



# Temple Island Arena: Value for Money Assessment – Background Document

**A KPMG report for Bristol  
City Council**

June 2018

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# Contents

1.	Detailed Review of the strategic case for the Temple Island Arena	<b>4</b>
1.1	Stated objectives of the Arena	4
1.2	Strategic case review	6
2.	Review of the commercial case for the Temple Island Arena	<b>17</b>
2.1	Overview	17
2.2	Construction arrangements	18
2.3	Operator agreement	23
2.4	HCA agreement	26
2.5	West of England Local Enterprise Partnership	27
3	Review of the financial case for the Temple Island Arena	<b>30</b>
3.2	Financial overview	30
3.3	Summary of financial forecasts	31
3.4	Net present values	36
3.5	Review of BCC projections	38
3.6	Review of BCC proposed financing structure	41
3.7	Sensitivity analysis	42
4	Review of the economic case for the Temple Island Arena	<b>44</b>
4.1	KPMG review of the 2016 economic case for the Arena	44
4.2	KPMG's revised economic impact assessment	55
4.3	Business rates	63
4.4	Social impacts	64
5	Value for Money assessment	<b>72</b>
5.2	Economic and social impact assessment	72

5.3	Commercial and financial assessment	73
5.4	Conclusions	74
6	Monitoring and evaluation framework	<b>75</b>
6.2	Temple Island Arena key performance indicators	75
6.3	Approach to monitoring and evaluation	75

# 1. Review of the strategic case for the Temple Island Arena

## 1.1 Stated objectives of the Arena

The feasibility study for the Temple Island Arena set out a vision for the delivery of the Arena<sup>1</sup>:

*“The delivery of an arena for Bristol on the Temple Quarter site, acting as a major catalyst and economic driver for the new Enterprise Zone. The arena should be commercially driven, delivered quickly and on budget, and be sustainable at no on-going revenue cost to the Council and its partners.”*

This vision was set out in the Outline Business Case (OBC) for the Arena, dated November 2013<sup>2</sup>. This OBC also detailed key objectives for the project, stating that these were the factors against which success of the project would be determined. The objectives were expressed in relation to two aspects of the arena; the experience and the building.

The Full Business Case (FBC), submitted to the West of England Local Enterprise Partnership (LEP) in April 2016, largely re-stated these objectives, with some amendments as highlighted in purple in Figure 1 below.

**Figure 1: Comparison of the Arena’s objective in the OBC and the FBC**

	OBC objectives	FBC objectives
The Temple Island Arena Experience will:	<ul style="list-style-type: none"> <li>— Create a “return again” experience for its customers.</li> <li>— Provide a vibrant “Bristol Experience” for visitors, which makes our arena different from others.</li> <li>— Be at the forefront of arena programming and content.</li> <li>— Provide excellent transport links to match public expectations.</li> <li>— Provide safe and secure parking <b>within 15 minutes distance</b> for when public transport is not an option, providing an option of rapid transit from park and ride sites where appropriate.</li> <li>— Provide the Council and the public with opportunities to use the facility via a number of community events (subject to cost considerations).</li> </ul>	<ul style="list-style-type: none"> <li>— Create a “return again” experience for its customers.</li> <li>— Provide a vibrant “Bristol Experience” for visitors to make our area different from others.</li> <li>— Be at the forefront of arena programming and content.</li> <li>— Provide <b>appropriate</b> transport links to match public expectations.</li> <li>— Provide safe and secure parking when public transport is not an option, providing an option of rapid transit from park and ride sites where <b>appropriate for large scale events</b>.</li> <li>— <b>Whenever possible and through working with the operator</b>, provide the Council and the public with opportunities to use the facility via a number of community events (subject to cost considerations).</li> </ul>
The Temple Island Arena building will:	<ul style="list-style-type: none"> <li>— <b>Have a capacity of 12,000 with 10,000 seated (subject to the outcome of the business case).</b></li> <li>— Be flexible enough in design to be future-proofed for changes in the entertainment market and to meet Bristol’s expectations.</li> <li>— Be flexible enough to accommodate a wide range of content, including</li> </ul>	<ul style="list-style-type: none"> <li>— Be flexible enough in design to be future-proofed for changes in the entertainment market and to meet Bristol’s expectations.</li> <li>— Be flexible enough to accommodate and wider range of content, including music concerts, family entertainment shows, sports and other events.</li> </ul>

<sup>1</sup> Davis Langdon, An AECOM Company and IPW... (2012) Bristol Arena Stage 1 Feasibility Report.

<sup>2</sup> Davis Langdon, An AECOM Company and IPW... (2013) Bristol Arena Outline Business Case: Final Report November 2012.

	<ul style="list-style-type: none"> <li>music concerts, family entertainment shows, sports and other events <b>(temporary events subject to outcome of this business case).</b></li> <li>— Be delivered to budget and to a quality set out in the Employers Requirements.</li> <li>— Be special, of a good quality, with an outstanding level of environmental performance.</li> <li>— <b>Be able to offer a themed usage, for example Circus.</b></li> <li>— Be accessible to all and comply with the Bristol Access Standard.</li> <li>— <b>Be designed in a way that complements the requirements of the Planning Authority, so that Planning Permission can be obtained.</b></li> <li>— <b>Have very little car parking on site, probably only disabled bays with some staff/VIP parking.</b></li> <li>— <b>Provide suitable acoustic controls for noise entering and leaving the building.</b></li> <li>— <b>Provide HGV parking only in/ adjacent to the Service Yard.</b></li> </ul>	<ul style="list-style-type: none"> <li>— Be delivered to budget and to a quality set out in the Employers Requirements.</li> <li>— Be special, of a good quality, with an outstanding level of environmental performance.</li> <li>— <b>Provide a key piece of cultural infrastructure to enable pathways for progression for artists and performers.</b></li> <li>— Be accessible and meet the latest access requirements.</li> </ul>
The Arena will:	<ul style="list-style-type: none"> <li>— Have a public realm interface with the rest of the site, which encourages visitors and creates a “destination” experience for “Arena Island”.</li> <li>— Assist in making the Bristol Temple Quarter Enterprise Zone (BTQEZ) and Railway Station more accessible.</li> </ul>	<ul style="list-style-type: none"> <li>— <b>Raise the profile of the City on the national and international stage.</b></li> <li>— <b>Have a public realm interface with the rest of the site, which encourages visitors and creates a “destination” experience for “Arena Island”.</b></li> <li>— <b>Deliver jobs to the community during the construction period and then operational period.</b></li> <li>— Assist in making the BTQEZ more accessible and <b>drive improvements permeability to the south of Temple Meads station.</b></li> </ul>

Source: KPMG review of Davis Langdon, An AECOM Company and IPW... (2013) Bristol Arena Outline Business Case: Final Report November 2012 and Bristol City Council (2016) Bristol Arena Full Business Case.

As far as we understand, the objectives outlined in the FBC remain the agreed stated objectives for the arena experience and building. In addition to the objectives set out in the OBC and FBC, a set of KPIs for the Temple Island Arena were presented in the Buckingham Group Contracting Limited (“Buckingham”) tender document for the construction of the project and the Employment and Skills Plan was updated by Buckingham in March 2018. The revised KPIs are presented in Figure 2 below.

**Figure 2: Bristol City Council actions and key performance indicators relating to the Arena**

#### Key performance indicators (KPIs)

During the construction of the Arena the following skills and employment targets will be secured:

- 1 supply chain training or support initiative per month;
- a certain volume of business placed with local suppliers (as yet undetermined);
- 50% labour from the West of England, including 25% from Bristol (BS1 to BS16)<sup>3</sup>;
- 45 to 50 apprenticeships, of which 15-20 are from BCC priority groups;
- 50 work placements to be offered;
- 10 graduate placements offered for new job starts;

<sup>3</sup> It should be noted that the level of local labour proposed in the updated Buckingham Employment and Skills Plan from March 2018 is lower than originally proposed in Buckingham’s tender document. The original tender document proposed 75% of labour from the West of England, including 50% from Bristol (BS1 to BS16).

- 250 person weeks of training; and
- commitment to deliver three events or initiatives per month, covering:
  - local pupil interactions with arena construction;
  - job and training opportunities for care leavers and young people in care;
  - recruitment for the long-term unemployed and those Not in Education, Employment or Training (NEET);
  - opportunities for those from groups traditionally underrepresented in the construction sector<sup>4</sup>; and
  - community initiatives.

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Source: Buckingham Group Contracting (2017) Quality Commitment Question No.2 Employment and Training (revised March 2018).

The Bristol City Council (BCC) Corporate Strategy 2017-2022<sup>5</sup> (“the Strategy”) outlined additional commitments in relation to the Arena. Specifically the Strategy notes that “plans for an arena are key” to fulfilling the commitment for Bristol to be “a leading cultural city, making culture and sport accessible to all”. Within the Strategy, the arena is highlighted as an area for future investment which would help to grow Bristol’s economy. BCC included “ensuring the Arena is completed and is accessible to all communities” as a strategic objective for the next 5 years.

We note that the latest BCC Corporate Strategy 2018-2023<sup>6</sup> does not specifically mention the Arena as a key objective for BCC. The Arena, however, could be expected to contribute towards BCC’s commitment to “keep Bristol a leading cultural city, helping make culture, sport and play accessible to all”<sup>7</sup>.

## 1.2 Strategic case review

### 1.2.1 Assessment of the existing strategic case for the Arena

For the purposes of our assessment we have considered the strategic case put forward in the Bristol City Council (2016) Bristol Arena Full Business Case (FBC) document, as this is the most recent version of the strategic case and therefore the most relevant for consideration as part of our review.

Our assessment of the strategic case is set out in Figure 3 below.

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<sup>4</sup> Identified as women, people from Black and Minority Ethnic (BME) communities and people with learning difficulties and/ or disabilities.

<sup>5</sup> Bristol City Council (2017) Corporate Strategy 2017-2022.

<sup>6</sup> Bristol City Council (2017) Corporate Strategy 2018-2023.

<sup>7</sup> Bristol City Council (2017) Corporate Strategy 2018-2023.

**Figure 3: Review of the existing strategic case for the Arena project**

Strategic area as stated in the Bristol Arena FBC	BCC's strategic assessment as stated in the arena FBC	KPMG strategic assessment
1 Creating places where people want to live and work	Development of the Arena will unlock the remainder of Temple Island for housing, employment and other uses and facilitate the delivery of broadband and district heating networks onto the site.	<p>Since the business case was published, the remainder of the Temple Island site has been purchased for development by the University of Bristol. Therefore, the arena itself will no longer deliver any wider development on the Temple Island site. However, the arena itself will attract people to the Temple Island site and provide some employment opportunities.</p> <p>The Temple Island site will need to be connected to the local broadband network, meaning the arena, coupled with the University development will facilitate the delivery of broadband to the site.</p> <p>The Arena will also facilitate the delivery of district heating network on to the Temple Island site.</p> <p>The Arena will also support the business case for the development of other surrounding infrastructure, such as a southern access road. This infrastructure will increase the accessibility of the Temple Island site, benefiting the University of Bristol development.</p>
2 Ensuring a resilient, low carbon economy that operates within environmental limits and which is resource efficient.	The arena will be developed to high sustainability standards, benefiting from a BREEAM <sup>8</sup> target rating of Excellent, and bring permanent uses back to a site that has lain derelict for over 15 years.	<p>The design of the arena is achieving a 'Very Good' BREEAM rating as a result of changes to the arena design aimed at reducing construction cost. The arena has been designed in accordance with local planning policy, which has dictated significant carbon reduction measures for the arena. These measures exceed those of normal planning policy and the BREEAM 'Very Good' standard. These measures will go some way to minimise the environmental impact of the arena building, the development of the arena and its ongoing operation will generate a negative environmental impact (as would any development on this site). These efforts to minimise the impact will help to ensure that a sustainable, efficient outcome is achieved.</p>

<sup>8</sup>BREEAM stands for Building Research Establishment Environmental Assessment Method. It is a sustainability assessment method used in the planning of project, infrastructure and buildings, which evaluates the procurement, design, construction and operation of a development against performance benchmarks.

		<p>The Arena will be developed on a currently derelict site which will help improve the local environment and will improve the utilisation of the site. It is unclear, however, how this in itself will contribute toward ensuring a resilient, low carbon economy.</p>
<p>3 Providing the local workforce with job opportunities.</p>	<p>The Arena will enable or support the creation of almost 5,400 gross full-time equivalent (FTE) jobs across the West of England economy. The project will seek to build on work carried out to date to identify pathways for local people to develop careers in creative industries and put the support in place to enable them to do so.</p>	<p>Our updated economic assessment estimates that net 660 FTE jobs would be created across the West of England as a result of the arena (see Section 4.2 for further details).</p> <p>The Arena will generate 37 direct FTE jobs which will be involved in the day-to-day operations of the arena. The Arena will also directly generate additional employment on show days as security and service staff are required at events. In general the majority of these additional jobs created will likely be part-time.</p> <p>The Arena Operator – Arena Island Limited (“AIL”) has proposed that it will help in targeting unemployment and aims to fill 20% of employment opportunities from the local area<sup>9</sup>. The operator has also stated that it intends to explore potential work programmes, such as apprenticeships and NVQ programmes.</p> <p>At present there is little evidence that the project would help identify pathways for local people to develop careers in creative industries or support these. It may be the case there are some minor spillover impacts associated with the arena playing a role in supporting Bristol to become a leading cultural city. Through conversation with BCC it is understood that there is the intention to work with Bristol Music Trust and the Bristol Music Network to provide support local people develop careers in the creative industries. However, at present these pathways and support mechanisms have not been defined and it is unknown what form they will take, or the likely impact of any support.</p>

<sup>9</sup> Bristol City Council (2015) Bristol Arena Local Impact Programme – Operation.

<p>4 Creating the right conditions for businesses to thrive, by giving confidence and certainty to investors.</p>	<p>The Arena will give confidence and certainty to investors in Bristol and the West of England area in the BCC's ability to deliver large scale infrastructure programmes and by doing so stimulate wider development and infrastructure provision.</p>	<p>Development of the arena will support BCC's commitment to remain a leading cultural city. It will help to enhance the place based offer of the City, which in turn should help to attract residents and visitors to the area with consequent business benefits.</p> <p>Taking forward the development of the arena will help to alleviate the uncertainty around the future development of the Temple Island site within the wider BTQEZ. This may act as a signal to investors encouraging wider private sector development where this would be commercially viable. Any clear plans for alternative schemes on the site could also help to achieve this.</p> <p>Stakeholders related to the enterprise zone have indicated that commitment to an arena has already helped to catalyse development in the BTQEZ, by giving developers the confidence to invest in the zone.</p> <p>In addition, BCC believes that the arena will help open up access to the BTQEZ from the south with the additional transport infrastructure that will be built around it.</p> <p>During our consultation with stakeholders, we found that going forward stakeholders considered that the arena will have a limited impact on wider additional development, and that other key developments in the area, such as the new University of Bristol campus, will be a greater attraction for investment into the BTQEZ.</p>
<p>5 Ensuring that all our communities share in the prosperity, health and well-being and reduce the inequality gap.</p>	<p>The Arena will create a public facility and job opportunities available to all.</p>	<p>Although the Arena will be a publicly owned asset, it will be operated privately. The degree to which the public will be able to access facilities at the arena or use community space within the arena will depend on the Arena Operator. At present, we have seen no formal plans presented for community programmes at the arena such as discounted ticket prices or open community space within the Arena, nor are there any contractual obligations on the operator to provide these.</p> <p>The arena will create jobs in the local economy, facilitated through the operation of the arena and the increased number of visitors travelling to Bristol to attend events. This increased employment and economic activity is likely to benefit the City as a whole.</p>

		<p>Job opportunities are likely to arise in the retail and leisure sectors requiring, in general, low skill levels.</p> <p>The contractor, Buckingham, has committed to aim to have 50% of its workforce from the West of England, with 25% from Bristol<sup>10</sup>. These will be temporary jobs through the construction of the arena. The arena operator has stated that it aims to recruit 20% of its workforce from the local area<sup>11</sup>.</p> <p>Furthermore, during our consultation with stakeholders it was noted that the arena could improve access to the South of Bristol. We have been told by BCC that these areas directly south of the Temple Island site are relatively deprived and therefore improved access to the City Centre and key economic zones and transport facilities may improve quality of life for the residents in these areas.</p>
<p>6 Contribution to the Strategic Economic Plan ("SEP") Place and Infrastructure lever of growth.</p>	<p>Commitment from the West of England LEP at the OBC stage has raised confidence in the ability to unlock sites in the BTQEZ and deliver key infrastructure required to secure their development; for example the development of the arena formed a strong part of BCC's successful case to Government to facilitate the transfer of Temple Island site into its ownership. In turn this facilitated the purchase of the Cattle Market Road site between Temple Island and Temple Meads Station.</p> <p>Investment in the arena will drive the delivery of key infrastructure and help unlock these sites, as well as others.</p>	<p>As commented above in strategic area 4, although there appears to be some evidence that the Arena has played a role in the contribution to the SEP's Place and Infrastructure lever of growth previously, going forward based on stakeholder views, we consider that there are likely to be other developments (e.g. the University of Bristol developments and plans for Temple Meads station) that will have a greater leverage in terms of key infrastructure and the unlocking of sites around the BTQEZ.</p> <p>The Arena itself will contribute towards the place based development of the City, however. It will also add to economic output in terms of Gross Value Added (GVA) and employment both through the construction phase and ongoing operation of the arena.</p>
<p>7 Support growth and the future development of the LEP/SEP's priority economic sectors.</p>	<p>The arena will support growth and the development of the creative and digital media sector in Bristol, as well as others and the West of England economy overall.</p>	<p>The Arena will fill the existing gap in Bristol's cultural infrastructure. Culture can be an important factor in the level of quality of life within an area, and access to cultural infrastructure can have wide ranging social</p>

<sup>10</sup> Buckingham Group Contracting (2017) Quality Commitment Question No 2 Employment and Training (revised March 2018).

<sup>11</sup> As set out in the Draft Local Impact report compiled by Arena Island Ltd. and shared with KPMG by BCC.

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The SEP acknowledges that the West of England has well-embedded sector specialisms that thrive on the exceptional quality of life that the area offers. Developing this quality of life further is a critical element of the SEP, to support delivery of the LEP's growth targets.

The Arena will deliver a "cultural attraction that [is] the envy of competitor city regions across Europe, making the West of England the place of choice for talented, creative workers and affluent visitors", a component of the LEP's vision for the area.

benefits<sup>12</sup>. As a result, culture can be a factor in an individual's or a firm's decision to live or locate in a particular place. A strong cultural offering is likely to make Bristol a more attractive place to live and work. In addition, the arena will expand the corporate hospitality offerings in Bristol, which may also factor into a firm's decision to locate in Bristol.

The Arena is likely to complement the existing creative and digital media sectors in Bristol. There will likely be some digital and creative jobs supported in the wider supply chain as a result of the arena. Events at the arena will require specialists from the creative and digital media sectors, such as light and sound engineers. However, based on evidence given to us by the Arena Operator, there are no plans to have these roles in-house.

In addition, through our consultation with Destination Bristol it is thought that the arena will increase the attractiveness of the BTQEZ as a potential location for firms, especially those in the creative and digital media sectors. However, it is unlikely that the arena will be a key factor in a firm's location decisions.

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8 Maximise benefits from other public investment in infrastructure led or supported by the LEP.

The Arena could help maximise the benefits from other public-sector led infrastructure investments in the area. For example, it is complimentary to the bridging across the River Avon funded by the Homes and Communities Agency (HCA<sup>13</sup>) and the LEP's Revolving Infrastructure Fund. It also complements improvements funded by the same through the Temple Greenways initiative, which will open up the harbourside access from Temple Quay to Cattle Market Road.

Visitors to the arena will also benefit from the current investment in transport, including the electrification of the railway and suburban rail and bus rapid transit schemes.

By regenerating the Temple Island site, the arena could widen the area that benefits from the public-sector led investments identified, and therefore maximise any associated benefits. However, this would also be the case with any alternative development on the Temple Island site.

Since the business case was published, the redevelopment of Temple Meads station has moved forward. Network Rail has been undertaking a planning exercise for the redevelopment. These plans are going forward in the absence of the arena, and therefore cannot be directly attributed to the arena development as a catalyst for the redevelopment of the station.

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<sup>12</sup> Department for Culture, Media and Sport (2016) The Culture White Paper.

<sup>13</sup> Homes and Communities Agency is now Homes England

	<p>The arena as a destination will also provide a pull to footfall that drives improvements to the north-south connectivity on either side of Temple Meads station, and as a result adds further weight to calls by the LEP for Government investment in redeveloping the station complex.</p>	<p>However, it should be noted that any changes in the arena plans may inform Network Rail's masterplanning for an eastern entrance to Temple Meads station, which is currently intended to link up to the arena<sup>14</sup>.</p> <p>As noted in the FBC, visitors to the arena are likely to benefit from the current investment in transport. However, the extent of this benefit will depend on the travel modes of visitors to the arena and the availability of services around the time of events, particularly in the late evening after performances.</p>	
9	<p>Contribution to the vision of Bristol become a "truly world class city".</p> <p>The Mayor of Bristol's vision for the City recognises that there is a "current lack of some major facilities, most notably a large events arena is a deficit that needs to be overcome if Bristol is to be seen as a truly world class city". The vision commits to building that Temple Arena in the BTQEZ.</p> <p>The construction of the arena will also contribute to a further mayoral objective, that of "driving the development of the BTQEZ to create a new and vibrant place around Temple Meads Station" by contributing directly to the development of leisure facilities and spurring that of homes and business space.</p>	<p>The vision set out in the FBC is that of the former Mayor of Bristol. In May 2017 a new Mayor was elected.</p> <p>The arena will deliver both the old and current mayoral vision of a major events facilities and will fill this current gap in Bristol and the wider West of England region. It will meet the BCC stated commitments of delivering an arena and contribute toward the aim of keeping Bristol a leading cultural city.</p> <p>The arena is likely to help facilitate a degree of leisure development on the adjacent sites and the BTQEZ, as the attendees to events at the arena are likely to spend on food and drink before and after events. However, the overall catalytic impact of the arena on wider sites and the BTQEZ is likely to be limited going forward and has been diminished by with the University of Bristol purchasing part of the Temple Island site, because the University's presence will catalyse much of this benefit without the need for an Arena.</p>	
10	<p>Contribute to the delivery of planning policy objectives in the Bristol Core Strategy.</p> <p>The 11 strategic objectives which make up the Core Strategy<sup>15</sup> are:</p>	<p>The AMION report states that the arena will contribute to the delivery of planning policy objectives by confirming Bristol "as the foremost entertainment centre in the South West". It will contribute to enhancing the City's cultural and</p>	<p>The Temple Island Arena has the potential to contribute towards a number of the policy objectives set out in the Bristol Core Strategy. Namely, the arena could contribute towards the Strategy's aim to grow the City</p>

<sup>14</sup> Network Rail (2017) Delivering a better railway for a better Britain: Network specification 2017 Western.

<sup>15</sup> Bristol City Council (2011) Bristol Development Framework Core Strategy.

<ol style="list-style-type: none"> <li>1. Ensuring a sustainable future for Bristol.</li> <li>2. Mixed, balanced and sustainable communities.</li> <li>3. Ambitious and sustainable growth.</li> <li>4. Appropriate housing provision,</li> <li>5. Better health and wellbeing</li> <li>6. High quality built environment.</li> <li>7. High quality natural environment.</li> <li>8. Improved accessibility and connectivity.</li> <li>9. Effective waste management.</li> <li>10. Adapting to climate change and the promotion of renewable energy.</li> <li>11. Community involvement and engagement.</li> </ol>	<p>tourism offer and provide new facilities that complement what is already available.</p>	<p>Centre, including enhancing Bristol's status as the foremost entertainment centre in the South West.</p> <p>During our discussions with the arena's operators, it was noted that the Temple Island Arena is likely to open up the market to potential attendees based in the South West and South of England regions, which are currently not serviced by a large arena. As a result, the Arena is likely to attract visitors from these regions and would make Bristol the destination for large live events. It will also help to retain Bristol residents spending on cultural events in the local area as previously they would have had to travel outside the region to attend large scale arena events.</p> <p>Further, the findings from the ERS Bristol Entertainment Venues study, found that rather than competing with the existing entertainment venues in Bristol, the Arena will complement them and will help promote Bristol as an entertainment centre. We have not tested the validity of this statement following the plans to redevelop Colston Hall. However, the significantly larger capacity of the proposed Arena means that they are likely to stage different types of events and attract different artists and audiences, at least for the major events planned.</p> <p>The Arena could also contribute towards other Core Strategy objectives, including mixed, balanced and sustainable communities, by improving accessibility from the South of Bristol to the Temple Quarter and City Centre; and the objective for a high quality built environment, through the regeneration of the Temple Island site and the provision of public space surrounding the arena.</p>
<p>11 Contribute to the delivery of Policy BCAP 35 – Temple Quarter Enterprise Zone. Policy BCAP 35 states that “sites within Bristol Temple Quarter will be developed for a wide range of uses as part of the growth and regeneration of the area as an employment-led, mixed use quarter of</p>	<p>The arena will contribute to the delivery of Policy BCAP 35 – Temple Quarter Enterprise Zone, by providing a major indoor arena.</p>	<p>The Arena will still contribute to the delivery of Policy BCAP 35 through the development of a major indoor arena.</p>

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the City Centre”<sup>16</sup>. Included within this policy area is the development of a major indoor arena.

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Source: KPMG review of Bristol City Council (2016) Bristol Arena Full Business Case

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<sup>16</sup> Bristol City Council (2015) Bristol Local Plan – Bristol Central Area Plan.

## 1.2.2 Case for public sector intervention

We have assessed the extent to which the arena project warrants the allocation of public funding on both an initial and an ongoing basis. As part of this we have reviewed the main reasons why the public sector may intervene in a market, and how the objectives of the arena align to these.

In general, there are two main reasons why the public sector may want to intervene in a market. First there may be a market failure, where the market does not provide an efficient solution to a problem. In the case of market failures, it may be that no one comes forward with a good or service, or that the market provides an inefficient quantity of goods or services. Secondly, public intervention may occur where a market is efficient but inequitable i.e. there are externalities present in the market.

The case for public sector intervention in developing the proposed arena that has been put forward by BCC in the FBC is based on three main points<sup>17</sup>:

1. It is rare for Arena projects to be bought forward by the private sector;
2. The benefits gained from the arena will mostly be public benefits and as a result, the project is not seen as commercially viable for private investors; and
3. The Arena will act as a catalyst for the development of the wider area. The Temple Island site, on which the arena is proposed to be located, is a derelict brownfield site which has been vacant for over 15 years with little to no private interest. Therefore, there is evidence that the private sector has not been forthcoming in delivering any developments on the site.

There is some evidence to suggest that arena projects are generally not brought forward by the private sector. Of the three most recent arena projects<sup>18</sup> in the UK, only one has been primarily private sector led, although it should be noted that this project was the refurbishment of the Sheffield Motorpoint Arena, which was a comparably much smaller project than that of the Temple Island Arena project. In all other cases, the projects have been championed and majority funded by the public sector and there are examples of where private sector proposals have not proceeded (e.g. the Leeds arena).

In the case of Temple Island Arena, no private investor had previously come forward with proposals for funding the development of an arena on the Temple Island site. Therefore, project has been led by the public sector.

The commercial viability of the project for private sector investors is predominantly linked to the levels of risk, upfront costs involved in the development and the long timeframes over which returns would be realised. In general, arena projects require large upfront capital costs for construction and the payoffs tend to be accrued over a long period. Given this, investors are unlikely to receive sufficient return from such projects in the short- or medium-term and would need to risk taking a longer term view and sink costs in the project without receiving a payback for multiple years. This can mean that developers or investors are less incentivised to invest in arena projects, particularly as other large capital developments may require less upfront capital and have shorter payback periods, and therefore be more attractive to a private investor seeking quicker and potential higher returns. Generally speaking, capital investments with a very long period before a reasonable investor return is made (usually over 15 years) are attractive to the private market only where the underlying returns are relatively certain (hitting investment grade ratings, where formally rated by a ratings agency such as Moody's, S&P, Fitch) or there is a public sector counterparty sharing and mitigating some of the risk.

The development of the proposed arena at Temple Island would involve high levels of upfront investment – estimated at £156.3m, excluding car parking cost. This represents a significant investment that most private sector organisations would be unlikely to risk or view as commercially viable. Given that the Arena on the Temple Island site would be developed on a derelict brownfield

<sup>17</sup> Bristol City Council (2016) Bristol Arena Full Business Case.

<sup>18</sup> Includes Leeds Arena in 2013, SSE Hydro Arena in Glasgow in 2013 and the refurbishment of Sheffield Motorpoint Arena in 2010.

site, requiring remediation there is no evidence that a private sector developer would bring forward the arena without public sector support. Indeed, it is noted that planned developments on the site and surrounding area, such as the University of Bristol development and some developments in the Enterprise Zone, have been backed by public sector funding. However, given the well-connected location of the Temple Island site within the BTQEZ and its proximity to Temple Meads Station, the site may become increasingly attractive to private investors in the future as other developments progress. Some element of public sector intervention may still be required to develop the site for any other purpose.

Additionally, since the FBC was submitted, a private sector led proposition for an arena in Bristol has been brought forward by YTL. The proposition is for an arena to be constructed by YTL in the Brabazon Hangar in Filton, Bristol.

It should be noted that any alternative proposition to deliver an arena through the private sector should be analysed for its viability, and should consider any potential State Aid issues should there be any public sector funding involved in the project. KPMG has not included analysis of this nature within this study, however, an additional study is being carried out to assess the potential Value for Money (VfM) of an arena on the Filton site, as well as alternative uses for the Temple Island site as part of a Phase 2 report. If the Filton Arena is deliverable and shown to deliver a similar benefit cost ratio (BCR), this private sector led proposition weakens the strategic rationale for public sector intervention of the proposed Arena project on Temple Island site.

Investment by the public sector in cultural assets, such as arenas, often reflects the wider benefits (positive externalities) that can be realised. These are benefits to the wider economy and society beyond those that would be realised by private developers. Given that the social returns are broader than the private returns this can provide a rationale for public sector intervention.

As we analyse in Section 5, the development of the proposed Arena is likely to contribute to achieving wider benefits for the City and region including enhanced economic activity in the form of GVA and employment, as well as some broader catalytic and social impacts.

## 2. Review of the commercial case for the Temple Island Arena

### 2.1 Overview

KPMG has reviewed the following agreements and supporting reports relating to the development and funding of the Arena:

1. **Aecom Cost Plan:** Aecom has provided BCC with cost consultancy advice since 2012, including supporting BCC in negotiating the agreements with the shortlisted building contractors. We have reviewed Aecom's report from July 2017 which summarises their expectation of the costs associated with the arena development. Aecom have also provided specific analysis of various elements of the agreement with the shortlisted contractor.
2. **Aecom PCSA Target Cost Tender Report:** Aecom has reviewed and commented on the proposals from Buckingham. We have reviewed their report from January 2018, v 0.5, and highlight relevant parts of their assessment in our report. We have also reviewed the BCC Bristol Arena Contingency Paper V0.2.
3. **Pre - Construction Services Agreement:** This agreement is with BCC's preferred contractor, Buckingham Group Contracting Limited, and covers the period since it was nominated as the Preferred Bidder whilst Buckingham worked toward producing a target cost for BCC. We note that BCC have not entered into an agreement to develop the arena, and that therefore this is the only signed agreement with the contractor. Should BCC proceed, we understand that they will enter into an industry standard NEC3 contract, albeit with a number of contractual amendments to deal with project specific factors.
4. **HCA Agreement<sup>19</sup>:** The proposed Arena development is expected to be built on land acquired from the HCA. We have reviewed the agreement to purchase the land from the HCA from March 2015.
5. **Agreement for Lease:** The proposed arena will be leased to a joint venture – 'Arena Island Limited' – owned by SMG Europe Holdings Ltd and Live Nation UK Ltd for an initial period of 25 years.
6. **West of England LEP Offer Letter – Issued by Bath and North East Somerset Council:** The proposed arena will be funded in part by a grant from the LEP. We have reviewed the draft offer letter, which we understand is the most recently available version available.

In addition to the documents outlined above, we have also been provided with numerous BCC internal documents, including the Outline Business Case and Full Business Case, as well as the Amion Consulting report, which is reviewed in Section 5.

We summarise below the key provisions of these agreements as they relate specifically to the development and funding matters of the arena only – for the avoidance of doubt our review does not constitute an analysis of the legal and other contractual commitments of the agreements.

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<sup>19</sup> We note that the Homes and Communities Agency ("HCA") has been replaced by Homes England ("HE"). We refer to the HCA throughout given that the legal agreement was signed with the HCA.

## 2.2 Construction arrangements

### 2.2.1 Background and history

We provide a brief recap of history of the construction arrangements here for context in considering the current position and financial offer from Buckingham.

Following approval by the BCC Cabinet, the BCC Project team ran a tender process in October 2015 for the contract to build the arena. The tender, which was weighted 80% towards quality and 20% toward cost, saw Bouygues UK ('Bouygues') nominated as the preferred bidder in January 2016. BCC and Bouygues entered into a Pre-Construction Services Agreement ("PCSA") in April 2016. However the two parties were unable to agree a cost and did not proceed to Target Setting. The PCSA with Bouygues ceased in January 2017.

Buckingham Group Contracting Ltd ('Buckingham') was subsequently nominated as the preferred bidder by BCC in April 2017, and BCC entered into a Pre-Construction Services Agreement ('PCSA') with Buckingham in July 2017.

Aecom has provided cost consultancy services for BCC on this project since 2013, with its work including providing cost plans for the Council throughout the development process. Aecom provided a cost plan in July 2017 prior to the commencement of the PSCA process, detailing their estimate of £149.6m for both the construction cost expected from Buckingham (£123.8m) and BCC client side costs (£25.9m), such as BCC project team time and architect fees.

Aecom have also benchmarked the cost of delivering the Temple Island Arena against other recently development Arena's in the UK and found that the Temple Island Arena was in the top quartile on a £/m<sup>2</sup> basis, at £4,087/m<sup>2</sup>, 21.4% more than the UK average. This is in part driven by the high quality specification for the design of the building, which was procured by a design competition, reflecting the desire, as stated in the FBC, for Bristol to have an "iconic" arena. The higher than average cost also reflects factors specific to the Temple Island location, which is a constrained site near to the River Avon, as well as tender apathy amongst local contractors due to ongoing public debate around the arena.

BCC entered into the PCSA with Buckingham, which took place over an initial period of 20 weeks and was subsequently extended. The purpose of this arrangement was to arrive at a target cost with Buckingham following its discussions with its supply chain and tendering to subcontractors. BCC recognised that the £149.6m Aecom estimate was significantly above the approved budget for the project, and worked together with Buckingham to identify savings and to reduce the cost of the arena through value engineering i.e. making adjustments to the specification of the building, for example changing the frame of the building from concrete to steel and using alternative ventilation methods.

Following the end of the 20 week PCSA period on 20 October 2017, Buckingham submitted its proposed NEC ECC Target Cost. The Target Cost total proposed by Buckingham was £146.3m<sup>20</sup>, which when added to BCC's own estimate of client side costs on completion gave a total of £172.1m, £22.5m more than Aecom had forecast, but identified £37.7m of cost savings that they felt were achievable if further value engineering was undertaken.

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<sup>20</sup> PCSA Target Cost Tender Report v0 3



In Aecom's view, these value engineering savings will not require material changes to planning permissions or renegotiation with the operator, albeit some minor amendments to those requirements are necessary.

The key risk within the revised offer is that there is no detailed design that matches the proposed Target Cost of £122.1m and further design fees will be required to deliver this. We understand that these design costs are captured as part of the £122.1m proposal, and so are not expected to be an additional cost. There is still a risk that not all of the value engineering can be realised and the project remains over budget. In order to reflect the residual design risk and other client side risks, BCC has included further contingency in its estimate of the final development cost of the arena. We note Aecom's recommended contingencies in Figure 6 below.

**Figure 6: Aecom contingency recommendations**

Description		Quantum
High Level Risk	Rely on existing BCC risk allowance	£500k
Medium Level Risk	Agree a target Cost lower than £122m and transfer some of the contractors risk items	£4m-5m
Low level risk	Adopt a risk contingency percentage on top of the target cost	£6m-9m

Source: Aecom BCC Bristol Arena Risk Contingency Paper v0.2

Aecom's Target Cost tender report demonstrates its confidence that the detailed design work will not lead to additional cost, stating that "the costs associated with proposed VE changes are robust". They also note there may be additional value engineering opportunities to further reduce the cost.

**In summary, The BCC project team's view, supported by Aecom, is that the revised offer from Buckingham represents an acceptable basis on which to contract, subject to further design works and value engineering and BCC retaining appropriate levels of contingency to reflect further design work (which is in place).**

### 2.2.2.1 Pain/gain share mechanism

The contractual agreements with Buckingham contain a risk and gain sharing approach to the target cost. In practice this means that BCC and Buckingham will share an agreed percentage of savings or overruns on the final build cost compared to the agreed Target Cost.

The sharing mechanism is set out in Figure 7 below.

**Figure 7: Pain/gain share mechanism**

Pain share and gain share mechanism		
Share range	BCC share	Contractor share
Less than 90%	75%	25%
Greater than or equal to 90% but less than 100%	50%	50%
Greater than or equal to 100% but less than 110%	50%	50%
Greater than or equal to 110% but less than 120%	25%	75%
Greater than or equal to 120%	0%	100%

Source: PCSA

We outline in Figure 8 below the potential pain/ gain share financial impacts based on a Target Cost of £122.1m below:

**Figure 8: Financial impact of the pain/gain share**

% of Target Cost	77.50%	87.50%	98.28%	100%	112.50%	122.50%
<b>Final Construction Cost (£'000)</b>	<b>94,550</b>	<b>106,750</b>	<b>120,000</b>	<b>122,100</b>	<b>137,250</b>	<b>149,450</b>
<b>Pain/Gain Share (£'000)</b>	<b>- 27,550</b>	<b>- 15,350</b>	<b>- 2,100</b>	<b>-</b>	<b>15,150</b>	<b>27,350</b>
Buckingham (£'000)	9,913	6,863	3,550	-	8,388	18,300
BCC (£'000)	17,538	8,388	- 1,550	-	6,863	9,150
<b>Total payable to Buckingham (£'000)</b>	<b>104,463</b>	<b>113,613</b>	<b>123,550</b>	<b>122,100</b>	<b>128,863</b>	<b>131,150</b>

Source: KPMG analysis

The lower Target Cost significantly reduces the potential pain/gain liabilities for BCC. The maximum potential liability to BCC is £131.3m, but Aecom believes that it is unlikely the costs will exceed the £122.1m, noting *'the revised bid has been substantially market tested and once the project regains traction further buying gains are expected from the supply chain.'* It should also be noted that the Target Cost suggested by Buckingham includes £10m of contractor risk contingency, which would need to be utilised fully before the Target Cost estimate is exceeded.

BCC has made a provision for [REDACTED] in respect of additional liabilities under the pain gain mechanism, compared to a total worst case risk exposure of £9.15m.

**Taken together, the BCC contingency for pain gain mechanism liabilities and the general contingency total [REDACTED], which is greater than Aecom's recommended range of £4m- £5m.** Both the pain/gain share and general contingency are reflected in BCC's financial forecasts for the arena, which we review in Appendix 3.

### 2.2.2.2 Other contractual provisions

BCC has not entered into a construction agreement with Buckingham as no decision to proceed with the arena has been made by BCC. We note that the contract that Buckingham tendered on was a standard form NEC 3 building contract, albeit with a small number of additional project specific amendments.

We note, per our conversations with Aecom and BCC, that there are a number of specific compensation events proposed in the contract relating to the site i.e. risks that reside with BCC rather than Buckingham. These include the contamination of the River Avon and issues arising as a result of works carried out by Network Rail. BCC's project and legal services team made the decision to retain these risks so as to pass an acceptable level of risk onto the supply chain, and to ensure value for money in the tendering process. Given the nature of these risks, it was felt that BCC could manage those risks better than Buckingham.

### 2.2.3 Buckingham credit strength

An important consideration for BCC is to ensure that Buckingham have the financial standing to deliver the contract.

Buckingham is a medium sized UK based contractor, with over £400m in turnover, £62.6m of cash and limited long-term borrowing (£2.0m) as at 31 December 2016 per its mostly recently audited published accounts. The company is targeting £500m of revenues in 2018, and its annual report identifies specific expertise in sports, leisure and civic building development. We note that the contract to build the Arena would be one of its largest projects to date, and a high priority project for the company.









Minor consideration that requires limited BCC action but should be noted as part of its contractual obligations

Source: KPMG analysis

**Figure 13: KPMG assessment of commercial provisions in Operator agreement**

Ref	Summary	Provision	Implication for BCC	Priority
1	Changes to building specification	Any changes to the specification of the arena that will impact on the achievability of the agreed business case, as determined by a third party, will enable AIL to walk away from the agreement, unless BCC agrees appropriate compensation.	We note that BCC and Buckingham are seeking to reduce the build cost through value engineering. BCC will need to ensure that these changes to the building specification do not impact on AIL's requirements. Formal sign off of this condition and revised specification from AIL should be a condition precedent to signing any construction contracts.	
2	BCC liability for cancellation/termination	There are various provisions in the agreement for termination under different circumstances.  Of particular note is that in the event that the arena development cost exceeds £91.0m, BCC are entitled to 'determine the Agreement by giving not less than 15 working days written notice', unless ACL are willing to increase their contribution by an appropriate amount. The agreement does not highlight any break fees in this event.	BCC should take legal advice to confirm that the additional development costs, over the £91.0m agreed in the lease, will enable it to terminate the agreement without cost should it choose to.	
3	BCC liabilities for construction delays	There are various provisions in the agreement for impact of a construction delay.  We note that, provided that any delays in construction are notified to AIL more than 6 months prior to the target handover date, then BCC are able to postpone the handover date to AIL.  In addition BCC must notify AIL of any material changes to the construction timetable.	BCC will need to update on AIL on the progress of the development as it progresses.	

Source: KPMG analysis

## 2.4 HCA agreement

### 2.4.1 Background

The HCA agreement, dated 26 March 2015, relates to the acquisition by BCC of the land to, principally, develop the arena on for a consideration of £5.4m + VAT. The purchase was funded by a grant from the HCA.

### 2.4.2 Overview of commercial provisions

Figure 14: KPMG assessment of HCA commercial provisions

Ref	Summary	Provision	Implication for BCC	Priority
1	Overage	<p>Per the terms of the agreement, overage is due to the HCA in a number of scenarios on value generated from 3 specific plots of land on the broader site, per Clause 22, including:</p> <ul style="list-style-type: none"> <li>- Where BCC disposes of part of the site, as it expects to do to the University of Bristol</li> <li>- Where the Market Value at completion exceeds the value BCC paid to acquire the land and develop on those areas.</li> </ul>	<p>A legal requirement to pay overage is expected to be triggered on the parcel of land sold to the University of Bristol. The amount due would depend on the income that relates to the land covered by the HCA agreement net of costs, which include enabling works such as demolition costs and the base value of the land.</p> <p>BCC has calculated that after these costs that the amount payable will be reduced to nil, and we understand that its advisors, CBRE, have reviewed and agreed with BCC's calculation. The assumed development costs have been professionally scoped.</p> <p>Furthermore, we understand that BCC has agreed with the HCA that the requirement to pay overage will expire on completion of the sale of land to UoB.</p>	A
2	HCA Options	<p>The HCA has various options to buy back the Temple Island site, as well as the 3 specific plots identified above.</p> <p>We understand that the Temple Island option expired in March 2017. However the options on some of the other plots have not expired yet.</p>	<p>The HCA has an option on a parcel of land that is being sold to the University of Bristol, allowing them to buy it back in 2020. This would potentially impact on the sale to the University.</p> <p>We understand from BCC that the HCA has agreed to release its right to buy back one of the plots, subject to legal documentation.</p> <p>We recommend BCC take further legal advice in respect of the HCA's</p>	A

			rights in relation to all of the three plots of land.	
3	Development Restrictions	Per Clause 15 no development is permitted on the 3 plots of land identified until at least 10% of the Arena Build cost has been achieved.	BCC propose to sell one these restricted plots to the University of Bristol. We recommend BCC take legal advice to identify how the provisions of this clause impacts on the sale of the land and the proposed development by the University.	A
4	Minimum Output Payments	Clause 17 of the agreement provides for Minimum Development Output payments, of up to £5.5m, to be paid to the HCA if BCC do not develop sufficient floor space, housing or create sufficient FTEs.  BCC do not believe any liability is due in relation to this provision.	Confirm that no Minimum Output payments are due with the HCA and legal advisors.	G
5	Output Reporting	BCC have agreed that all Development Outputs will be claimed and reported by the HCA. BCC need to provide information to enable the HCA to do this.	BCC will need to ensure it discharges the ongoing reporting requirements to the HCA in respect of the development.	G
6	Main Access Bridge works	The agreement required the HCA to complete access works to the site by 31 December 2015, which we understand from BC were not completed until mid-2016. The HCA were required to notify BCC by the 31 March 2016 of the reasons for this.	BCC should confirm that it has received the communication from the HCA, to ascertain whether the HCA is in technical breach of the agreement.	G

Source: KPMG analysis

## 2.5 West of England Local Enterprise Partnership

### 2.5.1 Background

The West of England Local Enterprise Partnership ('The LEP') have offered a grant to fund the Arena based on the FBC for the Arena prepared by BCC. We understand that there is no signed grant offer letter and that we have been provided with the most recent draft document. The grant was approved on 9 January 2015.

## 2.5.2 Summary terms

We understand that the grant is for £53.0m plus interest, albeit the quantum and rate and calculation methodology of the interest is not defined in the draft offer letter.

The grant is paid in line with the West of England Growth Incentive City Regional Deal Agreement for the Operation and administration of the Economic Development Fund ('EDF'), which we have not reviewed. BCC have informed us this agreement expires in 2039. We understand that this relates to BCC being able to retain the business rates income growth in Bristol up until that point, and that BCC have allocated a portion of those rates to the Arena project.

In practice this means an annual amount plus interest will be received from Practical Completion of the Arena until 2039 to partially cover the debt service costs of financing taken out to fund the development of the Arena. We review this income stream and the risk associated with it in more detail in Section 3.

## 2.5.3 Key provisions

Figure 15: KPMG assessment of the key provisions in the LEP funding agreement

Ref	Summary	Provision	Implication for BCC	Priority
1	Changes to arena business case	Any changes that BCC wishes to make require the approval of the LEP, including an increase of more than 5% in the Eligible Costs, a change in the scale of the project or the location of the works and any changes to the expected outputs from the development.	We note that costs have increased by over 5% compared to the LEP approved business case. BCC will need to notify the LEP of this change and the updated expected outputs from the development. The LEP has the right to re-assess its offer to BCC. We understand that BCC are in regular contact with the LEP via the Quarterly Highlight report process.	A
2	Business rate growth not in line with BCC projections	To the extent that business rates to not grow in line with the EDF forecast, the income the project receives could be less than the £53.0m plus interest.	If LEP income is lower than forecast, BCC will need to pay any shortfall to pay borrowing costs, albeit we understand this is on budget	G
3	Interest rate	The Interest rate applied to the Grant as part of the offer is not explicit in the offer letter that we have been provided with. BCC Finance team has assumed a rate of c.3%. We have not seen information from the LEP supporting this assumption.	To the extent that the rate of interest paid by the LEP is lower than the borrowing rate attached to Public Works Loan Board (PWL) loan, BCC may have to fund the shortfall in interest charge. BCC should review the terms of the EDF Agreement and clarify with the LEP what the interest rate they have offered to cover is.	G

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4	FBC Accuracy	The grant offer is based on the description of the project as set out in the 2014 FBC. Clause 1 requires BCC to notify the LEP of any errors, inaccuracies or emissions in the FBC, and the LEP may choose to re-assess the grant offer at its discretion.	We note that the project has changed materially since the FBC case in 2014. BCC should consider what updates are relevant to provide to the LEP.	
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5	Draft document contains numerous blank sections	<p>The draft offer letter is blank in numerous places. BCC will need to ensure its satisfaction with additional provisions added in , including:</p> <ul style="list-style-type: none"> <li>— Definition of eligible expenditure</li> <li>— Milestones</li> <li>— Quantum of the grant</li> <li>— Interest rate</li> <li>— Expiry date</li> </ul>	<p>BCC should ensure that these provisions are updated before finalisation and are reflected in the financial decision to proceed with the arena, in particular the interest rate.</p> <p>We also note that the LEP can amend or withdraw the offer if progress is behind the agreed milestones.</p>	
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Source: KPMG analysis

# 3 Review of the financial case for the Temple Island Arena

## 3.2 Financial overview

An overview of the financial case is provided below.

- The construction cost of the arena will be met by £25.9m of capital contributions from BCC from earmarked sources, £5.2m from net operating cash flows during the construction period supplemented by £145.0m of PWLB borrowing.
- The PWLB borrowing will be repaid through income accruing from the arena, principally:
  - £65.6m of funding provided by the LEP over 18 years (£65.6m being a principal sum of £53.0m as well as interest costs of £12.6m associated with £53.0m of PWLB borrowing until it is fully repaid by the LEP funding).
  - Agreed annual lease payments from AIL for years 1 to 25 of the Arena's operation.
  - Car parking income, which BCC has based on projections provided by a third party consultancy.
  - Net income from the Arena that is not currently secured for years 26 to 50 of the arena's life. Whilst BCC has not made any decisions regarding its strategy for monetising the arena in years 26 to 50, it has assumed a capital receipt of £66m at the end of year 25 in its projections. BCC could also elect to lease the asset to an operator over this period or run the arena itself.
- BCC will borrow from the PWLB in tranches a part of its overall treasury management strategy, however as a proxy its long term cost of borrowing over 50 years is roughly 2.80%.
- Before any public funding is taken into account, the arena is forecast to generate an internal rate of return of just -0.67% over 25 years. This highlights that significant public funding support is needed to make the arena viable.
- After the £65.6m of LEP funding is taken into account, the internal rate of return of the arena for BCC is 1.28%. This is still short of BCC's long term cost of borrowing under PWLB, so the arena requires direct funding support from BCC in addition to the LEP borrowing.
- BCC intend to provide this support through £25.9m of capital contributions towards the build cost, which are set out in the sections that follow, as well as land contributions of £12.5m. The net return from the arena to BCC after these contributions are made is 2.82%, being broadly in line with the cost of borrowing under PWLB. This suggests that it is possible to structure the financing arrangements such that the arena has no ongoing revenue cost to BCC. Over 25 years the arena is forecast to meet principal and interest payments under PWLB and generate a net surplus of for BCC. Most of this surplus accrues in year 25 when BCC projections show a capital receipt of £66.0m.
- We note that the BCC financial models provided to KPMG show the PWLB loans repaid with repayment profiles such that there is a small cash deficit from the arena in 14 years of the project. Ultimately the borrowing strategy for the Arena will not be considered in isolation but as part of BCC's wider treasury management and borrowing strategy. We conclude that it is possible for BCC to finance the project with no requirement for ongoing revenue support – but BCC may choose a different financing strategy to suit its wider group objectives.

### 3.3 Summary of financial forecasts

A summary of the cash flow forecasts prepared by BCC for the project are shown below in Figure 16. The forecasts cover the development of the arena, including historical expenditure, and its future operations of a 25-year period, albeit the arena is expected to have a useful economic life of 50 years. As noted in Section 2.3 BCC has an Agreement for Lease in place with respect to the first 25 years of operation. After the expiry of the lease, BCC would have a number of options with respect to generating income from the arena, including selling it and receiving a capital receipt, and continuing to rent it out. BCC's projections illustrate a capital receipt in year 25 of £66.0m, which is based on the expected future rental income stream from the arena, net of a £10m general contingency.

The construction period costs are met as is set out in Figure 16.

**Figure 16: Sources and uses of funds during construction**

Sources and uses	£m
<b>Sources</b>	
<b>Capital and revenue contributions</b>	
Net operating cash flows during construction period	5.2
BCC - revenue contributions	0.3
BCC - transport capital contribution	1.8
BCC – CL	8.0
BCC - capital receipts	15.9
BCC - site opportunity cost	12.5
<b>BCC borrowing</b>	
EP loan	30.0
Annuity loan	25.8
Maturity loans	89.2
<b>Sources of finance</b>	<b>188.6<sup>22</sup></b>
<b>Uses</b>	
<b>Construction costs</b>	
BCC land contribution	12.5
Capital expenditure - arena	141.4
BCC contingency costs	█
BCC development cost recovery	█
Capital expenditure - MSCP	16.2
<b>Financing costs</b>	
Interest during construction	3.6
<b>Uses of finance</b>	<b>188.6</b>

Source: KPMG analysis

A 25 year summary of the cash flows of the Arena (based on the BCC financing strategy is shown below).

<sup>22</sup> Totals appears to not sum correctly due to rounding differences

**Figure 17: Summary of BCC Arena project cash flow analysis**

£m	Total	Construction	Years 1-5	Years 6-10	Years 11-15	Years 16-20	Operations	
							Years 21-25	Residual value debt repayment
<b>Operating cash flows</b>								
Operating rent and car parking income <sup>23</sup>	90.8	-	14.7	16.2	18.0	19.9	22.0	0.0
Asset value at year 25	66.0	-	-	-	-	-	-	66.0
<b>Total operating cash flows</b>	<b>156.8</b>	<b>0.0</b>	<b>14.7</b>	<b>16.2</b>	<b>18.0</b>	<b>19.9</b>	<b>22.0</b>	<b>66.0</b>
<b>Project capital expenditure</b>								
Arena capital expenditure <sup>24</sup>	(167.3)	(167.3)	-	-	-	-	-	-
<b>Project cash flows</b>	<b>(10.5)</b>	<b>(167.3)</b>	<b>14.7</b>	<b>16.2</b>	<b>18.0</b>	<b>19.9</b>	<b>22.0</b>	<b>66.0</b>
<b>Revenue and capital contributions</b>								
LEP funding	65.6	-	20.7	18.8	16.9	9.2	0	-
<b>Project cash flows after LEP contribution</b>	<b>55.1</b>	<b>(167.3)</b>	<b>35.4</b>	<b>35.0</b>	<b>34.9</b>	<b>29.1</b>	<b>22.0</b>	<b>66.0</b>
<b>Total BCC capital contributions</b>	<b>25.9</b>	<b>25.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Pre PWLB financing cash flows</b>	<b>81.0</b>	<b>(141.4)</b>	<b>35.4</b>	<b>35.0</b>	<b>34.9</b>	<b>29.1</b>	<b>22.0</b>	<b>66.0</b>
<b>Financing</b>								
PWLB interest expense	(85.3)	(3.6)	(19.8)	(18.1)	(16.3)	(14.4)	(13.2)	-
Interest income	5.6	-	0.1	0.5	1.1	1.7	2.2	-
<b>Net interest expense</b>	<b>(79.7)</b>	<b>(3.6)</b>	<b>(19.7)</b>	<b>(17.5)</b>	<b>(15.2)</b>	<b>(12.7)</b>	<b>(11.0)</b>	<b>-</b>
<b>Net PWLB debt drawdown</b>	<b>145.0</b>	<b>145.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
PWLB debt repayment over years 1-25	(55.8)	-	(12.1)	(12.7)	(13.4)	(10.9)	(6.8)	-
Residual value repayment	(89.2)	-	-	-	-	-	-	(89.2)
<b>Total debt drawdown and repayment</b>	<b>-</b>	<b>145.0</b>	<b>(12.1)</b>	<b>(12.7)</b>	<b>(13.4)</b>	<b>(10.9)</b>	<b>(6.8)</b>	<b>(89.2)</b>
Transfers (to)/from MRP reserve	-	-	(4.4)	(5.1)	(5.8)	(6.7)	(7.7)	29.7
<b>Surplus/(deficit)</b>	<b>1.3</b>	<b>-</b>	<b>(0.8)</b>	<b>(0.3)</b>	<b>0.5</b>	<b>(1.1)</b>	<b>(3.5)</b>	<b>6.5</b>

Source: BCC Projections, KPMG analysis

<sup>23</sup> Includes arena and car parking income, and operating costs.

<sup>24</sup> Includes car parking, contingencies, arena build cost, other contributions and BCC internal costs.

### 3.3.1 Operating cash flows

The principal sources of funding for the project are:

- **Operator rental income:** BCC has agreed a contract with AIL to receive index-linked rental payments of £[REDACTED] (price base date: September 2014) over a 25-year period once the arena is operational, escalating with CPI at a forecast rate of 2.00% p.a. Whilst the income for the first 25 years' is contractually agreed, the assumptions made beyond this point are less certain as no operator agreement is currently in place. The illustrative assumption used in BCC's projections is a capital receipt in year 25 of £66m. This reflects the capitalised value of future rental income streams, based on rental income increasing by 1.5% per annum from year 26 to 50, net of a £10.0m general contingency, reflecting the inherent uncertainty involved in estimating long term cash flows such as these.
- **LEP funding:** This comprises revenue funding from the LEP of approx. £65.6m, based on a principal value of £53.0m, over an 18-year period at a cost of 2.65%-3.00% p.a. from the start of operations. The shorter term of the loan compared to the useful economic life of the asset and the repayment profile both have the effect of providing a greater level of funding to the project in earlier years. However, the LEP funding directly matches the debt service of its corresponding loan, so it does not provide any further subsidy to the project beyond lowering the external capital requirement.
- **Car parking Income:** BCC has included the car parking income and costs in its projections over a 25 year period based information provided by ch2m in a car parking study. We understand that ch2m's analysis is based on there being 1,250 spaces as part of the Arena development, and that this income is additional to the existing income from car parking in Temple Quarter. Unlike with the arena, BCC has not assumed a residual capital value in its car parking projections, given the inherent uncertainties in forecasting long term car parking revenues.

### 3.3.2 Capital expenditure

BCC has estimated a total capital cost for the Arena of £172.5m, reflecting the additional contingencies described in Section 2 and car parking development costs of £16.2m.

Figure 18: Construction costs

Construction Costs and Contingencies	£m
Buckingham Target Cost	122.1
BCC Client Side Costs	[REDACTED]
Target Build Costs	[REDACTED]
BCC Provision for Max. Pain Share	[REDACTED]
BCC General Contingency	[REDACTED]
Total arena capital cost	[REDACTED]
Car Parking	[REDACTED]
BCC Costs	50.4
<b>Total Capital Cost</b>	<b>172.5</b>

Source: BCC forecast, KPMG analysis

The build costs are offset by net operating cash flows during the construction period. This would give a net build cost for BCC to finance of £167.4m.

### 3.3.3 Capital and revenue contributions (BCC)

The capital requirement for the Arena is met in part through a number of contributions from BCC towards the scheme, as set out in Figure 19 below.

**Figure 19: BCC capital and revenue contributions**

BCC investment summary £m	Total (nominal)	Description
Transport contributions	(1.8)	BCC has allocated £1.8m of funding to provide the supporting transport infrastructure for the arena.
CIL contributions	(8.0)	BCC has allocated £8.0m from this levy towards meeting the cost of the project.
Capital receipts	(15.9)	BCC is selling a plot of land adjacent to the proposed site to University of Bristol for £15.9m. Post-enabling works, the net proceeds have been allocated to the development of the arena.
Revenue contribution	(0.3)	BCC has also made direct revenue contributions of £250k towards the project which it does not propose to recover on financial close.
<b>BCC investment</b>	<b>(25.9)</b>	

Source: KPMG analysis

In addition we note that BCC is providing £12.5m of land, based on a valuation from third party advisors, to construct the Arena on.

### 3.3.4 Financing

BCC's forecasts show the £145.0m of long term borrowing for the Arena being met as follows:

- BCC has already raised a £19.2m maturity PWLB loan with a 50-year tenor at a cost of 2.21% p.a. The proceeds from this loan will be used initially to meet project costs as they are incurred.
- BCC will raise £109.6m of short-term finance (including interest during construction) as part of its wider treasury management strategy to meet the construction costs. It has been assumed that this finance will cost 1.00% p.a. and interest during construction on this finance will roll-up into the debt balance, calculated as £3.6m.
- At the end of construction, the short-term development finance will be refinanced with £109.6m of debt provided from the PWLB through a combination of debt tranches. These comprise:
  - a £70m maturity loan with a 50-year tenor at a cost of 3.0% p.a.;
  - a £9.6m annuity loan with a 25 year tenor at a cost of 3.0%;
  - a £30m EIP loan with an 18-year tenor at a cost of 2.65% p.a. A further £16.2m is borrowed to fund the car parking development over a 25 year period at a cost of 3.0% p.a. from PWLB on an annuity basis.

In summary, this amounts to £145.0m of long term PWLB debt outstanding at the start of operations. These are repaid in line with the specified repayment profiles from project cash flows.

BCC has modelled the PWLB financing assumptions for the arena on a project basis, i.e. loans ring-fenced for the Arena. In practice we note that the borrowing requirement for the arena is only one part of BCC's wider borrowing requirement as one element of its overall treasury management strategy.

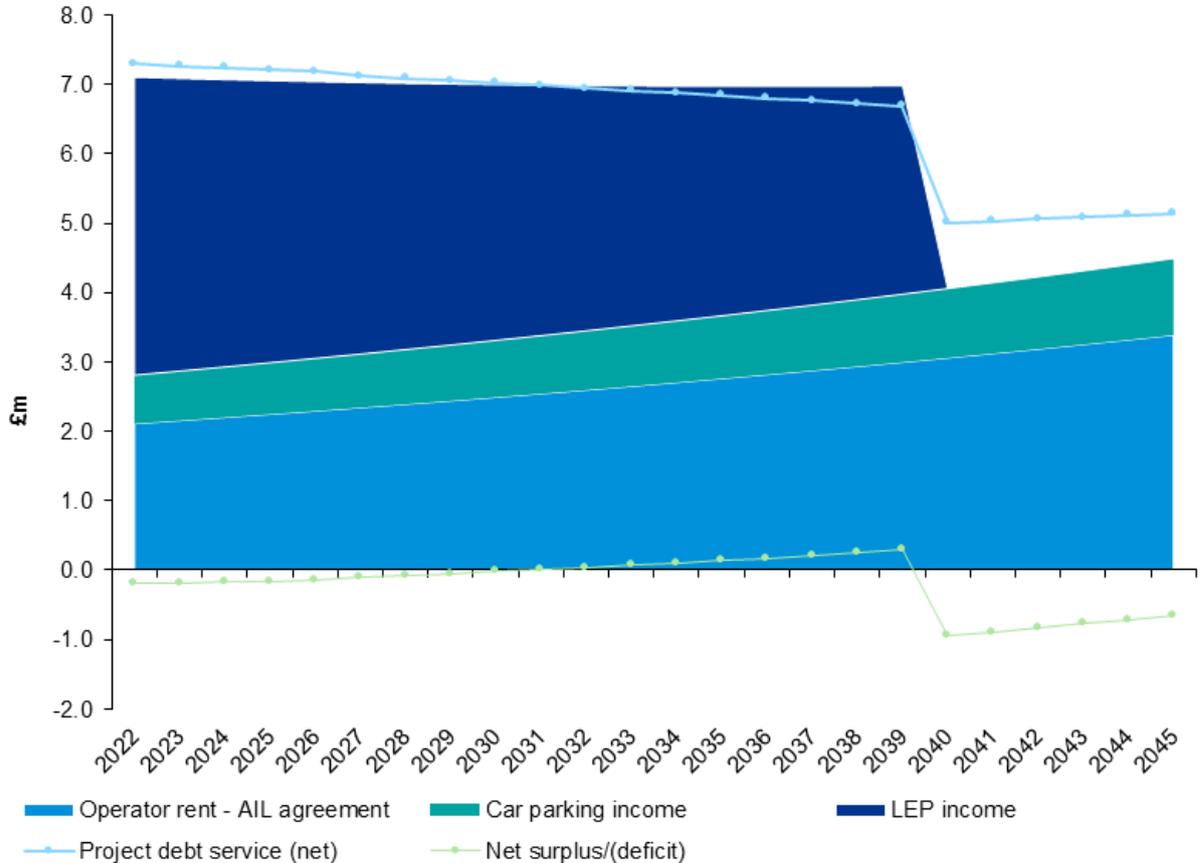
Where project cash flows are insufficient to meet the level of debt service in the BCC case, BCC assumes that it will fund the shortfall, charging the project a national charge of 1.00%-2.00% p.a. (see below) reflecting the cost of this short term funding, akin to an overdraft facility. This overdraft facility is repaid from future surplus cash flows after debt service, predominately in year 25 after the disposal proceeds are received.

Interest on cash balances, including the MRP reserve account and forecast surpluses, as well as the short-term overdraft facility, is received and charged at a rate of 1.00% p.a. for years 1-5 of operations and 2.00% p.a. thereafter.

### 3.3.5 Project affordability

As noted above, after taking into account the LEP funding and earmarked BCC contributions to the capital element of the scheme, the project generates a return on investment of 2.82%, before the cost of finance is taken into account. BCC's long term cost of finance under PWLB, as per its financial projections, is 2.80%, meaning that the project generates a sufficient return over time to repay principal and interest on the PWLB loans and generate a small nominal terms surplus for BCC.

**Figure 20: Cash position over the operational term of the Temple Island Arena – BCC forecasts**



Source: KPMG analysis

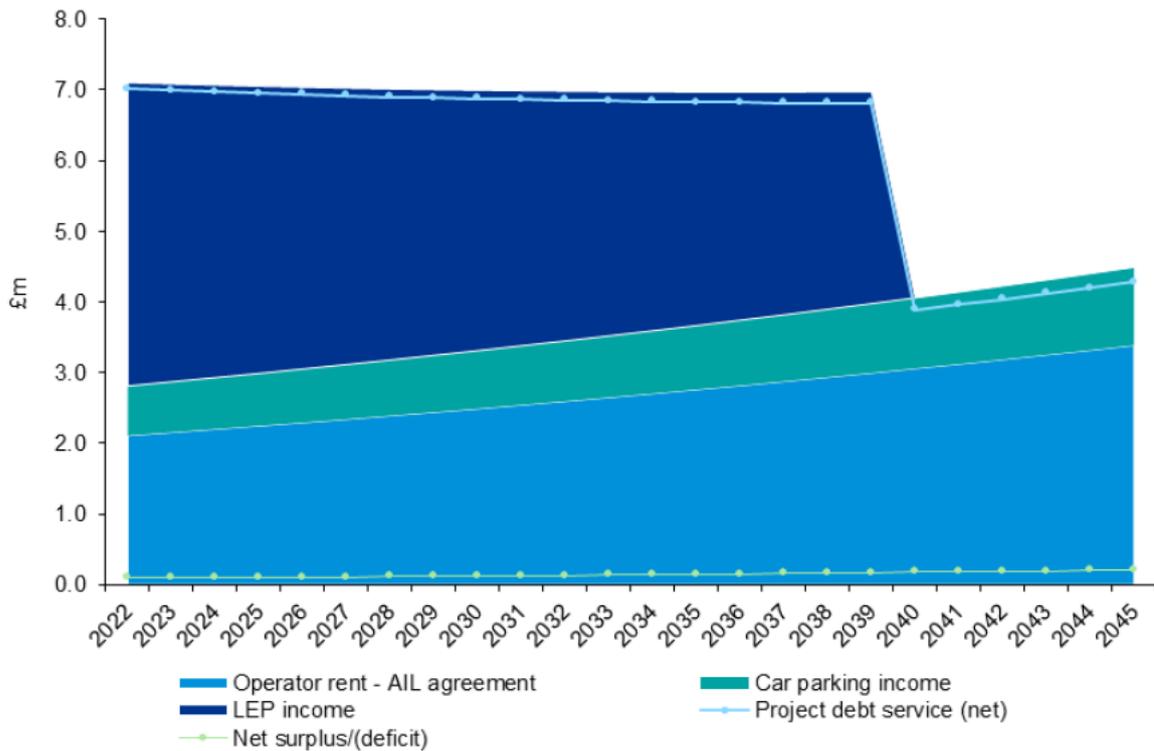
The forecasts suggest a temporary affordability gap up from year 1 to year 9, and year 19 to year 24 of operations.

There is of approximately £89.2m outstanding to PWLB in year 25 when the initial operator agreement concludes although offset against £29.7m of MRP reserves built up to that point would leave £59.5m

of net debt. BCC's forecast illustrate how this would be repaid in year 25 through disposal of the asset for £66.0m. We note that it would also be possible to lease the asset to an operator for a further period of 25 years. BCC's assumption in relation to rental yield – growing by ██████████ suggest that the outstanding debt could be serviced over the life of the asset generating a surplus in each period, with an average DSCR over years 26 – 50 of 1.11.

As we have noted, it is possible to structure the PWLB borrowing such that there is no cash deficit in any period by changing the timing of debt repayments. This is explored further at Section 3.5, with the revised cash flow graph shown below.

**Figure 21: Cash position over the operational term of the Temple Island Arena – alternative financing structure**



Source: KPMG analysis

### 3.4 Net present values

#### 3.4.1 Methodology

The affordability analysis at Section 3.3.5 focusses on the cash affordability of the Arena for BCC within current budgetary constraints. Just because an investment is forecast to pay for itself does not mean it is good value, particularly where the reason for its affordability is essentially the ability for BCC to borrow at a rate that is significantly below that at which a commercial investor would for a project of this risk level.

We have performed a range of net present value (NPV) calculations in relation to the direct financial cash flows to BCC from the project to assess the VfM case, before considerations of wider social and economic benefits. In doing so, we have assessed three scenarios:

1. The NPV of direct project cash flows and land opportunity cost only over 25 years before any BCC or wider public sector funding sources and before financing provided by BCC. This represents the value of the direct financial cash flows of the Arena to the public sector as a whole.

2. The NPV of BCC cash flows and land opportunity cost after LEP contribution. This represents the value to BCC of the investment, noting that the LEP will be bearing some of the project costs.
3. The NPV of BCC cash flows after capital contributions: This includes LEP funding and [REDACTED] of BCC capital contributions (including the land for the Arena), but before PWLB financing costs. This represents the value of any net cash surpluses, noting that BCC has already made commitments to some of the capital funding, such as through capital receipts from site disposals and an allocation of development levies towards the project.

For each of these scenarios, we have used three different discount rates:

1. The long-term cost of borrowing under PWLB. This provides a measure of the affordability of the scheme, as BCC has access to long-term borrowing at this rate. Based on recent PWLB pricing, we have used a long-term PWLB rate of 2.80%, representing a margin of 80 bps over gilts.
2. A proxy of the market rate that we consider applicable to an investment of this risk profile, noting that a commercial investor would require a rate of return significantly higher than the PWLB rate in order to undertake a project of this risk. We refer to this as the project-specific rate. This is a better measure of the underlying value or subsidy provided to the project once the risk level of the project is taken into account.

[REDACTED]

3. The rate suggested by the HM Treasury Green Book of 3.50% (real), which equates to a nominal rate of approx. 5.57% given the 2.00% p.a. inflation assumption made in the BCC financial forecasts. This is a slightly lower return threshold than our estimate of the project-specific rate and is shown for completeness.

### 3.4.2 Results

The results of the NPV calculations for the direct financial cash flows to BCC are shown below (Figure 22).

**Figure 22: NPV summary – BCC base case**

NPV of project cash flows (base case)				
£m	Project IRR	PWLB	Project	HM Treasury Green Book
Direct project cash flows	(0.67)%	(79.5)	(103.1)	(100.8)
BCC cash flows (after LEP contributions)	1.28%	(34.4)	(73.4)	(68.8)
BCC cash flows after capital contributions	2.82%	0.40	(42.1)	(36.9)

Source: KPMG analysis

The key observations from these results is that the project without any public sector contributions has a negative NPV. At the project specific rate (in our view the best measure of the total value of public funding support), the NPV is negative £103.1m. This is the value of the subsidy, whether direct or indirect, which would need to be provided in order to deliver the project. A high level of public funding support is expected based on precedent for Arena projects and this needs to be considered against the wider social and economic benefits of the projects (see Section 4).

### 3.4.3 Sunk costs

The sunk costs (costs already incurred) relating to the project are estimated to amount to £12.2m up to FY18. Should BCC take the decision not to proceed with the project, these costs will not be recovered.

An appraisal of the affordability and value for money of the scheme as a whole is useful and it is an appropriate measure of whether the project should have been undertaken. However, at the point of deciding as to whether to proceed further or not, sunk costs incurred historically should be excluded and only costs impacted by the decision considered. We re-state the results of the NPV calculations below, excluding these sunk costs.

**Figure 23: NPV summary – BCC base case (excluding sunk costs)**

NPV of project cash flows (excl. sunk costs) £m	Project IRR	PWLB	Project	HM Treasury Green Book
Direct Project cash flows	(0.33)%	(67.3)	(90.9)	(88.6)
BCC cash flows (after LEP contributions)	1.74%	(22.2)	(61.2)	(56.6)
BCC cash flows after capital contributions	3.50%	12.6	(29.9)	(24.7)

Source: KPMG analysis

## 3.5 Review of BCC projections

### 3.5.1 Project affordability risks

We outline the material risks to BCC's projections below (Figure 24).

**Figure 24: Risk assessment of BCC projections**

Risk	Description	Impact	Rating
<b>Cattle Market Road income</b>	<p>BCC plans to allocate the sale proceeds of £15.9m from Cattle Market Road to the Arena project. There is a risk that these proceeds are lower than expected, as:</p> <ul style="list-style-type: none"> <li>— The sale proceeds received depend on the size of the development that is granted planning permission.</li> <li>— BCC also needs to carry out contractual works, such as demolishing the old post office site. There are specific challenges associated with that land which we understand BCC are reviewing with specialists in due course. As a result there could be additional costs.</li> <li>— The HCA has an option on part of the land being sold to the University of Bristol. If that option was exercised it could</li> </ul>	<p>Reduced income from sale proceeds will require further borrowing to cover the shortfall in funding.</p> <p>A delay in receiving that income could also lead to additional financing being required.</p> <p>This would increase the subsidy that the BCC would need to fund on an ongoing basis.</p>	<p><b>A</b></p> <p>Further work suggested to assess the risk of cost overruns and timing of receipt.</p>

potentially reduce or prevent the sale to the University.

- The impact of these factors could reduce the income received by BCC.
- In addition the sale could also be delayed by complications with the site.

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### Operator income

We also note that BCC has assumed a capital value of £66m after the expiry of the lease. BCC has derived its capital value from an assumed growth in rental income from the Arena between years 26 and 50 of 1.5%, net of £10m contingency.

A failure to sign an operator agreement after the 25 year contract ends or a contract on different terms to that agreed to date will reduce the income available to repay or service debt, requiring a BCC subsidy.

Given the LEP income ceases before the Operator agreement ends, this is the only income BCC have to cover financing costs.



Whilst the Arena will have value beyond the life of the 25 year AIL agreement, the challenge of accurately forecasting a capital value for an Arena in 25 years results in a risk of subsidy to repay the debt associated with the Arena, should the capital value not be in line with forecast.

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### LEP income

The LEP income is the major source of funding for the project.

A shortfall in business rate income to BCC over the 22 year period could reduce the amount of funding available from the LEP to fund the development.

The most recent version of the LEP offer letter does not specify an interest rate nor the capital amount that it is based on.

A shortfall in LEP income for either of these reasons would require additional subsidy from BCC to cover the debt service costs.



We have not reviewed the business rate income projections, but note that inherent challenge for forecasting tax income over a 22 year period brings a degree of uncertainty to the forecast. We understand that this income stream is performing in line with budget at present.

<b>CIL income</b>	<p>£8.0m of Community Infrastructure Levy (CIL) Income has been allocated to the Arena project.</p> <p>There is a risk that if BCC's CIL income is not in line with forecast, that there is a shortfall for the Arena.</p>	<p>A shortfall in CIL income will create a funding shortfall for the Arena, requiring additional income.</p> <p>More realistically, CIL income may take longer to be received, meaning that the £8.0m comes in a few months later than forecast.</p>	<p><b>G</b></p> <p>BCC confirmed as at May 2018 CIL incomes are on budget and on track</p>
<b>CPI growth</b>	<p>The Operator Rental payments are linked to CPI, and BCC have assumed a rate of 2.0% p.a over the 25 year lease period.</p>	<p>CPI growth of less than 2.0% would lead to a revenue shortfall, requiring BCC to provide additional subsidy to service debt costs.</p> <p>CPI growth of greater than 2.0% would generate increased operator revenue.</p>	<p><b>G</b></p> <p>A 2.0% assumption is in line market forecasts, albeit current CPI is 2.4%, suggesting there may be some upside</p>
<b>Operator credit risk</b>	<p>Operator rental payments may not be received if the Arena fails and Live Nation and SMG Europe fail.</p>	<p>A failure to receive operator rental income would require BCC to provide a subsidy to cover debt repayment costs.</p>	<p><b>G</b></p> <p>Given the size of the two operators, who have offered a parent company guarantee, this risk is considered low. Furthermore the asset would still have some residual value e.g for BCC to operate.</p>

Source: KPMG analysis

### 3.5.2 Cost and construction risks

Figure 25: KPMG assessment of cost and construction risks

Risk	Risk	Impact	Risk rating
<b>Cost overruns beyond target cost estimate</b>	<p>BCC has estimated the base construction cost to deliver the scheme of £122.1m.</p>	<p>Additional liabilities of up to £9.15m more than BCC's estimate of £122.1m could be payable in the worst case scenario under the pain/gain sharing approach.</p> <p>BCC has made a provision for [REDACTED] in respect of its pain gain mechanism liabilities, and a general contingency of [REDACTED] during construction, which taken together is greater</p>	<p><b>A</b></p>

BCC's maximum risk exposure under the contract is £131.3m.

than Aecom's recommended range of £4m-£5m. This is in addition to the £10m of contingency included in the Target Cost estimate and the £10m lifecycle contingency in the financial model.

Aecom believes the Arena is deliverable within the Target Cost of £122.1m, but further design work is required to confirm the value engineering cost savings.

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**Additional Cost - HCA overage costs**

There is a risk that BCC has to pay overage to the HCA as part of its agreement to sell part of the site to the University of Bristol. BCC have not provided for any overage in their projections.

Additional liabilities to the HCA would increase the borrowing requirement for the Arena.

We understand that BCC have agreed with the HCA that the overage requirement between HCA and BCC is discharged at the date of completion between BCC and the UoB and that this is subject to ongoing legal discussions between the relevant parties.



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Source: KPMG analysis

### 3.5.3 Project cost reduction: alternative approaches

Although beyond the scope of this report, we note that BCC are considering a number of alternative approaches to reducing the cost of the Arena. These include reviewing certain design features of the Arena and lowering the specification requirements or improving engineering efficiency to lower costs for the current configuration.

If BCC would like to explore these options further, it should also consider any impact on the availability and terms of project funding sources which have been agreed to date, such as the LEP funding.

### 3.5.4 Additional sources of funding

We understand from the project team that there are potential sources of additional funding available to the Arena, including:

- additional CIL funding;
- funding for the Southern Access / A4 element of the build, including West of England Combined Authority (WECA) Early Investment Opportunities Fund; and
- RIF funding.

It is not possible to assess the likelihood or quantum of these funds, and note that putting the Arena forward for certain funding opportunities would likely involve prioritising it over other projects. We recommend BCC continues to explore all further avenues to access funding for the Arena.

## 3.6 Review of BCC proposed financing structure

We have provided below some preliminary observations on the financing strategy adopted in the forecasts for the project prepared by BCC. We have also noted areas in which the financing structure for the project may be able to be optimised further.

### 3.6.1 BCC financing strategy

**Repayment profile:** The repayment of the project debt (excluding the LEP tranche) is based on an annuity profile, including transfers to the MRP reserve account for the maturity loan. This requires a fixed level of debt service (nominal).

This is not aligned to the index-linked profile of the operator rent, giving rise to the temporary deficit during operations. Sculpting the repayment of debt to match the profile of the project cash flows would eliminate the requirement for an overdraft to maintain liquidity. This can be done by drawing a series of PWLB maturity loans to match the sculpted repayment profile or raising private finance with greater flexibility to specify a custom repayment profile.

**MRP reserving:** There is a cost of carry of approximately 0.21% - 1.00% p.a. (long-term) to retaining cash in the MRP reserve account instead of paying down the corresponding loan. This is financially inefficient and BCC may consider refinancing the maturity loan for debt with a more suitable repayment profile.

**Interest rate risk and refinancing risk:** The short-term finance during construction to minimise financing costs adds risk to the project forecasts by not locking in the long-term financing solution at financial close.

For example, changes to the PWLB regime may prevent BCC from refinancing at the end of construction (if not pre-booked) or interest rate rises over the construction period may increase financing costs from forecast. Given the operator revenues will be secure at financial close, BCC should consider entering into long term debt arrangements at this point rather than risk interest rate exposure during construction. We agree with BCC that interest rate exposure needs to be managed at a BCC level and not on a project specific basis.

We understand that the project is an investment within the wider investment portfolio and treasury management strategy for BCC. However, the ability to structure the project as an independent income-generating scheme without undue support from BCC should be considered.

## 3.7 Sensitivity analysis

We have sensitised the NPV of project cash flows after all BCC contributions with respect to key financial risks identified above (see Section 3.5) as well as quantifiable upside opportunities covered below. This analysis has been performed to indicate the extent to which the value for money case for the project is altered if key downside risks or upside opportunities not captured within the base case materialise.

The results of the sensitivity analysis are presented in Figure 26 below.

**Figure 26: Key financial risks to the Arena project returns**

NPV of project cash flows - sensitivities £m	Net surplus (nominal)	NPV (Project)	NPV (HM Treasury)
<b>Base case</b>			
Project - BCC contributions	1.3	(42.1)	(36.9)
<b>Downside sensitivities</b>			
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
(2) Arena construction costs + 20% on re-tender	(33.0)	(65.0)	(60.3)
(3) LEP income -10%	(7.8)	(45.1)	(40.1)
(4) Site disposal proceeds -£5m	(4.7)	(46.0)	(40.9)
(5) Arena residual value -10%	(5.3)	(43.2)	(38.2)
(6) Long-term borrowing costs + 0.50%	(17.6)	(45.6)	(36.9)
(7) Inflation -0.50%	(3.8)	(43.2)	(38.2)
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
(7)	[REDACTED]	[REDACTED]	[REDACTED]
<b>Upside sensitivities</b>			
(9) Arena construction cost - £8m further VE achieved	11.0	(35.6)	(30.2)
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
(11) Arena residual value +10%	8.0	(41.0)	(35.6)
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: KPMG analysis

Given the nominal terms surplus of just £1.3m, small changes against BCC's assumptions have the potential to create an operating deficit and a requirement for further subsidy from the Council.

Some key observations from the sensitivity analysis are outlined below:

- If the contingencies applied by BCC are not required, in line with Aecom's expectation, then that drives the biggest positive impact on the Arena financial position and would enable it to withstand a number of the key project risks.
- Given the significant borrowing requirement of £145.0m from PWLB, small changes to BCC borrowing rates could leave the Council with a requirement to provide additional funding to the Arena.

# 4 Review of the economic case for the Temple Island Arena

As part of the scope of this report we have reviewed the economic case for the Arena on the Temple Island site as presented by AMION Consulting (“AMION”). Where relevant we have updated the analysis presented by AMION to provide a revised estimate of the economic impacts.

Our assessment includes a review of the estimation of the GVA and employment impacts generated through the construction and operational phases of the Arena, a review of the evidence in relation to the wider impacts that could be realised in terms of catalysed development going forward and a review of the evidence in relation to any social impacts that may be realised through any commitments given by the Arena Operator and developer.

## 4.1 KPMG review of the 2016 economic case for the Arena

### 4.1.1 Summary of the 2016 economic case

In 2013 BCC commissioned AMION to undertake an interim study to assess the potential economic impact of the proposed Arena. This considered the impacts in terms of capital expenditure, GVA, employment and key fiscal impacts associated with the uplift in business rates.

As part of the development of the Full Business Case for the arena project for submission to the West of England LEP in 2016, an updated economic impact assessment was produced by AMION.

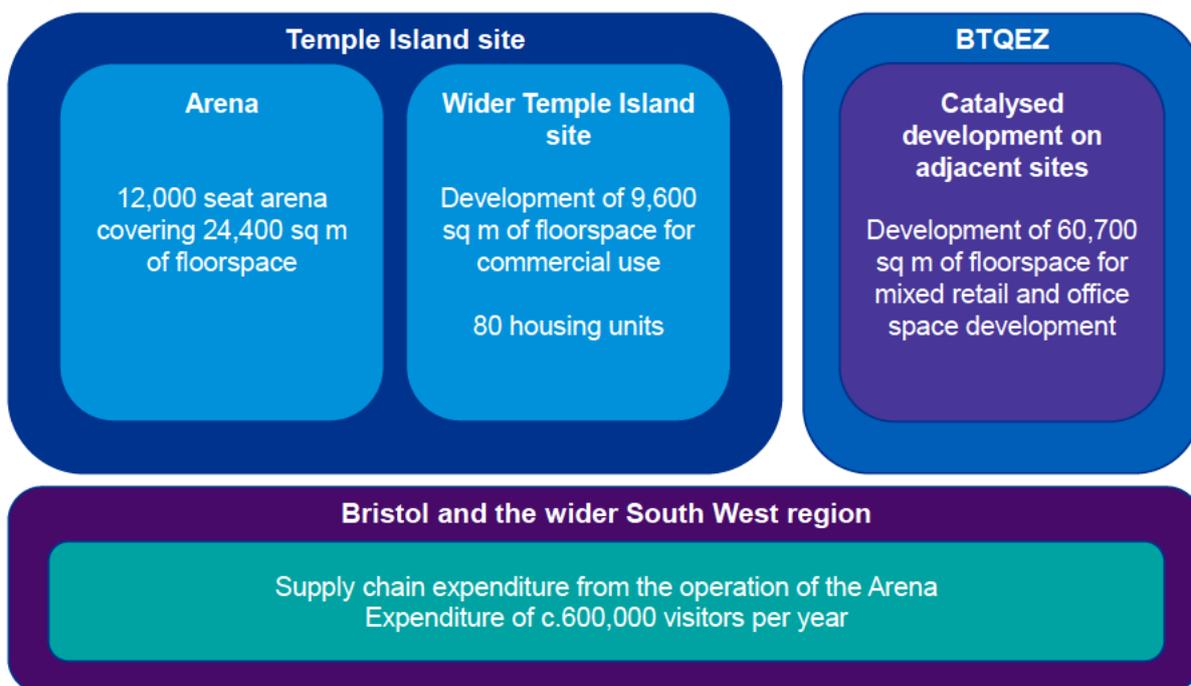
The AMION 2016 economic assessment, analysed the direct impact of the arena in terms of the developments in three locations:

1. the Arena itself;
2. the wider Temple Island site; and
3. adjacent sites in the BTQEZ where development may be catalysed as a result of the Arena.

In addition, the AMION report also considered the indirect impact that the Arena would have on Bristol and the wider South West region in terms of the wider supply chain and visitor expenditure.

The economic impacts that have been quantified in the AMION report arise as a result of the inputs associated with the Temple Island Arena development. The assumed inputs included within the AMION report are summarised in Section 4.1.2.

Figure 27: Summary of inputs associated with the Arena and BTQEZ site<sup>25</sup>



Source: KPMG review of AMION Consulting (2016) Bristol Arena –Economic Appraisal – Revised Draft

Figure 28 summarises the results of the analysis of the economic impacts of the Arena project, detailed in the 2016 AMION report.

Figure 28: Estimates of the employment and GVA impacts from the Temple Island Arena, AMION 2016

		Arena only	Wider Temple Island development	Adjacent sites (BTQEZ)
<b>Construction phase impacts</b>	Gross temporary construction employment (FTEs)	88	25	111
	Net additional construction employment (FTEs)	42	0	0
	Net additional GVA per year	£38.8m	£2.5m	£2.1m
<b>Operational phase impacts</b>	Gross direct employment	160	0	0
	Gross indirect employment	857	625	3,747
	Total gross employment	1,017	625	3,747
	Total net additional employment	548	90	0
	Net additional GVA (discounted) <sup>26</sup> per year	£298.3m	£135.2m	£143.3m

Source: AMION Consulting (2016) Bristol Arena –Economic Appraisal – Revised Draft

The underlying assumptions and methodology that were used to estimate the employment and GVA impact are set out in detail in Section 4.1.3.

<sup>25</sup> It should be noted that the 60,700 sq m of floorspace identified within the BTQEZ as having the potential to be catalysed by the Arena, is located on sites adjacent to the Temple Island site and does not cover the whole of the BTQEZ, which spans over 100 hectares.

<sup>26</sup> Accumulated over a 25 year period and discounted at 3.5% in accordance with HM Treasury guidelines

Using these estimated economic impacts and a cost estimate for the Arena of £98.9m, AMION estimated the BCR for the Temple Island Arena project

Figure 29 sets out the BCR and the net present value (NPV) presented in the 2016 AMION report.

**Figure 29: Benefits, costs and BCR assessment over 25 years, AMION 2016**

		Temple Island Arena	Total Arena and wider development
<b>Benefits</b>	Net <sup>27</sup> discounted GVA – construction phase	£59.1m	£136.5m
	Net discounted GVA – operational phase	£298.3m	£576.8m
	Business rates	£3.1m	£16.3m
	<b>Total benefits</b>	<b>£360.5m</b>	<b>£729.6m</b>
<b>Costs</b>	Total capital costs	£94.8m	£94.8m
<b>BCR</b>		3.8:1	7.7:1
<b>NPV of the Temple Island Arena scheme</b>		£265.7m	£634.8m

Source: AMION Consulting (2016) Bristol Arena – Economic Appraisal – Revised Draft

It should be noted that the assessment of the BCR above does not take full account of the additionality of the project. Specifically it does not factor in the deadweight of the project, i.e. what would happen if the Temple Island Arena is not brought forward on the Temple Island site.

In order to assess this, the estimated benefits were compared by AMION to a reference case based on the development on the site it was thought would occur if the Arena was not brought forward. This reference case was developed by AMION based on a BCC commissioned land evaluation study. It assumed that, in the absence of an Arena, the Temple Island site would be developed for commercial and residential uses and developments on the BTQEZ would also be brought forward. These would be brought forward over a longer time period (from 2021 onwards) than if the Arena were to be developed.

Deducting the estimated impacts of the developments assumed in the reference case, AMION estimated that the net additional GVA (in NPV terms over 25 years) of the Arena would be £72.5m, yielding a BCR of 1.8:1. Factoring in the wider developments, the net additional GVA would be £227.5m, yielding a BCR of 3.4:1.

#### 4.1.2 Review of the key inputs into the 2016 AMION economic impact assessment

In the time period since the 2016 economic impact assessment was conducted by AMION, there have been a number of developments affecting the Temple Island site and wider BTQEZ. These affect the outputs assumed in the AMION economic assessment. In particular:

- **Wider Temple Island site:** The University of Bristol has purchased 19,158 sq m of the Temple Island site (i.e. the remaining site that would not be use for the Arena development). This is now being brought forward for development.
- **Adjacent sites in the BTQEZ:** The former Post Office sorting depot site has been purchased by the University of Bristol. This accounts for 11,250 sq m of the 60,700 sq m of the commercial floorspace available on adjacent sites in the BTQEZ. This is also being brought forward for development.

<sup>27</sup> The net impacts presented in the AMION report do not take into account the deadweight of the Bristol Temple project and therefore should not be considered as true net figures.

### **4.1.3 Review of the key assumptions and approach adopted in the AMION economic impact assessment**

We have reviewed in detail the key assumptions and approach adopted by AMION to estimate the impacts and value for money in the economic impact assessment conducted (by AMION) in 2016. This includes considering the relevance of the assumptions given changes that have taken place since the assessment was prepared.

The findings of our review are detailed in Figure 30.

**Figure 30: Review of the key assumptions and approach adopted by AMION**

Area	Assumptions/approaches used in AMION report		KPMG appraisal
	Construction phase	Operational phase	
<b>Arena impacts</b>			
Total events	Not applicable.	AMION indicates that estimates for the total number of events per year were provided by the operator: — 96 events in year 1 of operation. — 107 events in year 2 of operation. — 122 events per year from year 3 of operation onwards.	We have consulted with the operator and the estimates used by AMION remain valid.
Visitors	Not applicable.	AMION indicates that estimates for the total number of attendees at events per year were provided by the operator. These were based on the number and type of events that are expected to be held each year.	We have consulted with the operator and the estimates used by AMION remain valid.
Visitor expenditure	Not applicable.	Visitor expenditure was estimated by AMION based on a benchmarking against average expenditure data available from VisitBritain through its domestic tourism survey. Visitor expenditure was estimated separately for those attendees expected to stay overnight compared to day visitors. However, the AMION report does not explicitly state the breakdown of day and staying visitors or the average expenditure per visitor that has been used.	Given the lack of detail available in the AMION report it is not possible to review the assumptions used. However, we consider the following assumptions appropriate: — 88% of attendees will be day visitors and the remaining 12% of attendees will stay overnight (based on VisitBritain data on the number of domestic tourism day and overnight trips to Bristol). — Average spend of day attendees will range from £39.14 to £44.32 depending on the type of event that visitors are attending <sup>28</sup> (based on Destination Bristol data on average spend per trip for Bristol and VisitBritain data on average spend per trip by purpose for the South West). — Average spend for attendees staying overnight will be £164.74 (based on Destination Bristol data on average spend per trip for Bristol).
Multiplier effects	Scottish multipliers were used to estimate the indirect and induced impacts for both the arena and the wider development.	AMION has used Scottish multipliers to estimate the indirect and induced impacts for both the arena and the wider development.	Updated multiplier figures have been published by the Office for National Statistics (ONS) and the Scottish Government since the AMION analysis

<sup>28</sup> For those attending a concert the average spend used is £44.52 per trip, for those attending a live sports event it is £47.92 per trip and for those attending a public event such as a festival, exhibition or conference, the average day spend used is £39.14.

Multipliers of 1.6 and 1.5 were used for construction activities and professional service activities respectively. The multipliers were also adjusted to a sub-regional level based on guidance published by the Department Business, Energy, Innovation and Skills<sup>29</sup> (BEIS).

For the arena the following multipliers were applied:

- Direct employment: 1.5
- Indirect (off-site) employment: 1.4

For the wider development the multipliers applied were:

- Office: 1.4
- Retail and leisure: 1.4

was conducted. The updated employment multipliers are as follows:  
 Construction activities: 1.9<sup>30</sup>  
 Professional service activities: 1.6<sup>31</sup>

For the operation of the arena, we consider it appropriate to use multipliers relating to SIC code 81. As a result the following multipliers have been applied in KPMG's revised economic analysis:  
 — Direct employment: 1.2  
 — Indirect (off-site) employment: 1.3

For the wider development the indirect multipliers for Retail and Food and Beverage service activities in KPMG's economic analysis are:<sup>32</sup>  
 — UK indirect: 1.49  
 — Scottish Government Type I: 1.20  
 — Scottish Government Type II: 1.45

#### Assessment of additionality

Deadweight (the reference case)

Based on a land evaluation study commissioned by BCC, AMION assumed that if the arena development did not come forward the Temple Island site would instead be developed for mixed commercial and residential use. AMION anticipated that the construction of these developments would come forward over a relatively extended period (from 2024 onwards).

AMION assumed that if the arena development did not come forward the Temple Island site would instead be developed for mixed commercial and residential use. These developments would generate employment and GVA in the period from 2024 onwards.

The scope of our work does not include an assessment of the viability of alternative developments on the Temple Island site. We note that a significant amount of time has elapsed since the commissioning of the land evaluation study and wider changes will have impacted the development potential of the site (including, the University of Bristol's planned developments and the station redevelopment). The potential for alternative and associated developments if the arena were to not go ahead on the Temple Island site (the reference case), and any associated economic impact should be assessed. This represents the opportunity cost of proceeding with the arena on the site. KPMG has undertaken this assessment in our Phase 2 report.

<sup>29</sup> Formally the Department for Business, Innovation and Skills (BIS)

<sup>30</sup> SIC code 41: Construction of buildings.

<sup>31</sup> SIC code 71: Architectural and engineering activities; technical testing and analysis.

<sup>32</sup> Based on the average of the multipliers for SIC codes 47 and 56.

Leakage	<p>The rate of leakage of economic impacts out of West of England used by AMION was based on travel to work data taken from the 2001 and 2011 census data. The analysis assumes leakage rates of 10% and 12% for the construction sector and professional services sector respectively.</p>	<p>Based on travel to work data from the 2011 census, for the impacts associated with the arena a leakage rate of 6.9% was applied by AMION to direct employment and 7.1% for indirect employment.</p> <p>For the impacts associated with wider development, a leakage rate of 11.6% was assumed by AMION for office developments and a rate of 7.7% was assumed for retail and leisure developments.</p>	<p><b>Construction phase</b></p> <p>Construction activity for the arena will be undertaken in Bristol. As a result we expect that the majority of direct economic impacts, will be retained in Bristol and the West of England. However, we note that contractor Buckingham is based outside of the West of England and therefore if some activity in relation to the construction may take place at the headquarter site. We would assume that there will be a low level of leakages.</p> <p>The UK Government Additionality Guide<sup>33</sup> provides guidance on levels of leakage. The additionality guide provides a low rate of leakage of 10%.</p> <p><b>Operational phase</b></p> <p>Given that the arena is in Bristol all direct impacts associated with its operation will be generated in Bristol as this is where the activity takes place, irrespective of the home geographic location of the employees.</p> <p>There will be leakage of indirect impacts, however, given that suppliers to the arena are likely to be based across the UK (and potentially internationally). However, these leakages are not associated with the travel to work distance of direct employees of the arena but dependent on the geographic location of suppliers.</p> <p>The level of leakage outside of the UK economy can be captured in the analysis through the use of UK economy economic multipliers (which</p>
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<sup>33</sup> English Partnerships (2008) Additionality Guide: A standard approach to assessing the additional impact of interventions.

take account of imports). To capture leakages outside of Bristol, it is appropriate to use regional economic multipliers. These can be based on location quotient analysis. Alternatively, the UK Government Additionality Guide<sup>34</sup> provides guidance on levels of leakage. A low to medium level of leakage (which may be considered reasonable for the Arena) assumes leakages of between 10% and 25%. The midpoint of 17.5% could be used as a conservative estimate of leakage.

<p>Displacement</p>	<p>A displacement rate of 10% was used by AMION, which suggests relatively low levels of displacement.</p> <p>For the wider development on the Temple Island and BTQEZ sites, AMION assumed that there are relatively long time periods over which construction activity is expected to take place and therefore relatively low levels of displacement from other major construction projects across the West of England and the UK.</p>	<p>The AMION report indicates that displacement levels were derived from the ERS Research and Consultancy report 'Bristol Entertainment Venues Study'. However, the approach used to derive the rates assumed is unclear.</p> <p>For the arena development displacement rates of 5% for direct employment and 20% for indirect (off-site) employment were used.</p> <p>For the wider development, a displacement rate of 50% for both office and retail and leisure developments were applied in the analysis</p>	<p>The ERS study suggests that other venues in Bristol did not anticipate significant competition from the arena in terms of booking acts and pulling away audiences. It was reported that this is because the arena and existing venues will, in general, accommodate of different segments of the events market, with the arena likely to book larger acts in comparison to the existing Bristol venues.</p> <p>This view was confirmed in our interview with the Arena Operator. It was stated that the main competitors for the Temple Island Arena would be other large UK Arenas, in particular those in Cardiff, Birmingham and London. It was considered that the Temple Island Arena will unlock the market in the South West of England, for example Devon and Cornwall, which are currently not served by a large local arena. The catchment area for audiences would likely cover a wide area around Bristol, extending to the South West and West of England.</p> <p>Overall this suggests low levels of displacement for the arena in operational phases, in line with AMION's assumed levels. This may be conservative, however, given that economic impact assessments conducted for other events</p>
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<sup>34</sup> English Partnerships (2008) Additionality Guide: A standard approach to assessing the additional impact of interventions.

suggest similar if not lower levels of displacement for the indirect impacts<sup>35</sup>.

For the wider development catalysed, we have assumed a displacement rate of 50%. The developments that BCC considers will be catalysed are retail and leisure developments. As a result, there is likely to be a degree of displacement of economic activity from other retail and leisure businesses within the region. We have therefore applied a medium displacement factor, sourced from English Partnerships (2008) *Additionality Guide: A standard approach to assessing the additional impact of interventions*.

### Wider regeneration

Wider Arena impacts      Not applicable.

It was assumed that in addition to the direct impacts generated through the arena, the arena would catalyse the development of 9,600 sq m of commercial floorspace, and the building of 80 housing units on the wider Temple Island site.

The University of Bristol has purchased 19,158 sq m of the Temple Island site (i.e. the remaining site that would not be used for the arena development). Therefore, an output of the arena will not be wider development of 9,600 sq m of commercial floorspace or 80 housing units on the wider Temple Island site as assumed in the AMION report. We have set out our appraisal of the wider developments in detail in Sections 4.2.3 and 4.2.4 below.

Adjacent sites      Not applicable.

The AMION report identified a number of sites adjacent to the Temple Island site where development could also be catalysed as a result of the construction of the arena. Overall, these adjacent sites consist of 60,700 sq m of commercial floorspace, of which it was assumed that 52,780 would be brought forward as a result of the arena.

The former Post Office sorting depot site has been purchased by the University of Bristol. This accounts for 11,250 sq m of the 60,700 sq m of the commercial floorspace available on adjacent sites in the BTQEZ. Therefore, an output of the arena will not be the development of the Post Office sorting depot site. Developments may be catalysed by the arena on the wider site. Our assumptions in relation to this are set out in detail in Section 4.2.3.

<sup>35</sup> In *KPMG (2017) Colston Hall economic impact assessment* and *KPMG (2016) Great Britain: Flying High. Economic impact study of Land Rover BAR and the Louis Vuitton America's Cup World Series Portsmouth 2016*, the reported levels of displacement for off-site visitor spending were 16% and 11% respectively.

<p>GVA per employee</p>	<p>GVA per employee figures used in AMION's analysis were based on data from the ONS. Specifically, for the construction phase, GVA per employee of £62,500 and £70,000 for the construction sector and professional services sector respectively were used in the analysis.</p> <p>Figures were discounted at 3.5%.</p>	<p>For the operational phase of the project, GVA per employee for the Temple Island Arena was assumed by AMION to be:</p> <ul style="list-style-type: none"> <li>— £45,000 for the arts, entertainment and recreation sector.</li> <li>— £25,000 for retail and accommodation and food service sectors.</li> </ul> <p>For the wider development, the following GVA per employee figures were used:</p> <ul style="list-style-type: none"> <li>— £68,500 for office developments (based on a composite of office based sectors<sup>36</sup>).</li> <li>— £25,000 for leisure developments.</li> </ul>	<p>An alternative approach to assessing the GVA impacts, based on financial projections available for the arena, may produce a more accurate assessment of the GVA impacts.</p> <p><b>Construction phase</b></p> <p>Data is available relating to the estimated construction costs of the arena. Based on the ratio of output to GVA for the relevant sector this can be used to derive GVA estimates and then employment estimates based on the GVA per employee figures available from the ONS for the relevant sectors. The relevant GVA per employee figures are:</p> <ul style="list-style-type: none"> <li>— £76,640 for construction<sup>37</sup></li> <li>— £52,906 for architectural and engineering<sup>38</sup></li> </ul> <p>These figures are relevant for the year 2014 and therefore differ from the figures applied by AMION which were an average of data from 2008 to 2012.</p> <p><b>Operational phase</b></p> <p>Financial projections are available from the operator relating to the operation of the arena. These data can be used to estimate the direct GVA of the arena when operational. The financial projections also contain information on the expected supply chain costs. Supply chain costs can be converted into GVA estimates by applying the ONS GVA to output ratios for the relevant sectors. Indirect and induced effects can consequently be estimated by applying the relevant multipliers for the sector of activity. Once GVA to output ratios have been applied, employment impacts can be estimated by dividing GVA by the appropriate GVA per employee figures. Indirect and induced employment effects</p>
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<sup>36</sup> Based on 2007 SIC sections J, K, L, M and N.

<sup>37</sup> Based on SIC code 41: Construction of buildings

<sup>38</sup> Based on SIC code 71: Architectural and engineering activities: technical testing and analysis.

are estimated by applying the relevant sector employment multipliers.

**Wider developments**

The GVA per employee figures used by AMION in the estimation of wider impacts have been updated by the ONS. The updated GVA per employee figure for retail and food and beverage service activities is £36,145<sup>39</sup>.

Employment densities	Not applicable.	<p>Employment densities, sourced from the HCA<sup>40</sup>, were used by AMION to estimate the potential levels of employment generated as a result of developments on the Temple Island and BTQEZ sites.</p> <p>The following employment densities were used:          — Office: 12 sq m per FTE          — Retail and food and beverage: 19 sq m per FTE.</p>	<p>The HCA has updated the employment density figures that were used by AMION. Therefore, the updated figures are<sup>41</sup>.          Office: 10 to 13 sq m per FTE          Retail and food and beverage: 15 to 20 sq m per FTE.</p>
Occupancy rates	Not applicable.	AMION assumed a 95% occupancy rate for wider developments in the BTQEZ. The report does not contain evidence to support this assumption.	<p>Evidence to support the assumed occupancy rate is required.</p> <p>Data from the West of England Combined Authority indicates that there was a Bristol wide retail vacancy rate of 6.7% as of July 2017<sup>42</sup>. This equates to an occupancy rate of 93.3%.</p>

Source: KPMG review of AMION consulting (2016) Bristol Arena – Economic Appraisal – Revised Draft

<sup>39</sup> Based on average of SIC codes 47 and 56.

<sup>40</sup> Home and Communities Agency (2010) Employment Densities Guide, 2<sup>nd</sup> Edition.

<sup>41</sup> Home and Communities Agency (2015) HCA Employment Density Guide, 3<sup>rd</sup> Edition.

<sup>42</sup> West of England Combined Authority (2017) West of England Quarterly Economic Bulletin: July 2017.

## 4.2 KPMG's revised economic impact assessment

Based on the findings of our review of the key assumptions and approach adopted by AMION to estimate the economic impacts associated with the proposed arena, we have revised the assessment to re-estimate the GVA and employment impacts. In particular, the economic case has been revised to reflect:

- changes to key project inputs, including the capital cost of constructing the Arena and the development potential of adjacent sites;
- updates to the external data used in the analysis (e.g. ONS economic multipliers and HCA employment densities); and
- alternative methodological approaches for estimating the impacts.

Our assessment is based on the costs and economic impacts associated with the proposed arena going forward and the value for money of any additional funding required for the project. BCC's decision of whether to proceed with the proposed Arena should be made on the basis of the future costs and benefits of the project, therefore we have not included costs or benefits already incurred/generated in relation to the Temple Island Arena project in our analysis. This is in accordance with the HM Treasury Green Book, which states that any sunk costs, i.e. those already incurred, should be excluded from an appraisal<sup>43</sup>.

Our revised analysis covers:

- the economic impact associated with the construction phase of the arena;
- the economic impact generated through the operation of the arena, including the supply chain (indirect) impacts and induced impacts;
- the impact of visitor spending; and
- the potential wider catalytic impacts in terms of wider developments on adjacent sites.

Our analysis of each of these individual impacts are set out in Sections 4.2.1, 4.2.2 and 4.2.3 below.

The total economic impact of the arena is the sum of all of these areas, however, it should be noted that as impacts from construction are temporary, these are not usually included in estimates of total economic impact.

Our revision of the analysis of the economic impacts has been carried out in accordance with the principles set out in the HM Treasury Green Book, and in some case our approach differs from that used by AMION. We have highlighted where this is the case.

These economic impacts are assessed on an annual basis and in Net Present Value (NPV) terms over both a 25 year period (to align with the AMION analysis and the useful asset life of the arena asset identified by BCC).

Our updated estimates of the total economic impact of the arena on the Temple Island site are used in Section 4 to estimate the NPV, BCR and the overall value for money of the Arena.

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<sup>43</sup> HM Treasury (2018) The Green Book: Central Government Guidance on Appraisal and Evaluation.

## 4.2.1 Economic impact associated with the construction phase of the arena

The total forecast cost for the construction of the Arena is £156.3m<sup>44</sup>, of which:

- £122.1m are direct costs generated through the contract with Buckingham.
- £34.2m are costs that will be/ have been incurred by BCC in commissioning the construction of the Arena, this includes, but is not limited to, costs related to the commissioning of architects to design the Arena and the cost associated with the BCC arena project team bringing the project forward. £12.2m of the construction related costs have already been borne by BCC<sup>45</sup>. Therefore, these costs (and their associated economic impact) have already been realised and are not considered in our analysis. It also includes BCC risk contingencies above those included in the Target Cost

While the spending associated with the construction of the arena will generate economic impact, this impact will only be generated for a limited time, over the construction period. At present it is expected that construction of the Arena will take approximately two years, commencing in 2019 and completing in 2021.

In order to estimate the economic impact associated with the construction phase of the arena development, we have adopted a different approach to AMION. We have applied the ratio of GVA to output for the construction sector to the total construction cost going forward, resulting in an estimate of the direct GVA generated directly through the construction of the Arena.

The indirect and induced GVA has been estimated by applying the relevant ONS multipliers for the construction industry. Similarly, the employment impact has been estimated by dividing the direct GVA by the relevant GVA per employee for the construction industry. The indirect and induced employment is estimated by applying the relevant employment multipliers. We have applied the assumption used in the AMION report, that 10 person years of employment is equivalent to one FTE. Therefore employment figures have been presented in annual FTEs terms, over a 10 year period.

Using the approach and assumptions detailed in the KPMG review column of Figure 30 above, we estimate the construction of the arena could generate, in gross terms, £134.1m in GVA and 176 FTE jobs for the construction period. Figure 31 below sets out the estimated GVA and employment impacts. Impacts have been assessed in both gross and net terms, taking into account displacement and leakage factors<sup>46</sup>.

**Figure 31: Gross and net temporary GVA and employment impacts generated through the construction of the arena**

	GVA	Employment (FTEs)
Direct (gross)	£60.6m	83
Indirect (gross)	£50.2m	70
Induced (gross)	£20.3m	23
<b>Total (gross)</b>	<b>£134.1m</b>	<b>176</b>
<b>Total (net)</b>	<b>£107.3m</b>	<b>141</b>

Source: KPMG analysis

<sup>44</sup> Construction cost for Arena only, excluding the cost of construction of additional car parking facilities.

<sup>45</sup> As of March 2017. This figure excludes the purchase of the Temple Island site funded by the HCA grant.

<sup>46</sup> Our assumptions on the level of displacement and leakage associated with the construction of the Arena are set out in Figure 30 above.

## 4.2.2 Economic impact generated through the operation of the Arena

### 4.2.2.1 Economic impacts of the Arena

#### GVA

As the Arena Operator prepared a Profit and Loss Account for the Arena as part of the Full Business Case submitted to the West of England LEP, we are able to use the financial information it contains to conduct a more detailed assessment of the potential economic impacts of the operation of the Arena.

Using this financial information we have estimated the direct GVA associated with the operation of the arena, using the production approach<sup>47</sup>.

Indirect GVA will also be generated through supply chain expenditure related to the operation of the arena and induced GVA will be generated by direct and indirect employees' wage spending. We have estimated these impacts by using the profile of supplier costs as set out in the Arena Operator's Profit and Loss account. Tier 1 supplier indirect GVA has been estimated by applying the ratio of GVA to output to the supplier costs. Based upon these estimates, the indirect and induced GVA has been estimated using ONS and Scottish Government multipliers. This approach differs to the one adopted by AMION.

Over 90% of the total tier 1 ongoing supplier costs associated with the arena are in four sectors, these sectors are:

- Office administrative, office support and other business support activities;
- Food and beverage service activities;
- Services to building and landscape activities; and
- Electric power generation, transmission and distribution.

The remaining supplier spending is split across a number of industries including, activities of head offices; management consultancy activities, employment activities and retail trade, except of motor vehicles and motorcycles.

The estimated annual gross direct, indirect and induced GVA of the arena for years 1, 2, and 3 onwards are detailed in Figure 32 below. This figure also presents an assessment of the GVA generated in Bristol and the West of England.

**Figure 32: Gross GVA generated through the operation of the Arena**

	Year 1	Year 2	Year 3 onwards
Direct	£2.4m	£2.8m	£3.1m
Indirect	£2.2m	£2.4m	£2.4m
Induced	£0.9m	£1.0m	£1.2m
<b>Total</b>	<b>£5.5m</b>	<b>£6.2m</b>	<b>£6.7m</b>
<i>Of which, is generated in Bristol</i>	<i>£4.5m</i>	<i>£5.1m</i>	<i>£5.5m</i>
<i>Of which is generated in the West of England (including in Bristol)</i>	<i>£5.2m</i>	<i>£5.9m</i>	<i>£6.3m</i>

Source: KPMG analysis

<sup>47</sup> Using the production approach, GVA is estimated as output less intermediate costs. See ONS (2010) Measuring the economic impact of an intervention or investment: Paper 1.

A certain degree of the total GVA will not be retained within Bristol or the West of England region. Using BEIS<sup>48</sup> sub-regional and regional leakage figures for capital projects<sup>49</sup>, we have estimated the GVA that could be retained within Bristol and the West of England. Our figures are presented in Figure 32 above.

The analysis presented in Figure 32 is in gross terms. We have also considered the economic impact of the Arena in net terms, i.e. taking into consideration the leakage and displacement of the impact generated through the operation of the Arena. Our underlying assumptions with regards to these factors are set out in Section 4.1.3. We have also applied a social time preference rate (STPR) discount rate of 3.5% , based on HM Treasury Green Book guidance, in order to estimate the GVA impacts in NPV terms for a 25 year timeframe. The results are set out in Figure 33 below.

**Figure 33: Net NPV GVA impacts generated in Bristol through the operation of the Arena**

	NPV GVA impact
Over 25 year period	£75.4m

Source: KPMG analysis

### Employment

The Arena Operator has indicated that it expects to employ on a permanent basis 37 full-time equivalent (FTE) individuals for the ongoing operation and management of the Arena.

In addition, temporary/ part-time staff will be employed on event days in roles such as security, serving food and beverages and stewarding. The operator estimates that on these event days approximately 400 additional persons will be employed on site. Assuming that each person works a full day of employment<sup>50</sup> when converted to FTE terms, there will be an additional 105 to 123 FTE employees directly hired per year, based on the forecast number of events per year.

Therefore, in total the Temple Island Arena will directly create 142 FTE jobs in the first year, increasing to 160 FTE jobs from year three onwards.

The supply chain spending and the wage spending of employees will also generate indirect and induced employment, respectively<sup>51</sup>.

The estimated annual direct, indirect and induced employment (in FTE terms) of the Arena for years 1, 2, and 3 onwards are detailed in Figure 34 below.

**Figure 34: Gross employment in FTE terms generated through the operation of the Arena**

	Year 1	Year 2	Year 3 onwards
Direct	142	154	160
Indirect	62	68	70
Induced	9	9	10
<b>Total</b>	<b>213</b>	<b>232</b>	<b>240</b>

Source: KPMG analysis

Of the total jobs generated through the operation of the Arena, we estimate that in the first year 186 net FTE jobs will be based in the West of England, rising to 203 net FTE jobs in the second year and net 210 FTE jobs from year three onwards.

<sup>48</sup> Formerly BIS.

<sup>49</sup> Leakage figures are taken from BIS (2009) Research to improve the assessment of additionality.

<sup>50</sup> Through consultation with the Arena operator we know that the number of hours that people will work on event days ranges from 4-12 hours. However, we were informed that the majority of employees will work 6 hours or a full work day equivalent. We have therefore assumed that all show day employees work a full 7 hour work day.

<sup>51</sup> We have estimated these impacts by using the profile of supplier costs as set out in the Arena operator's profit and loss accounts. The supplier costs have been converted to a direct GVA estimate using the relevant GVA to output ratio for each industry. Using the estimated direct GVA and the corresponding GVA per FTE for each industry, tier 1 indirect employment has been calculated. Wider supply chain indirect and induced employment has then been estimated by applying ONS and Scottish Government employment multipliers.

#### 4.2.2.2 Economic impacts from attendee spending in the wider economy

The Arena Operator has estimated that more than half a million people will attend events at the Arena every year. These attendees are likely to spend within the local economy, generating additional GVA and employment impacts.

Our estimation of the economic impact of this attendee spending in Bristol is based on:

- An estimate of the proportion of Arena attendees that will be day and overnight visitors. This is based on data on domestic tourism trips to Bristol<sup>52</sup> from Destination Bristol and VisitBritain<sup>53</sup>.
- Estimates of average attendee spending, by type of spend, (e.g. food and drink, retail, transport, accommodation) for day and overnight visitors. This is based on domestic tourism data from Destination Bristol.
- Conversion of estimated attendee spending to direct GVA, based on the relevant sector level GVA to output ratio for the different categories of attendee spending.
- Estimates of indirect and induced GVA based on applying the relevant sector level economic multipliers to the direct GVA associated with different categories of attendee spending.
- Estimates of employment impacts based on the estimated GVA impacts and the average GVA per FTE for each relevant sector.

Figure 35 sets out our estimates of Arena attendee spending and the associated GVA and employment impacts for years 1, 2, and 3 onwards.

It should be noted that this additional spending and the relevant economic activity (in terms of GVA and employment) may be with established business in Bristol or new businesses established to cater for the increased demand. We do not analyse the distribution across businesses. We take care to avoid double counting of the impacts associated with attendee spending.

We estimate that additional attendee spending will generate between 550 and 647 gross FTE jobs. The employment generated through attendee spending is likely to be concentrated in the retail and accommodation and food services sectors. In the West of England, the majority of jobs in these sectors are part-time. According to data available from the ONS<sup>54</sup>, 59% of those employed in the retail sector in the West of England are employed on a part-time basis. Meanwhile the equivalent figure for the accommodation and food services sector is 58%.

A proportion of the attendee spending associated with their visit to the Arena will be spent outside of Bristol and the West of England region, for example on transport. This represents a leakage of the spending, and thus economic impacts associated with the spending, out of the local economy. The gross impacts should be adjusted for this. As set out in Figure 30 we consider it reasonable to assume a leakage level of 17.5%.

It is likely that a proportion of the attendee spending will displace other spending that would take place if the attendees were not to attend events at the Arena. It is possible that if they were not to attend an event at the Temple Island Arena, the individuals will attend an alternative event or undertake an alternative activity. Based on our review of the AMION assumption around the level of displacement

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<sup>52</sup> The figure used is for all domestic tourism trips to Bristol and is not specific for trips where the intended purpose is to attend a live event or conference/ exhibition. As a result it is possible that the proportion of day to overnight trips is either over- or under-estimated, dependent on the relative catchment areas of all visitors to Bristol, compared to the catchment area for Arena attendees.

<sup>53</sup> VisitBritain (2016) The GB Tourist: Statistics 2015.

<sup>54</sup> Office for National Statistics (2017) Regional level employment (thousands) by BIG (public/private sector split).

for attendee spending, we consider that assuming a displacement level of 20% for this spending is reasonable.

Taking both displacement and leakages into account, Figure 35 also summarises our estimates of the net GVA and employment impacts at a West of England level, generated as a result of attendee spending associated with their visit to the Arena.

**Figure 35: GVA and employment impacts associated with Arena attendee spending**

	Year 1	Year 2	Year 3 and onwards
Total attendees	509,200	571,100	599,655
Estimated attendee spending	£30.2m	£33.9m	£35.6m
Gross GVA impact	£28.6m	£32.1m	£33.7m
Gross total employment impact	550	617	647
Net GVA impact	£15.6m	£16.9m	£17.1m
Net employment impact	344	385	405

Source: KPMG analysis

### 4.2.3 Catalytic economic impacts associated with wider developments

In the Full Business Case prepared for the Arena and the AMION 2016 economic impact assessment it was suggested that the proposed development of the arena on the Temple Island site may catalyse wider developments, both on the remaining space on the Temple Island site as well as at adjacent sites in the BTQEZ.

To inform our assessment of the potential for wider developments to be brought forward as a result of the Arena development we have reviewed the latest information relating to the relevant sites and have consulted with stakeholders at BCC, University of Bristol, Destination Bristol and at the BTQEZ to understand how the Arena may drive forward wider investment in developments in the future.

We recognise that the proposals for the Arena plans may have already had an impact in terms of encouraging inward investment to the BTQEZ by signalling to developers that the enterprise zone is a key future development in Bristol. In addition there are infrastructure works around the Temple Island site which we have been informed by BCC representatives that the proposed Arena development supported the business case for, for example the St Phillips footbridge. However, our review considers the potential for further developments coming forward in the future.

As noted above, as part of our review we consulted with representatives from a range of stakeholders. In general, the view was that there is limited scope for the Arena to further catalyse development in the surrounding area, given its nature and the plans already underway. It was suggested that the Arena development will not have a substantial impact in directly driving investment into the enterprise zone. Other key developments, such as the new University of Bristol campus, were considered to have clearer and stronger links with the vision and purpose of the BTQEZ and would be more likely to attract developers and businesses into the enterprise zone. It was noted that the Arena could potentially encourage more development by attracting retail and food businesses to the BTQEZ. This type of development is currently considered to be lacking in the enterprise zone and is thought to be important in the public perception of Temple Quarter as a new city district. However, when compared to the high tech, creative and digital, low carbon and professional services sectors which the BTQEZ is focused on, retail and food businesses tend to have lower economic impacts in terms of GVA and lower levels of skilled jobs. The GVA and employment driven by Arena attendees' retail, food and drink and leisure spending is already captured in our analysis in Section 4.2.2.

Furthermore, when the updated business and economic cases were produced by AMION in 2016, it was generally thought that securing the arena on the Temple Island site would help to unlock the redevelopment of the Temple Meads station. In turn, this would improve access to the BTQEZ overall and more specifically the Sorting Depot site. However, since these reports were prepared, the Temple Meads station redevelopment plans have been progressed by BCC with the support of Network Rail,

HCA, and the West of England LEP. Therefore, the Arena specifically is not a driving force behind the redevelopment of Temple Meads station. However, it should be noted that given the large footfall and the potential impact this footfall would have on the station, the Arena may influence decisions regarding the redevelopment of the station, for instance decisions concerning the location of station entrances and exits.

The AMION economic impact assessment identified 60,700 sq m of development floorspace on adjacent sites in the BTQEZ which could be developed. Of this, it was assumed that 52,780 sq m of development would be catalysed by the arena. The sites that were considered as being catalysed by the Arena development consisted of:

- the remaining floorspace on the Temple Island site;
- the Post Office Sorting depot site; and
- a selection of sites surrounding Temple Meads Station.

The University of Bristol has since purchased the remaining space on the Temple Island site and the Post Office Sorting depot site. These sites will be developed irrespective of whether the arena development goes ahead or not. Therefore, we consider that the arena will not play a role in catalysing the development of these sites going forward.

The remaining adjacent sites for which it was assumed that the Arena would catalyse development in the area surrounding Temple Meads Station, covering a total of 49,450 sq m commercial floorspace.

We have consulted with BCC to gain an understanding of how the Arena may catalyse development of these remaining adjacent sites. Given that Temple Meads Station will be redeveloped, it is considered that the station redevelopment will be the principal driver of development of these sites rather than the Arena. This is particularly the case for the floorspace designated for office space (34,550 sq m). The remaining 14,900 sq m is designated by BCC for retail space and representatives from BCC thought that the Arena may catalyse parts of this development.

BCC has identified 2,110 sq m of retail space on adjacent sites that it considers could be catalysed primarily as a result of increased footfall from attendees travelling to the Arena. We have used the floorspace identified by BCC and have assessed the potential economic impact associated with development of this floorspace, assuming:

- a 93.3% occupancy rate for the developments<sup>55</sup>;
- the space will be developed for retail use and, therefore, there will be one FTE per 17.5 sq m (based on HCA employment densities for retail space of 15 to 20 sq m per FTE)<sup>56</sup>; and
- a displacement factor of 50%<sup>57</sup>.

The results of our analysis are set out in Figure 36 below.

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<sup>55</sup> The occupancy rate has been based upon information provided in West of England Combine Authority (2017) West of England Quarterly Economic Bulletin: July 2017. More detail of what the occupancy rate refers to is set out in Figure 30.

<sup>56</sup> Home & Communities Agency (2015) Employment Density Guide, 3<sup>rd</sup> edition.

<sup>57</sup> The developments that BCC considers will be catalysed are retail and leisure developments. As a result, there is likely to be a degree of displacement of economic activity from other retail and leisure businesses within the region. We have therefore applied a medium displacement factor, sourced from English Partnerships (2008) Additionality Guide: A standard approach to assessing the additional impact of interventions.

**Figure 36: Analysis of the employment and GVA associated with the development of adjacent sites to the Arena, as identified by BCC**

Total floorspace (sq m)	Occupied floorspace (sq m)	Net employment (FTEs)	Total net GVA per year (£m)
2,110	1,969	56	£3.5m

Source: KPMG analysis

Based on the information provided by BCC and gathered through our research, we estimate that the wider development catalysed by the Arena would generate net 28 FTE jobs and £1.8m in net GVA per year. This is primarily through the development of retail space on sites adjacent to the Temple Island site, driven by an increase in footfall in the surrounding area.

It is likely that in the absence of the arena that the development of these adjacent sites will come forward, albeit potentially at a slower rate if the Arena did not proceed. In AMION's 2016 report, it was assumed that in the absence of the arena, the profile of wider development would come forward over a longer time period. Based on views from BCC, we have applied this same profile of development floorspace in our analysis however, we have assumed that development would be undertaken two years later. This was agreed with BCC and reflects the current status of plans for the arena, as well as the Temple Meads station masterplanning. Figure 37 below sets out the estimated profile of development and associated net GVA impact.

**Figure 37: Profile of floorspace and GVA of the catalysed wider developments associated with the Arena and the reference case**

	2023/24	2024/5	2025/6	2026/7	2027/8 onwards	Total
<b>Cumulative catalysed floorspace brought forward</b>						
Arena	832	1,189	1,969	1,969	1,969	1,969
Reference case	832	1,057	1,057	1,414	1,969	1,969
<b>Cumulative net GVA per year</b>						
Arena	£1.5m	£2.1m	£3.5m	£3.5m	£3.5m	£14.2m
Reference case	£1.5m	£1.9m	£1.9m	£2.5m	£3.5m	£11.3m
<b>Total additional net GVA per year from Arena</b>	<b>£0</b>	<b>£0.2m</b>	<b>£1.6m</b>	<b>£1.0m</b>	<b>£0</b>	<b>£2.9m</b>

Source: KPMG analysis based on information provided by BCC

Overall, we estimate that wider developments catalysed as a result of the Arena will generate an additional £2.2m of net GVA in present values, when compared to the reference case, i.e. the arena not being located on the Temple Island site.

It should be noted that the extent to which the Arena will catalyse additional economic activity within the local economy through attendee spending, such as spending in restaurants and bars, is captured in our analysis in Section 4.2.2. This economic activity may take place in the catalysed wider developments on the sites adjacent to the Arena or elsewhere in Bristol.

The Arena will increase Bristol's cultural and corporate hospitality offers. We discussed with Destination Bristol and BCC representatives, if this may impact on business location decisions and it was considered that although this could be a factor, it is unlikely to materially change or affect a location decision. Therefore, catalytic impacts to reflect this should not be included in the analysis.

We note, that although the Arena may not deliver the wider catalytic impacts previously estimated there are likely to be some risks associated with not proceeding with the Arena. In consultation with stakeholders, it was noted that a decision not to proceed may give the impression to investors, developers and the general public, that BCC is not confident in the Temple Island site. It was suggested that this may have some negative impacts in terms of developer confidence in any large scale BCC led capital plans and future development of the Temple Island site and across Bristol. This may hamper the realisation of economic benefits from development.

## 4.2.4 Reference case

In Figure 30 we have set out our assessment of AMION's view of the deadweight of the Arena project (i.e. the likely development that would take place on the Arena site if the arena development were not to proceed). The reference case should be used as a counterfactual scenario when assessing the relative value for money of the Arena project.

In its economic impact assessment, AMION uses a reference case for the Temple Island site based on a land evaluation study commissioned by BCC. Without the Arena development on the Temple Island site, it was considered that development of 30,660 sq m of office development and 470 housing units would be brought forward on the site.

Based on a number of key changes since the AMION report was produced, particularly the University of Bristol's purchase of part of the Temple Island site and station redevelopment plans, we consider that a revised reference case is more appropriate. We consider it reasonable to assume that development of the site would occur in the absence of the arena on the Temple Island site.

The scope of our work does not include an assessment of the viability of alternative developments on the Temple Island site. However, we note that a significant amount of time has elapsed since the commissioning of the land evaluation study and wider changes will have impacted the development potential of the site (including, the University of Bristol's planned developments and the station redevelopment). This represents the opportunity cost of proceeding with the Arena on the site. The potential impact of alternative developments are assessed in our report – Assessment of alternative development plans for the Temple Island site.

## 4.3 Business rates

In addition to the rental revenue that BCC will receive as a result of leasing the Arena, BCC will also receive business rates income from the Arena.

As the Arena will be built in an Enterprise Zone or Area, we understand from BCC that it will retain 49% of the business rates, with a further 50% going to the West of England EDF and the remaining 1% to the Fire Authority.

Since the AMION report was prepared, BCC has re-assessed the rateable value of the Temple Island site using Valuation Office estimates. The new BCC estimates suggest that BCC could receive £0.4m per annum in business rates. Based on the allocations of this business rate income, as set out above, this would result in £0.2m a year being allocated to the EDF and £0.2m to BCC.

As set out in the March 2016 Cabinet Paper<sup>58</sup>, BCC agreed to evenly split any on-off rebasing of the rateable value of the Temple Island site with the operator. This was an update on the Operator bid position, not previously covered. Under the contract, rate increases will remain an Operator risk. As a result of this decision, under the new business rates estimates, BCC would receive £0.1m in business rates per annum.

Over a 25 year appraisal period, BCC estimates that £10.8m would be received in business rates from the Arena, of which BCC would retain £3.5m. These estimates do not account for inflation or discount the values based on a STPR discount rate.

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<sup>58</sup> Bristol City Council (2016) Cabinet – 01 03 2016 Executive Summary of Agenda Item 8.

## 4.4 Social impacts

### 4.4.1 Social Return on Investment

We have analysed and quantified the impact of the Bristol Area in economic value and employment terms, however, as identified in Section 4.4.1 there will also be social impacts associated with the Arena development. In order to understand the potential social impacts that contribute towards the value for money of the Arena, we have reviewed the analysis presented by AMION and provided an assessment drawing on the principles outlined in the Social Return on Investment (SROI) framework developed by Social Value UK.

SROI is a framework for measuring and accounting for a broader concept of value, which not only captures the economic costs and benefits but also the social impacts<sup>59</sup>. The framework provides guidance on how to identify the social and economic outcomes associated with the relevant actions or activities and how to attribute a monetary value to them. SROI assessments can be both evaluative i.e. conducted retrospectively and based on actual data on outcomes, and forecast, to predicting value if activities meet the intended outcomes.

Guidance produced by Social Value UK<sup>60</sup> sets out the following steps for conducting an SROI assessment:

1. Identify inputs: identify what stakeholders are contributing in order to make the outcomes and impacts possible, this may be resources such as time and money.
2. Value inputs and activities: this step involves assigning a monetary value to non-monetised inputs, such as time. This may involve using proxies, such as average wages, as a proxy for the value of a non-monetised inputs.
3. Forecasting SROI: this involves forecasting the value of social impacts over time based on the expected quantity of inputs.

### 4.2.2 Review of AMION's social impact assessment

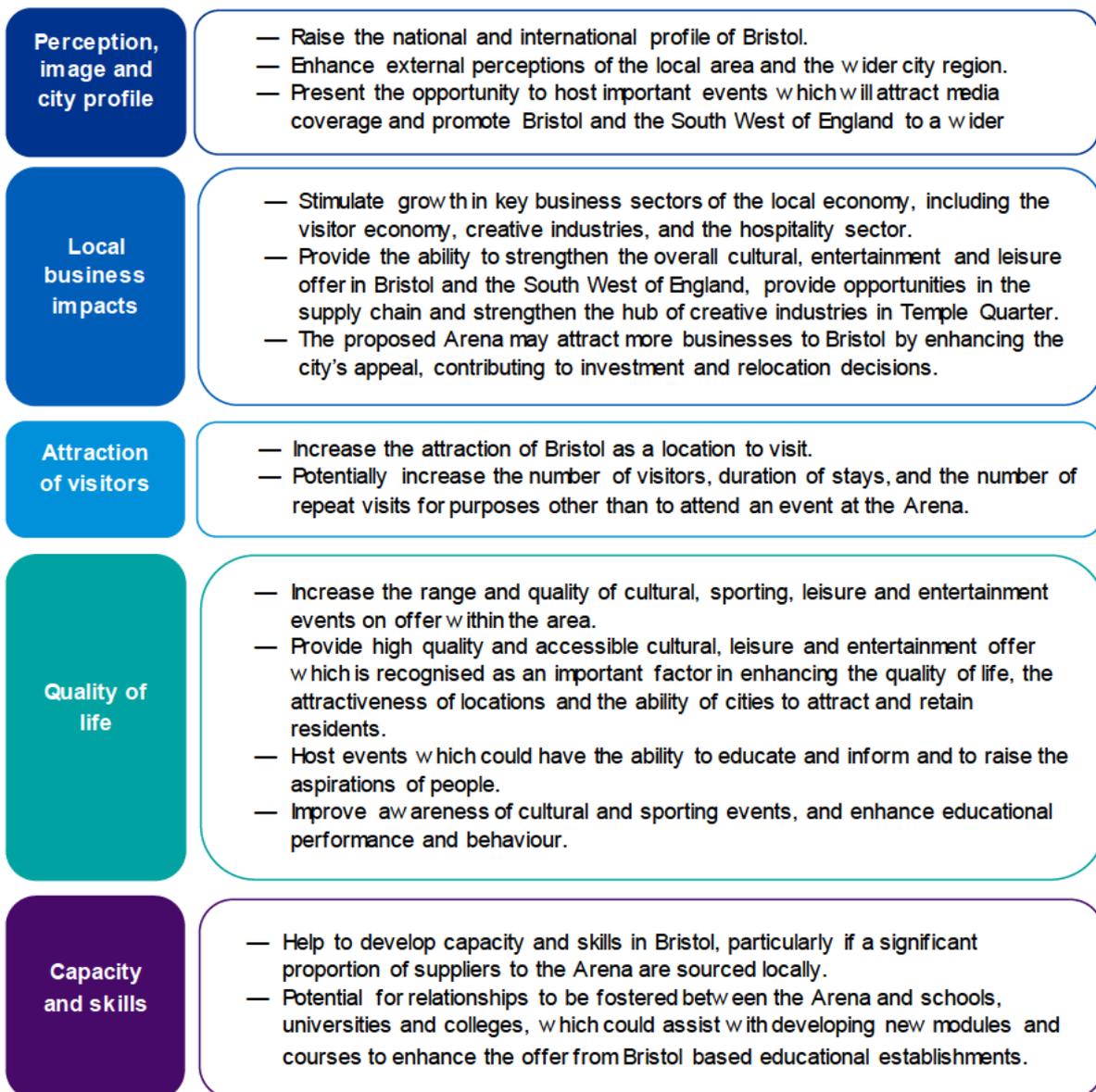
In its 2016 review, AMION set out a number of possible wider benefits that could be generated through the Arena development. The benefits were centred around five core themes. Figure 38 sets out these core themes and summarises the AMION assessment of the potential benefits.

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<sup>59</sup> Social Value UK (2012) A guide to Social Return on Investment

<sup>60</sup> Social Value UK (2012) A guide to Social Return on Investment

**Figure 38: Summary of the wider benefits of the Arena identified by AMION**



Source: KPMG review of AMION consulting (2016) Bristol Arena – Economic Appraisal – Revised Draft

AMION's assessment of the social impacts was wholly qualitative and did not attempt to monetise any of the impacts. Furthermore AMION does not reference any of its findings nor does it indicate the specific inputs and activities that would, beside the construction of the Arena, create the outcomes it has presented.

#### **4.4.3 KPMG assessment of the potential social impacts of the Arena**

In our following analysis we have updated and expanded upon the social impacts presented in the AMION report. Our assessment is based upon the latest data available, findings drawn out from our stakeholder engagement as well as relevant academic literature.

For the purposes of this study we have investigated the possibility of carrying out a forecast SROI analysis drawing on available data and evidence relating to inputs. Where possible we have quantified the inputs using the SROI framework and guidance on SROI methodologies produced by Social Value

UK<sup>61</sup>. However, we have been unable to fully assess the potential social value of the Temple Island Arena development as at present, there is insufficient information and data associated with the inputs/activities.

We have not assessed the potential environmental impact of the Arena as this is not in scope of this study. BCC may wish to consider environmental impacts associated with the Arena as part of its own assessment of the project.

Where we have been unable to quantify the social impact, we have assessed it in a qualitative manner as in accordance with guidance from the HM Treasury Green Book<sup>62</sup> and the SROI framework.

To fully understand the scale and extent of the social impacts associated with the Arena, a full SROI assessment of the social impacts should be conducted ex-post as part of general monitoring and evaluation of the project. An updated analysis could also be undertaken when the level of inputs and activities are agreed.

Our assessment of the social impacts can be summarised broadly into three main areas:

1. the construction of the Arena;
2. the staging of events; and
3. the wider cultural impact.

Each of these areas have been assessed individually in the following sections.

#### **4.4.3.1 Social impacts generated through the construction of the Arena**

Social impacts may be generated through the activities of the contractor; Buckingham, both leading up to and during the construction of the Arena. As part of its tender submission Buckingham put forward employment, skills and community engagement plans, which have been incorporated in to the PCSA. Therefore, these form contractually binding commitments. We understand from BCC that it has been working with Buckingham to develop the draft Employment and Skills Plan (ESP), with a revised draft produced in March 2018<sup>63</sup>. The finalised Plan will be part of the binding contractual undertakings to be delivered during the construction of the Arena.

Within the draft ESP, Buckingham has indicated it will “promote sustainable economic development”; “provide significant economic benefit to the local community” and “provide a positive impact on local pollution”.

More specifically, Buckingham is collaborating with BCC and other local stakeholders, such as Job Centre Plus, to develop and finalise targets for:

- recruitment of local people within a specific radius;
- targeted recruitment for those who are long-term unemployed and Not in Education, Employment or Training (NEET);
- training and apprenticeships for local people, focusing on training that will increase the opportunity for long-term employment;
- number of graduate placements offered for new job starts;
- number of work experience placements offered;

<sup>61</sup> Social Value UK (2012) A guide to Social Return on Investment.

<sup>62</sup> HM Treasury (2018) The Green Book: Central Government Guidance on Appraisal and Evaluation.

<sup>63</sup> Buckingham Group Contracting Limited (2017) Employment and Skills Plan (ESP) for Bristol Arena (revised March 2018).

- number of person weeks of training;
- the volume of business placed with local suppliers; and
- engagement events or initiatives, including pupil interactions, job and training opportunities and community initiatives.

Figure 2 in Section 1.2 contains more details of the targets currently agreed between BCC and Buckingham in relation to the construction of the Arena, as set out in the draft Buckingham Employment and Skills Plan.

In our analysis of the economic impacts associated with the construction of the Arena in Section 4.2.1, we have captured both the direct and indirect GVA and employment associated with construction. This analysis provides a quantitative assessment of the potential impact of the policies concerning the recruitment of local people and the volume of business placed with local suppliers.

However, wider benefits associated with training and apprenticeships in terms of skills uplifts and productivity gains are not captured. The scale of potential impacts will depend on the volume of support provided by Buckingham. These targets will need to be agreed for this to be valued.

Buckingham has proposed that it will appoint an Employment and Skills manager to be responsible for the implementation of the ESP going forward, and who will work with BCC and local agencies, such as Job Centre Plus to target recruitment at those who are long-term unemployed, NEET and from disadvantaged or under-represented communities and groups. The time resource of the Employment and Skills Manager, as well as any other Buckingham employees who may be involved in these activities, represent the input of Buckingham which will generate social impact. The corresponding outcomes may include employment for those previously unemployed, increased income for those previously unemployed and/or increased future opportunities for employment.

There is considerable evidence presented in literature concerning the relationship between training and future employment opportunities. The completion of apprenticeships has been connected to wage uplifts, for example research conducted by BEIS estimates that those who complete a higher apprenticeship could earn up to £150,000 more on average over the course of their lifetime when compared to those with no formally recognised qualifications<sup>64</sup>. Other studies have identified a potential wage uplift ranging between 11% and 87% for those completing an apprenticeship, depending on the level of the apprenticeship (intermediate, advanced or advanced +)<sup>65</sup>.

Finally, Buckingham's commitment to volunteer within the community, as well as the donation of cash and gifts in kind, are further inputs which may generate social impact outcomes. As the level of these donations has not been confirmed we are unable to estimate the monetary value of the impact generated. However, the value of the time by Buckingham employees' spent volunteering could be estimated by using wages and/or salaries as a proxy. Similarly, the equivalent monetary value of gifts in kind could also be used to establish the value. These resources could generate wider intangible benefits depending on the type of community engagement that is undertaken. However there have not

<sup>64</sup> Department for Business, Innovation and Skills. 2015. 'English apprenticeships: Our 2020 vision'. See: <https://www.gov.uk/government/publications/apprenticeships-in-england-vision-for-2020>

<sup>65</sup> McIntosh, S. 2009. 'A Cost-Benefit Analysis of Apprenticeships and Other Vocational Qualifications'. *DfES Research Report 834*. Directorate General for Employment, Social Affairs & Inclusion. 2013. 'The effectiveness and costs-benefits of apprenticeships: Results of the quantitative analysis'. London Economics. 2011a. 'Return to Intermediate and Low Level Vocational Qualifications'. *BIS Research Paper 53*. London Economics. 2011b. 'The Long-Term Effect of Vocational Qualifications on Labour Market Outcomes'. *BIS Research Paper 47*. National Audit Office. 2012. 'Adult Apprenticeships. Estimating economic benefits from apprenticeships – Technical Paper'. *Department for Innovation, Business and Skills, Skills Funding Agency and National Apprenticeship Service*. CEBR. 2013. 'University education: Is this the best route into employment?'. *A report by AAT and CEBR*.

been any examples of what this may look like provided by the contractor so we are unable to assess the potential impacts.

#### **4.4.3.2 Regeneration impact**

The economic benefits in terms of output and job creation are captured in Section 4.2.2, however, the Arena will help contribute towards the regeneration of a large brownfield site in the Temple Meads Quarter of Bristol. This will revitalise the local area, bringing forward the Arena as a cultural asset, as well as delivering public realm improvements and transformation of the site to create safe public spaces and pathways. It has also been indicated to us that it could provide better connectivity to the City Centre from the south of Bristol as well as new public spaces and amenities for the population of Bristol and wider visitors to the area.

As noted by the Department for Communities and Local Government<sup>66</sup>, regeneration initiatives often have a wide and diverse range of physical, economic and social impacts. Dependent on the specific objectives of the regeneration scheme, these can include:

- economic benefits in terms of output and job creation;
- improvements to the environment and the working of land, property and housing markets; and
- impacts on a broader social agenda, including improved health, reduced crime and building of social capital.

The economic benefits are captured within our analysis in Sections 4.2.2 and 4.2.3, so are not double counted here. It is not clear that the Arena will directly impact property and housing markets, although it could deliver some wider effects by improving the cultural offer of Bristol. It is not possible to quantify this at this stage due to a lack of evidence.

#### **4.4.3.3 Social impacts generated through the staging of events**

The impacts generated through the staging of events will be broadly associated with improving Bristol's visitor economy and benefits to local business. There could also be impacts associated with community engagement activities undertaken by the operator.

The Arena Operator has estimated that the Arena will host approximately 600,000 attendees per year. A proportion of these attendees will be from outside of the Bristol area, and possibly outside of the West of England. For these attendees, the Arena will be a drawing factor in visiting Bristol and the events will also increase the profile of Bristol. The Arena may prompt repeat visits from these attendees in the future and thus result in increased visitor spending in the area, and an improvement in the visitor economy. Destination Bristol estimates that, on average, day visitors to Bristol spend £41.00 per trip whilst domestic overnight visitors spend £164.73 per trip<sup>67</sup>.

Furthermore, an Arena in Bristol will likely mean that local residents do not have to travel to other cities in the UK, particularly Cardiff, Birmingham and London, to attend Arena based concerts and events. For these attendees, spending will be retained in Bristol and there will also be a time saving associated with having to travel a shorter distance to access an Arena. This spending will be additional to Bristol, however it should be noted that the spending will be displaced from other parts of the UK and will therefore not be additional at a national level. It is not possible to calculate this impact at present as there is no information available from BCC or the Arena Operator on the current number of Bristol residents who travel to attend Arena events, or the acts that may be hosted at the Temple Island Arena. We have, however, estimated the potential impact that attendee spending could have in Bristol in Section 4.2.2 above.

<sup>66</sup> Communities and Local Government (2010), Valuing the Benefits of Regeneration

<sup>67</sup> Data for 2016 as provided to KPMG from Destination Bristol.

The Arena could also provide a venue for special events, such as awards ceremonies. Through our conversations with Destination Bristol, we understand that Bristol does not currently have a venue that is suitable for events such as these and that Bristol is missing out on opportunities as a result. The economic analysis factors in the activity associated with staging all events at the Arena, based on the operator's plans. However, wider benefits could be derived as these types of events could raise the profile of Bristol both nationally and internationally, attracting new business and visitors to Bristol.

The Arena will also generate benefits for local businesses as a result of the increased spending in the local area by attendees. These benefits have already been captured in our analysis of attendee spending and supply chain spending by the Arena Operator in Section 4.2.2 above.

Wider social impacts could be generated as the Arena Operator, as part of its bid for the contract, submitted a number of examples of how it could potentially engage with the local community, based on examples from other arenas it operates.

The operator proposed a multi-faceted approach to community engagement involving:

- providing direct financial support for local projects;
- mutual fundraising;
- resident only events and priority tickets; and
- the fostering of local arts and enterprises.

Some examples of the community engagement programmes that the operator has proposed to it could bring to the Temple Island Arena are set out in more detail below:

- **Young voices:** Young voices is an international organisation that has been staging some of the largest children's choir concerts in the world for the past 20 years. A Young Voices concert consists of 5,000 – 8,000 children performing as a single choir in large, internationally renowned venues.

Young Voices specially selects a diverse sample of a music for children to learn, through which they gain a better understanding of music and being a member of a choir.

SMG and Live Nation have introduced Young Voices in venues in Sheffield, Manchester and Birmingham and it is a proposition that could be introduced in Bristol.

- **Helping local groups:** SMG and Live Nation have previously helped local groups by providing them with financial resources. In Southampton, Sheffield and Cardiff, they spend an annual budget of £10,000 to help local groups achieve their goals.

In addition to financial contributions, the operator has previously provided access to an arena for local groups. One instance of this was in Cardiff where the arena hosted space for a Vulnerable Women's group.

In the past, for other arenas the operator has indicated that it has appointed specific community liaison officers to work alongside local authorities and community interest groups to help ensure that it takes account of, and is sensitive to, local issues.

The examples given by the operator for potential community engagement initiatives could help improve community cohesion, social inclusion and could create social value. The Young Voices programme could help skills development for the local schools by teaching children about music and also introducing them to softer skills such as team work as they have to work together as a choir.

Although the Arena Operator has provided examples of potential programmes it may put in place in Bristol, and has indicated that it would collaborate with neighbourhood partnerships such as Bristol

Children and Young People's service, there is a lack of evidence on the scale of activity that would take place in Bristol (the inputs). Also, no evidence has been made available on the outputs and outcomes associated with any of the example community engagement initiatives. This means that it is not possible for us to determine the scale and type of potential outcomes and impacts, in order to assess and value the social impact quantitatively. Firm commitments, as well as agreed outputs would be required to be able to do this.

Additionally, it should be noted that the agreement between the operator and BCC does not contractually oblige the operator to undertake any community engagement activities as part of its management of the Arena. We understand from BCC that when tendering for an Arena Operator and agreeing contractual terms a decision was made not to place contractual obligations on an operator to provide community engagement activities. Therefore, any activities the operator does undertake would be voluntary and at the operator's discretion. As a result, it is not certain that the example activities will go ahead.

#### 4.4.3.4 Wider cultural impact

The Arena has the potential to have a positive impact on the overall cultural offering of Bristol, to the benefit of local communities.

Culture has both an intrinsic and social value<sup>68</sup>. It has been found that engaging and participating in cultural activities can increase overall satisfaction and has a positive impact on personal wellbeing.<sup>69</sup> Furthermore, engaging in culture can have wider social benefits in terms of health, education and community. Many studies investigating the relationship between arts and culture and wellbeing, have shown that the arts can have a positive impact on a person's health, both physical and mental wellbeing. Impacts include:<sup>70,71</sup>

- improved confidence;
- improvements in social development skills, such as communication and social participation;
- reduced blood pressure; and
- increased self-esteem and self-efficacy.

Links between arts and culture and community outcomes have also been identified empirically. Participation in arts and culture has been found to have a positive relationship with social capital. It has been found that those who participate in arts-related activities have greater social interaction, self-esteem and more well-developed social relationships and networks. Furthermore, studies have found that cultural participation can contribute to community cohesion, civic pride and increase social inclusion, overall making communities safer and stronger<sup>72</sup>.

Studies have also investigated the relationship between participation in arts and culture and the educational attainment of children and young people. It has been found that participation in arts activities can be linked to improvements in young people's cognitive abilities and transferable skills<sup>73</sup>. Other studies have found that engaging with arts and culture from a young age is associated with higher academic attainment and greater skills proficiency<sup>74</sup>. In the long-term participation in arts and

<sup>68</sup> Department for Culture Media & Sport (2014) Quantifying and Valuing the Wellbeing Impacts of Culture and Sport.

<sup>69</sup> Department for Culture Media & Sport (2014) Quantifying and Valuing the Wellbeing Impacts of Culture and Sport.

<sup>70</sup> Taylor et al (2015) A review of the Social Impacts of Culture and Sport

<sup>71</sup> Staricoff, R.L. (2004) Arts in Health: a review of medical literature.

<sup>72</sup> National Statistics (2009) People and culture in Scotland: Results from the Scottish Household Survey Culture and Sport Module 2007/2008.

<sup>73</sup> Newman et al (2010) Understanding the impact of engagement in culture and sport, a systematic review of the learning impacts for young people. CASE, DCMS.

<sup>74</sup> Newman et al (2010) Understanding the impact of engagement in culture and sport, a systematic review of the learning impacts for young people. CASE, DCMS and Vaughn et al (2011) Bridging the Gap in School Achievement through the Arts.

cultural activities can increase the likelihood of a young person entering further and higher education<sup>75</sup>.

The Arena will provide local communities and individuals' access to a wider variety of cultural events than currently available in Bristol, especially live music, musicals and theatre, family events and conferences and exhibitions. This access could promote the large range of positive benefits noted above that people and communities can experience as result of engaging with cultural activities.

It should be noted that the findings of research presented above, relate to the impact that arts and culture can have in general. The scale and type of potential impacts generated is likely to be related to the type of events staged at the Arena.

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<sup>75</sup> Department for Culture, Media & Sport (2015) Further analysis to value the health and educational benefits of sports and culture.

# 5 Value for Money assessment

## 5.2 Economic and social impact assessment

The BCR and the economic NPV<sup>76</sup> provide an indication of the total Value for Money that the Arena project could deliver. Using the revised costs provided by BCC and our updated analysis of the economic impacts associated with the Arena, we have estimated the BCR and the NPV GVA estimates for the Arena project.

The value for money metrics have been assessed in our central case scenario, both including and excluding the construction impacts. Given that, by nature, construction impacts are temporary and are generated over a short time frame, there tends to be high levels of displacement associated with the activity. Therefore, it is often excluded from assessments of Value for Money of projects.

The results of our analysis are detailed in Figure 39 below.

**Figure 39: Value for money assessment for the Temple Island Arena**

		25 year period
<b>Benefits</b>	GVA – Construction	£107.3m
	GVA – Operational	£387.1m
	Operating surplus	£0m
	<b>Total</b>	<b>£489.1m</b>
<b>Capital costs</b>		£148.0m
<b>BCR</b>		3.2:1
<b>Economic NPV</b>		£282.6m

Source: KPMG analysis

Based on our updated analysis, over a 25 year time frame the BCR for the Arena is 3.2:1 and the economic NPV generated is £282.6m, excluding construction impacts.

When compared to the results detailed in the AMION report, the BCR and economic NPV estimates for the Arena have decreased. This is largely due to an increase in the project costs and a reduction in the catalysed economic benefits associated with the project.

It should be noted that our BCR only captures the economic and financial benefits associated with the arena. The HM Treasury Green Book<sup>77</sup> recommends that where possible, in addition to financial and economic impacts, a BCR captures the social impacts of a project, policy or intervention.

As set out in Appendix 4, the Temple Island Arena is likely to generate a number of social impacts for Bristol (such as impacts associated with increasing Bristol's cultural offering, providing community resource and regeneration of a key part of Bristol). However, there is a lack of evidence relating to the outputs and outcomes associated with these social impacts. In addition, the inputs and activities proposed by the Arena contractor and operator that could generate such social impacts, are not contractual and therefore not guaranteed. As a result of these factors, we have been unable to monetise the social impacts associated with the Arena, and these have not been included in our BCR calculation. The HM Treasury Green Book recommends that where costs or benefits cannot be quantified, they should be included within an appraisal and presented alongside the NPV and BCR. Section 4.4 sets out and qualitatively assesses the social impacts associated with the Arena. These social impacts should be considered as part of the overall BCR assessment and would improve the Value for Money of the project.

<sup>76</sup> The NPV of the project is calculated by taking the present value (PV) of benefits and subtracting the PV of the costs. And the BCR is given by the present value of the benefits divided by the present value of the costs.

<sup>77</sup> HM Treasury (2018) The Green Book: Central Government Guidance on Appraisal and Evaluation.

There is no detailed guidance on BCR thresholds for capital infrastructure projects and what level of BCR could be considered as providing value for money. Instead, value for money should be assessed relative to the alternative schemes in which the public funding could be invested. We note that the Department for Transport (DfT) has produced some guidance on assessing the value for money, including the classification of BCR, for transport interventions, as part of WebTAG<sup>78</sup>. Using the WebTAG guidance on VfM assessments, a BCR of 3.2:1 over 25 years would be classed as 'High'.<sup>79</sup> However, it should be noted that the WebTAG guidance is produced only for transport infrastructure projects, the nature of which is very different from that of an Arena project.

## 5.3 Commercial and financial assessment

A VfM assessment should not only consider the costs of the project versus the potential benefits, but should also take into account other aspects of the project, such as affordability, deliverability and the expected level of risk.

### 5.2.1 Commercial assessment

For the development of the Arena, BCC has entered into a Pre-Construction Services Agreement with Buckingham Group, a medium-sized UK-based contractor. The entity has low levels of long-term gearing for a company of its size (annual turnover of over £400m), particularly given the current challenges in the construction sector. However, the contract for the Arena would be one its largest projects to date and is comparable in size to its net asset base, which increases the risk of Buckingham delivering the contract to completion.

The target price structure of the contract and proposed price sharing mechanism means that Buckingham Group would meet a significant proportion of additional costs as BCC has capped its risk exposure at 7.5% of the Target Cost in the event of cost overruns. This arrangement provides cost certainty to BCC as well as an incentive to outperform the Target Cost, if Buckingham successfully completes the contract.

There are some uncertainties around the Target Cost, which already exceeds the current approved budget, given the absence of a matching detailed design for the current proposal from Buckingham. However, we note the comments from Aecom of a possible further £8.0m of value engineering, stating that *"the revised bid has been substantially market tested and once the project regains traction further buying gains are expected from the supply chain"*.

Operational risk for the first 25 years post-completion of the assumed 50-year economic life of the Arena has been transferred to AIL, a joint venture between SMG Europe and Live Nation. AIL will retain risks in relation to demand, operations and maintenance of the facility during the term of the lease, limiting the risk exposure to BCC during this period. We note these two companies are market-leading in the industry and consider the risk of operator income being mitigated to the extent reasonably deliverable.

### 5.2.2 Financial assessment

In the absence of any public sector support, the project is forecast to deliver a blended return of -0.67%. This is significantly below a return of 6.20% which we estimate commercial investors would require in order to compensate them for a project of this risk profile. Consequently, the project as currently structured requires a subsidy in order to make it viable from a financial return perspective. We estimate the value of this subsidy to be £103.1m. This is provided through a combination of the direct financial contributions from the public sector, including the LEP and BCC directly, and the indirect support offered by BCC in financing the project directly at the cost of PWLB, which is discounted to risk-adjusted rates. This is not untypical for arena developments in the UK, for which

<sup>78</sup> WebTAG refers to guidance produced by the Department for Transport which aims to provide information on the role of transport modelling and appraisal.

<sup>79</sup> Department for Transport (2015) Value for Money Framework: Moving Britain Ahead.

there are limited precedents for direct commercial investment, and so should not necessarily be considered as a barrier to investment.

Based on BCC forecasts over a 25-year operational term, the scheme could deliver a net cumulative surplus of £1.3m after repaying the PWLB loans drawn to meet the cost of its construction. With optimisation of the borrowing structure, the Arena could be an income-generating asset for BCC, delivering a recurring surplus during its operation.

This surplus provides a limited buffer for BCC to use to mitigate potential risks, with the project being particularly sensitive to increases in Council borrowings costs.

## 5.4 Conclusions

In conclusion, the strategic and economic case for an arena is well established. The commercial case suggests key risks have been passed to the private sector but BCC retains a level of residual risk exposure which could lower value for money in a downside scenario. The financial case demonstrates that the project is affordable and can be income-generating for BCC provided public subsidies are made available, although these are not untypical for UK arena developments.

However, given the changes since the business case was approved, we note there are a number of further steps which need to be taken before a more informed decision on the value for money of the project as proposed currently can be made.

The economic and social benefits that the project is anticipated to deliver cannot necessarily be delivered in isolation. Instead, they rely on the availability and coordination of complementary infrastructure in order to promote the social and economic objectives of the region as a whole. Appraising the value for money of the Arena requires a more detailed understanding of its role within the wider City Plan for infrastructure development and social welfare. This link could be developed further to reinforce the case for the Arena and its proposed location.

This study does not consider alternative development and delivery options for the arena. Alternative options may deliver similar social and economic benefits as currently envisaged without the level of public support and investment currently required. In addition, these options may unlock the current site for more valuable opportunities to the region of Bristol, lowering the opportunity cost of the scheme whilst still delivering the arena and meeting its objectives as part of the wider BCC infrastructure development strategy. Given proposals have been put forward by YTL relating to the Brabazon Hanger site, these should be explored before a more informed value for money conclusion can be reached. Our assessment can be found in our reports entitled 'Assessment of alternative plans for Arena in Bristol', and 'Assessment of alternative development plans for the Temple Island site.'

# 6 Monitoring and evaluation framework

## 6.2 Temple Island Arena key performance indicators

Our estimates of the potential impacts of the Temple Island Arena project provide an estimate of the potential scale and scope of the possible economic benefits and a qualitative view of the type of social impacts that could be generated. However, realising these impacts is not certain and is dependent on the delivery of the planned inputs, activities and outputs of the project. Therefore, it is important to put in place a monitoring and evaluation framework to track the outputs and outcomes and to enable the end economic and social impacts to be measured as they arise.

We have developed a high level logic model for the Temple Island Arena, which sets out the inputs, activities, outputs, outcomes and impacts of the Arena project, and maps the flow of impact for the Arena project. Using this logic model we have identified the following key performance indicators (KPIs) that we suggest are monitored on an ongoing basis when the Arena is operational:

- £4.2m in direct, indirect and induced GVA created per year in the West of England as a result of the operation of the Arena;
- 210 direct, indirect and induced FTE jobs created in the West of England through the operation of the Arena;
- 122 events staged at the Arena, attracting c.600,000 attendees per year;
- £17.1m in GVA in West of England is created per year through the spending of event attendees;
- 405 indirect and induced FTE jobs created through the spending of event attendees; and
- £0.4m raised in business rates from the arena's operation for BCC per year.

BCC set out an initial monitoring and evaluation plan for the arena project, as detailed in Appendix R of the FBC. We have reviewed this plan and updated it based on our view and the latest available information in Section 6.3.

## 6.3 Approach to monitoring and evaluation

Using the KPIs identified in Section 6.2 and those identified by BCC in its original monitoring and evaluation plan, we have created a proposed framework to allow BCC to monitor the progress of the Temple Island Arena project against the KPIs. It should be noted that this monitoring and evaluation framework should be used alongside general project governance processes and not in place of it.

A monitoring and evaluation framework should be informed by the stated objectives of the project and should aim to track progress against these objectives only. The HM Treasury Green Book recommends that the thoroughness of an evaluation should depend on the scale of the potential impact, as well as the public interest in the project<sup>80</sup>. Furthermore, the method for monitoring and evaluation should be proportionate to the impacts being measured, i.e. if the potential impact is small, the resource commitment to the monitoring and evaluation of the impact should also be small.

BCC's current monitoring and evaluation plan is more comprehensive than the plan we have put forward. We have focused on the outcomes that we consider to be the most material, measurable and are proportionate. The BCC monitoring and evaluation plan developed in 2016 does not suggest the baseline against which progress should be measured, or recommend the frequency with which KPIs

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<sup>80</sup> HM Treasury (2018) The Green Book: Central Government Guidance on Appraisal and Evaluation.

should be measured. These are important to establish as part of the framework. Therefore as part of our assessment these elements have been added into the framework.

The framework, set out in Figure 40 below, details, for each KPI, possible approaches to measuring performance, including data sources, suggested frequency of monitoring and the baseline against which progress should be measured.

**Figure 40: Proposed monitoring and evaluation framework for the Temple Island Arena project**

KPI	Corresponding BCC KPI (where applicable)	Source	Baseline	Frequency of measurement
<b>Construction phase<sup>81</sup></b>				
£107.3m net GVA is created as a result of the construction of the Arena (over the total period of construction)	2.3.2.14	Progress against this KPI would have to be estimated based on total construction cost and drawing on ONS and Scottish Government GVA multipliers.	0	Every 6 months, for the duration of construction
176 net temporary FTEs are created as a result of the construction of the Arena (over the total period of construction)	2.3.2.1	Direct employment figures should be reported by the contractor. Indirect and induced employment figures can be estimated drawing on ONS and Scottish Government employment multipliers.	0	Every 6 months, for the duration of construction
A minimum of 1 supply chain training or support initiatives per month.	-	This KPI should be reported by the contractor	0	Every 6 months, for the duration of construction
A minimum of 250 person weeks training	2.3.2.8	Progress against this KPI would have to be reported by the Arena contractor, who should be monitoring and recording training hours across its employees.	0	Every 6 months, for the duration of construction
50% labour from the West of England, including 25% from Bristol	2.3.2.4 and 2.3.2.5	Progress against this KPI would have to be reported by the Arena contractor, who should have records of its employees and where in the UK they live.	0	Every 6 months, for the duration of construction
A minimum of 10 graduate placements offered for new job starts.	=	This KPI should be reported by the contractor.	0	Every 6 months, for the duration of construction
At least 45-50 apprenticeships (of which 15-20 from BCC priority groups).	2.3.2.6	This KPI should be reported by the contractor.	0	Every 6 months, for the duration of construction

<sup>81</sup> Many of the KPIs regarding work placements and supply chain expenditure are based on the original commitments put forward by the initial contractor, Bouygues. The level of commitment by the current contractor, Buckingham, are yet to be agreed. However, it is believed that these KPI levels are the minimum expected level by BCC. We have, therefore, kept these KPIs as they are but it should be noted that they are yet to be agreed with the contractor.

A minimum of 50 work placements/ work experience opportunities	2.3.2.7	This KPI should be reported by the contractor.	0	Every 6 months, for the duration of construction
A minimum of 3 engagement events or initiatives per month.	2.3.9.1	The Arena contractor should keep records of any engagement events that take place relating to the Arena, and report accordingly to BCC.	0	Every 6 months, for the duration of construction
<b>Operation phase</b>				
£4.2m in net GVA created per year in the West of England as a result of operating the Arena		The direct GVA can be measured based on data contained within the financial accounts of the Arena Operator. Direct and indirect GVA can be estimated drawing on economic multipliers available from the Office of National Statistics (ONS) and Scottish Government. The GVA should be measured using UK Government suggested methodologies, as set out in the HM Treasury Green Book.	0	Annual
210 net FTE jobs created through the Arena	2.3.2.1	The direct jobs created can be measured and reported to BCC by the Arena Operator. Direct and indirect jobs can be estimated based on economic multipliers available from the Office of National Statistics (ONS) and Scottish Government. The employment impacts should be measured using UK Government suggested methodologies, as set out in the HM Treasury Green Book.	0	Annual
122 events at the Arena attract c.600,000 attendees to the Bristol	2.3.1.1 and 2.3.5.1	The number of events staged at the Arena can be directly monitored based on data from the Arena Operator. The number of attendees can be measured through the ticket sales and attendance records which should be collected by the Arena Operator. In addition, there are publicly available statistics that are produced by Destination Bristol on tourism to Bristol which could be utilised to measure the number of additional visitors that may be travelling to Bristol in order to attend events at the Arena.	0 for number of attendees to events at the arena. At present 12.7m people travel to Bristol from other regions in the UK.	Annual
£17.1m in net GVA per year created through spending of event attendees	2.3.2.15	GVA generated through spending of event attendees can be estimated based on data collected from a representative sample of Arena attendees. Event attendees could be surveyed and questioned about their level of additional spending (outside of the Arena in the wider economy), and the geographic location and type of spending (e.g. accommodation, transport, retail) as a result of attending an event at the Temple Island Arena. The survey should be designed to capture the additionality of this visitor spending as accurately as possible. This can be done by asking attendees about what alternative activities they would have undertaken if they had not attended an event at the Arena, where this activity would have taken place and approximately how much they would have spent.	0	Annual, or as frequent as surveying is feasible

405 indirect and induced net FTE jobs created through spending of event attendees	2.3.1.2	In addition to GVA, a representative survey of event attendees and their corresponding spending can be used to estimate the employment impacts of attendee spending.	0	Annual, or as frequently as surveying is feasible
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Source: KPMG analysis

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