

New Diorama Theatre (NDT)

NDT Broadgate – Economic Impact Assessment

Final report

Written and prepared by

Jonathan Todd, Amanda Cusimano, Richard Naylor

Data credits

Management data from New Diorama, Survey run by BOP Consulting, Arts Council England, Office of National Statistics (ONS), CEBR

—
BOP
Consulting

Contents

BOP Consulting – Credentials	1
Results: Economic Impact	2
1. How economic impact was generated	4
2. How economic impact was quantified	6

List of Figures

Figure 1 Additional revenue (£m) generated by NDT Broadgate (£m)	2
Figure 2 Additional Gross Value Added (GVA) generated by NDT Broadgate (£m)	2
Figure 3 Additional Full Time Equivalent (FTE) generated by NDT Broadgate	3
Figure 4 NDT Broadgate beneficiaries: number and types	4
Figure 5 Where will / did the projects developed at NDT Broadgate take place	5
Figure 6 The subsequent life of the projects developed at NDT Broadgate	5
Figure 7 Quantification of gross revenues for different categories of companies and professionals based at NDT Broadgate	6
Figure 8 Conversion of gross to net revenues for companies based at NDT Broadgate	7
Figure 9 Quantification methods for economic impacts generated by NDT Broadgate	8

BOP Consulting – Credentials

Relevant projects

Experience conducting economic impact assessments

BOP Consulting developed guidance on economic impact assessment for Arts Council England in 2016. This guidance and all economic assessments undertaken by BOP are grounded in the principles and approaches of the highest standards of economic rigour. This year Arts Council England commissioned further guidance from BOP Consulting on the development of HM Treasury Green Book business cases, including the economic case.

We have deployed this guidance on numerous economic assessments, including work with **Film London**, the **Abbey Theatre** (the national theatre of Ireland), the City of London's major arts and cultural organisations (including **the Barbican, London Symphony Orchestra and Museum of London**), **BBC Wales, XR Stories and SIGN** at the University of York.

Project lead

Jonathan Todd, BOP Chief Economist

Jonathan has over a decade's experience in impact assessment and evaluation, and high-level policy experience, particularly within the cultural and creative sectors. Jonathan leads BOP's work on economic impact assessment and culture-led regeneration; he has supported the growth aspirations of BBC Wales and Film London, as well as funding cases for major capital works, such as Symphony Hall Birmingham and the Abbey Theatre, the national theatre of Ireland. Jonathan's projects also include economic impact assessments of classical music on the UK for the BBC, of XR Stories and SIGN on Yorkshire and Humber, and of the Leamington Spa games cluster on the Warwick District economy. He is an expert in building Green Book compliant cases for cultural investment.

Jonathan previously managed the research programme of UK Music, where his work included regular and large-scale studies on music's economic impact and the contribution that music makes to the tourist industry. He is a former Chief Economist at the think-tank Demos, where he published a major study on the future of apprenticeships. He was a Senior Consultant at Europe Economics, where he managed pan-European impact assessments for the European Commission, European Parliament, Whitehall departments and leading UK companies.

Results: Economic Impact

NDT Broadgate generated £40m in additional revenue, which equates to £27.4m in Gross Value Added (GVA) and 1,039 in Full-Time Equivalent (FTE) employment.

These economic impacts dwarf the costs of their generation. NDT Broadgate cost around £0.8m to deliver – with these salary and non-salary costs incurred by the New Diorama Theatre (NDT) and British Land. Additional revenue of £40.0m equates to a benefit-to-cost ratio of 49:1. This is a fantastic return on investment – reflecting London’s demand for rehearsal space and the economic impact that can be generated when this demand is met.

These impacts sum direct, indirect, and induced impacts. Direct impacts are generated by NDT Broadgate itself, as well as the companies and professionals based there. Indirect impacts are supplier expenditures by those that generated direct impacts. Induced impact is catalysed by direct and indirect impact – through increased expenditure by employees and along supply chains.

These impacts are all assessed on an additional basis in line with HM Treasury Green Book guidance. This means that these economic impacts would not otherwise have been generated without NDT Broadgate. Our surveying of NDT Broadgate participants quantifies the extent of economic additionality experienced by them.

Figure 1 Additional revenue (£m) generated by NDT Broadgate (£m)

Type of impact		£m
Direct	Companies based at NDT Broadgate	21.3
	Professionals based at NDT Broadgate	0.2
Indirect	NDT Broadgate suppliers	0.5
	Suppliers to companies and professionals based at NDT Broadgate	7.1
Induced	Downstream revenue generated by direct and indirect impacts	10.9
Total		40.0

Source: BOP Consulting

Figure 2 Additional Gross Value Added (GVA) generated by NDT Broadgate (£m)

Type of impact		£m
Direct	NDT Broadgate	0.3
	Companies based at NDT Broadgate	14.3
	Professionals based at NDT Broadgate	0.1
Indirect	NDT Broadgate suppliers	0.2
	Suppliers to companies and professionals based at NDT Broadgate	2.7
Induced	Downstream revenue generated by direct and indirect impacts	9.8
Total		27.4

Source: BOP Consulting

Figure 3 Additional Full Time Equivalent (FTE) generated by NDT Broadgate

Type of impact		FTE
Direct	NDT Broadgate	8
	Companies based at NDT Broadgate	490
	Professionals based at NDT Broadgate	14
Indirect	NDT Broadgate suppliers	3
	Suppliers to companies and professionals based at NDT Broadgate	59
Induced	Downstream revenue generated by direct and indirect impacts	465
Total		1,039

Source: BOP Consulting

1. How economic impact was generated

NDT Broadgate was a large rehearsal and performing arts development complex in the City of London made up of more than 16 rehearsal spaces, 10 meeting rooms, project spaces, writers' offices and recording studios, multiple communal areas, and a large designers' studio with make-spaces. It was offered for free to companies and artists working in theatre following a lottery application process and was open from August 2021 to July 2022.

While NDT Broadgate was operating, a total of 1,865 bookings were registered. These 1,865 bookings represent 1,532 distinct revenue-generating projects which had varying lengths and forms of engagement with NDT Broadgate – as illustrated in the figure below.

Figure 4 NDT Broadgate beneficiaries: number and types

Category	Details	Total number of projects in category ¹
1	10+ working days	40
2	Short-term – Up to 9 days	1,461
3	Associate companies	5
4	Residencies	26
Total		1,532

Source: NDT Broadgate

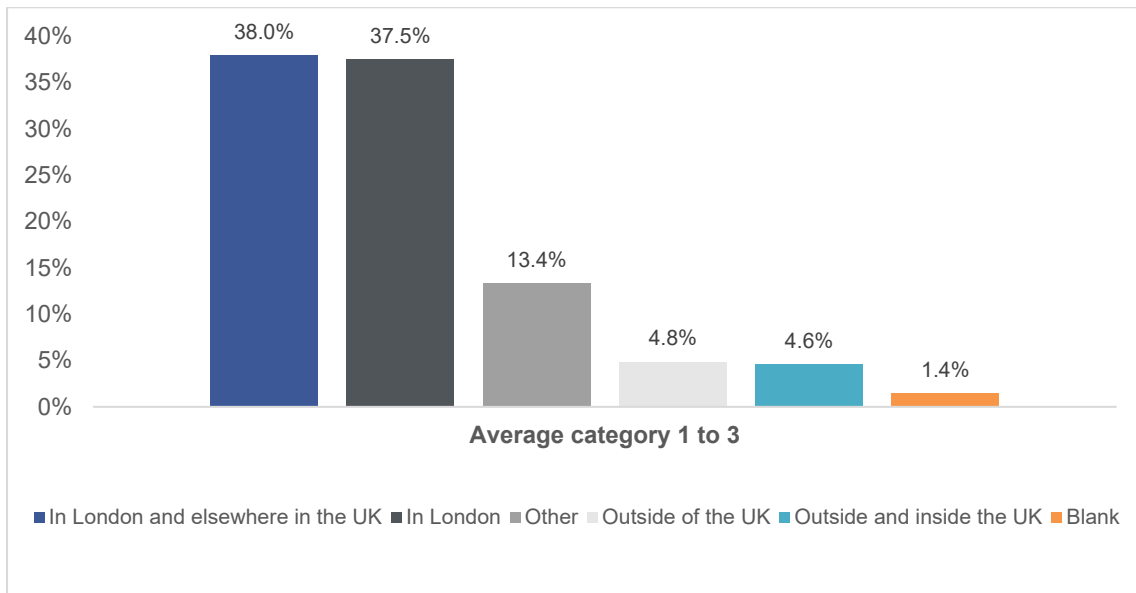
BOP Consulting ran a survey in September 2022 that was open to NDT Broadgate bookers for 10 days and distributed by the New Diorama team. It received 306 responses, equivalent to a 20% uptake over the four categories, split as follows: 30 from category 1, 254 from category 2, 4 from category 3 and 18 from category 4.

The survey collected details on the projects that were developed at NDT Broadgate including their economic value. The survey's questions distinguished these four categories, grouping categories 1 to 3 together and separating category 4, to fit the different business models at stake; the following figures only display data from the first three categories.

Figure 5 below shows where the projects were presented, on average, across the first three categories.

¹ These numbers were reported by NDT Broadgate to BOP Consulting. By far the largest category is category 2 – with 1,461 distinct projects in this category. This 1,461 is composed of (1) individual bookers making single bookings for a single specific project – equating to 393 separate project bookings; (2) bookers making bookings on behalf of several other projects – sustaining 951 separate project-bookings; (3) 436 bookings that are composed of bookers making multiple bookings for the same activity – with these being generated by 117 separate project bookings. 393 plus 951 plus 117 sums to 1,461.

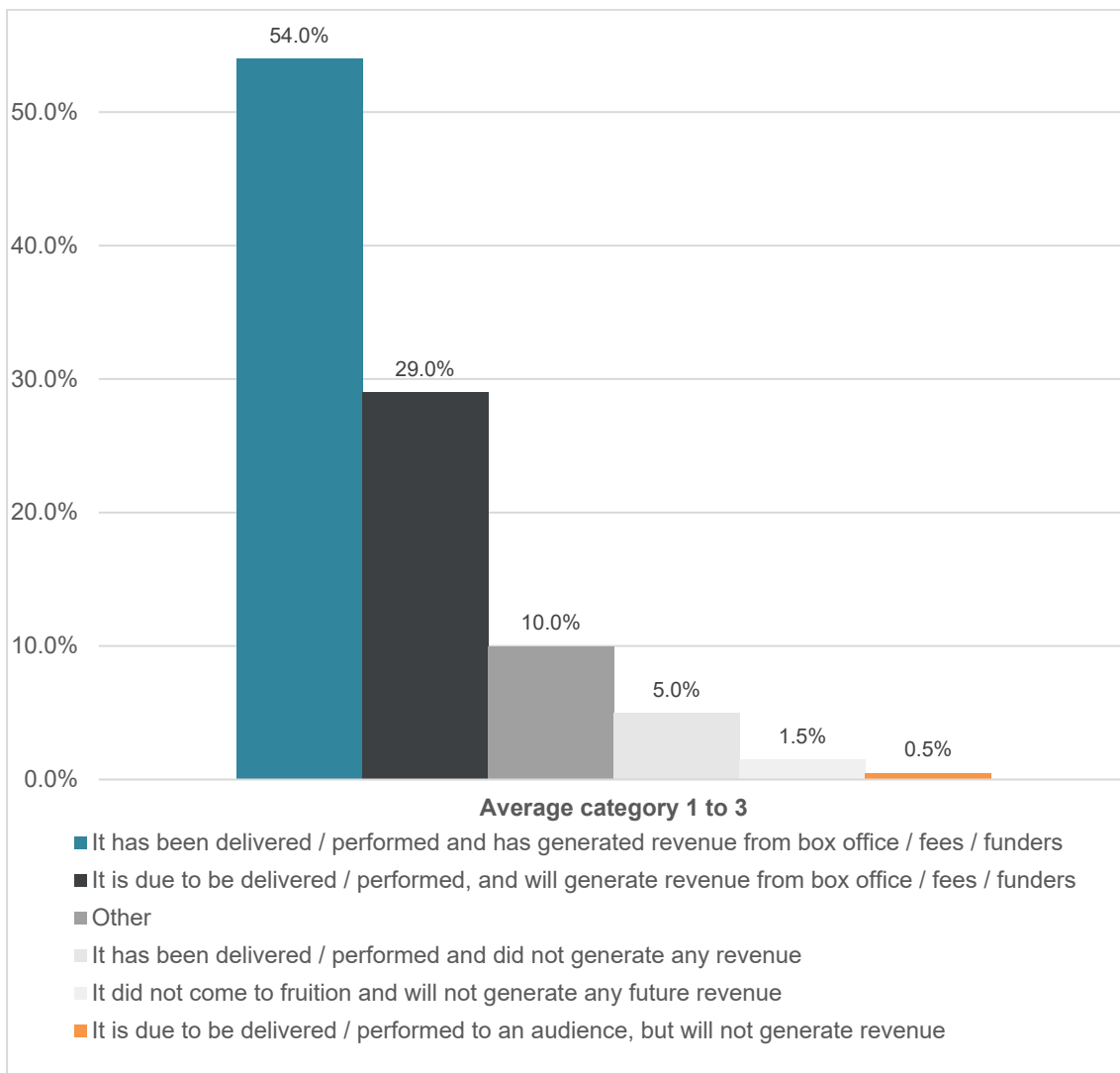
Figure 5 Where will / did the projects developed at NDT Broadgate take place



Source: BOP Survey of 306 NDT Broadgate beneficiaries

Figure 6 below displays the subsequent life of these projects across category 1 to 3.

Figure 6 The subsequent life of the projects developed at NDT Broadgate



Source: BOP Survey of 306 NDT Broadgate beneficiaries

2. How economic impact was quantified

The strongest driver of economic impact by NDT Broadgate was companies based there (Categories 1, 2 and 3). Figures 7 and 8 illustrate key aspects of the methodology used to quantify the economic impact generated by these companies. An equivalent methodology was followed for professionals based at NDT Broadgate (Category 4).

Figure 7 shows:

1. Average (£000s): The average revenues generated through work developed at NDT Broadgate for each of these 4 categories – as revealed by our survey.
2. Number: The number of entities in each of these 4 categories.
3. Gross (£m): The gross value of these revenues within each of these categories – 1 multiplied by 2.

Figure 7 Quantification of gross revenues for different categories of companies and professionals based at NDT Broadgate

Category	Average (£000s)	Number	Gross (£m)
1. 10+ working days	79	40	3.2
2. Short-term – Up to 9 days	24	1,461	35.7
3. Associate companies	121	5	0.6
4. Residencies	13	26	0.3

Source: BOP Consulting

The gross revenues in Figure 7 sum to £39.8m directly generated by companies and professionals based at NDT Broadgate. These gross revenues:

- incorporate both accrued (e.g., box office revenue from a performance that has occurred) and expected (e.g., box office revenues from a future performance) revenues at the time of our survey. In the case of category 4 respondents, for example, two-thirds of revenue had been accrued, with another third expected.
- are composed of all kinds of revenue, including funding from a grant giver (e.g., Arts Council England or a foundation / trust); fees from venues, partners, or others; gifts and donations; and gross box office sales (before any deductions).

These direct gross revenues provide an indication of the economic impact of NDT Broadgate but do not account for:

- **Deadweight:** Outcomes that would have taken place without the intervention under consideration (NDT Broadgate).² Figure 8 reports the proportion of gross revenue that is deadweight and would have been secured without NDT Broadgate, which we have estimated through our surveying of participants.³ It relates to the internal capacities of participants: the extent to which they would have been capable of securing the same outcomes without NDT Broadgate.
- **Displacement:** The degree to which an increase in economic activity or social welfare that is promoted by an intervention is offset by reductions elsewhere. This concept relates to NDT Broadgate because outcomes achieved by NDT Broadgate participants (e.g., a theatre performance) reduce outcomes that would otherwise have been achieved by others (e.g.,

² Definitions of deadweight, displacement and leakage in this chapter are taken from HM Treasury, *Green Book*.

³ Respondents were attributed a 100% additionality ratio where they answered 'definitely would not have achieved similar results (finances, revenue)', 75% where they answered 'would probably not have achieved similar results', 50% where they answered 'would have achieved some but not all of the results (finances, revenues)', 25% where they answered 'would have achieved similar results (finances, revenues) but not as quickly', and 0% where they answered 'would have achieved similar results (finances, revenues) anyway'. These ratios are multiplied by the proportion of respondents within each category to generate weighted averages that are reported in the Additionality column in Figure 8.

another theatre company providing this performance), which is again assessed through our surveying of participants.⁴ Figure 7 shows the proportion of gross revenue that participants attribute to displacement by category of participant. It relates to the external context within which participants operate: the extent to which others would have been likely to have delivered the same outcome had these participants not done so.

Typically, economic impact assessment also accounts for leakage – i.e., the extent to which effects “leak out” of a target area into others. We have not, however, restricted this assessment to the immediate geography of NDT Broadgate or London or even the UK. We have included within our analysis all revenues to companies and professionals based at NDT Broadgate irrespective of where these revenues are generated or where these companies are domiciled.

Deadweight in Figure 8 is higher for professionals (Category 4) – perhaps reflecting the relatively higher possibility that they might have been able to undertake this work from another location if not at NDT Broadgate (e.g., freelancers working from home or hot desking in another London office). The companies, in contrast, are more dependent on accessing rehearsal space to generate revenues – as illustrated by lower deadweight ratios for Categories 1, 2 and 3 than for 4. Category 2, the companies based at NDT Broadgate for the shortest periods of time, have a higher deadweight ratio than category 1 and 3. Category 2 companies also had the highest displacement ratio – reflecting the heightened sense of these companies that if they had not undertaken work at NDT Broadgate then others would have taken these opportunities.

The gross to net conversion in Figure 8 is reached by removing (a) deadweight and (b) displacements from the gross revenues for each category.

Figure 8 Conversion of gross to net revenues for companies based at NDT Broadgate

Category	Gross (£m)	Deadweight	Displacement	Net (£m)
1. 10+ working days	3.2	25%	14%	2.1
2. Short-term - less than 9 days	35.7	35%	19%	18.8
3. Associate companies	0.6	25%	0%	0.5
4. Residencies	0.3	43%	15%	0.2

Source: BOP Consulting

In Figure 9, we explain how the economic impacts directly generated by these companies and professionals combine in our model with their indirect and induced impacts, as well as those of NDT Broadgate itself.

“For every £1 of turnover directly generated by the arts and culture industry,” according to research published by Arts Council England, “an additional £1.23 worth of turnover is supported in the wider economy through indirect and induced effects”.⁵ These downstream benefits are triggered by spending on suppliers resulting from direct revenue to arts and culture organisations, as well as by increased spending by employees at these organisations and along their supply chains. This additional spending by employees includes, for example, average spending of £17 per work trip to NDT Broadgate (e.g., on transport and food), as reported in our survey. These expenditures gross up to over £1m of expenditure – an important contribution to the revitalisation of the Broadgate neighbourhood after Covid-19 lockdowns. This spending on work trips to NDT Broadgate is a component of induced impact, with this induced impact also capturing all other increases in employee expenditure and increased supply chain activity – including, for example, the hospitality businesses that form part of the supply chains to theatres.

⁴ Respondents were assigned a displacement ratio of 80% where they assessed the level of competition that they face as ‘very high’, 50% where ‘high’, 33% where moderate, 20% where ‘weak’ and 0% where ‘very weak’. These ratios are multiplied by the proportion of respondents within each category to generate weighted averages that are reported in the Displacement column in Figure 8.

⁵ Cebr, *Contribution of the arts and culture industry to the UK economy*, A Cebr report for Arts Council England, 2020

Figure 9 Quantification methods for economic impacts generated by NDT Broadgate

Type of impact		Method
Direct	NDT Broadgate	Employment from data provided by NDT Broadgate and salary expenditure equating to the GVA contribution of NDT Broadgate. ⁶
	Companies based at NDT Broadgate	The net revenues illustrated in Figure 9 – which we convert to GVA by using our survey to quantify the proportion of these expenditures that are attributable to wages and profit. We estimate employment by dividing the wage spend within these revenues by the average annual pay rates for companies operating at NDT Broadgate.
	Professionals based at NDT Broadgate	Revenues and GVA are quantified by the same method as the companies based at NDT Broadgate. Employment applies the same ratio between gross and net revenues to the number of residencies at NDT Broadgate (29).
Indirect	NDT Broadgate suppliers	This includes supplier expenditure on NDT Broadgate by New Diorama and British Land. We convert these supplier revenues into GVA and FTE employment by applying ratios for relevant sectors derived from the Annual Business Survey (ABS) maintained by the ONS.
	Suppliers to companies and professionals based at NDT Broadgate	These supplier expenditures are estimated from our survey. They reflect the amount of supplier expenditure needed to service direct additional revenues to companies and professionals based at NDT Broadgate. ABS ratios are again used to derive contributions to GVA and FTE employment from these additional supplier expenditures.
Induced	Downstream impacts generated by direct and indirect impacts	These are estimated using multipliers calculated for Arts Council England by Cebr. ⁷ These multipliers capture the impact of increased expenditure along supply chains and employment associated with direct and indirect impacts.

Source: BOP Consulting

⁶ GVA is composed of wages and profits, with NDT Broadgate not being a profit-seeking venture.

⁷ We apply the arts and culture multipliers for London of 2.03 for employment and 1.86 for GVA, with this GVA multiplier also applied to revenue. These multipliers capture indirect and induced impacts – with the residual from indirect impacts quantified from our surveying reported as the induced impact. (Cebr, *Contribution of the arts and culture industry to the UK economy, A Cebr report for Arts Council England*, March 2020)