HEATHROW REIMAGINED
A Better Hub For Britain

REDACTED VERSION FOR PUBLICATION

Fundamental reform of Heathrow

Case for change: Presentation of why HAL's claims, arguments and commissioned reports should be disregarded

AUGUST 2025

Introduction

- In our February 2025 submission, Heathrow Reimagined set out the urgent need for reform of the regulatory regime at Heathrow, noting:
  - **The Jacobs' annual *Review of Airport Charges* shows that Heathrow is the most expensive airport in the world** and that the value for money it provides its users is poor and declining.
  - **These poor outcomes are consistent with an ineffective regulatory regime** that creates harmful incentives for HAL and fails to prevent it from acting on those incentives. These **harmful incentives lead to inefficient capital spending and operations**.
- **As part of its H8 Business Plan from July 2025, Heathrow Airport Limited (HAL) has made a series of claims about its charges and efficiency, including sharing some consultancy reports it commissioned. These include [✂] reports from KPMG, one from Jacobs, one from Steer [✂]**
- HAL seeks to argue that:
  - Heathrow's charge is not the highest in the world.[1]
  - When you compare like-for-like, Heathrow's charge is less than the average of comparators.[2]
  - Heathrow's spend on T2 expansion is in the mid-range of benchmarks when compared to other airports.[3]
  - Heathrow's capital investment is comparable to other international hub airports against industry benchmark metrics.[4]
  - Heathrow experiences cost drivers over and above those typically identified in the construction sector.[5]
  - Heathrow's operating efficiency previously has been in line with what might be expected given its scale and type of airport.[6]
  - The current single-till dampens incentives to improve commercial property.[7]
- **This document sets out Heathrow Reimagined's initial response to HAL's claims and supporting reports. It sets out why HAL's arguments and claims should be entirely disregarded by the CAA.**
- **As set out, the evidence upon which HAL and its consultants have sought to base their arguments is highly selective and, in many cases, is based on adjustments that are wrong as a matter of principle and implemented in a way that is either wrong or lacks robust evidentiary basis.**
- **Further, where HAL and its consultants seek to draw comparisons to other airports, these comparisons are based on inconsistent comparator sets, with individual groups of comparators seemingly selected to best support HAL's arguments.**
- We have had limited time to review the various reports provided by HAL, while in other cases, we have had to rely on summaries in the Business Plan document, as HAL has not released the underlying consultancy report. Furthermore, we have not had access to the underlying calculations or datasets. This is particularly important given that in several cases we have not been able to reconcile the descriptions set out in the reports with the reported numbers. Therefore, **we reserve the right to make further representations on HAL's arguments and reports in due course.**
- The remainder of this document starts with a summary of HAL's arguments and why they are wrong and should be disregarded. We then address each of:
  - [✂]
  - Jacobs' *Airport Charges bespoke analysis*.
  - Steer's *Capex Benchmarking* study.
  - HAL's claims of capex efficiency in its H8 business plan.
  - KPMG's Cost of Capex Delivery report.
  - KPMG's cost efficiency benchmarking study
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[1] HAL, H8 Business Plan, July 2025, page 272.
[2] HAL, H8 Business Plan, July 2025, page 272.
[3] HAL, H8 Business Plan, July 2025, page 293.
[4] HAL, H8 Business Plan, July 2025, page 291.
[5] HAL, H8 Business Plan, July 2025, page 295.
[6] HAL, H8 Business Plan, July 2025, page 318.
[7] HAL, H8 Business Plan, July 2025, page 384.

Contents of the remainder of this document

Summary: HAL’s claims, arguments and commissioned reports are fundamentally flawed and should be disregarded

Overview: HAL's claims, arguments and commissioned reports are flawed and should be disregarded

Claim	Reality: Why it is flawed and should be disregarded
Heathrow's charge is not the highest in the world	• Relies on a 'sensitivity test' by Jacobs; HAL's commissioned attempt to rewrite the outcome of the 2024 *Review of Airport Charges* study. • Analysis continues to show that HAL is expensive compared to its peers – it is still second, despite the changes HAL has orchestrated. • But it is fundamentally at odds with what airlines pay airports – aero revenue per pax in accounts at LHR is the highest among its peers.
LHR charges are less than the average of comparators	• [✂] • [✂] • [✂]
LHR's capex is comparable to other hubs	• HAL's H8 Business Plan analysis is based on a small sample of comparators, seemingly selected to support its argument. • Unlike LHR, many of the airports that HAL has included were investing in major infrastructure upgrade projects at the time. • Despite this, HAL's average capital spend per passenger was *higher* than the sample average over the period covered.
HAL's spend on T2 expansion is in line with benchmarks	• Relies on HAL-commissioned report by Steer, which is highly selective, methodologically flawed and compromised by HAL's direct influence. • For example, relying only on capex per m^2 rewards space-inefficient designs and hides true costs. • Correcting for fundamental flaws reveals HAL's capital inefficiency – it delivers the most expensive terminal infrastructure globally.
LHR faces additional cost drivers	• Relies on another HAL-commissioned KPMG *Cost of Capex Delivery* report, which aims to deflect blame for HAL's inefficient decisions. • Many of the supposed issues identified in the report are also experienced by LHR's peers and are not capable of explaining why HAL's capex activities are more expensive than its peers.
HAL's opex efficiency historically in line with average airport	• Relies on another HAL-commissioned study from KPMG, looking to draw conclusions on its operating cost efficiency. • But the conclusions of the study seem to confirm our concerns about HAL's operating cost efficiency performance. • It finds that for most of the past 15 years, HAL's operating efficiency is below that of the average airport in KPMG's sample.
Single-till dampens incentives to improve commercial property	• [✂] • [✂] • [✂]

Jacobs' sensitivity test is an unsuccessful attempt by HAL to rewrite history and should be disregarded

The 'sensitivity test' analysis is an attempt by HAL to rewrite the outcome of the 2024 study	• **But Jacobs has not amended its 2024 report or withdrawn it** • The latest analysis is only a 'sensitivity test' – **the original 2024 results still stand**, and the 2025 report will continue to use Jacobs' longstanding approach
'Sensitivity test' results are at odds with the reality of what airlines pay airports around the world and should be disregarded	• Jacobs' annual *Airport Performance Indicators* study shows that **LHR has the highest total and aeronautical revenues per passenger and per ATM**, consistent with LHR's charges being the highest in the world • LHR total and aeronautical revenues per passenger and ATM are materially higher than for Auckland
Notwithstanding this, the analysis continues to show that HAL is expensive compared to its peers	• Despite the significant changes HAL has orchestrated, **LHR remains considerably more expensive than its major international peers**, including other major European hubs and LGW • While the gap has closed, it remains large – LHR is 78% more expensive than LGW • Furthermore, **LHR only falls to 2nd** (behind Auckland) – it remains poor value for money, particularly given the inadequate, outdated and declining passenger experience

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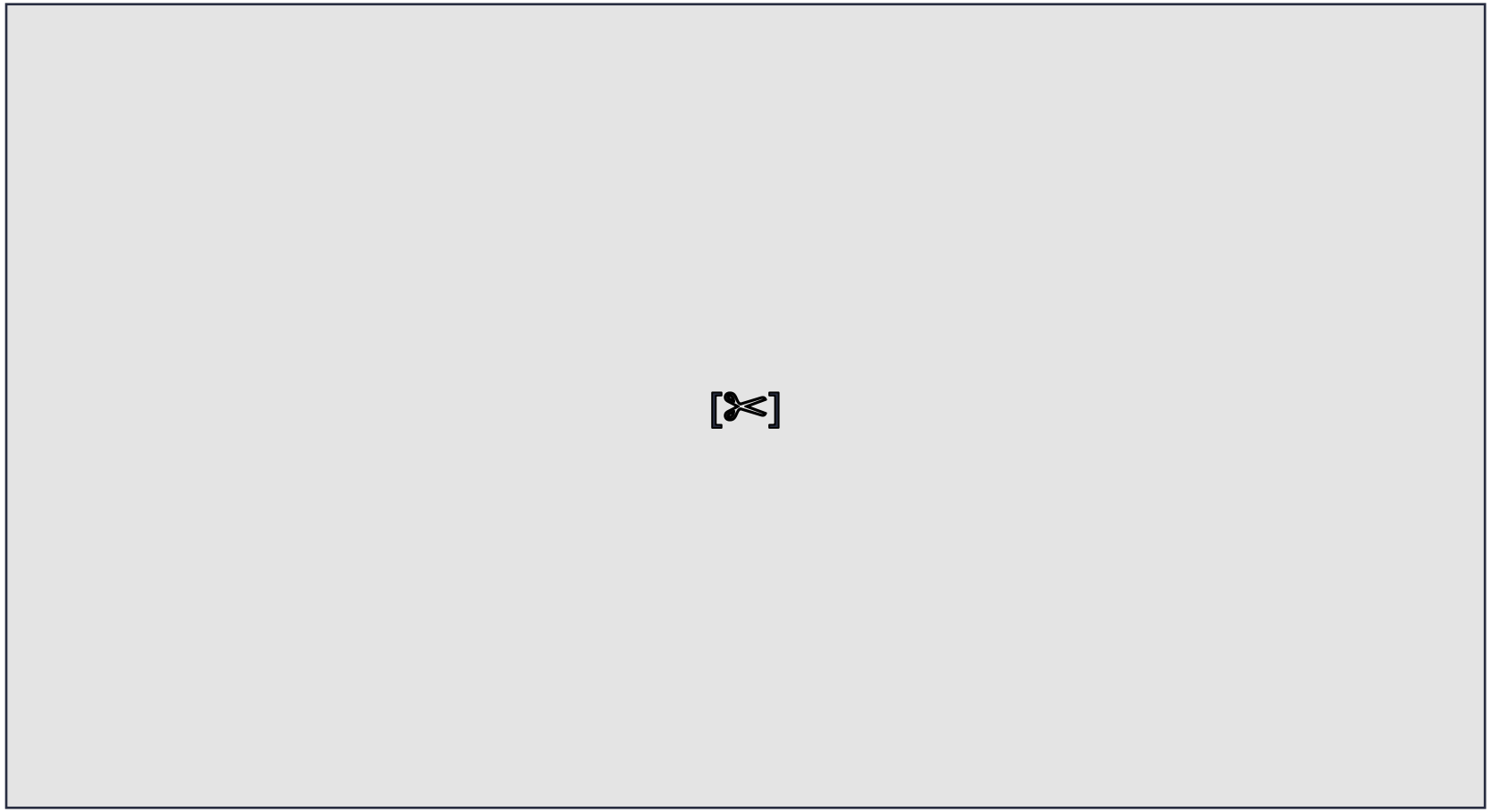

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HAL's H8 business plan analysis provides further evidence of its capital inefficiency

In its H8 Business Plan (July 2025), HAL seeks to argue that its capital investment is "*comparable to other international hub airports*", but the analysis cannot be relied on to support the conclusions HAL is claiming.

HAL's analysis is based on a very small and highly selective sample	• No transparency on selection criteria of specific airports • HAL appears to select "comparators" based on those that support its argument • Conducted internally by HAL with no independent verification
HAL does not compare 'apples with apples'	• Unlike LHR, many of the airports included were investing in major infrastructure upgrade projects during this period • For example, Los Angeles, Chicago O'Hare, Frankfurt and Amsterdam Schiphol have all been investing in major new terminal projects during the period covered by HAL's analysis • The asymmetric nature of the analysis – comparing HAL's ongoing capex against peers' major infrastructure programmes – undermines comparability
HAL's average capital spend per passenger should have been below these comparators…	• …yet, HAL's own analysis shows that its average capital spend per passenger was higher than the sample average over the period covered

Steer's analysis is fundamentally flawed and seemingly designed to obscure Heathrow's capital inefficiency

Study cannot be relied on due to methodological flaws that systematically favour HAL; its analysis is highly selective, one-sided and compromised by HAL's direct influence

Methodology masks real inefficiency

- Uses capex per m^2 exclusively – rewards space-inefficient designs and hides true costs. A terminal could be extremely expensive per passenger, but appear reasonable per m^2 if built with excessive space
- If capex per passenger was used, Heathrow emerges as most expensive globally

Sample is limited, skewed and heavily HAL-influenced

- Only 20 projects globally, insufficient for robust benchmarking
- HAL directly influenced selection, explicitly adding JFK "*after discussion with HAL*"
- Excludes HAL's own completed terminals (T2, T5) despite clear relevance and importance

Compares incomparable projects

- Mixes: design estimates & completed costs; refurbishments & new builds

Arbitrary adjustments lack evidence and transparency

Relies solely on Arcadis' construction cost index ([✂])

Correcting these fundamental flaws reveals Heathrow's capital inefficiency – it delivers the most expensive terminal infrastructure globally – T2 and T5 are outliers globally on a capex per pax basis

KPMG's *Cost of Capex Delivery* report erroneously seeks to deflect blame for HAL's own inefficient capex decisions

The KPMG *Cost of Capex Delivery* report seems to be yet another unsuccessful attempt to deflect blame for its own inefficient capex decisions.

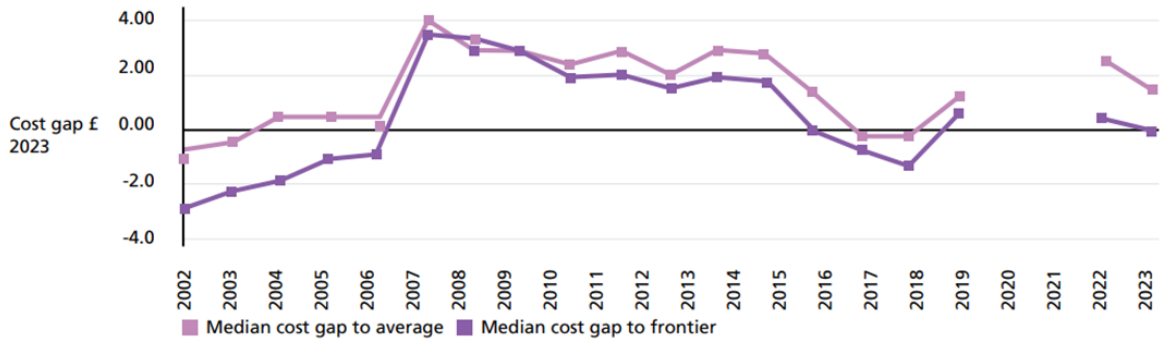
Many of the supposed issues identified in the report are also experienced by LHR's peers and are not capable of explaining why HAL's capex activities are more expensive than its peers.

Claim	Reality
1. Complex governance processes and stakeholder influence add time and cost.	• LHR is not unique - its international peers also face governance processes and need to engage with stakeholders. • Any marginal differences in such processes are not capable of explaining why LHR's very large capex programmes cost significantly more than those of its peers.
2. Unique challenges reduce productivity and increase costs.	• LHR is not unique among its peers in facing such challenges associated with working around a live and busy airfield – such challenges are inherent at any major international airport and do not explain why capex at LHR is so much more expensive.
3. The size of the Heathrow estate, with multiple terminals, and ageing assets leads to increased costs.	• LHR is not unique in having multiple terminals – e.g. MAD has 4, JFK has 5, LAX has 9, SIN has 4. • LHR has faced no shortage of capex– its own analysis shows it has spent more capital per passenger than other airports - it should not face large numbers of ageing assets.
4. The large number of stakeholders and their influence add layers of governance and increase costs.	• Again, all LHR's international peers have similar volumes of stakeholders, including airlines. • Even if LHR faces additional management time at the margin to engage with stakeholders, this would be a small additional cost in the context of HAL's very expensive capex programmes.
5. The regulatory framework at Heathrow requires dedicated resources.	• Again, all LHR's international peers face governance processes and need to engage with their customers. • We do not accept that the additional programme management time and resources are (or should be) sufficient to explain why HAL's capex programmes are so much more expensive than many of its peers.
6. Higher construction costs in London.	• As set out above, HAL consistently overstates the impact of geographic variations in construction costs.

KPMG's cost efficiency benchmarking study confirms our concerns about HAL's operating cost efficiency

- **HAL's H8 Business Plan also seeks to rely on another study from KPMG to draw conclusions on its operating cost efficiency.**
- **The conclusions of KPMG's operating cost benchmarking study seem to confirm Heathrow Reimagined's concerns about HAL's operating cost efficiency performance.**
  - It finds that for most of the past 15 years, including since 2019, HAL's operating efficiency is below that of the average airport in KPMG's sample.
  - This implies that LHR is likely to be materially below those airports that are in the most efficient deciles and percentiles.
- **This level of performance is not good enough. A well-functioning regulatory model should ensure it gives HAL strong incentives to be a leader in operating cost efficiency. This is not the case today.**

KPMG's reported opex efficiency benchmarking results
(reproduced from HAL's H8 Business Plan – Fig 124)



Being above the line shows relative inefficiency – LHR is above the line for most of the last 15 years

Source: HAL, H8 Business Plan, July 2025

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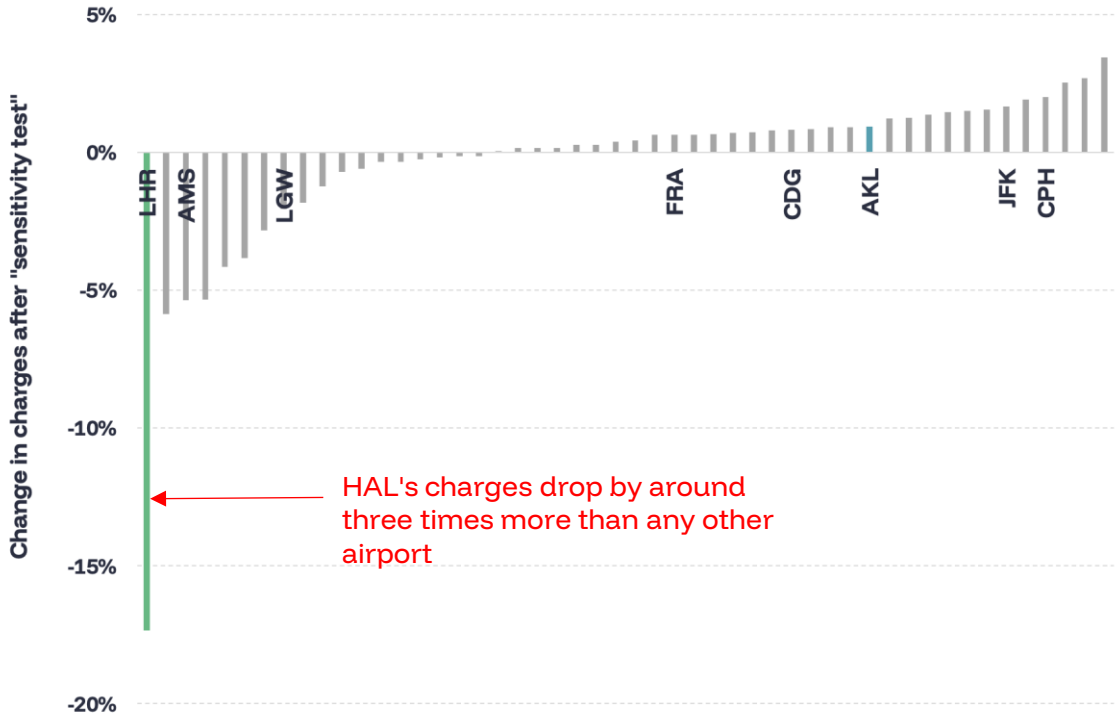
Jacobs' bespoke analysis does not change the reality that LHR's charges are higher than its peers internationally

Analysis overview

- Jacobs' *Airport Charges bespoke analysis*[1] was **commissioned by Heathrow Airport Limited (HAL)** as part of HAL's H8 business plan process.
- **For decades, Jacobs has produced an independent annual study that compares landing and take-off charges at airports worldwide.** The latest version of the report is the *Review of Airport Charges 2024*.
- Charges for each airport are ranked, and an index of charges is reported. The index is calculated based on charges using a sample of aircraft types for all airports.
- **LHR has been ranked the most expensive airport for over a decade.**
- The Jacobs "*Airport Charges bespoke analysis*" paper provides a "sensitivity test" to determine the effect of using a different sample of aircraft than that used in the *2024 Review of Airport Charges*.
  - **Jacobs has not amended its 2024 report or withdrawn it.**
  - It will continue to use a globally representative sample for 2025, not one tailored to individual airports.[2]
- **This different sample of aircraft,** which it claims "*equates more closely to the actual fleet mix at Heathrow*"**, was provided by HAL.**
  - 5 out of the 8 aircraft considered are different in the revised sample.
  - The different sample is applied to all airports covered by the 2024 study (irrespective of whether it better matches their aircraft mix).
- The results of the "sensitivity test" are that **Heathrow's calculated charges fall considerably (around 17%) and by much more than any other airport in the sample** (see the chart below).
- As a result, **LHR falls to second in the ranking, behind Auckland.**

Chart: Change in airport charges after sensitivity test requested by LHR



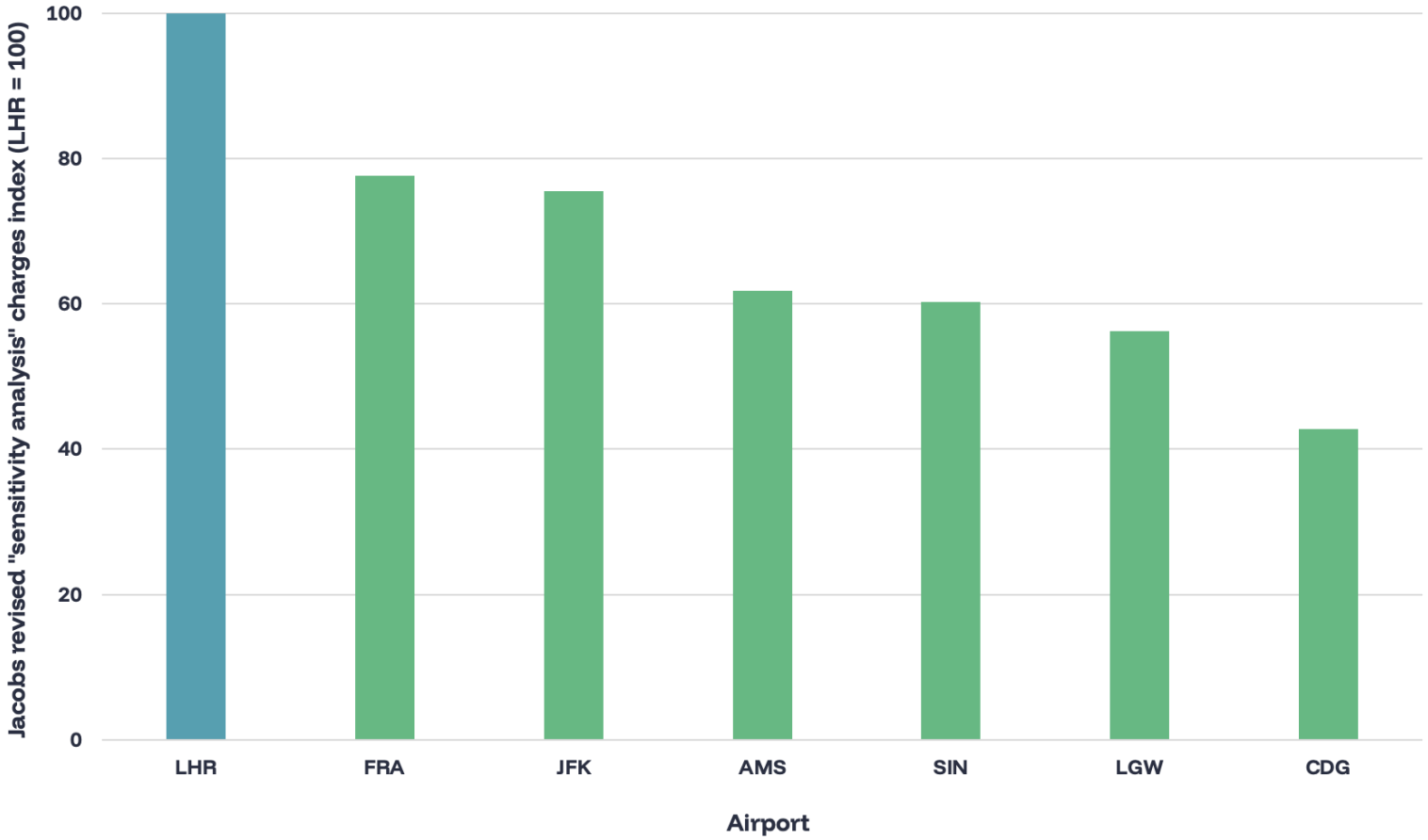
Source: Jacobs, *Airport Charges bespoke analysis*, May 2025.

[1] Jacobs, *Airport Charges bespoke analysis*, May 2025. [2] Jacobs, *Review of Airport Charges*, 2024, link.

Despite the adjustments HAL has orchestrated, its charges remain significantly higher than its peers

- **Even using the sensitivity test results, LHR remains considerably more expensive than its major international peers**, including other major European hubs and LGW.
  - It is 28% more expensive than FRA…
  - …and 78% more expensive than LGW.
  - AMS and CDG are closest peers – and are materially cheaper.
- Jacobs acknowledges that "*Heathrow remains one of the most expensive airports*"[1] despite HAL's best efforts to re-write history.
- Furthermore, **LHR only falls from 1st to 2nd – even on this basis, it remains poor value for money, particularly given the inadequate, outdated and declining passenger experience.**
- Auckland Airport ranks 1st in the sensitivity test. In March 2025, Auckland cut its charges by c.11% after New Zealand's Commerce Commission found it was overcharging its passengers and airlines and earning excessive profits.[2] This is not reflected in Jacobs' sensitivity test, as it uses data from the original 2024 study.

Chart: Relative airport charges after sensitivity analysis (Index, LHR = 100)



Source: Jacobs, *Airport Charges bespoke analysis*, May 2025.

[1] Jacobs, *Airport Charges bespoke analysis*, May 2025.

[2] Reuters, 'Auckland airport cuts passenger charges after watchdog's criticism', 31 March 2025, link; Auckland Airport, 'Auckland Airport lowers price increases; Commerce Commission confirms airport investment is reasonable', 31 March 2025, link; Commerce Commission New Zealand, 'Commission concludes Auckland Airport over-charging by $190 million', 31 March 2025, link.

The 'sensitivity test' results are at odds with the reality and should be disregarded - LHR's charges are the highest

- **Analysis of airport annual accounts shows that Jacobs' modelled 'sensitivity test' results are at odds with the reality for airlines – LHR's charges are the highest.**
  - As well as the annual review of airport charges, Jacobs also publishes its annual *Airport Performance Indicators* study.
  - This study presents data on total revenues and aeronautical revenues per passenger and per ATM for around 50 airports globally sourced from airport financial reports.
  - The latest study (2024) shows LHR has the highest total and aeronautical revenues per passenger and per ATM (see next page).
- **Although Auckland and Sydney do not appear in the API study, analysis of their annual reports shows that both have materially lower total and aeronautical revenues per passenger and ATM than LHR.**
- **Evidence on the charges airlines actually pay airports is consistent with the Jacobs bespoke analysis being an attempt by HAL to rewrite history – it should be disregarded.**
- **LHR's charges are the highest internationally and materially exceed those of its peers.**

Metric	LHR	AKL	SYD
Total revenue per pax	£42.44	£23.32	£24.18
Total revenue per ATM	£7,551	£2,730	£3,143
Aero revenue per pax	£26.58	£10.21	£15.16
Aero revenue per ATM	£4,729	£1,195	£1,972

Source: Individual airport annual reports

[1] Jacobs, *Airport Charges bespoke analysis*, May 2025.

Jacobs Airport Performance Indicators study shows LHR's revenues per passenger and ATM are the highest

Chart: Top 10 Airports (Groups) Aeronautical revenue per passenger comparison – Jacobs API 2024

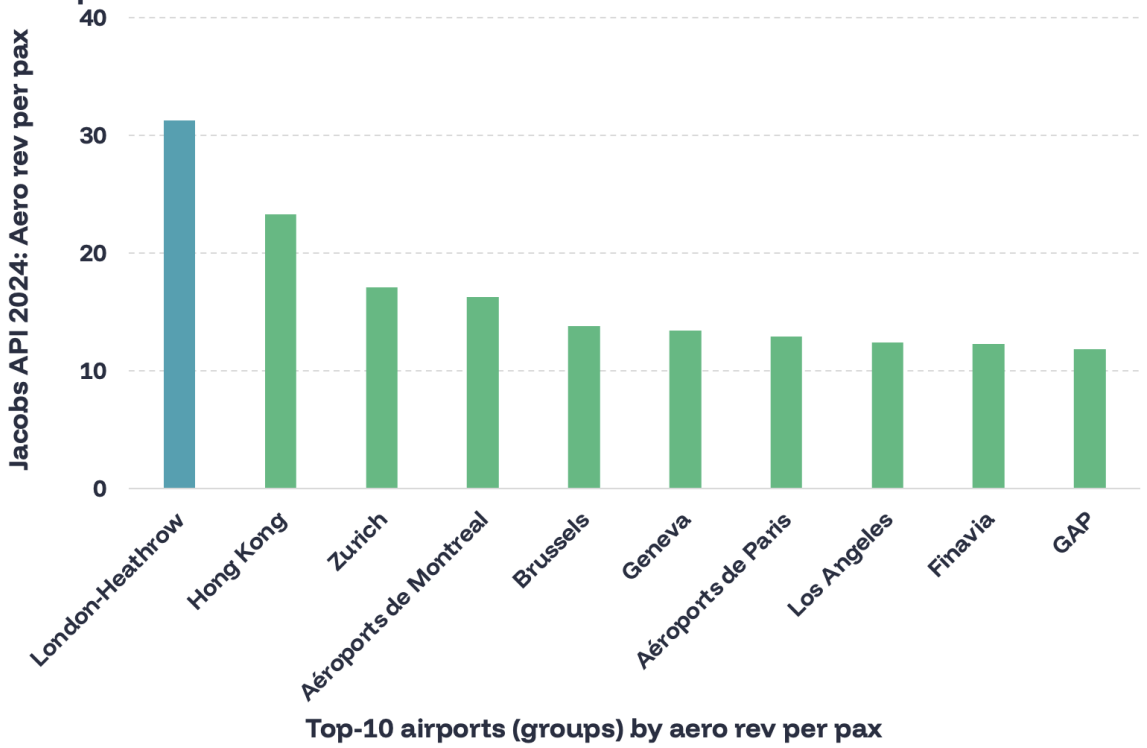
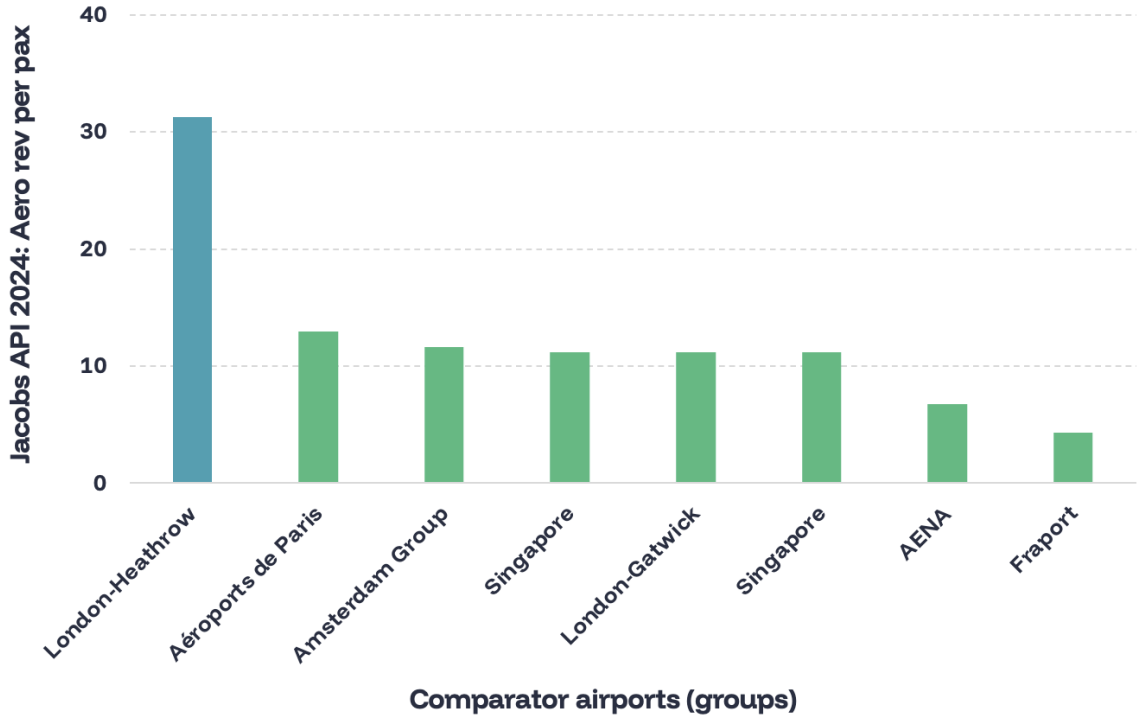


Chart: Comparator Airports (Groups) Aeronautical revenue per passenger comparison – Jacobs API 2024



Source: Heathrow Reimagined analysis of Jacobs, *Airport Performance Indicators,* 2024

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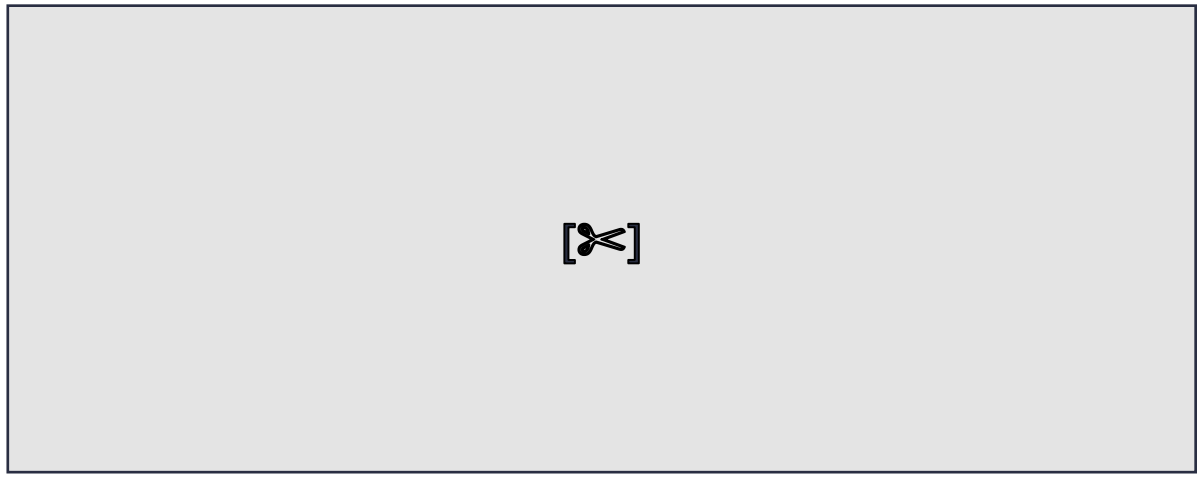

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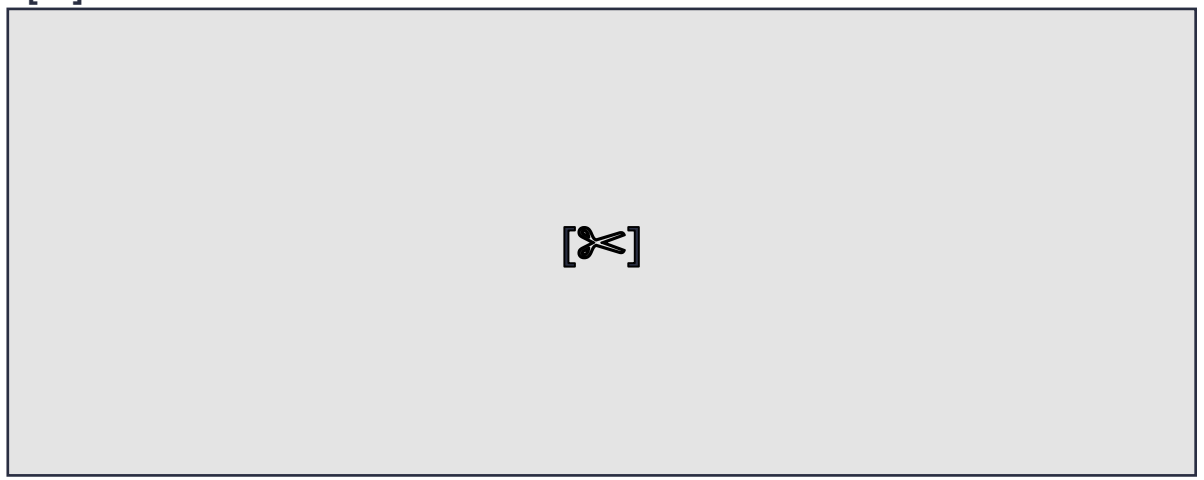

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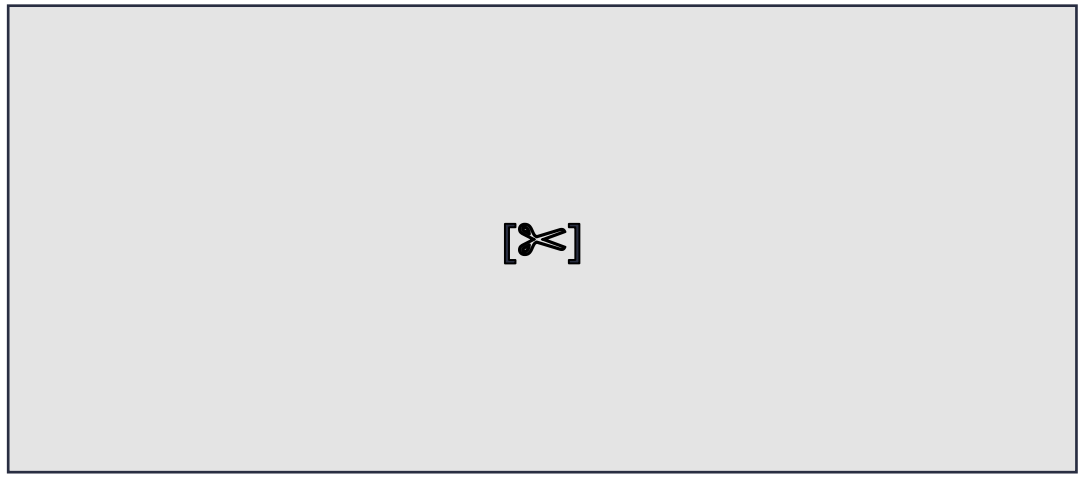

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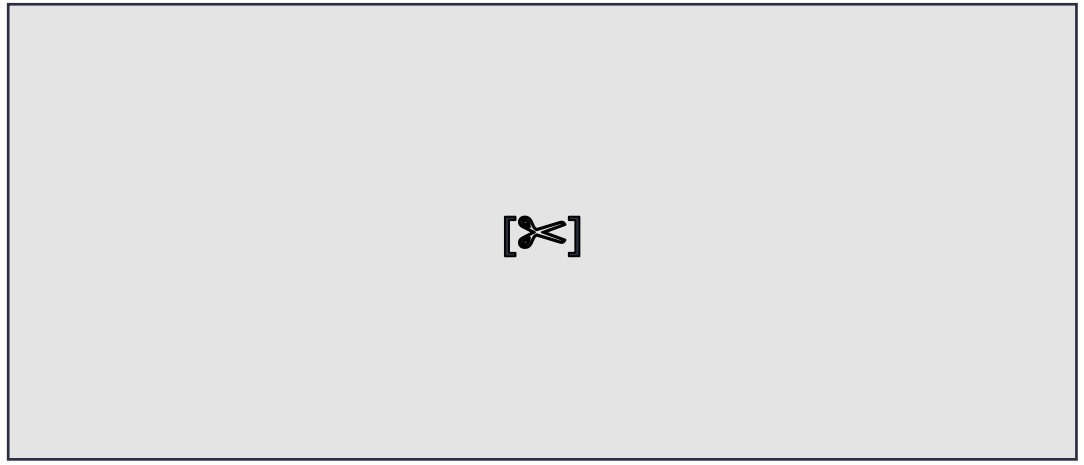

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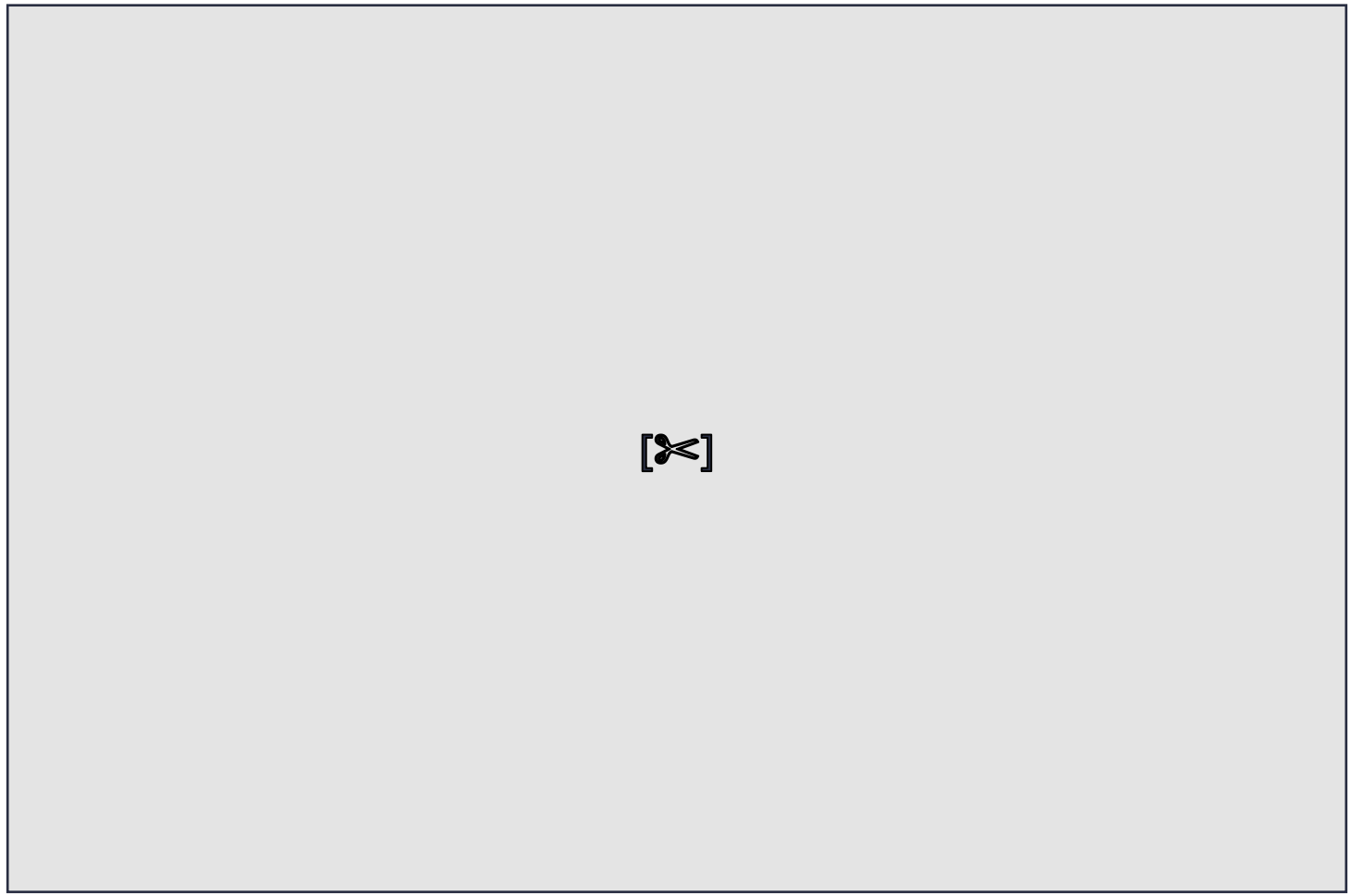

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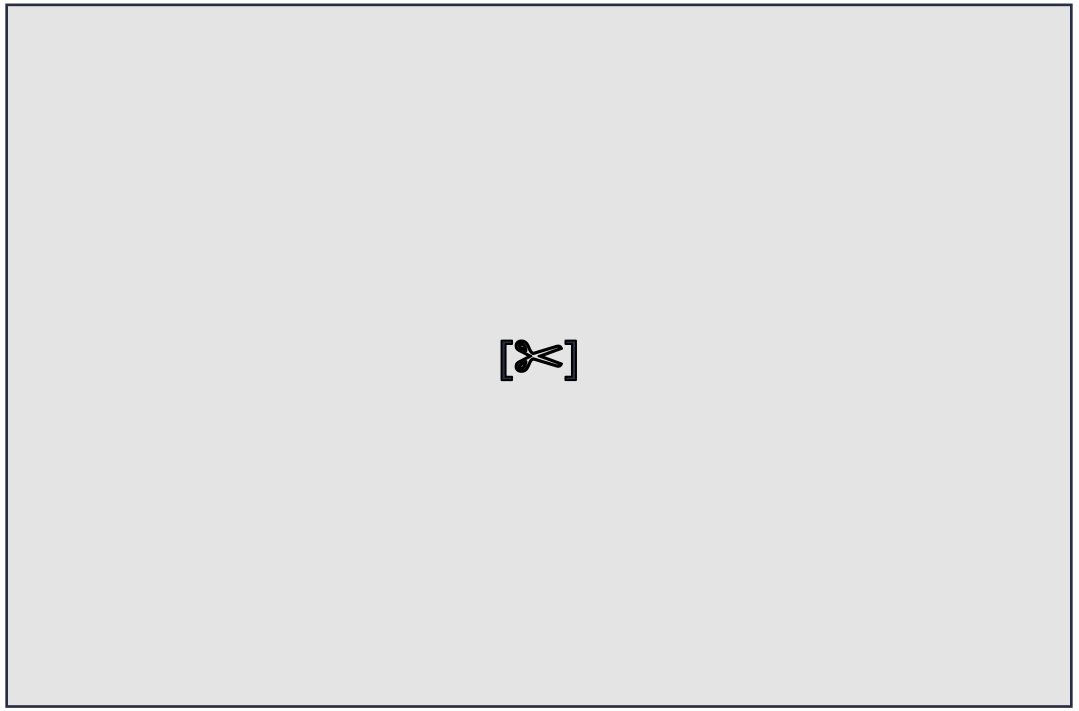

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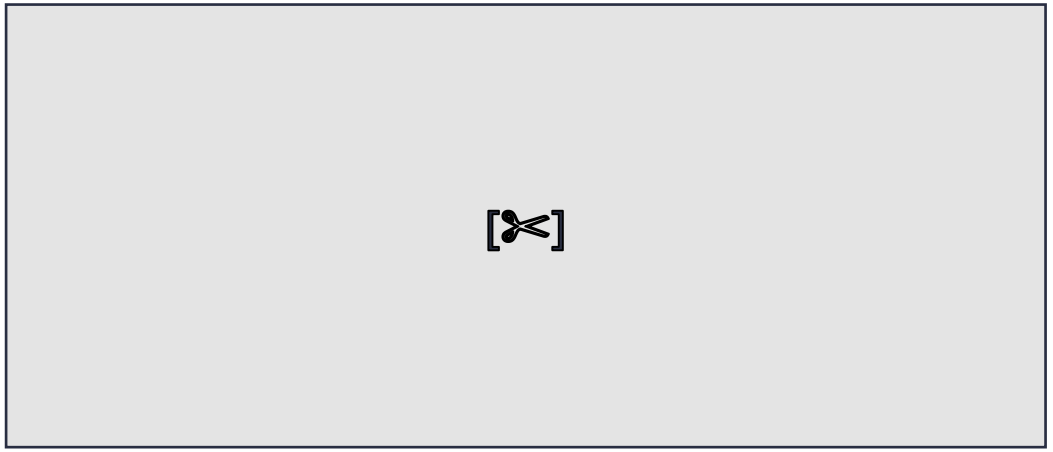

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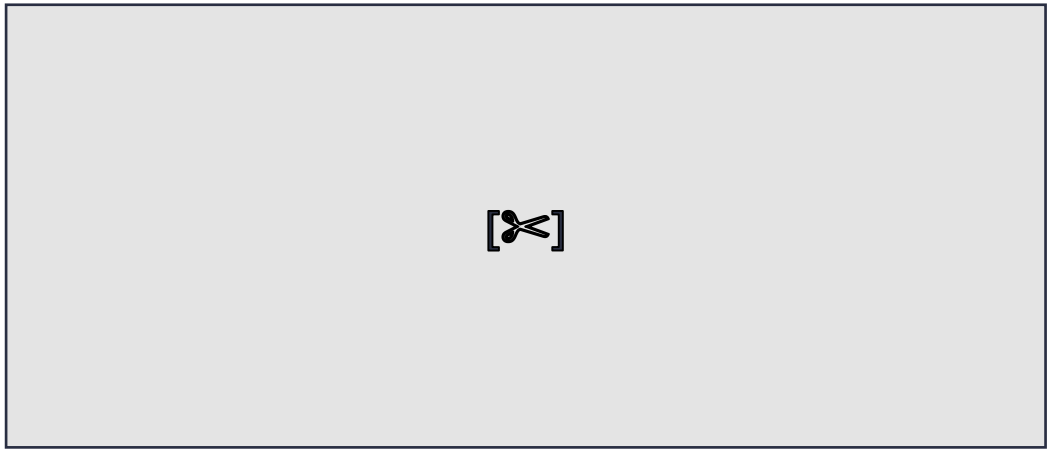

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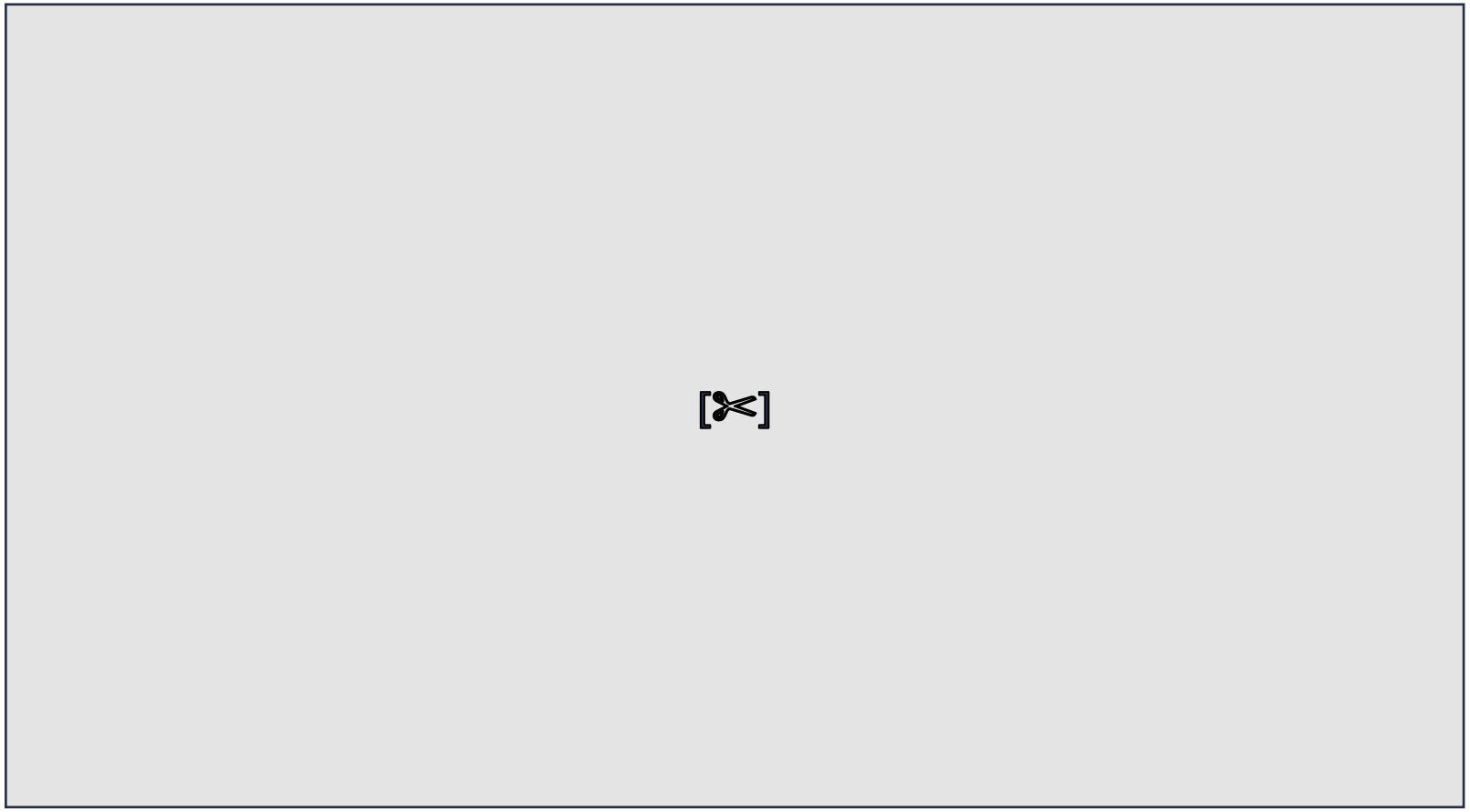

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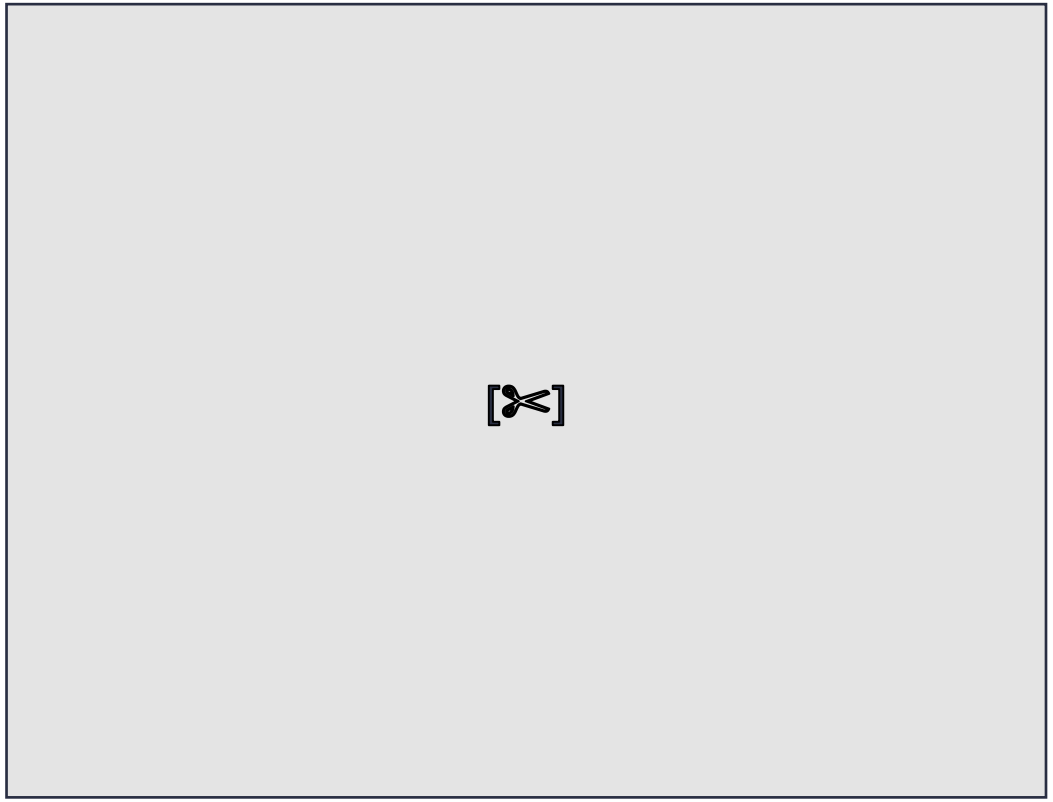

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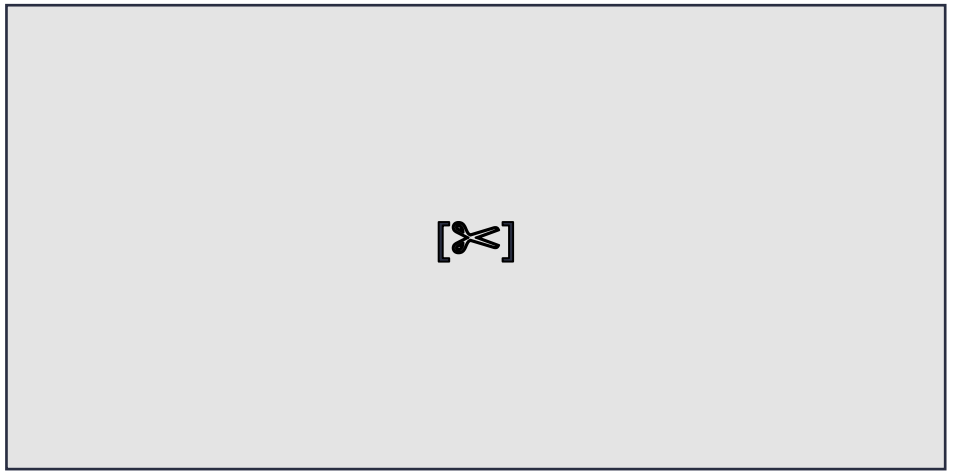

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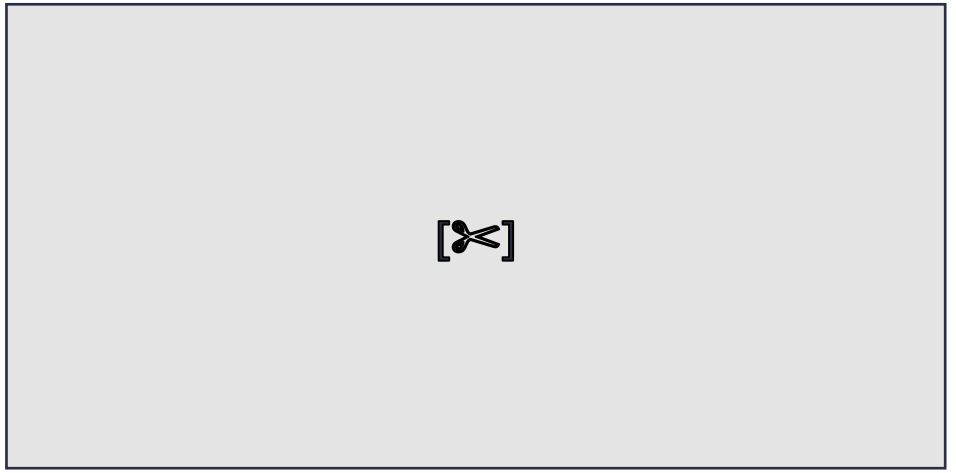

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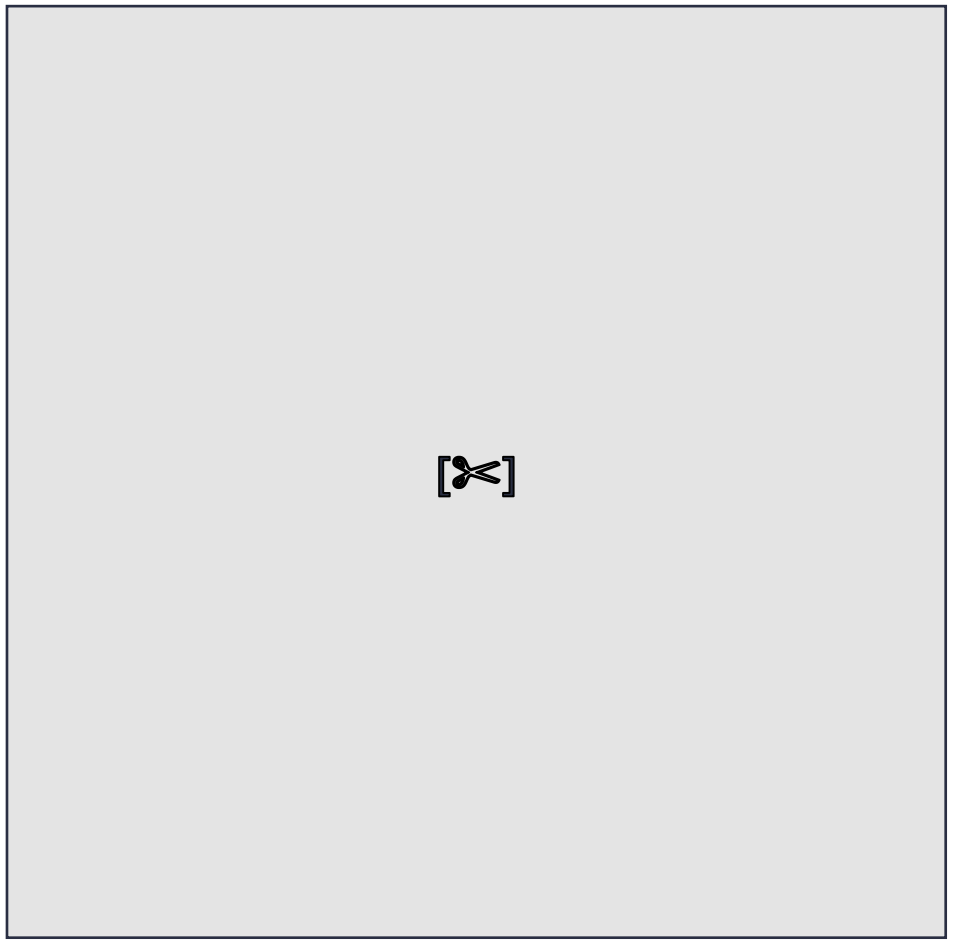

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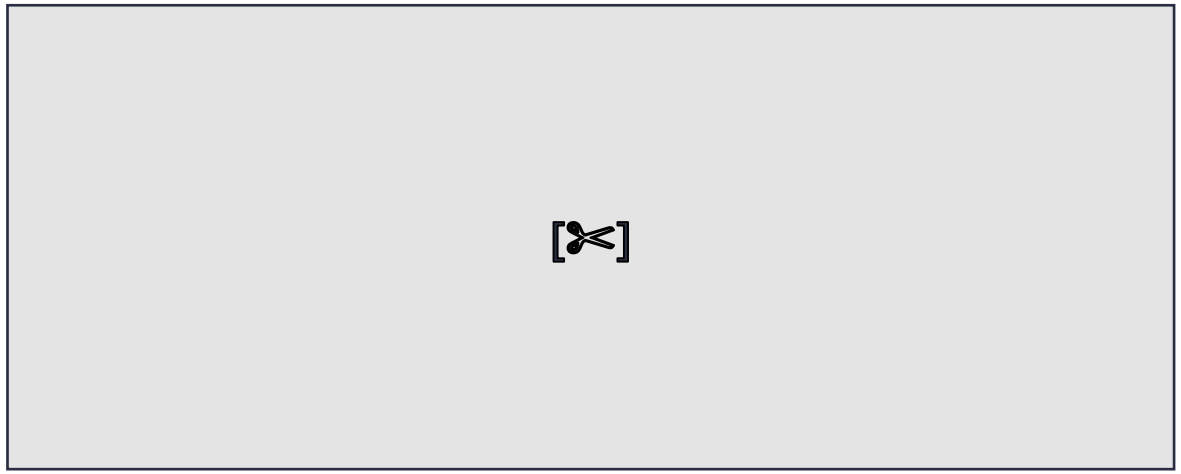

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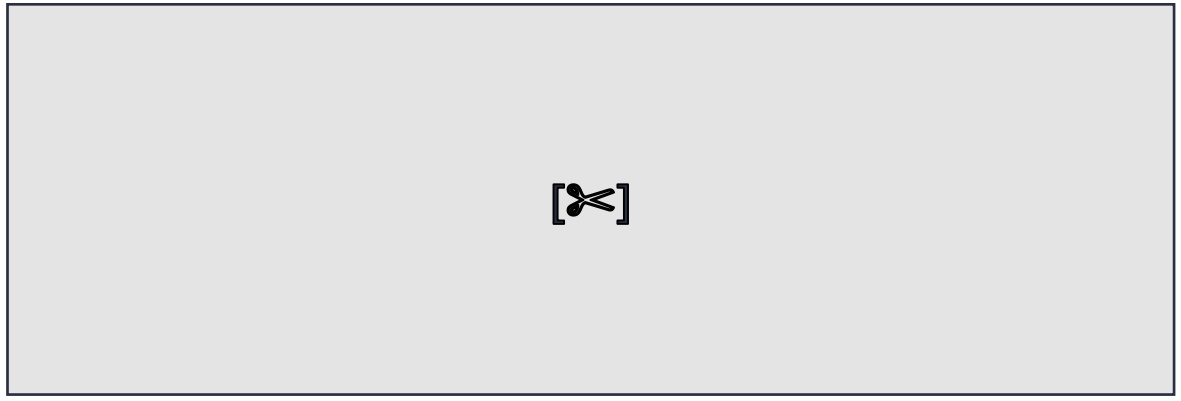

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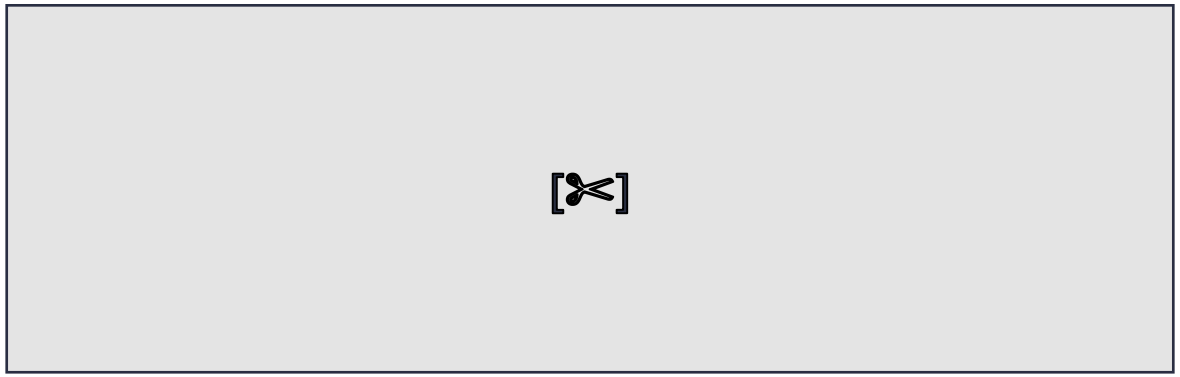

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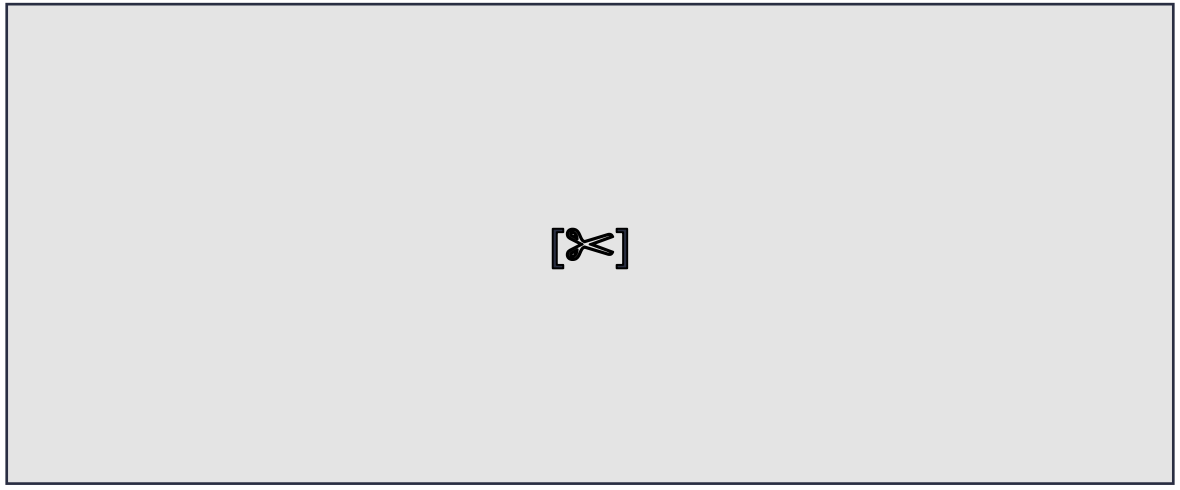

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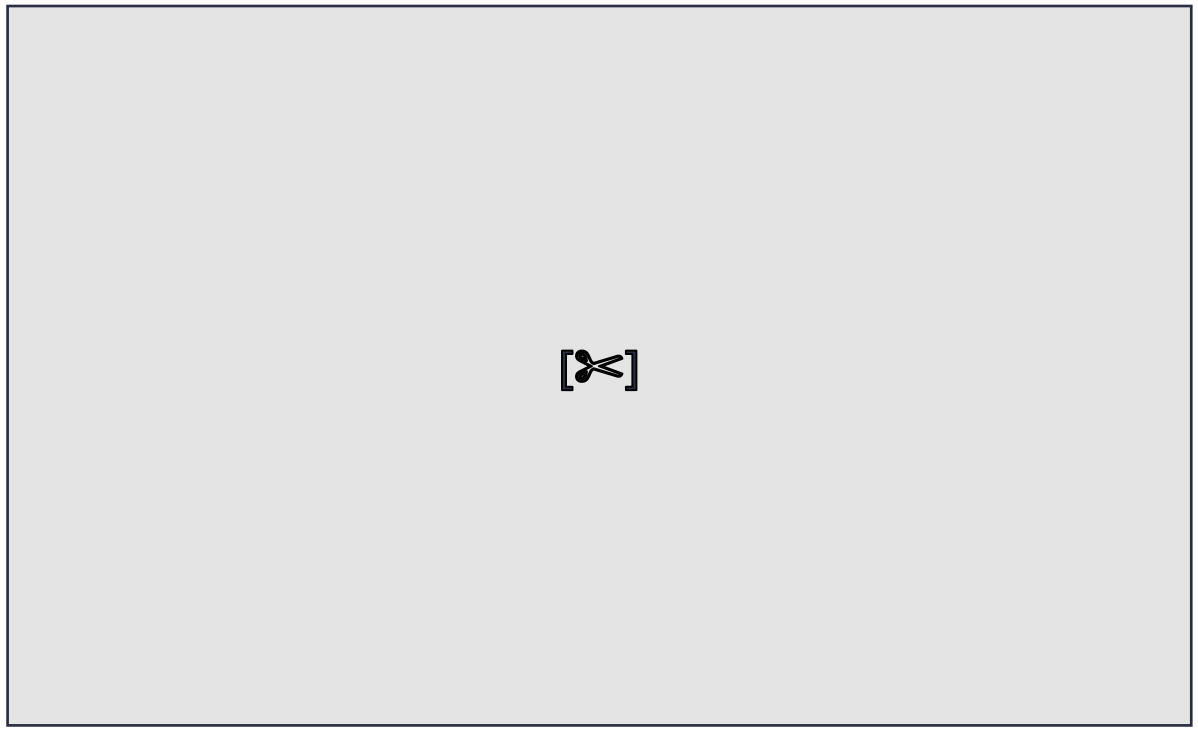

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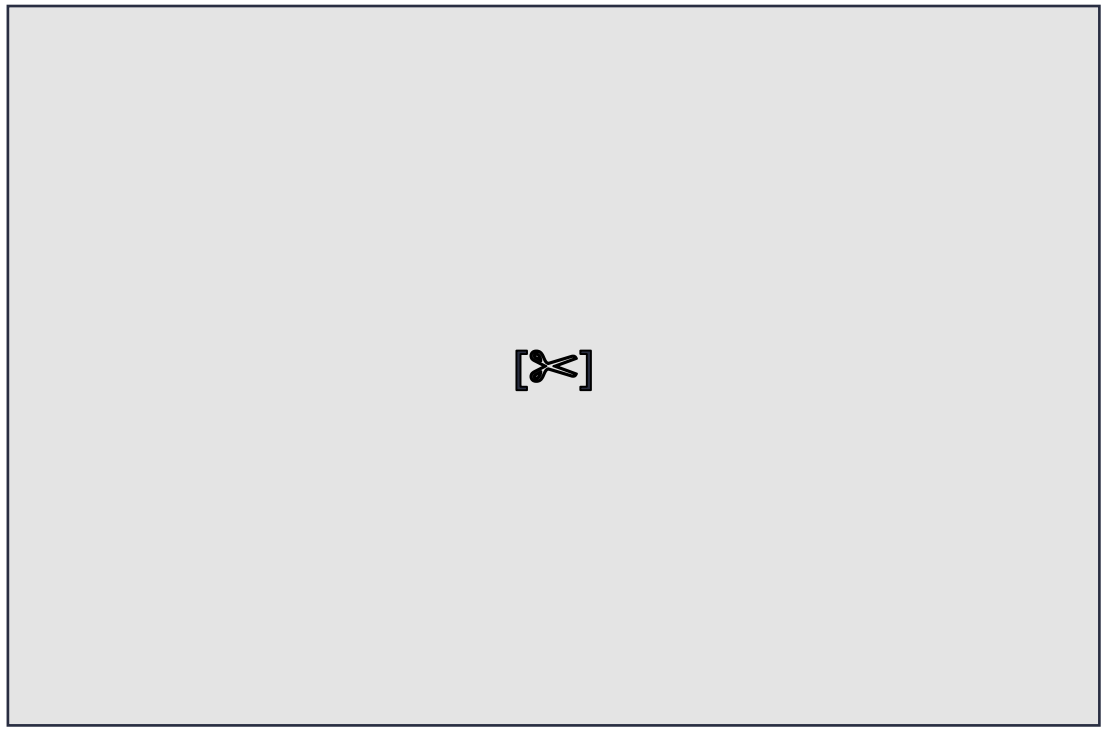

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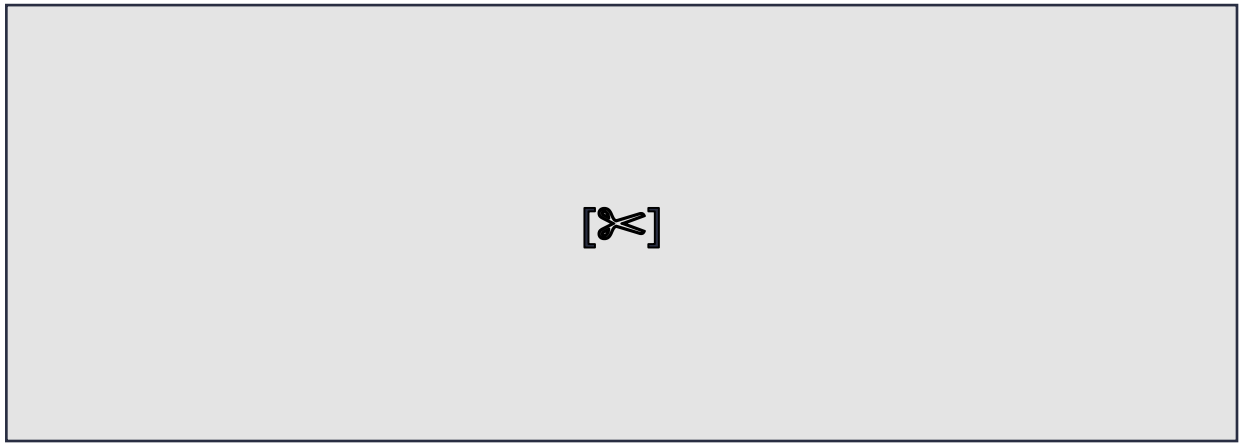

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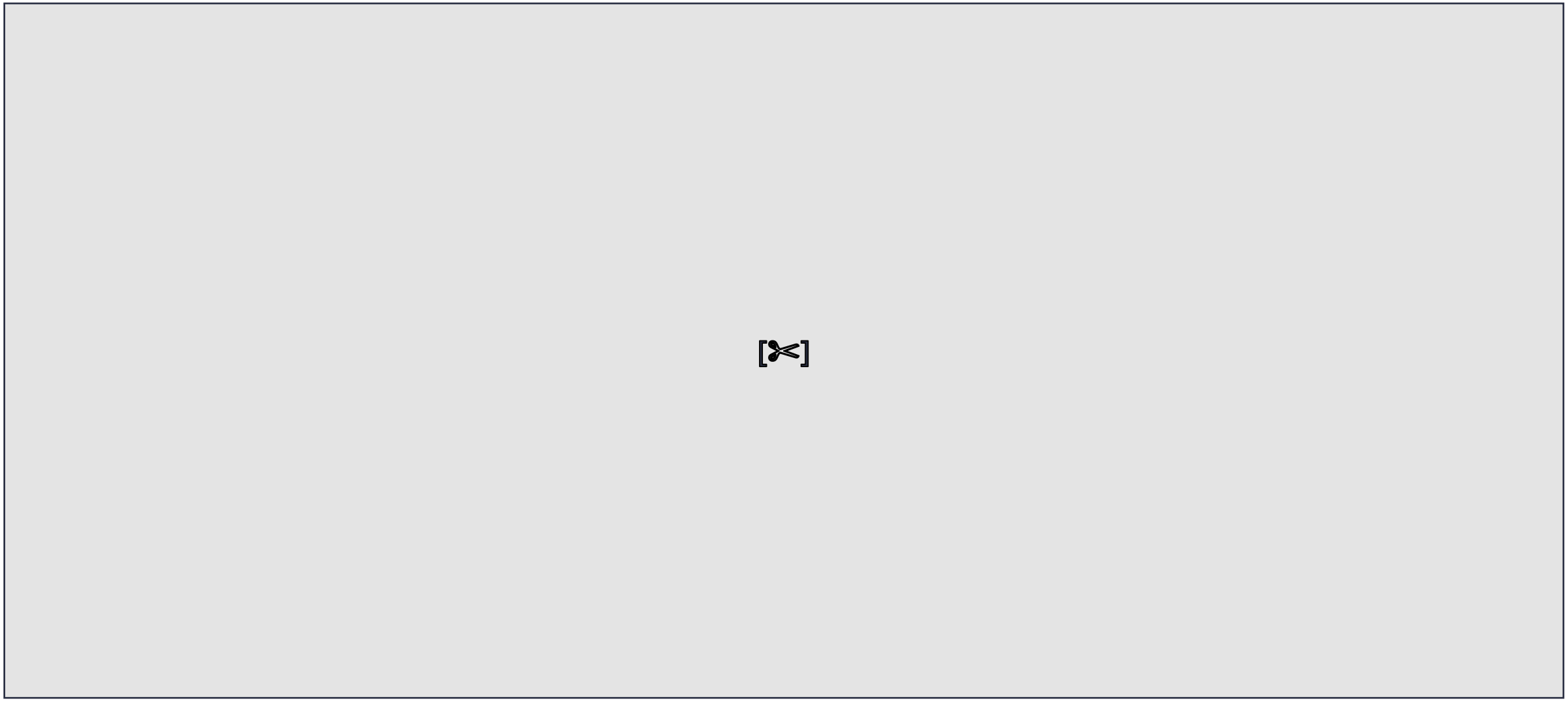

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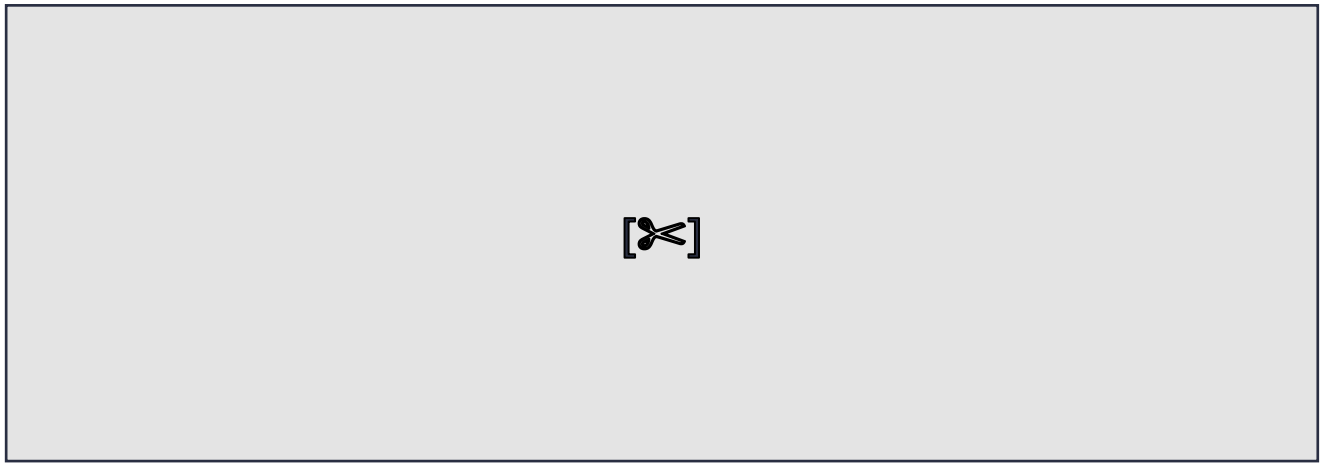

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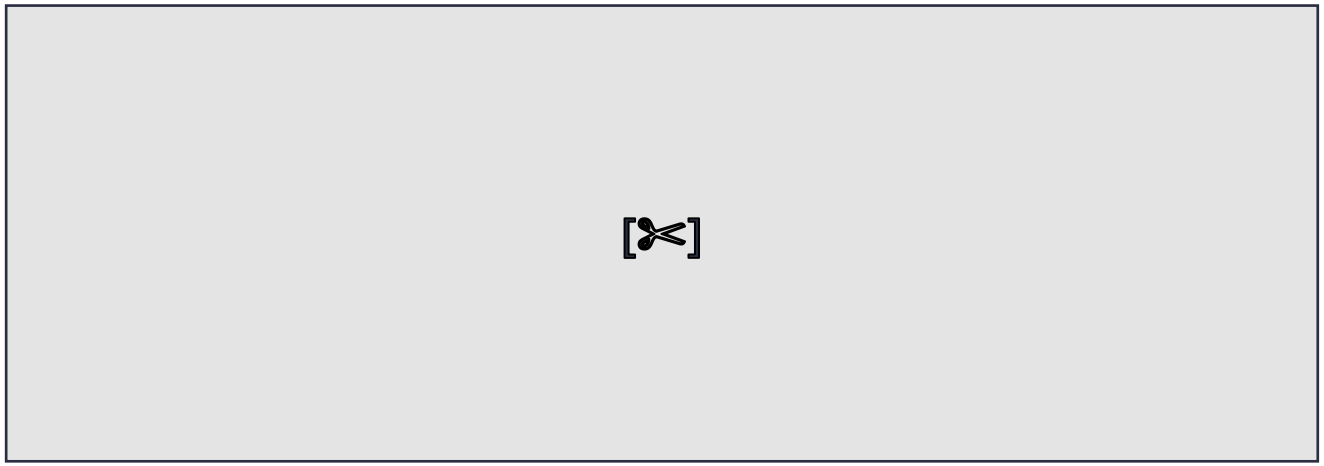

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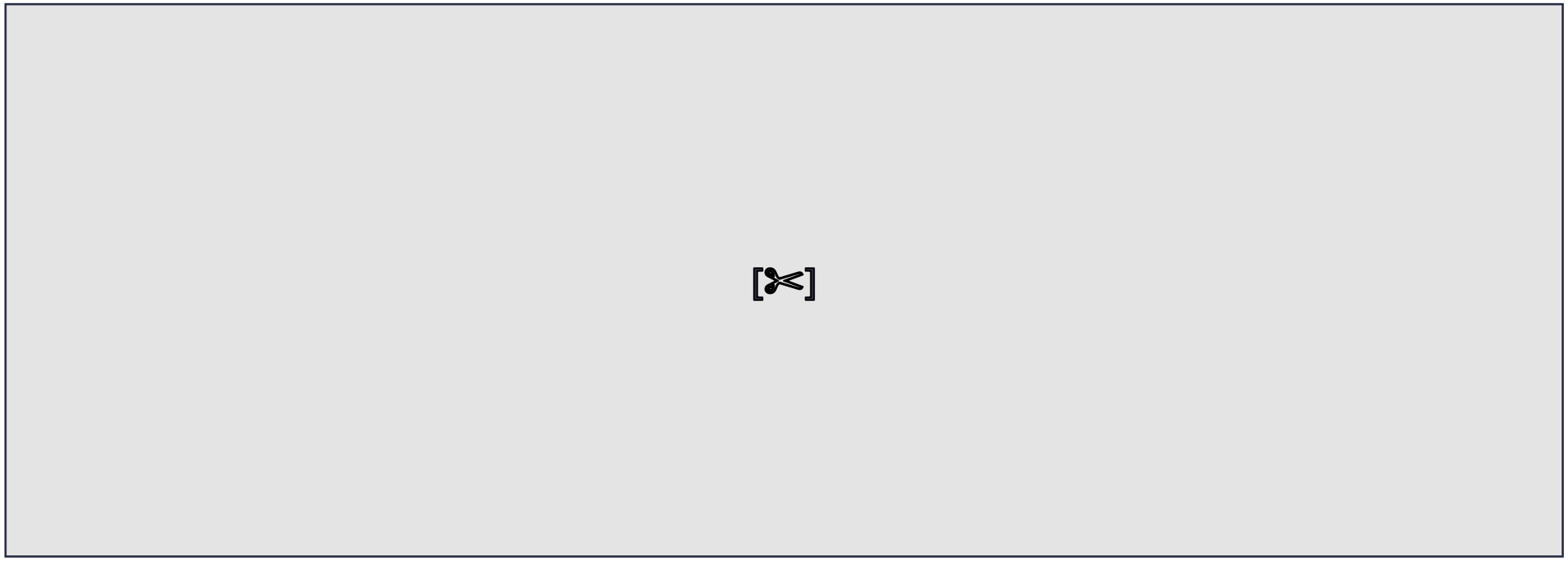

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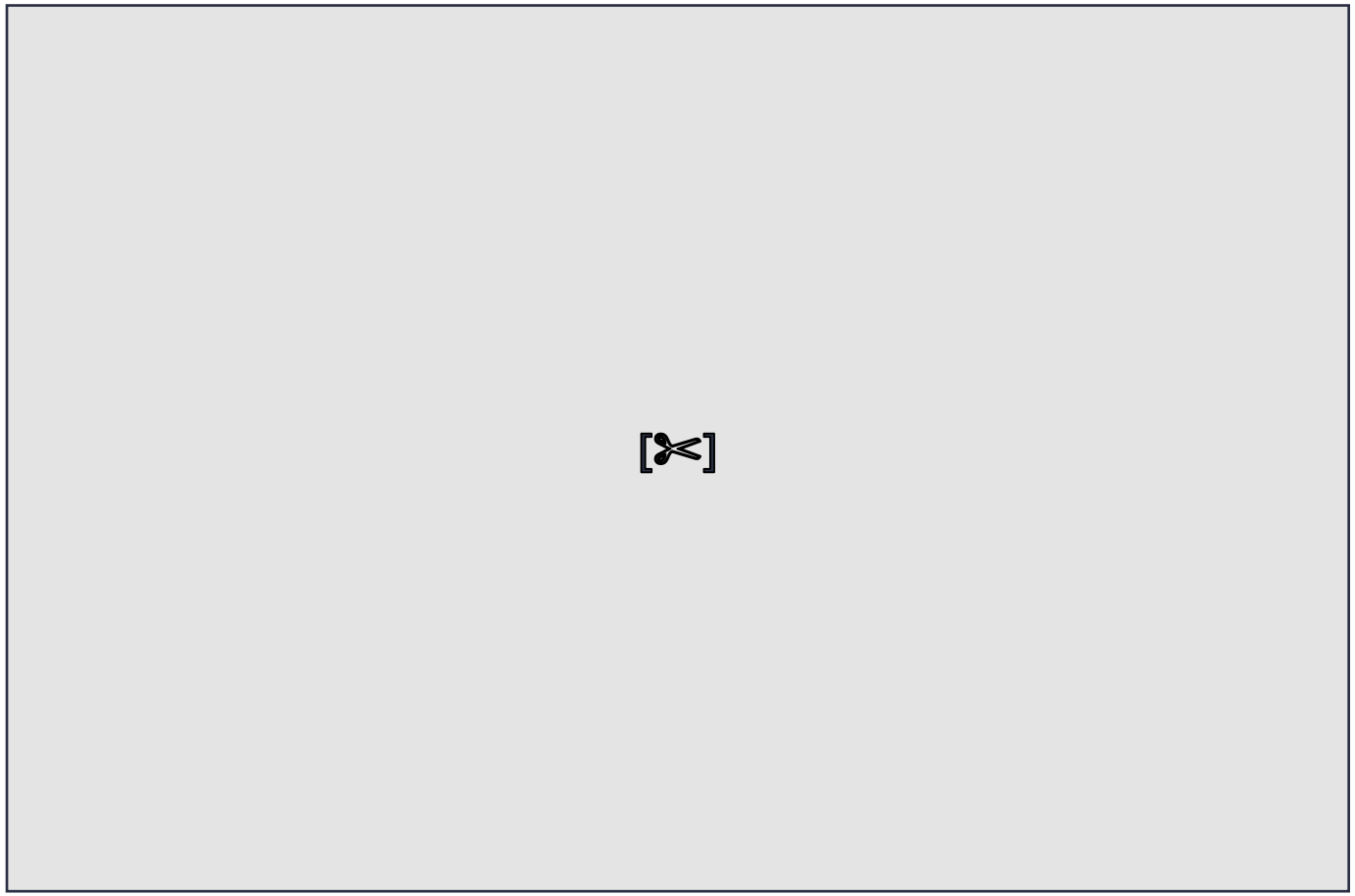

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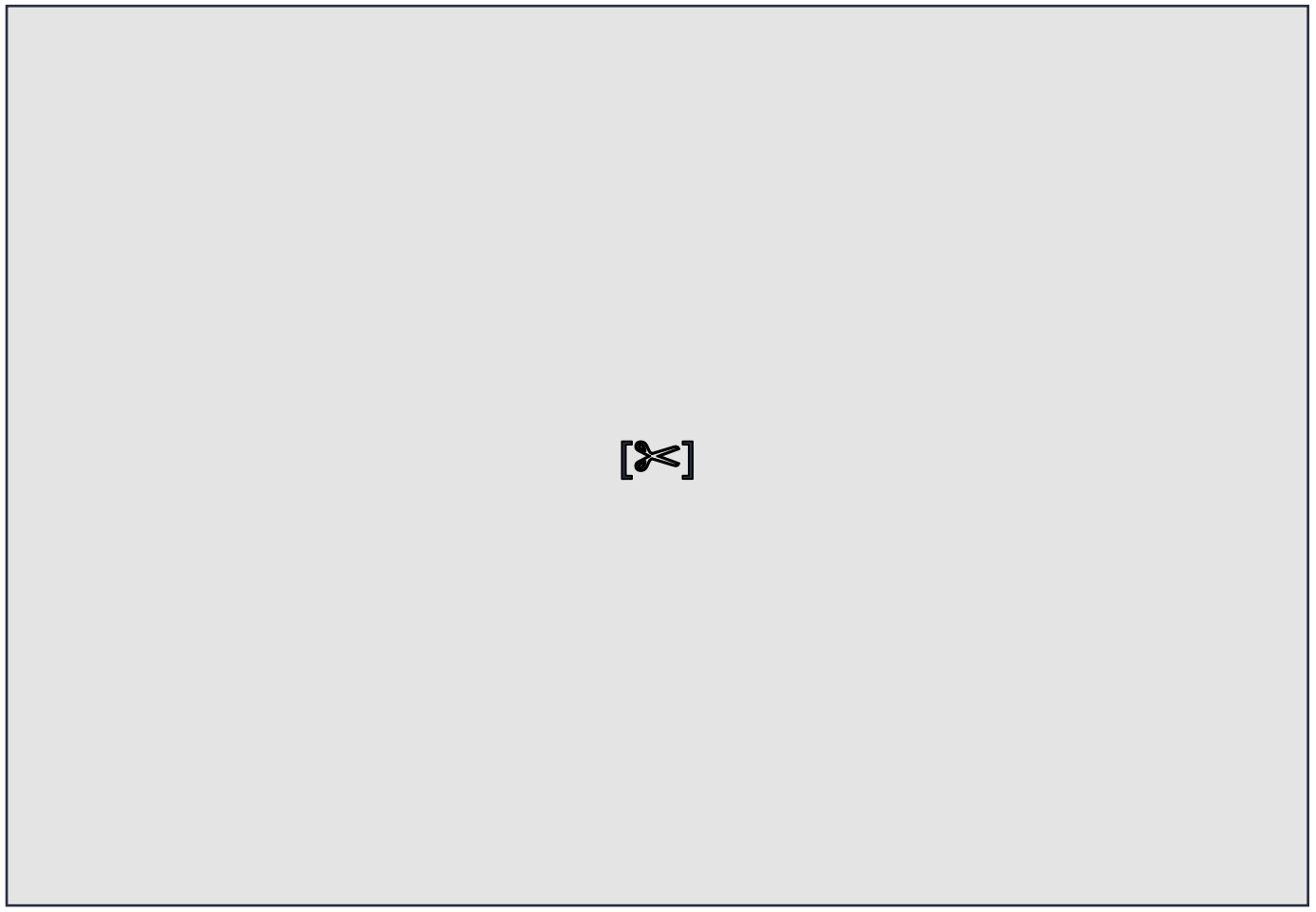

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HAL’s claims of capex efficiency in its H8 business plan do not stand up to scrutiny

HAL's H8 business plan analysis provides further evidence of its capital inefficiency and its self-serving use of comparators

HAL's own internal benchmarking analysis reveals fundamental flaws in transparency, independence, and methodology that undermine its entire business case. This selective, self-serving analysis is an example of the weak foundations upon which HAL's H8 business plan rests. HAL has not sought to have its analysis verified by a third party.

- In its H8 Business Plan (July 2025), HAL seeks to argue that its capital investment is "*comparable to other international hub airports*".[1]
- Notwithstanding that the analysis shows that **HAL's average capital investment of £11.90 was higher than the sample average of £11.72** (which appears to include HAL), and was one of the highest airports throughout, **the analysis cannot be relied on to support the conclusions HAL is claiming.**
- It is based on a **very small and highly selective sample**. There is a lack of transparency on why specific airports were chosen and why others (e.g. Madrid) were not. As noted in the context of [✂], **HAL appears to select "comparators" based on those that support its argument,** as opposed to having clear criteria for selecting airports (e.g. HAL could have looked at the world's largest hubs as its comparator set, including Atlanta, Istanbul, Dallas, Dubai).
- **Unlike LHR, many of the airports that HAL has included in the sample were investing in major infrastructure upgrade projects during this period – HAL is not comparing apples with apples.** For example, Los Angeles,[2] Chicago O'Hare,[3] Frankfurt,[4] and Amsterdam Schiphol,[5] have all been investing in major new terminal projects during the period covered by HAL's analysis. The asymmetric nature of the analysis – comparing HAL's ongoing capex against peers' major infrastructure programmes – reveals methodological bias designed to flatter HAL's position.
- **Given that HAL had no major infrastructure programmes during this period, its average capital spend per passenger should have been well below these comparators, not higher. The fact that it was not is further evidence of its severe capital inefficiency.**

Figure 107: Capital per passenger.

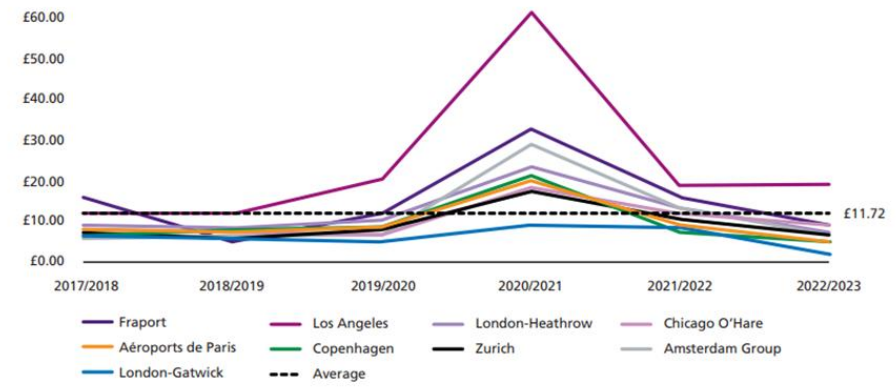
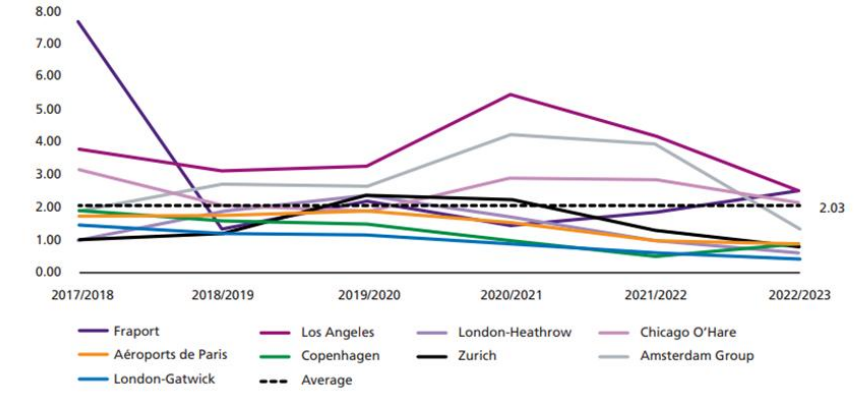


Figure 108: Benchmarked asset reinvestment ratio.



Source: HAL, H8 Business Plan, July 2025, page 291 and 292.

[1]HAL, H8 Business Plan, July 2025, page 291 and 292. [2] Los Angeles has been undertaking a major airport-wide redevelopment programme involving double-digit billions of capital spend over several years (link). [3] Chicago O'Hare has been undertaking its O'Hare21 programme, which has involved major investments in terminal expansion and new satellite concourses (link). [4] Frankfurt has been undertaking major investment in its new Terminal 3 project, which is one of Europe's largest infrastructure projects (link). [5] Amsterdam Schiphol has been investing in a major new pier extension project (link).

Steer's analysis is fundamentally flawed and seemingly designed to obscure Heathrow's capital inefficiency

Study overview

- Steer's *Capex Benchmark: Benchmark of Terminal Building projects*[1] was **commissioned by Heathrow Airport Limited (HAL)** as part of HAL's H8 business plan process.
- The study uses a two-stage benchmarking approach – further details are set out in the table, but to summarise:
  - **High-level benchmark**: Development of capex per m^2 benchmark for 20 terminal projects, with adjustments made for currency, inflation and local construction costs.
  - **Detailed benchmark**: Covering 5 projects and using a planned (i.e. in 'design' phase) HAL project as a reference, with further adjustments (i.e. on top of those made as part of the 'high-level' stage) for scope of work, operational environment and service quality.
- In concluding, Steer asserts that:
  - *"In a like-for-like comparison, a project developed in LHR will be more expensive due to London construction prices and the site constrains [sic]."*
  - *"Heathrow's reference project is in the mid-range of the benchmarks; both in the High-level benchmark and in the Detailed benchmark."*

	High-level benchmark	Detailed benchmark
Sample size	20	5
Selection basis	"World-class airports" in the UK, Europe and around the world; >£50m value; construction mid-point after 2014; "reliable information"	Steer "selected four projects from the initial high-level sample"; added JFK T1 "after discussion with HAL" – all compared to LHR T2A planned extension
Project types	Refurbishments (2); Expansions (9); New building (9)	Expansions (3); New building (2)
Geographic spread	Europe (9); North America (3); South America (2); Middle-East & Africa (3); Asia-Pacific (3)	Europe (3); North America (2)
Stage split*	Design (9); Completion (11)	Design (2); Completion (3)
Benchmark metric(s)	Capex per m^2	Capex per m^2
Transparency of adjustments	Headline descriptions only	Waterfall charts – no formulas
Sensitivity analysis shown	✗	✗
Adjustments made:		
Exchange rate	✓ 2023	✓ 2023
Inflation	✓ 2023	✓ 2023
Construction cost	✓ Arcadis	✓ Arcadis
Congestion premium	✗	✓
Scope	✗	✓

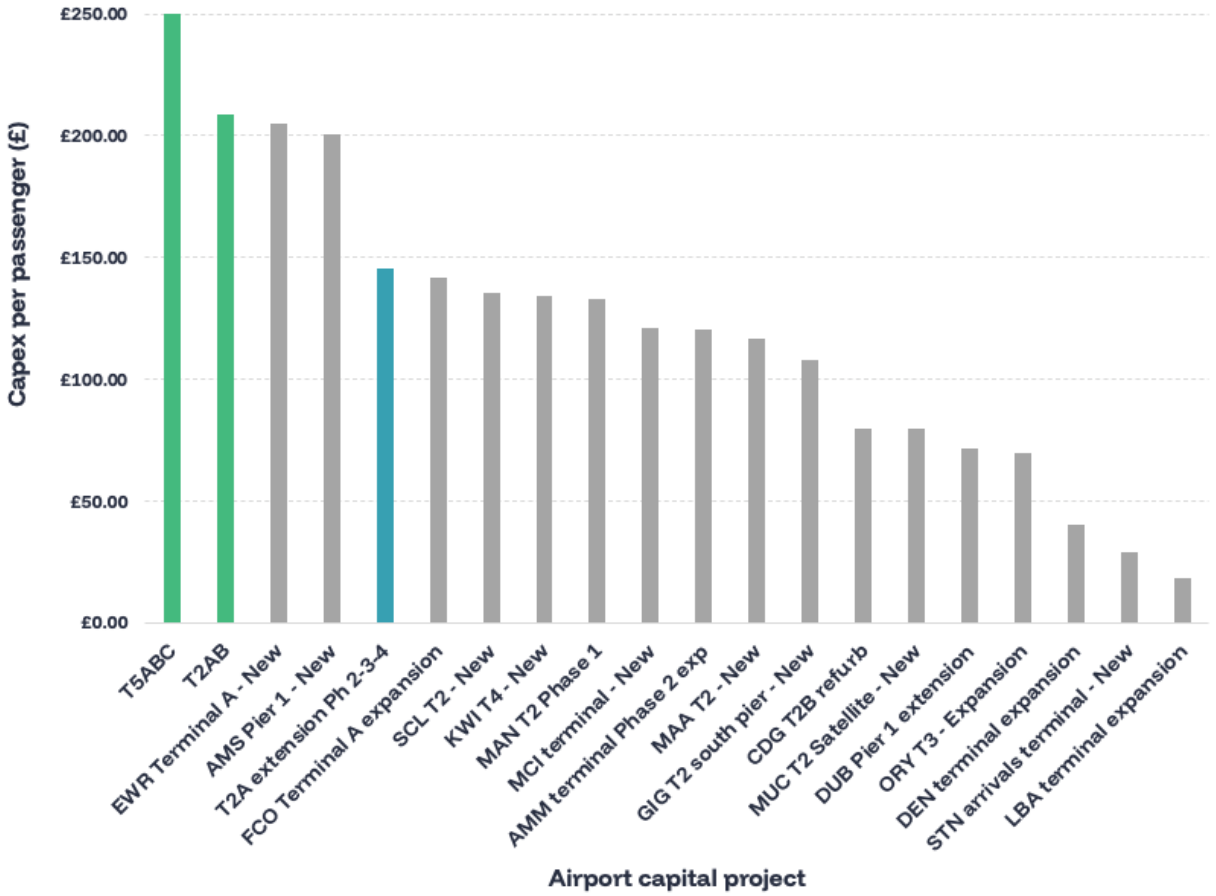
[1] Steer, *Capex Benchmark: Benchmark of Terminal Building projects*, October 2024.

* We note that Orly Paris has been classified as 'design', with a timeline of 2016-20. It has since been completed. There is no explanation to indicate whether this is an error by Steer, or if there is a reason for using what we anticipate are the expected costs rather than actual costs. This is also true of: Dubai International, and Adelaide. We also note that Amsterdam Schiphol Pier 1 is listed as "in construction" and classified as "design" on Page 30.

Steer's sole use of capex per m² severely limits the value of its benchmarking exercise

- **Airports exist to process passengers and aircraft efficiently, not maximise floor space, yet Steer only benchmarks capex per m².**
  - Sole use of capex per m² fundamentally misunderstands what airports are designed to do.
- **Using capex per m² allows cost inefficiencies to be masked by architectural and design choices.**
  - A terminal could be extremely expensive per passenger but appear reasonable per m² if simply built with excessive space.
  - Steer's approach rewards inefficient space use and bloated terminal designs.
- **Capex per passenger is a more informative measure for such a benchmarking exercise.**
  - Measures whether capex translates into passenger processing capacity; space efficiency comes into sharper focus.
  - International comparisons become meaningful because they focus on the universal airport function.
- **Heathrow's capital inefficiency is stark when using capex per pax.**
  - Planned T2A: £146 per pax; Actual T2 & T5: £209 & £250 per pax*.
- **Sole use of capex per m² appears designed to support HAL's argument, rather than provide objective benchmarking.**
  - No justification provided for why m² is more relevant than passenger capacity for airport infrastructure.
  - The choice systematically favours airports with space-inefficient designs like Heathrow's terminals.

Chart: Capex per passenger for projects in Steer's sample, incl. LHR T2 & T5



* This is based on the stated actual cost of Terminal 2. We note that T2 was constructed without its own baggage system; hence, the cost of T2 (and therefore the capex per passenger and capex per m²) would be higher than stated.

Source: Steer, *Capex Benchmark: Benchmark of Terminal Building projects*, October 2024. Additional data on passenger capacity increases for: AMS Pier 1, British Aviation Group, link; MAN T2, Manchester Airport Media Centre, link; GIG T2, Apex Aero, link; CDG T2B, Moodie Davitt, link; ORY T3, Groupe ADP, link; DEN, Fly Denver, link; STN, The Design Air, link; LBA, Ace Net, link

Steer's sample selection is limited, skewed, and appears designed to support HAL's narrative

- **The study suffers from a clear conflict of interest, with HAL's direct involvement in sample selection undermining its objectivity.**
  - Steer was commissioned by HAL, the regulated entity that directly benefits from higher allowed capex. This creates a powerful incentive to produce findings that help HAL's capex appear relatively reasonable to justify its future capex plans.
  - The report explicitly confirms HAL's influence over the detailed benchmark sample, stating: *"We added the new Terminal One at New-York JFK as a fifth one after discussion with HAL"*.
- **A sample of only 20 projects globally is insufficient for a robust and reliable benchmarking study – hence, no meaningful conclusions should be drawn.**
  - Using such a small, selective sample for an international study of major capex at airports globally means that any conclusions drawn are unlikely to be generalisable – the sample is too small given: a) the number of airports globally; and b) to draw any robust statistical conclusion (e.g. noting the content presented on page 32).
  - Steer provides no evidence for its claim that the chosen airports are "world-class", a subjective and unsubstantiated label that appears designed to embellish the conclusions it seeks to draw.
- **The sample is inconsistent with the comparators HAL has used in other contexts.**
  - The airports selected by Steer for this study differ from those used in [✂] and HAL's own analysis in Figures 107 and 108 of its H8 Business Plan when considering capital spend, as summarised in the Table.
  - This inconsistency suggests that comparators are chosen based on their ability to support a pre-determined narrative in each specific report, rather than on a consistent, objective basis.
- **The detailed benchmarking relies on an even smaller, unjustifiable sample of just five projects; findings from such a limited analysis should be disregarded.**
  - The selection appears arbitrary, aside from the JFK project, which, as noted, was included at HAL's direct request. A credible benchmarking exercise would require a transparent and objective process for selecting comparators.

	Airports
In all three studies ([✂], Steer, H8 BP Figures 107 & 108)	Amsterdam
[✂] and Steer	Dublin
[✂] and H8 BP	Frankfurt (Fraport), Gatwick
Steer and H8 BP	Paris CDG and Paris Orly (ADP)
[✂]	Madrid, Singapore, Toronto
Steer only	Munich, Stansted, Manchester, Leeds Bradford, Rome Fiumicino, Amman, Dubai, Kuwait, Chennai, Denver, Newark, Kansas City, Rio De Janeiro, Santiago de Chile, JFK (at Heathrow's request)
H8 BP only	Los Angeles, Chicago, Copenhagen, Zurich

Steer's mixing of project types and stages means the study attempts to compare apples, oranges and pineapples

- Robust benchmarking relies on ensuring the comparability of the benchmarks being considered. In the case of major infrastructure projects, this includes **ensuring comparisons are based on projects at similar stages of completion, and ensuring comparisons are for similar types of projects.**
- **Steer fails both tests, rendering the study meaningless for assessing Heathrow's capital delivery efficiency.**

Steer mixes design-stage and completed projects	• Scope for cost overruns means that comparing completed projects with earlier stage estimates is unlikely to be comparable. • 9 projects in Steer's sample are design-stage estimates, while 11 are actual completion costs. • Steer claims that mixing completed and in-progress projects "deals with this problem" – it does not. • Adjusting for potential overruns is complex and somewhat arbitrary – therefore, it is more robust to rely on completed projects. • The fundamental problem is comparing projects at different stages, where the risk of cost escalation varies significantly.
Despite an easier alternative being available, Steer mixes project types	• Steer mixes new terminals, refurbishments and extensions, yet these have fundamentally different cost structures. • Most new terminals need similar infrastructure, with size being the key difference (controllable by costs per passenger). • Refurbishments can vary substantially in scope, complexity and cost; such differences are harder to capture by controlling for m^2 or passenger numbers. It is similar with extensions – some focus on commercial facilities, others on passenger processing capacity. • Therefore, new terminal projects (or satellites) are most comparable across airports. With many new terminals built in the last 10 years, Steer's approach is even more questionable since a superior alternative (i.e. new terminals) was available.
Steer excludes LHR's completed terminals from the benchmarking	• Terminal 2 and Terminal 5 costs are reported in the study – but are deliberately excluded from the benchmarking exercise. • Steer opts, instead, to use the planned costs of the T2A Extension against a mix of projects. • When compared to other completed new terminals, T2 and T5 are very expensive (see next page). • Steer claims T2 is 298,000 m^2. AirportTechnology (which Steer relies on elsewhere) reports 200,000 m^2. Steer's figure inflates T2's floor area by c.50%, which would – somewhat conveniently – flatter Heathrow's position when using capex per m^2.
Steer's scope adjustments lack transparency	• Steer makes scope adjustments in its detailed case studies but provides no transparency on how these adjustments are calculated. • It states: *"The specific scope of the project is the parameter that can have the greatest impact when two projects are compared".* • Yet, despite recognising this critical point, Steer provides no explanation of its adjustment methodology. • This lack of transparency makes it impossible to validate whether the adjustments are appropriate or systematically biased.

Steer applies an arbitrary 25% site congestion premium with no supporting evidence, further undermining its credibility

Steer's 25% labour cost uplift for site constraints in its 'detailed' benchmarking is completely arbitrary and unsupported by credible evidence. The adjustment has a material impact on Steer's overall conclusions, yet is based on nothing more than a general construction website reference rather than airport-specific research. If site congestion were a major cost driver, it would be systematically reflected in charges – our analysis on Page 51 shows this is not the case.

Arbitrary percentage with opaque calculations and no supporting evidence	• Steer asserts: *"These constraints can imply overnight working, more staff and/or a longer project duration, which influence labour costs of projects. Labour costs represent usually 20-40% of project costs. A 25% value has been used as the multiplying factor of the level of constraints".* • No explanation is provided for how the 25% figure was calculated or derived. The footnote supporting this critical adjustment references a general construction website/blog, not airport-specific research or peer-reviewed analysis. • Even with the 25% adjustment applied, the actual calculation methodology to derive the final numbers remains completely opaque.
Reductive methodology ignores real construction challenges	• Site congestion is building footprint divided by site area – a crude metric that says nothing about actual operational complexity. • Approach ignores factors such as safety requirements, phasing constraints, regulatory factors, and live operational environments. • Real construction challenges at airports relate to working around live operations, security protocols, and coordinating with multiple stakeholders – none captured by a simple area calculation. • The metric reduces complex project management challenges to a basic mathematical ratio.
Inconsistent application and convenient sample exclusions	• Steer inconsistently applies constraint premiums only to Heathrow despite other airports facing similar or greater challenges. • It is notably convenient that Steer's detailed sample of five projects excludes Amsterdam, Hong Kong, and Singapore – airports that face demonstrable site constraints yet deliver lower costs. • This selective application appears designed to benefit Heathrow's position rather than reflect genuine cost drivers.
Material impact undermines study credibility – and obscures the real issue	• The waterfall charts in Steer's detailed analysis show how sensitive the final results are to this single, unsupported assumption. • While removing this arbitrary 25% uplift would alter the ranking of Heathrow relative to comparators, LHR wouldn't be at the top of its hand-selected sample – but this is precisely because of Steer's choice of capex per m^2 (as set out on Page 56). • Broader analysis on Page 51 shows no meaningful relationship between site density and airport charges globally – if site congestion were a major cost driver, this would be reflected in charges.

Steer's analysis suffers from additional flaws and a lack of transparency, further undermining its use

In addition to the previous problems highlighted, Steer's study also contains numerous smaller errors (in addition to those already highlighted) and unexplained methodological choices. These issues range from basic technical errors to a lack of transparency around key calculations and assumptions.

Flawed exchange rate and adjustment methodology

Steer uses a single exchange rate for multi-year projects, without justifying its choice of 2023 rates instead of those at project completion or construction midpoint.

Steer adjusts for inflation and exchange rates first, then for scope and London construction costs – making these latter two appear larger in absolute terms. It's unclear if the order of calculation overstates the total adjustment, as Steer does not make its calculation approach explicit.

This lack of transparency, when combined with the other issues highlighted, could be deliberate presentation designed to support a pre-determined narrative.

Absence of sensitivity analysis combined with selective data presentation

Steer presents its findings without explaining how conclusions depend on selected parameters, lacking sensitivity analysis for key assumptions like the 25% congestion adjustment or construction cost index choice.

Yet, Steer omits the two largest data points from its scatter plot analysis because "they do not fit on the scatter".

- The Amsterdam data point likely strengthens the link between capex spend and capex per m^2, contradicting Steer's conclusion that project size is irrelevant – despite the presence of a positive correlation from its limited number of data points.

Steer makes [✂] failings when adjusting for construction costs

Steer's reliance solely on the Arcadis 2024 International Construction Cost Index mirrors [✂]. [✂].

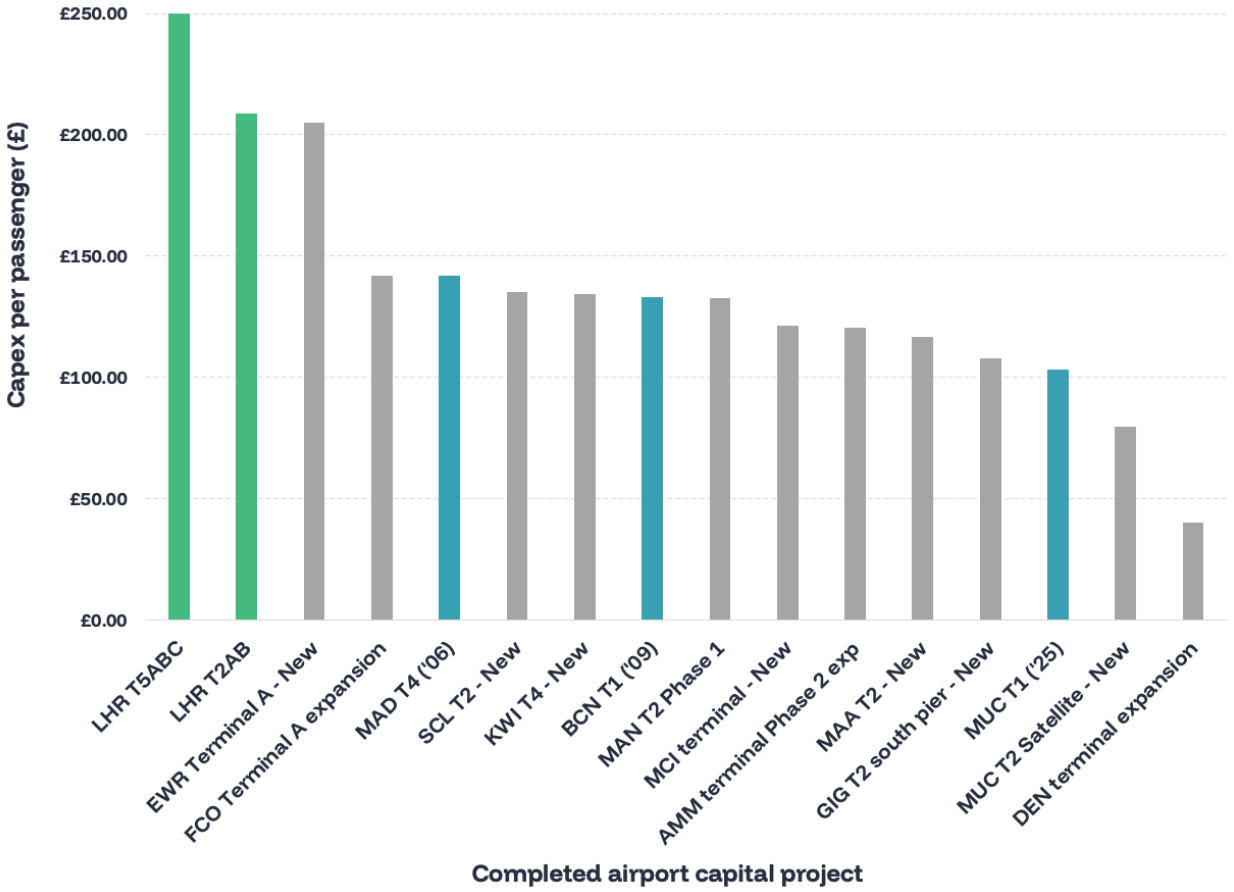
Steer provides no sensitivity analysis showing how much this index choice affects its final rankings and conclusions.

[✂]

Heathrow is the most expensive globally when using a more informative metric

- **Our analysis addresses the issues with Steer's study for its high-level exercise, but with a more appropriate methodology.**
  - Uses T2* and T5 as the Heathrow benchmarks on a capex per passenger basis, comparing them to Steer's selected completed projects and completed new terminals as set out in our February 2025 submission to the CAA (in teal).
  - **For comparability, we have applied Steer's approach when adjusting for inflation, exchange rates, and construction costs.**
- **Using capex per pax reveals Heathrow's stark inefficiency compared to international peers.**
  - Both Heathrow projects significantly exceed the costs of comparable new terminals at international airports.
- **This demonstrates Heathrow's capital inefficiency is not a one-off issue, but a consistent pattern.**
  - Heathrow is at the expensive end of international comparisons – even factoring for London construction costs (using HAL's preferred index), Heathrow is an outlier.
  - Steer focuses only on major terminal projects. This capital inefficiency (i.e. capex per pax) reflects a consistent and systemic pattern of historical inefficiencies and cost overruns with HAL's ongoing capex programme.
- **Conclusions are sensitive to the choice of metric and projects.**
  - This reinforces the limited weight that can be placed on any study where data points have seemingly been selected to support a desired conclusion.

Chart: Capex per passenger for completed projects in Steer's sample (incl. LHR T2 & T5), plus completed new terminals in Feb 2025 submission



Source: Steer, *Capex Benchmark: Benchmark of Terminal Building projects*, October 2024. Additional data on passenger capacity increases for: MAN T2, Manchester Airport Media Centre, link; GIG T2, Apex Aero, link; DEN, Fly Denver, link. We have also applied Steer's methodology to the three completed developments that we cited in the February CAA submission that were not already included by Steer – shown by the teal bars.

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* In line with Page 56, T2AB costs are as reported publicly – no adjustment has been made for there not being a baggage system.

KPMG's *Cost of Capex Delivery* report is an unsuccessful attempt to deflect blame for HAL's inefficiency

KPMG's *Cost of Capex Delivery* report seeks to further deflect blame for HAL's own inefficient capex decisions

- HAL's H8 Business Plan seeks to rely on a study from KPMG[1] (one of a series of reports by KPMG for HAL) that HAL claims highlights "*the complex physical and regulatory environment within which we have to deliver projects*"[2].
- HAL further claims that the report concludes that "*Heathrow does experience cost drivers over and above those typically identified in the construction sector, especially when compared with projects delivered in non-regulated sectors*"[3].
- We have not had visibility of the full KPMG report – rather we have relied on the summary of its findings set out in HAL's H8 Business Plan.
- However, from what we can see from the H8 Business Plan, the KPMG report seems to be yet another unsuccessful attempt to deflect blame for its own inefficient capex decisions.
- **As we set out in this section, many of the supposed issues identified in the KPMG report are also experienced by LHR's peers and are not capable of explaining why HAL's capex activities are more expensive than its peers.**
- As such, the report does not provide any basis for finding HAL's capex activities to be efficient.

Reason	Claim
1. Governance, assurance and decision-making	Complex governance processes and stakeholder influence add time and cost. The volume and influence of stakeholders at Heathrow are greater than for most organisations.
2. Airport operational environment	Unique challenges, such as security requirements, logistics and night-time working, reduce productivity and increase costs.
3. Multiple terminal operation	The size of the Heathrow estate, with its multiple terminals and large number of ageing assets, results in more complex programmes and the need for additional works, which lead to increased costs.
4. End-user and stakeholder requirements	The large number of stakeholders and their influence add layers of governance and increase costs. Heathrow hosts the largest number of airlines of any UK airport, resulting in numerous stakeholder interfaces.
5. Regulatory framework	The regulatory framework at Heathrow requires dedicated resources specifically for the introduction of Delivery Obligations within the new ex-ante framework.
6. Geographical location	Higher construction costs in London are driven by regional price differences and intense competition for resources.

[1]KPMG, *Cost of Capex Delivery*, March 2025.

[2] HAL, H8 Business Plan, July 2025, page 293.

[3] HAL, H8 Business Plan, July 2025, page 295.

KPMG's arguments do not justify HAL's very expensive and inefficient capex activities [1/2]

Claim	Reality

1. Complex governance processes and stakeholder influence add time and cost	• LHR's international peers also face governance processes and need to engage with stakeholders, including airlines – **LHR is not unique**.
	• **Any marginal differences in such processes are not capable of explaining why LHR's very large capex programmes cost significantly more than those of its peers - the scale of any additional resources to manage and navigate such processes** should be small in the overall context of HAL's expensive capex programmes.
	• As part of its H8 Business Plan, HAL cites a report by **Gardiner & Theobald (the IFS)** on *H7 Process Review: Leadership & Logistics and Risk Management Review* (January 2025). That report concludes that "*Benchmarking shows that HAL Staff and PMO costs combined make up 7.93% of the £4.6bn H7 Budget. This puts HAL in the 35th percentile of the benchmarked data.*"[1]. It further **finds that this means that HAL's staff and PMO costs are in line, if not slightly below, industry benchmarks**.
	  ○ This report[2], which HAL seeks to rely on elsewhere, is clearly at odds with the claim that HAL faces disproportionately high costs of managing its capex programme, including managing governance and stakeholder processes.
	  ○ Rather, it is consistent with HAL's inefficiency stemming from elsewhere (e.g. project scope and specification).

2. Unique challenges reduce productivity and increase costs	• **LHR is not unique** among its peers in facing such challenges associated with working around a live and busy airfield – **such challenges are inherent at any major international airport and do not explain why capex at LHR is so much more expensive.** • [✂], LHR's peers have longer operating hours implying greater operational challenges associated with night-time working etc.
3. The size of the LHR estate, with multiple terminals, and ageing assets leads to higher costs	• **LHR is not unique in having multiple terminals – MAD has four terminals, JFK has five, LAX has nine, SIN has four, for example.** • **LHR has faced no shortage of capex compared to its peers – it should not face large numbers of ageing assets.** It has spent over £15bn of capital over the last 20 years (in nominal terms). • As evidenced by HAL's own H8 business plan analysis, **in recent years, HAL has spent more capital per passenger than its peers,** yet because of inefficiency, it does not have the same modern facilities to show for it.

[1]Gardiner & Theobald, *H7 Process Review: Leadership & Logistics and Risk Management Review,* January 2025, section 3.1.1.1.
[2] Our reference to this specific finding should not be taken as an endorsement by Heathrow Reimagined of the report or its findings.

KPMG's arguments do not justify HAL's very expensive and inefficient capex activities [2/2]

Claim	Reality
4. Large number of stakeholders add layers of governance and increase costs	• **Again, all LHR's international peers have similar volumes of stakeholders**, including airlines. For example, as the chart shows, [✂]. • **Even if LHR faces additional management time at the margin to engage with stakeholders, this would be a small additional cost in the context of HAL's very expensive capex programmes.**
5. Regulatory framework at Heathrow requires dedicated resources	• **Again, all LHR's international peers face governance processes and need to engage with their customers.** • To the extent that such processes are more onerous at LHR, **we do not accept that the additional programme management time and resources are (or should be) sufficient to explain why HAL's capex programmes are so much more expensive than many of its peers.**
6. Higher construction costs in London	• As set out above, **HAL consistently overstates the impact of geographic variations in construction costs.**

Chart: Alliance Airline presence across selected airports

[✂]

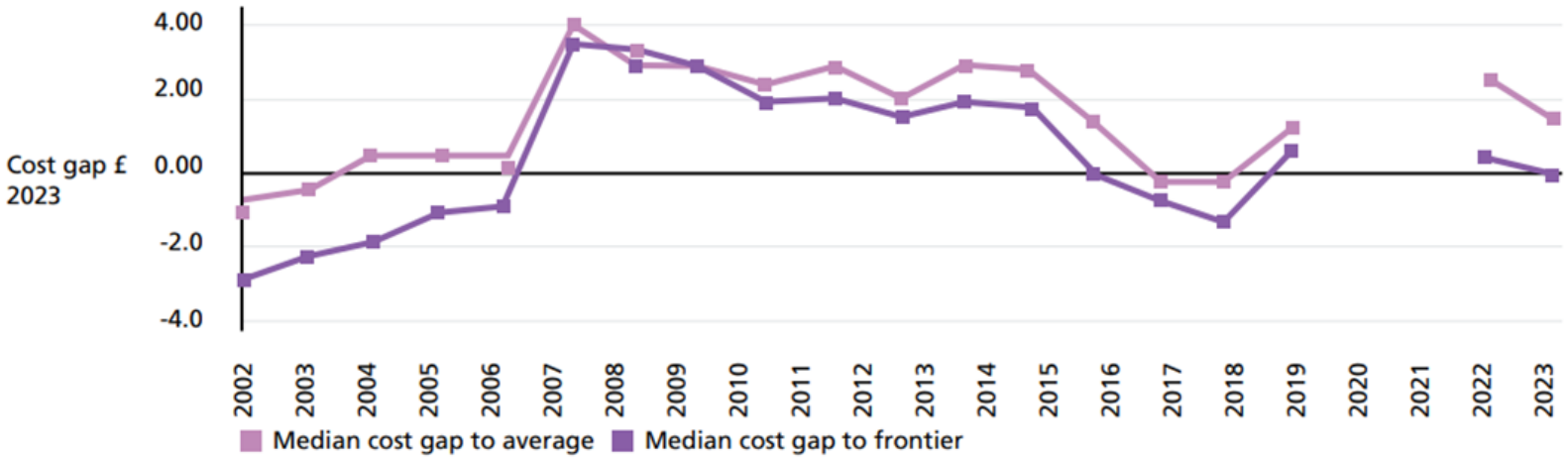
Source: Analysis based on data from FlightsFrom.com (as of July 2025) except for Heathrow where the analysis uses 2024 IATA market passenger data.

KPMG’s cost efficiency benchmarking study confirms our concerns about HAL’s operating cost efficiency

KPMG's cost efficiency benchmarking study confirms our concerns about HAL's operating cost efficiency

- HAL's H8 Business Plan also seeks to rely on another study from KPMG[1] to draw conclusions on its operating cost efficiency.
- The study employs econometric cost benchmarking methodologies to compare HAL's "*operating costs for the period between 2000 and 2023 with those of a selection of comparable airports around the world*"[2].
- We have not had visibility of the full KPMG report – rather, we have relied on the summary of its findings set out in HAL's H8 Business Plan. We have therefore not reviewed the methodology adopted by KPMG, including the sample of airports used.
- However, the conclusions of the study, as reported by HAL, seem to confirm Heathrow Reimagined's concerns about HAL's operating cost efficiency performance. It finds that **for most of the past 15 years, including since 2019, HAL's operating efficiency is below that of the *average* airport in KPMG's sample (i.e. a positive cost gap indicating inefficiency relative to the sample average). This implies that LHR is likely to be materially below those airports that are in the most efficient deciles and percentiles.**
- **Heathrow Reimagined considers that this level of performance is not good enough for Heathrow, its users and the country more broadly.** In our view, a well-functioning regulatory model should ensure it gives HAL strong incentives to be a leader in operating cost efficiency. This is not the case today.

Chart: KPMG's reported opex efficiency benchmarking results



Source: HAL, H8 Business Plan, July 2025

[1] KPMG, *Operating Cost Efficiency Benchmarking*, January 2025.

[2] HAL, H8 Business Plan, July 2025, page 317.

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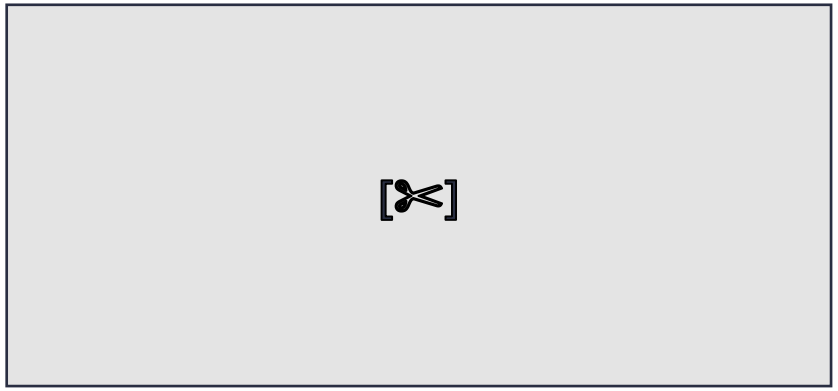
Annex

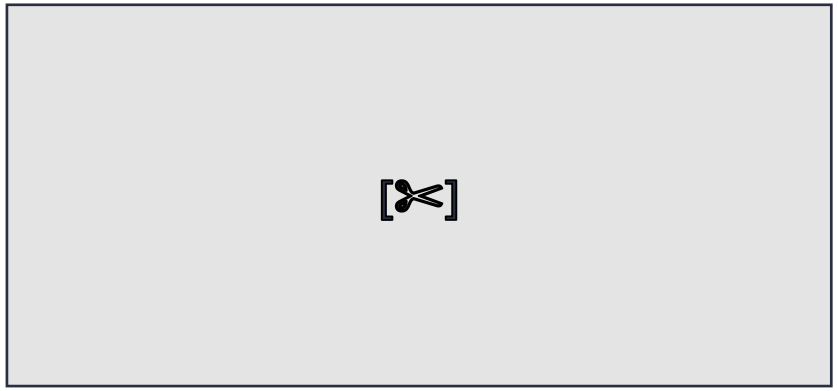
Annex A: Sources for airport land area (used in scatter)

- **London-LHR**, BBC, link;
- **Mumbai**, Airport Suppliers, link;
- **London-LGW**, Aero Habitat, link;
- **Seoul Incheon**, ICAO, link;
- **New Jersey-EWR**, EWR Redevelopment, link;
- **Los Angeles**, Airport Technology, link;
- **Beijing**, Kaxitech, link;
- **Miami**, Routes Online, link;
- **Delhi**, JSW Group, link;
- **Tokyo Narita**, Flightmapper, link;
- **Vienna**, International Airport Review, link;
- **Rome Fiumicino**, IADC Studio, link;
- **Zurich**, Flughafen Zürich, link;
- **Dublin**, Fingal County, link;
- **Dubai**, Effisus, link;
- **Sao Paulo**, Aviation Airport Fandom, link;
- **Jakarta**, ArchNet, link;
- **New York-JFK**, Aviation Airport Fandom, link;
- **Singapore**, Hindustan Times, link;
- **Hong Kong**, Construction Property, link;
- **Frankfurt**, Frankfurt Airport (Web Archive), link;
- **Toronto**, The Measure of Things, link;
- **Athens**, WorldData, link;
- **Warsaw**, Airport Suppliers, link;
- **Copenhagen**, AeroAffaires, link;
- **Mexico City**, Airssist, link;
- **San Francisco**, Aviation Airport Fandom, link;
- **Amsterdam**, Schiphol, link;
- **Milan Malpensa**, SEA Group, link;
- **Paris-CDG**, BBC News, link;
- **Madrid**, AeroAffaires, link;
- **Oslo**, Avinor, link;
- **Vancouver**, Appraisal Institute of Canada, link;
- **Bangkok**, SlideShare, link;
- **Brussels**, Brussels Airport, link;
- **Berlin Brandenburg**, Berlin Airport Corporate, link;
- **Lisbon**, Aviation Airport Fandom, link;
- **Budapest**, Budapest Airport, link;
- **Johannesburg**, e-Airports, link;
- **Stockholm**, SA Infrastructure, link;
- **Helsinki**, Finavia, link;
- **Kuala Lumpur**, World Population Review, link;
- **Washington**, AeroContact, link

Annex B: Illustration of the extent to which arrivals and departures are 'banked' at selected hubs

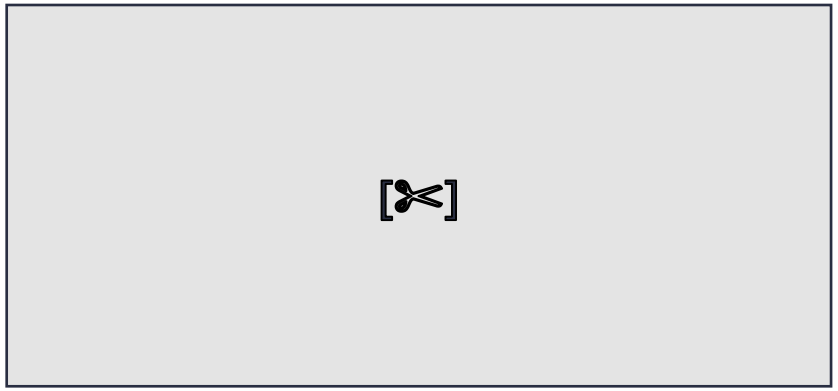
London Heathrow: [✂]

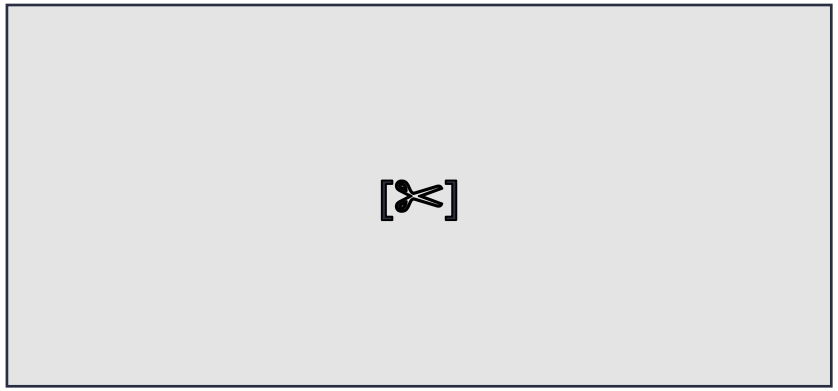




Amsterdam: [✂]

Dubai: [✂]





Istanbul: [✂]

Source: Analysis of OAG data