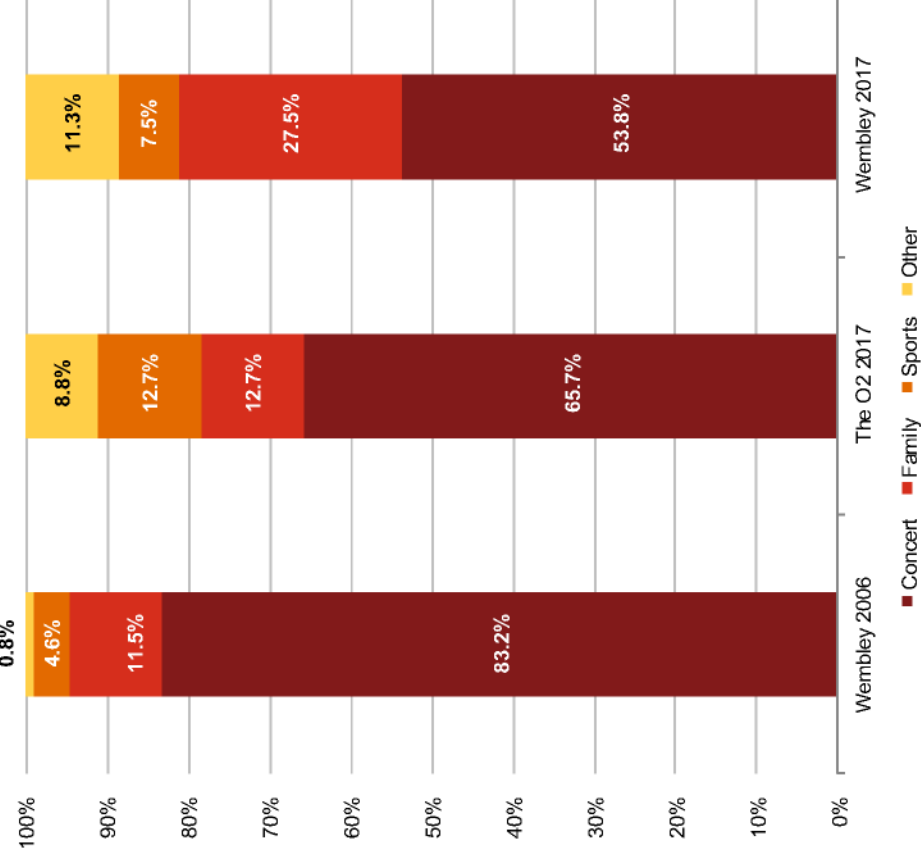


The O2 & Wembley revenue 2006 - 2017



Source: PwC analysis of Pollstar data

The O2 and Wembley event mix by category 2006-2017



Appendices

Appendices	58
1 Agreement	59
2 Our scope and process	66

Agreement (1 of 7)



PRIVATE & CONFIDENTIAL

OVG Europe Limited
55 New Bond Street
London
W1S 1DG

For the attention of Mark Durnally

23 October 2019

Dear Sirs

Project Briefing

Thank you for engaging us to provide you with services on terms which are described in this letter and the attached terms of business (version ToB 06/18 (Dubs)). These together form the agreement between us.

Background and purpose

OVG Europe Limited ("you"), in partnership with City Football Group, are proposing to develop a 20,000 seat multi-purpose arena at the Etihad Campus in Manchester. To date you have commissioned a number of reports to test the case for a second arena in Manchester, given that Manchester City Council, as the planning authority, will need to consider whether there is demand for a second such venue.

These reports, plus your own analysis, appear to demonstrate there is potential for a second arena, which will bring incremental business to Manchester and be viable in its own right. However, the operator of the existing arena has commissioned a report from Grant Thornton which challenges whether there would be sufficient market growth to sustain two arenas.

You now need an independent report which:

- Consider the findings to date to assess them for consistency, completeness and evidential support;
- Highlight any gaps or issues in the previous reports, addressing those where possible through additional, focused analysis;
- Build on, and draw together, the results of the work into a report summarising the position in connection with the development of a second arena and its resulting financial viability which you will consider as part of your ongoing planning application.

We understand that a new company ("newco") may be formed as the vehicle for developing the arena and that you will be acting as its sole director and shareholder. We will be providing appropriate evidence of its identity and signed a copy of this letter, it shall become our client alongside you. Furthermore, all your rights and obligations under this agreement shall transfer to newco immediately prior to it signing the sale and purchase agreement in relation to the transaction (the "novation date").

Private and Confidential
PwC (UK) LLP, 55 Abchurch Lane, London EC4N 3DF, United Kingdom
PwC (UK) LLP is a member firm of the PwC network, which is a global organisation of member firms, each of which is a separate legal entity. The network is not a legal entity. The network is a global organisation of member firms, each of which is a separate legal entity. The network is not a legal entity.



As a result, with effect from the novation date:

- (i) all references in the agreement to "you" will be treated as references to newco; and
- (ii) we have no further responsibility or liability to you in relation to the services and the agreement;
- (iii) newco will assume all obligations to pay fees for the services. All invoices will be addressed to newco. However, if newco has not paid our fees by the due date, you will be responsible for the payment of our fees; and
- (iv) the limits on liability in this agreement will apply to newco, you and any other party to whom we assume a duty of care on an aggregated basis.

You agree that nothing in this letter releases you from your obligation of confidentiality under the agreement or from responsibility for any fees invited to you and payable by you prior to the novation date.

Any services provided to the prospective directors of newco will be provided to them solely in their capacity as directors of newco and not as investors in a personal capacity.

The services

Due diligence

We will prepare a due diligence report that sets out our findings, including those derived from areas of additional analysis undertaken. The areas our work will cover and the main procedures we will carry out are set out in schedule 1.

General provisions applying to the services we are providing are set out in schedule 2.

Provision of the deliverables to other parties

Schedule 3 sets out which parties other than you may receive the draft or final deliverables and the related provisions.

Timeline

We envisage that we need four elapsed weeks ahead of our interim meeting at which we will discuss our initial findings, followed by a further two weeks to respond to any suggestions received for refinement and to prepare a draft report.

Staffing

Agreement (2 of 7)



Client contact

You have designated Mark Donnelly to be our primary contact when delivering the services as a person with the authority to instruct us in relation to the services.

Fees

Our fees will be calculated in accordance with the "Basis of fees" clause in the attached terms of business. Details of our fee agreement are set out in separate correspondence which forms part of the agreement between us.

Terms of business

Use of information

We draw your attention to clause 5.2 in the attached terms of business which permits us to use your confidential information for any lawful business as set out in the clause. For the avoidance of doubt, this does not include the use of your confidential information for any purpose not connected with the provision of the services. Clause 5.2 does not relate to information which we have obtained with your agreement from other sources. You are responsible for obtaining any consents you need in relation to this clause.

Liability limitation

We draw your attention to clauses 8 and 12.3 in the attached terms of business which amongst other things limit (i) our total liability for all claims connected with the services or the agreement to the greater of 3 times fees and £1,000,000 and (ii) the time for bringing any such claim.

Personal Data

In the course of this engagement, we may share your personal data with Julie Clark who will be working for us as a subcontractor as part of the delivery of our work. We will only share personal data with others when we are legally permitted to do so. When we share data with others, we put contractual arrangements and security mechanisms in place to protect the data and to comply with our data protection, confidentiality and security standards.

Confirmation of agreement

Please confirm your acceptance of the agreement by signing the enclosed copy and returning it to us.

Your faithfulness



for and on behalf of PricewaterhouseCoopers LLP



Copy letter to be returned to PricewaterhouseCoopers LLP

I accept the terms of the agreement for and on behalf of OVG Europe Limited

Signature

Mark Donnelly

Position

COO OVG Europe

Date

5/11

I accept the terms of the agreement for and on behalf of OVG Manchester LLP

Signature

COO

Position

2/12/20

Date

Agreement (3 of 7)



Schedule 1 - due diligence

This schedule sets out the scope of the specific due diligence services that we will provide under this engagement letter. Any terms contained in this schedule apply only to the services specified in this schedule.

Matters to be covered

We have divided our work into six tasks

Task 1: project mobilisation and document review

The team will conduct a review of all the documents received to date, highlighting issues for further analysis. For clarity, the documents to be reviewed are:

- Sound Diplomacy – Findings and analysis report dated June 2019
- design - Manchester A Special Place report dated June 2019
- design - Economic Impact Assessment
- Grant Thornton Economic Impact – Executive Summary dated 26 June 2019
- KPMG – New Manchester Arena: Model Validation report to City Football Group dated October 2018.
- OWG's business plan - New Manchester Arena Operating Assumptions model (filename: 2018-09-06 OWG Manchester Model VMC.xlsm)

We then suggest a meeting to:

- Discuss the issues for further analysis and confirm who to contact regarding any clarification questions on the various existing reports.
- Receive additional information:
 - In addition to the reports you have already shared, we understand that you will share the financial model you have developed for the proposed arena;
 - We may also wish to discuss whether you would be able to give us access to the Pollstar data (which we understand OWG now own) to enable us to conduct the various additional analysis highlighted above;
 - As noted above, we will also be seeking to provide additional information on the nature of the proposed arena (i.e. what makes it distinctive from the existing Manchester Arena and other existing UK arenas), and any other information you may have to hand on existing arena (i.e. including the existing Arena in Birmingham or Echo Arena in Liverpool).
- Discuss the benefits and challenges of PwC conducting interviews with promoters directly (rather than via OWG) and other industry commentators and who we might contact.
- Confirm a date for a meeting to discuss our interim findings.

5



Task 2: Market analysis

There are three main areas of focus:

- Testing assumptions used regarding the growth of the global, UK and Manchester concert, sport and entertainment market, including noting the opportunities presented by emerging events. Our work will build on and not duplicate work that has already been undertaken by Grant Thornton and KPMG. We will also consider the possibility that a completely different outcome would not result from a small change (for example, in a time series used). The aim is not to find fault with previous analysis commissioned by OWG (albeit that if there are errors, we will highlight this to OWG), but to ensure that it stands up to scrutiny. In addition, we will review the work by Grant Thornton to try to understand why their work results in a different conclusion. We would hope to interview international event promoters as part of this work to better understand their needs for the future;
- A detailed analysis of the arena markets in London, the North West (Liverpool and Manchester) and Birmingham to understand the relationship between the size of the entertainment, the number of arena events and tickets sold. This work will consider differences in supply (quality, range and scale of physical product, type of event, etc.) and market demographics;
- We would draw together our findings to present an evidence based analysis on the size of the future market in Manchester and its ability to support an additional arena. We would set out the size of arena and other assumptions i.e. regarding event mix and seat mix (i.e. VIP) that the analysis indicates;

Task 3: Viability analysis

Having concluded on the market demand, the key driver of financial success, we will review the implications of the conclusions on:

- The overall viability of the proposed new arena, given its revenue model. From a planning perspective, we will also consider the viability of the new arena in terms of its location and therefore our focus will be on demonstrating the minimum and optimal number of events required of a particular size through setting out the assumed mix, and the reduction that could be witnessed at a breakeven level;
- The potential impact on the on-going viability of the existing arena. The focus will be on assessing, in so far as it is possible, the potential impact of the new arena on the on-going viability of the existing arena, by focusing on the financial impact of potentially losing a particular type of business, if any, to the new arena. In particular, for this we will look at the assumptions used in the existing arena's revenue model, and the likely impact of the new arena (due to size) or type (e.g. NMA, or other events not currently based in Manchester)

For our analysis of the viability, we will:

- Review the financial model and supporting analysis prepared by OWG to:
 - Review the consistency with the market findings;
 - Review the consistency with the assumptions used (commercial as well as events income) and cost assumptions, drawing on the comparisons OWG have provided and other available information;
- Prepare a number of scenarios to test the robustness of the financial projections, should certain assumptions prove to be different. We would expect to use your financial model to undertake this analysis.

We will discuss with you whether certain commercially sensitive analysis should be excluded from the main report and/or redacted.

6

Agreement (4 of 7)



Task 4: Interim meeting

- We will discuss our initial findings with you at this point to:
- explain our analysis;
 - discuss the implications of our analysis on the overall plans for the new arena;
 - consider the implications of our analysis on previous work commissioned by OVG and whether any updates are required; and
 - agree any additional work required to complete the analysis.

Task 5: Wider economic impact

- We will draw together the conclusions of our work which may impact on the work conducted by Elogen. For example, our analysis is expected to re-affirm or refine data which could impact on the analysis of the value that the new arena could bring with respect to:
- Total number of events;
 - The higher profile events that could be attracted;
 - New event types that could be attracted;
 - How the new arena could complement the existing arena, arena and smaller venues;
 - Events that might be created;
 - Spillover from other regeneration; and
 - Wider impact on community.

We will review the key assumptions used by Elogen in their analysis, identifying any differences between the input assumptions they used and our findings. We will liaise with Elogen and share our findings to enable them to update their work.

Task 6: reporting

We will draw together all our findings in a powerpoint style report. We will issue a draft report for your review and comments and then prepare a final report.

Basis of our work

Sources of information

Our work will be based on information supplied to us or publicly available. Except to the extent otherwise stated in our report, our work will be carried out on the basis that such information is accurate and not misleading. The sources of information on which we will rely may include: OVG management's business plan, Foster event data and European Market Arena yearbooks produced by IQ Magister working with other published market research. In addition we may rely upon information from other sources, including OVG, which we will use with appropriate caution. We will use other reports you have provided to us. You acknowledge that it is fair and reasonable for us to rely on such information on this basis.

7



Schedule a - General

Access

We understand that we will have full access to OVG's senior management and its financial forecasts as it relates to the proposed Manchester Arena development.

Confirmation of facts

We will provide you with an opportunity to reconsider the factual accuracy and appropriateness of information and explanations that have been provided to us by asking you to read and comment on a draft of our report. We will also request from you a letter of representation confirming matters which we consider to be of major significance.

Commitments regarding future services

If you are thinking of imposing or accepting any contractual term which would commit you to providing or obtaining any report from us (for example, on a completion balance sheet or on compliance with loan covenants), please consult with us first: we can advise on the scope and timing of any such report and on the terms on which we would (or would not) undertake the work.

Projections

We will not prepare projections. Where we comment on bases and assumptions underlying the projections, the deliverables may include tables aggregating quantified vulnerabilities, updates to the projections, or a restatement of the projections, or preparation of revised projections; they should not be regarded as a restatement of the projections, or preparation of revised projections; they are provided as a means of summarising our comments to assist you in considering their implications for the proposed development.

In the event that the projections presented to us for comment are of such poor quality that suggesting adjustments in the deliverables would amount to preparation or re-preparation of projections, we will prepare a report in which we will discuss with you whether revised projections will be prepared for us to consider.

You acknowledge that, when considering information presented in the deliverables, including likely future profitability and cash flows, it is your responsibility to consider our comments and make your own decision based on the information available to you.

Because events and circumstances frequently do not occur as expected, there will usually be differences between predicted and actual results, and those differences may be material. We take no responsibility for the achievement of predicted results.

8

Agreement (5 of 7)

 Specific matters not to be covered We will not as part of our review carry out any work in the following specialist areas: - the new Arena's strategic positioning and the competitive environment; - the technical feasibility of the Arena's development; and - the financial viability of the proposed Arena; the following: - the funding of the proposed Arena; - development of an Economic Impact Assessment; and - any environmental exposures of the Arena or the adequacy of the systems for identifying and controlling such exposures Expert advice from consultants should be sought if these matters are of concern. Monitoring of changes in law, regulations and guidance Our advice will be based on the law, regulations and guidance applying at the date the services are provided. We will not monitor or be responsible for the effects of any subsequent changes in law, regulations or guidance.	 Schedule 3 - Provision of deliverables to other parties Provision of deliverables to other advisers We understand that you may wish to provide copies of our deliverables to your other professional advisers. We may do so, on the same basis as described in clause 2.2(f) of the attached terms of business. Provision of deliverables to others We understand that you may wish to provide copies of our deliverables to City Football Group Limited (the "recipient"). We agree, for the purposes of clause 2.2(f) of the attached terms of business, that the deliverables may be made available to the recipient, subject to us having agreed with the recipient a "hold harmless" letter. You agree that we accept no liability (including liability for negligence) to you for any consequences of disclosing the deliverables, or giving explanations concerning the deliverables, to the recipient, including where the disclosure: - affects the proposed development or any party's interest in the proposed development; - leads to a claim being brought against you; or - results in the recipient or anyone else misusing your confidential information.
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Agreement (6 of 7)

Terms of business

1. Introduction	2.6	Oral advice and draft deliverables – You may rely on oral advice and draft deliverables only in relation to oral advice and draft deliverables. If you rely on oral advice and draft deliverables, you agree to indemnify us for any loss or damage suffered by you as a result of such reliance.
2. SERVICES		
3. YOUR RESPONSIBILITIES		
4. FEES		
5. CONFIDENTIALITY	2.7	Confidentiality – In performing the services we will not be deemed to have information from other services.
6. Intellectual property rights		
7. Data protection		
8. Liability		
9. PwC firms and subcontractors	2.8	
10. Materials		
11. Termination		
12. Dispute resolution		
13. General		
14. Interpretation	3.2	



5.3	Unofficial information is a copy that will allow others to identify you or administer without your consent. Referring to you and the services – We may wish to refer to you and the services we have performed for you when marketing our services. You agree that we may use your name and the services we have performed for you in our marketing materials, including our website, without your consent.
5.4	Performing services for others – You agree that parties whose interests may conflict with yours, as long as they do not conflict with our interests, may use our services and we may comply with our ethical obligations.
6	Intellectual property rights
	We will own the intellectual property rights in the deliverables and any materials created under the agreement, and you will have a non-exclusive, non-transferable licence to use the deliverables for your own internal purposes.
7	Data protection
7.1	Compliance – You and we will comply with applicable data protection laws and regulations in any personal data shared with us under the agreement.
7.2	Provision of personal data – You will not provide us with personal data unless the agreement requires us to do so, or we request it from you. In respect of the use of your personal data, we will have necessary authority for its use and transfer if in accordance with the agreement, and that data subjects have been given necessary information regarding its use.
7.3	Data processing – Where we act as a controller, we may process personal data for the purposes of any of the following: (i) providing the services; (ii) administering, managing and developing our business and services; (iii) security, research and development; (iv) marketing and sales; (v) compliance with legal obligations; (vi) carrying out our obligations under the agreement; and (vii) carrying out our obligations under applicable law, regulation or a professional body of which we are a member. We will not transfer your personal data to any third party without your consent.
7.4	Data transfers – We may transfer personal data to a third party for the purposes of any of the following: (i) providing the services; (ii) administering, managing and developing our business and services; (iii) security, research and development; (iv) marketing and sales; (v) compliance with legal obligations; (vi) carrying out our obligations under the agreement; and (vii) carrying out our obligations under applicable law, regulation or a professional body of which we are a member. We will not transfer your personal data to any third party without your consent.
7.5	Data processing services – Where we act as a controller, we may process personal data for the purposes of any of the following: (i) providing the services; (ii) administering, managing and developing our business and services; (iii) security, research and development; (iv) marketing and sales; (v) compliance with legal obligations; (vi) carrying out our obligations under the agreement; and (vii) carrying out our obligations under applicable law, regulation or a professional body of which we are a member. We will not transfer your personal data to any third party without your consent.

Agreement (7 of 7)

[illegible]

Our scope and process (1 of 3)

Our scope



Limited

Extensive

Our work has focused on various studies previously commissioned into the proposed arena development on the Etihad Campus in Manchester, as part of your potential planning application. In addition to these reports, we have considered the various public sources of arena and tour attendance data used by you to prepare your business plan, supported by additional data where available.

The previous reports we have reviewed as part of our work most notably include:

- Sound Diplomacy – Findings and analysis report date June 2019;
- ekosgen – Manchester: A Special Place report dated June 2019;
- ekosgen – Economic Impact Assessment; and
- Grant Thornton Economic Impact – Executive Summary dated 26 June 2019.

All of these reports are reasonably prepared and are fit for purpose, albeit have limitations given their specific scope and timing. We have reported on the appropriateness of these reports by exception. On Page 10 we have set out the subject areas we considered not sufficiently covered and therefore addressed through our work.

As part of our work we did not consider the strategic position, competitive environment or economic impact of the new and existing arenas, nor did we assess the market demand for two arenas from the perspective of event attendees and performing artists or their agents, as agreed with you

We note that our review of the Business Plan for the new arena (covered in Volume II) has not been carried out at a level which would be required to support any equity or debt investment appraisal given this was not the purpose of our work. Our fieldwork was completed on 26 November 2019.

Access to management



None

Good

We have had good access to management, although the majority of our scope was completed through an assessment of market data as well as meetings and calls with third parties.

Our scope and process (2 of 3)

Access to information



Overall the third party market data and reports made available to us has provided us with a reasonable basis to analyse and consider the current UK arena market, the shows and tours being promoted, and how you have considered these as part of your business planning process.

We have used a wide range of publicly available information, but note that Pollstar data relating to AEG operated venues (O2 and Wembley) is not complete from 2017 onwards which has limited some of our analysis on the most recent periods. We have not had access to the management, operational or financial records of any of the existing UK arenas.

In terms of the new arena business plan, we have received the information and explanations required relating to the compilation of this. We expect this to evolve as plans for the proposed development are progressed and agreements with third parties (notably around sponsorship and outsourced services) are finalised.

Clarity of information



The information provided, together with our meetings / calls with various promoters, has enabled us to understand the general expectations for the live music and arena markets in the UK, and to position how this should be considered as part of your business planning process in connection with the proposed development at the Etihad Campus.

Our scope and process (3 of 3)

Scope

Basis of our work

Process

We have not carried out anything in the nature of an audit nor, except where otherwise stated, have we subjected the financial or other information contained in this report to checking or verification procedures. Accordingly, we assume no responsibility and make no representations with respect to the accuracy or completeness of the information in this report, except where otherwise stated.

Prospective Financial Information or Projections (“PFI”)

Any underlying PFI referred to in this report was not prepared or developed by us and we have not restated any PFI or made assumptions or projections relating to PFI. OVG Management has full responsibility for the judgements involved in, and results of, its PFI preparation processes. While we have performed sensitivity analyses on the PFI and underlying assumptions, any tables aggregating our comments or observations on vulnerabilities and sensitivities do not represent restatement of or revisions to the PFI; they are only a summary of our analysis to assist you with your evaluation of the PFI. It is your responsibility to consider our analysis and make your own decisions. As events and circumstances frequently do not occur as expected, there may be material differences between PFI and actual results and cash flows. See also our comment below re BREXIT. We take no responsibility for the achievement of predicted results.

BREXIT

Given the UK referendum result and the subsequent triggering of Article 50 there is uncertainty, which could persist for some time, as to what this may mean for businesses, whether in the UK or outside it but with trading or other connections with the UK. As a result, our work may not have identified, or reliably quantified the impact of, all such uncertainties and implications.

Management representations

We have shown a draft of this report to Mark Donnelly (COO of OVG Europe Limited), who has confirmed that, to the best of his knowledge and belief, it does not contain any material error of fact, there has been no material omission and it fairly sets out the recent results, state of affairs and prospects of the Group. To the extent that we consider appropriate, we have incorporated his comments in this report.

Glossary

Term	Definition/Meaning
CAGR	Compound annual growth rate
EAA	The European Arena Association
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortisation
FY	Financial year ending
K-pop/J-pop	Korean pop music/Japanese pop music
LFL	Like for like
LTM	Last twelve months
MSG	Madison Square Gardens
NAA	The National Arena Association
ONS	The Office for National Statistics
p.a.	Per annum
ppt	Percentage points

Glossary (cont'd)

Term	Definition/Meaning
PwC E&M	PwC global Entertainment and Media report
PwC view	Our view in the context of the scope of our work and the circumstances at the time of our field work
Sensitivity	The estimated illustrative financial effect of a change to a key assumption