

Dublin Airport - Process for setting capex allowances for the regulatory determination period



Report
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The logo for Steer, featuring the word "steer" in a bold, lowercase, sans-serif font.

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Executive Summary

Introduction

1. The Commission for Aviation Regulation (CAR) has appointed Steer to review options for a potentially different way to set the efficient expenditure for capital projects for Dublin Airport.
2. The scope of our review covers:
 - Identifying potential options;
 - Assessing the pros and cons around each option;
 - Assessing the practicalities around each; and
 - Providing a recommended option.

Options considered

3. The options that we have considered are as follows:
 - Option 1 – Ex-ante approach - A process where the efficient capex costs are set, based on an ‘ex-ante’ review of the proposed 5-year programme, i.e. a review of the costs before the 5-year period has commenced;
 - Option 2 – Ex-post approach - A process that carries out an ex-post assessment after project delivery, i.e. a ‘lookback’ assessment;
 - Option 3 – Ex-ante and Ex-post approach - A process that carries out both of the above; and
 - Option 4 – In-period ‘StageGate’ approach - A process that includes assessment of project expenditure during the 5-year period.

Context

4. In its Issues Paper, Commission Paper 7/2018 of 30 April 2018, CAR raised several questions surrounding the treatment of Capital Expenditure (Capex) as the process heads into the Determination for the next five-year regulatory period at Dublin Airport beginning on 01 January 2020.
5. The Issues Paper summarised four questions concerning the treatment of capex, and how it should be remunerated, during the next period:
 - How should CAR establish whether a capex project should be given an allowance?
 - Should CAR continue to group projects together to allow flexibility, by allowing expenditure to be moved between projects within a particular group?
 - How and when should CAR establish the efficient cost of a project?
 - How should CAR reconcile completed costs against the allowance?
6. The key issues raised by CAR stems from concerns about the approach currently in use at Dublin Airport. Features include:
 - Since allowances were set for the current 5-year regulatory period (2015-2019) there has been limited interaction between Dublin Airport and key stakeholders, notably the airlines, on assessing the efficient level of capital expenditure for the original 2015 projects.
 - Similarly, at present there is no reporting mechanism from Dublin Airport that enables CAR to have ongoing clear line of sight as to the cost status of projects.

- Cost deviations from plan appear not to be highlighted clearly to stakeholders before the additional expenditure is committed to.
- Within a regulatory period, airlines at other airports have more involvement in the acceptance of projects, and of changes to projects.

Recommendations

7. Having assessed the options available, our key recommendation is that CAR adopts Option 4 i.e. a StageGate approach. This would be a process that provides an initial cost assessment that involves CAR, Dublin Airport and airline stakeholders, and then provides the framework for a 'StageGate' governance process during the 5-year period including appointment of an IFS.
8. The principal elements in such a process would be:

Table 1.1: Proposed StageGate Process – Key Stages

StageGate number	Activity	When
StageGate 0	CAR determined set of projects and ex-ante allowances set in the Final Determination. Specific projects within the portfolio identified as 'StageGate' projects, based on criteria such as value, strategic importance and maturity of project scope.	At the beginning of the regulatory period.
StageGate 1	Proposed detailed and up-to-date scope/costings provided by airport to stakeholder airlines and IFS (if relevant). Focussed on developments since StageGate 0, risks to the project, changes to scope and cost. Airport receives support/opposition to the project from stakeholders.	Provided when Dublin Airport is ready to proceed with the project. During the regulatory period at meetings held every 3-6 months.
StageGate 2 (optional)	IFS continues to assess cost developments during the construction phase of the project, ahead of each 3-6 month meeting, incorporating any additional stakeholder views and evidence. Final report issued by IFS upon completion of project.	Discussions and updates held during the regulatory period at meetings held every 3-6 months.
StageGate 3	At the time of the subsequent Determination, the Commission will assess the project outturn cost and contemporaneous evidence from the IFS and stakeholders to allow for a fully informed roll forward of the RAB.	At the end of the regulatory period.

9. This process will require the airport and airlines to maintain dialogue in relation to efficient costs during the quinquennium.
10. A key feature of this process would be the involvement of an Independent Fund Surveyor (IFS), accountable to both the airport and airlines, which would provide independent assessments of proposed project costs, giving airlines, and CAR, the confidence that a project is efficient.
11. In the interest of cost efficiency, it would make sense for the IFS to only focus on projects that are either strategically critical, or large, exceeding a cost threshold of, for example €20m.
12. We propose that only projects that meet specific criteria such as those relating to cost, strategic importance and maturity of scope, should pass through the StageGate process.
13. When Dublin Airport wishes to advance a project to StageGate 1, it will provide stakeholders, including the IFS, updated project cost and scope information. Stakeholders are able to provide further support/opposition comments at this time. Dublin Airport would then provide comments to the feedback, explaining where it has made changes based on the feedback received, and where it has not made changes, it must explain why.
14. Smaller projects that do not require passing through the StageGate mechanism could be grouped together, using the same mechanism of flexibility as appears today.
15. The grouping of smaller, less strategic projects (e.g. some asset care projects), as occurs today, could lead to inefficient investment by the airport on certain projects, but the trade off to this would be a more efficient process for the larger, more strategic projects.

Table 1.2: Benefits of recommended changes to the capital allowances process with an in-period StageGate approach

Advantages	Disadvantages
<ul style="list-style-type: none"> • Provides an appropriate combination of the strengths of both ex-ante and ex-post assessment. It would enable increased flexibility for efficient scope/cost adjustments, while maintaining and in some cases strengthening the incentive for Dublin Airport to continuously seek efficiencies across the period. 	<ul style="list-style-type: none"> • Requires significant investment in both time and trust. There is the independent support of the IFS, and significant commitment from all sides, which can appear to be burdensome, especially by requiring time from the airport and airline experts.
<ul style="list-style-type: none"> • Supported by the forensic analysis of an independent fund surveyor (IFS) to monitor the costs for efficiency. 	<ul style="list-style-type: none"> • Cost of IFS adds additional burden, estimated to be between €0.5m and €1.0m over the regulatory period.
<ul style="list-style-type: none"> • Ultimate allowance should better reflect the true efficient cost of delivering a particular project. 	

Advantages	Disadvantages
<ul style="list-style-type: none"> • The involvement of the airlines during the project evaluation period can ensure that the cost of capex projects can be more closely aligned to airlines' views on their reasonableness and/or operational trade-offs necessary. • Closer dialogue would improve all parties' understanding of projects, changes in scope and regulation, and could enable the airport to progress a project at a faster rate if airlines amend their programmes temporarily to facilitate a faster project completion. 	

Glossary

Acronym	Meaning
ADP	Aéroports de Paris SA, the owner and manager of the three Paris airports at Charles de Gaulle, Orly and Le Bourget
AOC	Airline Operating Committee, a group of airline staff that attend airport/regulator/airline meetings, and representing the airlines at specific airports
ASI	Autorité de Supervision Indépendante des Redevances Aéroportuaires, in Paris
BAC	Brussels Airport Company NV/SA
BRU	Brussels Airport
CAA	UK Civil Aviation Authority
Capex	Capital Expenditure
CAR	Commission for Aviation Regulation or the 'Commission'
CCG	Customer Challenge Group, in the England and Wales water industry
CDG	Charles de Gaulle Airport in Paris, a regulated airport
CIP	Capital Investment Programme
CIP2020	Dublin Airport's core Capital Investment Programme for the period 2020-2024
CPB	Capital Portfolio Board, held monthly at London Heathrow
CocoAéro	Commission Consultative Aéroportuaire, in Paris
CocoEco	Commission Consultative Economique, in Paris
ERA	Economic regulation agreement, in Paris
GAL	Gatwick Airport Limited
HAL	Heathrow Airport Limited
IATA	International Air Transport Association
IFS	Independent Fund Surveyor, at London Heathrow
Issues Paper	CAR's paper outlining the issues that need to be addressed in advance of their new determination on airport charges at the end of 2019, of which capex is an integral component in its determination
LBG	Le Bourget airport, in Paris
LCC	Low Cost Carrier
PACE	Programme of Airport Campus Enhancement, Dublin Airport's supplementary Capital Investment Programme, dated December 2017
Ofwat	The economic regulator of the water sector in England and Wales
OJEU	Official Journal of the European Union: all tenders from the public sector which are valued above a certain financial threshold must be published in the OJEU according to EU legislation
ORY	Orly Airport, in Paris
Quinquennium	5-year period, the normal length of a single regulatory period
RAB	Regulatory Asset Base

1 Introduction

Overview

1.1 The Commission for Aviation Regulation (the “Commission” or “CAR”) has appointed Steer to review options for a potentially different way to set the efficient expenditure for capital projects for Dublin Airport. The remit is:

- To assess the pros and cons around each option;
- To assess the practicalities around each e.g. cost and time commitment, what information is required, how should it be disclosed, who should monitor etc; and
- To provide recommendations.

1.2 This document provides our report.

Our approach

1.3 This review has drawn on expert opinion, data and information gathered from CAR and Dublin Airport, and information gathered from other UK/European airports, IATA, and a regulated UK utility outside of the aviation sector.

1.4 It draws on proposals set out in CAR’s Issues Paper (Commission Paper 7/2018, 30 April 2018) and Dublin Airport’s response.

1.5 We have carried out our review in five steps:

- We have obtained information regarding the current process for setting capital allowances at Dublin:
 - the setting of the amounts; and
 - the monitoring of the programme during the regulatory period, and any interventions that arise during the period.
- We have gathered information on how other airports and regulated infrastructure utilities manage and monitor their capex programmes, using these as a benchmark to compare and contrast with Dublin Airport’s procedures. These include:
 - London Heathrow;
 - other UK airports;
 - other regulated European airports; and
 - other regulated industries with heavy capex programmes.
- We have considered several new processes, all aimed at improving the efficiency of setting efficient capital allowances at Dublin Airport. They were:
 - A process where the efficient capex costs are set, based on an ‘ex-ante’ review of the proposed 5-year programme, i.e. a review of the costs before the 5-year period has commenced;
 - A process that carries out an ex-post assessment after project delivery, i.e. a ‘lookback’ assessment;
 - A process that carries out both of the above; and

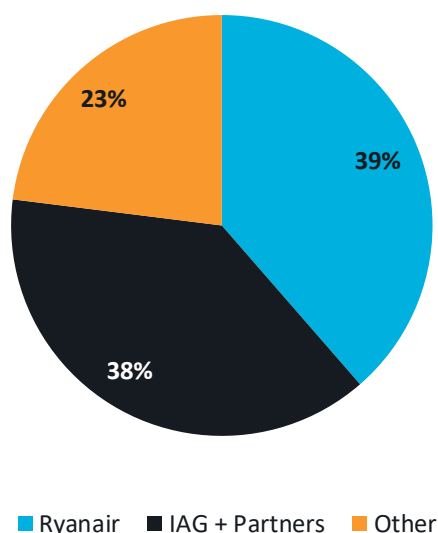
- A process that includes assessment of project expenditure during the 5-year period.
- From this, we have determined the preferred option which would be recommended as an optimal way to set efficient capital expenditure in Dublin Airport.

Background

Traffic

- 1.6 Dublin Airport is by far Ireland's busiest airport. In 2018, the airport handled 31.5 million passengers, 6.5% more than the previous year.
- 1.7 The airport is served by two runways (runway 10/28: 2,637 metres; runway 16/34: 2,072 metres) and two passenger terminals. A third (Northern) runway is under construction and currently planned to be completed in 2021 so that operations can begin in 2022.
- 1.8 Figure 1.1 shows how over three-quarters of the total airline seat capacity at Dublin in Summer 2019 is expected to be provided by Ryanair and Aer Lingus, together with other IAG group airlines and partners.

Figure 1.1: Airline share of seat capacity at Dublin Airport (Summer 2019)



Source: OAG

- 1.9 The CAR traffic forecasts that supported the most recent regulatory determination period projected passenger volumes to reach 24.1 million by the end of 2018. In fact, this estimated level was exceeded in 2015, and the traffic growth over the following three years placed additional, unanticipated, pressures on the facilities, given that the capital investment programme was originally developed for a significantly lower volume of passengers.
- 1.10 Recent growth has been driven by the addition of capacity by Ryanair, Aer Lingus, and other incumbents but also through new entrant long haul carriers such as Qatar Airways and Hainan Airlines.

CAR's Issues Paper

- 1.11 CAR's 30 April 2018 Issues Paper, Commission Paper 7/2018, raised several questions surrounding the treatment of Capex as the process heads into the Determination of Charges for the next regulatory period at Dublin Airport, beginning on 01 January 2020. The Issues Paper considered:
- The use of assessments of the programmes both 'ex-ante' (before the projects have begun) and 'ex-post' (retrospectively);
 - Their merits and shortcomings; and
 - How either or both could be used in an optimal solution to manage an efficient capex programme.
- 1.12 The Issues Paper raised four key questions concerning the treatment of capex during the next period, and how it should be remunerated:
- How should CAR establish if a capex project should be given an allowance?
 - Should CAR continue to group projects together to allow flexibility?
 - How and when should CAR establish the efficient cost of a project?
 - How should CAR reconcile completed costs against the allowance?

Report

- 1.13 This report is intended to allow the Commission and stakeholders to consider our findings and recommendations. It focuses on answering the third and fourth of the questions posed in CAR's Issues Paper (see above). We have assessed other capex processes, including their use of ex-ante and ex-post analyses, and based on this evidence have recommended what we consider could be an improved process for CAR and all stakeholders at Dublin Airport.

Next steps

- 1.14 This process is to be subject to consultation alongside the 2019 draft determination; particular emphasis should be placed on the efficiency and practicalities of the proposals.

The remainder of this document

- 1.15 The remainder of the document is structured to follow the steps set out in paragraph 1.5 above:
- 1.16 Section 2 reviews the current approach at Dublin Airport:
- It details the processes currently involved in the initial composition of the capex programme for the regulatory period, monitoring the progress of projects during the programme, and understanding any rectification/mitigation procedures taken during the period; and
 - It examines the project governance process in place, including interaction with CAR and the airlines.
- 1.17 Section 3 examines approaches used at other airports and in other industries to set efficient expenditure for capital projects, highlighting for each their strengths and weaknesses.
- 1.18 Section 4 considers potential options for Dublin Airport over the next Determination Period, 2020-2024.
- 1.19 Section 5 provides a provisional assessment of the recommended option.

2 The current approach at Dublin Airport

Introduction

2.1 In this section we review the approach used to date at Dublin Airport for setting an efficient level of capital expenditure, drawing on information relating to the 2014-2019 Capital Investment Programme (CIP).

2.2 Table 2.1 shows how Dublin Airport's CIP, established for the 2014 Determination, received a total allowance of €649 million.

Table 2.1: Dublin Airport 2014 Determination – Capital Allowances

Grouping	Capital Allowances (€ million)
Airfield Maintenance	125
Landside and Terminal Development	39
Business Development	67
Revenue	56
Information Technology	41
Other	14
Sub-Total	341
Trigger Projects	308
Total	649

Source: CAR/Dublin Airport

2.3 External advice was sought in order to assure the values were in accordance with market rates. Most of the costings were established in 2013.

2.4 The degree of support varied between projects:

- Some airlines did not support projects which did not appear relevant to them (for example, some short haul carriers were not in support of airfield development for long haul aircraft).
- Some airlines supported projects but expected them to be delivered for less expenditure.

2.5 CAR took these airport users' views into account in the overall determination.

2.6 This is the only point in the current process at Dublin in which comments from the airline users were sought on the efficient level of capital expenditure for the original CIP projects.

2.7 The projects were split into:

- ‘Trigger’ projects, for which the associated allowance would be added to the price cap on the occurrence of a pre-determined trigger event, such as a particular level of passenger volumes or runway utilisation; and
- ‘Non-trigger’ projects, of which there were six groups.

- 2.8 Trigger projects that were identified as such in the 2014 Determination operate on a 50:50 risk-sharing basis if the project comes in over or under the target. Essentially this means that any cost saving during this determination period will be 50% enjoyed by the airport, and 50% will be passed on to the consumer through a RAB reduction (and thus lower airport charges all other things being equal). Any overspend will likewise be borne by the consumer (50%) and by the airport directly (50%). The trigger events which were met in the 2015-2019 period related to the Northern Runway development, initially triggered in 2015, and Pier 2 Segregation in 2017.
- 2.9 Within each of the six ‘non-trigger’ groups were ‘deliverable’ projects, which must be delivered as specified if they are to be included in the RAB roll-forward at the time of the next determination. While there is no firm definition of a deliverable project, they tend to be those that are large, cannot be readily substituted by another project, or are in place to fulfil legal or regulatory requirements.
- 2.10 Beyond these projects, all other expenditure remains ‘flexible’ within each of the above groupings, i.e. within the ‘airfield maintenance’ envelope, the allowance, once removing the costs associated with ‘deliverable projects’, could in effect be switched onto other projects within the description of airfield maintenance. This is intended to enable Dublin Airport to balance project overruns or savings, and to react to changes over the 5-year period and, where required, to switch priorities within each category. This ‘pot’ of capex is smoothed over the 5-year period, with an evenly spread allocation of capex added to the RAB each year.
- 2.11 The rapid rise in traffic after 2014 was a key driver to the addition of 23 projects towards the end of the regulatory period, termed the Programme for Airport Campus Enhancement (PACE). An additional allowance of €269 million was provided for by CAR in an interim review of the 2014 Determination, in addition to the allowances set out in Table 2.1.
- 2.12 At the end of the 2015-2019 Determination period, total expenditure is currently expected to have exceeded the original allowed expenditure by around €50 million. The largest contributor to this overspend is the Runway 10/28 Overlay project and its associated lighting projects (within the Airfield Maintenance envelope), at €28.6 million.
- 2.13 Dublin Airport did have the option of consulting with users within the period to increase the group allowance, but it did not do so.

The current approach at Dublin Airport

Description of the approach

- 2.14 Once the capital allowance has been set at the beginning of the period, Dublin Airport is largely left to its own internal processes to deliver the agreed projects or projects to be progressed using flexibility, and to manage the allowances accordingly. The current process requires little or no ongoing consultation with CAR or the airlines in relation to the allowances; rather this is left to the discretion of Dublin Airport.
- 2.15 Apart from the required delivery of the ‘deliverable’ projects, Dublin Airport has the flexibility to amend the programme, to react to changes in market conditions, asset conditions,

consumer and airline behaviours, provided it remains within the allowable totals for each of the groupings in Table 2.1.

3 Approaches at other airports and in other industries

Introduction

- 3.1 In order to identify options for a potentially different way to set the efficient expenditure for capital projects for Dublin Airport, we have conducted desktop research and held telephone conversations with other airports and a regulated water utility, to understand what processes have been adopted elsewhere.

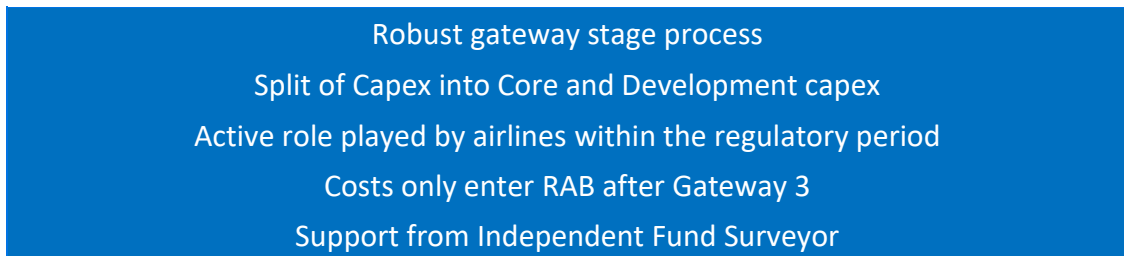
This section summarises the approaches in use at:

- Other major regulated airports in the UK (London Heathrow) and Europe (Groupe ADP, Brussels);
- Other major non-price cap regulated airports in the UK (London Gatwick, AGS Airports – Aberdeen, Glasgow, Southampton); and
- Other regulated industries (Ofwat).

Other major regulated airports

London Heathrow

Figure 3.1: Key features: Heathrow's regulated capex process



The Q5 Regulatory Period 2008-2013

- 3.2 London Heathrow (HAL), which handled over 80 million passengers in 2018, is ranked seventh in the world by number of passengers and is the busiest airport in Europe. With two runways, four passenger terminals and one cargo terminal, its capital delivery programmes are large and complex.
- 3.3 The 'Q5' Regulatory period for Heathrow ran from 2008 to 2013 but was subsequently extended by one year to 2014. The total budgeted capex for this period, following constructive engagement with the airlines, was £5.3 billion, which included significant infrastructure projects such as Terminal 2 (the Queen's Terminal), and an additional satellite for Terminal 5.
- 3.4 The process during Q5 was very prescriptive at the start of the quinquennium, when the projects were defined and costed, and agreed with the regulator (the UK CAA) and the Heathrow AOC. However, as the period developed it became apparent that several of the

projects included in the Q5 investment programme were becoming irrelevant, and the costs of others were changing rapidly. Both the airport and the airline community recognised that this was not optimal.

The Q6 Regulatory Period 2014-2021

- 3.5 This appears to be a fairly common problem among other regulated industries, and as a result for the Q6 period (2014 to 2018, and later extended to 2021), HAL and the airlines adopted a different approach, with the introduction of clear governance guidelines surrounding the whole process. In recognition of the difficulties in accurately forecasting five years' worth of capex in advance of a quinquennium, the focus became much more about the development of projects and their incorporation into the regulatory RAB as they became required, rather than rigidly 'setting the programme in stone' at the start of the period.
- 3.6 In addition, the involvement of the incumbent airlines was increased. In advance of the process, an agreed set of Q6 priorities with airlines was developed, focusing on non-financial aspects as well as the capital programme, and where possible, trying not to focus on a rigid 5-year cycle, but seeking a more portfolio-based approach.
- 3.7 Some key projects were identified as essential, or 'Core' and fixed into the programme from the outset, either because of their immediacy or because of the strategic significance to the airport. Other projects were treated as being at a 'Development' stage. For the Core projects, these were much more detailed and mature in the understanding of what was required, had a greater degree of certainty around their costs, and had already been adopted as a requirement by both the airport and the AOC.
- 3.8 One of the key features of this new mechanism was the movement of projects from 'Development' to 'Core', in which only the Core projects are taken into the RAB for remuneration via the regulated airport charges.
- 3.9 A well-defined gateway process was introduced (see Appendix A), from Gateway 0 (G0), papers, where the need for investment is identified, to Gateway 8 (G8) papers, a retrospective post-project review of the delivered investment.
- 3.10 A major milestone in this process is the Gateway 3 (G3) paper, where the airport presents the requirement and business case to the airlines at monthly 3-hour meetings of the Capital Portfolio Board (CPB). The CPB is attended by HAL (who chair the meeting), dedicated Heathrow AOC representatives, around 15-20 individual airlines and the IFS (Independent Fund Surveyor) described below. Typical attendance exceeds 20 representatives and includes individual Heathrow project managers presenting on specific Development projects¹. The G3 vote takes place in this forum.
- 3.11 Agreement between airport and airlines moves the project out of 'Development' and inclusion into the 'Core' programme, with its subsequent provisional inclusion in the airport's RAB. The final amount added to the RAB may be affected by the CAA's 'ex post' reviews of HAL's capex efficiency, which in turn may be informed by the IFS' monitoring (see below) as well as by reviews by the CAA's own consultants. The perceived need for such a review recognises the possibility that despite the oversight, inefficiency is possible.

¹ In practice, many schemes are reviewed ahead of the CPB, and only those where airlines wish to have a real discussion are debated at the CPB.

- 3.12 The airlines may disagree with the plans. In this scenario, the airport can continue to progress with the project, but it would be less likely that the development is added into the RAB for charging purposes. The options are either that the airport can address the airlines' concerns and resubmit the plan or, and more likely, that the project is reviewed by the CAA.
- 3.13 The CPB is also supported by an array of stakeholder programme boards, again comprising HAL and airlines, which meet monthly. These generally focus on projects within individual areas of the airport and progress the early stages of projects through to G3 stage and presentation at the CPB. The detail of each project lies at this sub-layer, enabling the governance board to discuss at a higher, more strategic level.
- 3.14 This joint governance process between the airport and the AOC requires significant constructive engagement between the two parties, recognising that differences will exist, as different airlines place varying degrees of importance on drivers such as product or price. However, the close involvement with the airlines has also meant that, to a large degree, CAA has been able to step back and allow the process to run itself with minimal intervention.
- 3.15 In any given year, if the investment goes above, or indeed below previous forecasts, the price formula deals with this. Similarly, if a particular project is needed that would go above a pre-set allowance for year, agreement with airlines will enable it to proceed. There is no formal maximum level of capex, provided it is agreed through the gateway process by the airline community.
- 3.16 The main stakeholders in this process are:
- LHR AOC (Airline Operators Committee)
 - Individual airlines, including British Airways and Virgin
 - London (Heathrow) Airline Consultative Committee (LACC)
 - IATA
 - CAA
 - Heathrow Airport Limited (HAL)
 - IFS – the Independent Fund Surveyor

The Independent Fund Surveyor - IFS

- 3.17 For the current regulatory period, Gardiner & Theobald were jointly appointed by Heathrow Airport and the AOC as the Independent Fund Surveyor (IFS) to monitor the delivery of projects within Heathrow's capital plan from inception to completion, while also having a duty of care to the CAA. It is a progressive role, that is largely project-focused, in which the IFS reviews and provides advice on all aspects of a project. The IFS is consulted at a high level on the preparation of the CIP by Heathrow. This is primarily to make the IFS aware of what is in the CIP, rather than to seek specific input from it in the development of the CIP.
- 3.18 The IFS reports to both the airlines and airports.
- 3.19 In the preconstruction stage of a project, the IFS provides advice on the state of a project on the basis of a review of the following information:
- Project Brief;
 - Business Case;
 - Procurement Strategy; and
 - Cost Plans.

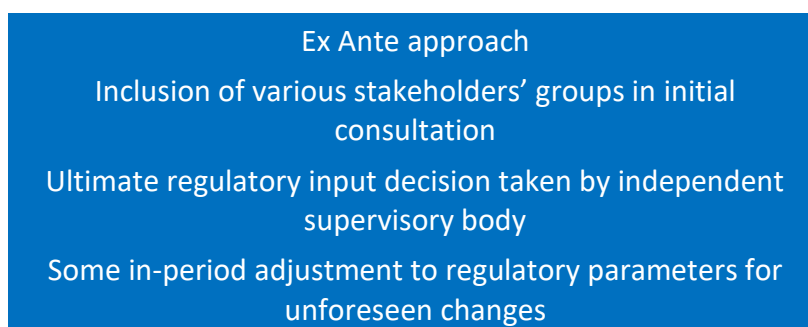
- 3.20 The IFS prepares a report on each project that it has reviewed before the project is presented to Heathrow's governance process. The report comments on the robustness of all aspects of the projects proposals, and the capital efficiency of the cost plan, and is intended to provide Heathrow's governance forums with an informed independent view of the state of a project.
- 3.21 Once a project has been approved to proceed into construction, the IFS's role is similar to that of a development fund monitor: it assesses and reports on all aspects of the progress and delivery of a project on a monthly basis. Its report will comment on technical, procurement, programme, commercial and risk issues. It will also assess whether the project has implemented or addressed recommendations made, or issues raised in reports circulated earlier in the project's lifecycle. The IFS has monthly interface with the project team and the purpose of their report is to provide a focused review on the key issues at a point in time.
- 3.22 On completion of a project, the IFS will produce a final report that comments on all the aspects of the project, as noted above. In cases where the project has run to cost and to scope, the CAA will take the outturn costs into the RAB, but in the cases where the costs have deviated significantly away from the cost agreed at Gateway 3, this report is used as a starting point for any further investigations that it may want to undertake thereafter, in particular to assess the project for inefficiencies.

Conclusion

- 3.23 Both the airport and the regulator appear to consider that the process works very well. In addition, the CAA and IATA both advised that the increased involvement in the development and rollout of the capex plan results in the airlines' relative satisfaction with the process. It relies on constructive dialogue and seems to work well.
- 3.24 The framework enables significant flexibility, commercially driven conversations and provides a mechanism for the project costs and scope to be developed, refined and shared with the stakeholders during the period.
- 3.25 However, it requires real investment in both time and trust. There is the independent support of the IFS, and significant commitment from all sides, which can appear to be burdensome, especially by requiring time from the airport and airline experts.
- 3.26 Issues that have arisen that have required attention include debates when an airline does not consider that the project has met the pre-agreed scope. The IFS can help address such concerns.
- 3.27 Finally, every airline has a different balance in its priorities between cost and product, and a notable difference between Heathrow and Dublin Airports is their different sectoral mix of airlines:
- Heathrow's airlines are primarily full-service carriers.
 - Dublin has a higher proportion of Low Cost and Charter and value airlines in its mix.
- 3.28 The traffic mix at Dublin should be considered carefully if a new process for setting the efficient level of capital expenditure were to be introduced at Dublin.

Groupe ADP – Charles De Gaulle (CDG), Orly (ORY), Le Bourget (LBG)

Figure 3.2: Key features: ADP’s regulated capex process



3.29 ADP tariffs are regulated through 5-year economic regulation agreements (ERAs). The current ERA (ERA3) started in 2016 and is due to expire in 2020. ERA3’s investment plan amounts to €2,978 million (In 2015 prices).

The consultation process – setting the regulatory period Capital Expenditure Allowance

3.30 A number of key stakeholders are involved in the ERA preparation process, during which the 5-year capital expenditure plan is determined. Several redundancy checks aim to ensure the efficiency of the capital investment plan.

3.31 The three key parties involved in the setting of the capital expenditure plan are:

- The Minister of Civil Aviation and his support committee – CocoAero
- The airport and its support committee – CocoEco, which includes airport and airline representatives
- The Independent Supervisory Authority (ISA) – the independent assessor of the plan. The CocoEco meets at least once a year to produce an opinion on the charges applicable in each tariff year, as well as the capex plan. Similarly, the preparation of a new ERA every five years involves a consultation phase with the clients of ADP, conducted within the CocoEco.

3.32 Capital expenditure forecasts are prepared by CocoAero, after they have engaged with CocoEco - ADP, its airline users and associations, and other bodies whose opinion it deems to be of value.

3.33 The ISA gives a binding opinion on the economic regulation contract. The agreement may not be signed until the ISA gives its approval, after ensuring that consultation procedures with CocoEco have been followed.

3.34 We have not found details of the rules of procedure, which may illustrate how CocoEco functions and the extent of airline negotiation and involvement.

In- period adjustments

3.35 There may be amendment to the capital allowance during the period:

- If traffic exceeds 102% of the annual forecast, 50% of surplus income from the additional traffic may be used to cover any cost increase (opex, investment return on capital, depreciation) associated with such traffic – Should this 50% not be sufficient to cover for the incremental costs, ADP may, via consultation with CocoEco adjust its tariff upwards,

although the final decision to approve adjustments rests with the Minister in charge of Civil Aviation.

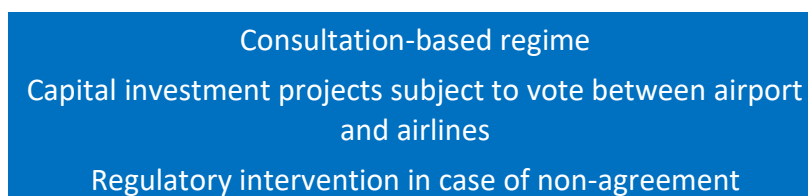
- If traffic is below or above a predetermined level for two years in a row, or at any point during the 5-year term, cumulative investment is below 75% of initial allowance, the agreement may be revised or terminated. This helps to ensure that the investment programme keeps pace with expectations.
- If capex related to a predetermined portion of projects is less than 85% of what was planned by the end of the third year, then 70% of the unspent amount will be deducted in the last tariff period.
- If ADP fails to deliver key investment projects at pre-determined deadlines.

3.36 There appears to be very little involvement of the airlines during the 5-year period.

3.37 We found no evidence documenting any ex-post reviews or end of period RAB adjustments.

Brussels Airport

Figure 3.3: Key features: Brussels Airport's regulated capex process



3.38 Brussels Airport Company NV/SA (BAC) served 25.7 million passengers in 2018 and therefore has a broadly similar traffic volume to Dublin.

3.39 BAC was privatised in 2004 and became regulated in 2006.

The formula at the start of each regulated period, the charges and the capital investment plans are determined by BAC, after consultation with users. The Belgian regulator - The Regulatory Service for Railway Transport and for Brussels Airport Operations - approves a 5-year tariff plan, and hence the capex, only once it determines that there is no disagreement between BAC and its users. Disagreement may arise from the following:

- BAC has not delivered the proper exchange of information with regards to its 5-year business plan.
- The formula for the rate control and the resulting tariff is declined by a relevant part of the airlines operating at Brussels Airport, namely at least two unrelated companies, each representing:
 - at least either 1% of the annual movements or 1% of annual passengers, and
 - at least 25% of the annual movements or 25% of the passengers.

3.40 If a disagreement arises, the consultation period is extended with an aim of obtaining consent of the users on all regulatory building blocks.

3.41 Failing that, the regulator imposes the tariff.

3.42 Once the capex plans are set, there appears to be very little intervention during the 5-year period.

3.43 There appears to be no automatic mechanism for ex-post adjustment of the RAB. In the scenario where the airport invests more than the allowance, it is likely that the opening RAB determination forms part of the consultation process between airlines and airports, with an efficiency assessment on a project by project basis. On the other hand, if the airport invests

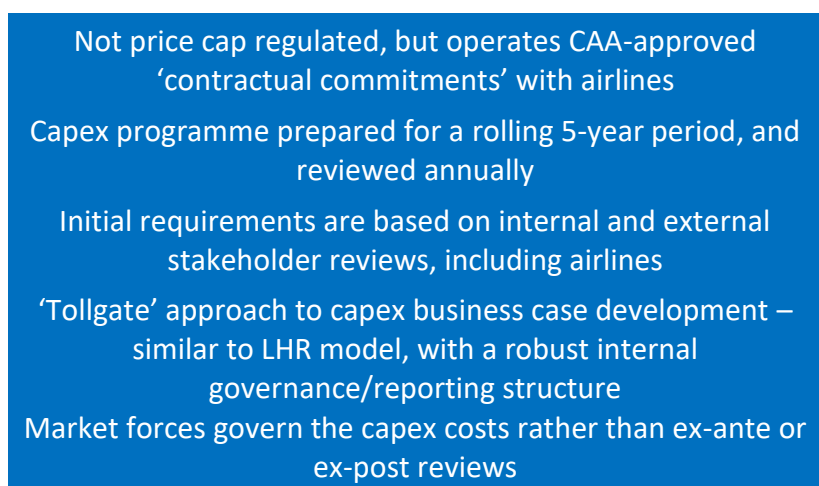
below the initially allowed amount, it is likely that airlines and airports negotiate the degree to which this will be compensated for in the subsequent regulatory period.

- 3.44 It is unclear at this stage whether a look-back approach has been used by the Service in its 2016-2021 regulatory period decision with regards to the opening Regulatory Asset Base.

Other major non-regulated airports

London Gatwick

Figure 3.4: Key features: Gatwick Airport's capex process



- 3.45 Unlike Heathrow, Gatwick (GAL) is no longer directly price cap regulated by the UK CAA. It instead operates a system of contractual commitments with airlines that the CAA has accepted. Key aspects of this are:
- The average level of airport charges across the regulatory period to stay below a “shadow price”;
 - To meet service standards written into the conditions of use; and
 - To invest a minimum of £700 million over a seven-year period.
- 3.46 Gatwick prepares its capital expenditure plan for a rolling 5-year period. The plan is reviewed and updated on an annual basis as the airport's requirements are reassessed, requirements become more defined or changed, and costs become fixed.
- 3.47 The requirements for the airport are developed through internal and external stakeholder reviews as well as consultation with the airline customers.
- 3.48 Initial estimates are prepared by Gatwick's Central Estimating Team, following consultation with key internal stakeholders. Depending on the requirements of a particular project, Gatwick may also consult with external stakeholders such as the ANS (air traffic control) provider, the Police etc. At this stage the potential IRR of each project is also assessed for commercially-returning projects. The initial estimates are benchmarked against other similar projects from Gatwick and/or other UK airports or other appropriate external benchmarks.
- 3.49 Similar to Heathrow, the capital plan is managed via Gatwick's internal governance process which comprises a series of gateways referred to as Tollgates. There are 8 stages within this process, from Tollgate 0 (TG0), the inception of a project, to Tollgate 7 (TG7), the close-out of a project. The most critical tollgates in this process are:

- Tollgate 2: business case approved internally by senior management and instruction to proceed with design;
- Tollgate 3: option selected, and procurement route approved; and
- Tollgate 4: approval to award contract is given along with full funding for the delivery of the project.

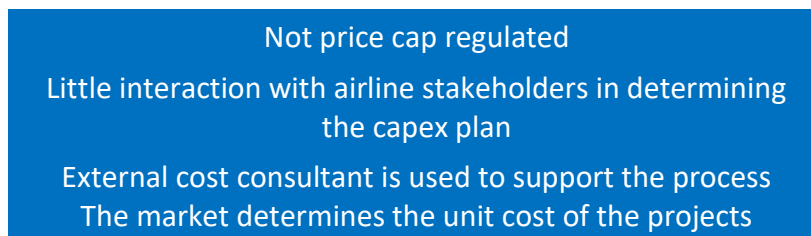
3.50 Gatwick has a robust monthly governance and reporting structure that gives senior airport management the opportunity to review the progress of project within the capital plan. A programme that contains every project within the capital plan is maintained and updated monthly so that the cost and time implications of each project can be monitored. Ultimately, Gatwick’s Main Board reviews this on a monthly basis, thereby maintaining very close scrutiny on the delivery of its capital plan.

3.51 There appears to be no ex-ante or ex-post assessment of either the full CIP or individual projects. However, large projects (typically above £10m) will have an Investment Performance Review following completion to assess their effectiveness against the assumptions of the original business case. Stakeholders appear to be consulted, but other than this, appear to have no other means of influencing the programme, other than where investment is committed to as part of a bi-lateral contract.

3.52 Given that the airport is not price cap regulated, there is no specific requirement to manage a RAB (although staying below a ‘shadow price’ involves managing a ‘shadow RAB’) and to have the capex programme approved for efficiency by a regulator or stakeholder. Instead, the costs of the projects are largely governed by market forces, with the airport having a vested interest to keep capex as efficient as possible in order to maximise its own profitability.

AGS Airports – Aberdeen, Glasgow and Southampton

Figure 3.5: Key features: AGS Airports’ capex process



3.53 All three airports in the AGS Group follow a similar process, in that they have a 5-year development masterplan, which is reviewed annually as part of this process. The projects that are anticipated as required to support the ongoing development of the airport are included in the 5-year plan. The airports then decide which projects are to be included in their capital plans for the forthcoming year. At this point the Group prepares cost estimates/plans (either high level or detailed level, depending on the level of design information available) for each of the proposed projects, and cashflow forecasts based on the anticipated programme for each project. This information is reviewed with the respective airports, and the capital plan is then developed and fixed from that point.

3.54 As with Gatwick, the AGS airports are not price cap regulated. As a result, their incentive for achieving a capex programme that is as efficient as possible is simply to improve the airport’s cashflow and profitability, with the costs not being determined by ex-ante or ex-post audits, but instead by identifying the most competitive rates in the external market.

Other regulated industries

Ofwat (England and Wales water)

Ex ante assessment of capex considered as one part of the whole business plan package
Regulator compares and contrasts submissions from individual water companies – competitive tension
Total expenditure (totex) is regulated, rather than capex
Rigid price-setting for the 5-year period
CCGs – customer challenge groups, are external stakeholder groups that form an important part of the regulator’s initial assessment

- 3.55 Ofwat regulates the 18 water companies in England and Wales, with a 5-yearly review process.
- 3.56 This begins with each water company submitting a business plan to Ofwat, containing expected costs, capex programmes and various performance metrics based on criteria such as water cleanliness and reduced leakage.
- 3.57 Following Ofwat’s initial assessment of business plans, companies with high quality business plans, with significant ambition and innovation for customers, and that push the boundaries of the industry and set an example for others, all within reasonable cost and capex requirements, will be classed as “exceptional”. Consequently, they can expect higher financial returns, procedural benefits and reputational benefits. Companies whose business plans need “significant scrutiny” will face financial, reputational and procedural disincentives, and are more likely to have heavier price and capex controls placed on them.
- 3.58 Total expenditure (Totex) is used, providing an incentive to the regulated company to spend as efficiently as possible across all aspects of their businesses.
- 3.59 Before setting the price determination for a given 5-year period, Ofwat considers these costs including various performance measures relating to water extraction, distribution to customers, waste management, retail control (billing and metering). Ofwat will also consider previous incidents such as leakage and sewer collapses. These measures, plus the plans relating to totex, all contribute to a final determination, in essence, all part of a comprehensive ex-ante assessment of the whole business plan.
- 3.60 This pricing regime tends to remain fixed for the 5-year period, with no change in the interim, although all water companies are expected to send annual performance reports to Ofwat to demonstrate that they are on plan.
- 3.61 Ofwat believes that the process of comparing the cost expectations between water companies works, given their similar structures, and this is used as part of the determination process. However, a water company would consider that the differences in topography, customer distribution (cities vs less densely populated countryside) water extraction requirements, means that in their opinion, comparing water companies (as with airports) actually has its flaws.
- 3.62 It is also difficult to compare airports to the water industry due to airports’ complex structures, differing asset bases, scale and customer mix.

Summary

3.63 Table 3.1 summarises the main features of the different approaches we have reviewed.

Table 3.1: Main features of approaches assessed

Feature	Dublin	Heathrow	Groupe ADP	Brussels	Gatwick	AGS Airports	Regulated UK water utilities
Cost-Setting							
Ex-ante CAPEX assessment at beginning of period	✓	✓	✓	✓	✗	✗	✓
Ex-post CAPEX assessment at end of period	✗	✓	✗	✓	✗	✗	✗
Non-Regulated price setting	✗	✗	✗	✗	✓	✓	✗
Formal 'gateway' process for project development during period	✗	✓	✗	✗	✓	✗	✗
Other							
Employment of IFS (Independent Fund Surveyor)	✗	✓	✗	✗	✗	✗	✗
Projects added to RAB only when they become 'core'	✗	✓	N/A	N/A	N/A*	N/A	✗
Airlines' ability to approve/disapprove projects during period	✗	✓	✗	✗	✓	✗	N/A
Use of totex rather than capex/opex	✗	✗	✗	✗	✗	✗	✓
Required User Consultation	✓	✓	✓	✓	✓	✓	✓
Capex Spending related Aeronautical Revenue Adjustment During Period	✗	✓	✓	✗	✓	✗	✗
Capex Delivery Schedule related Price Cap Adjustment During Period	✗	✓	✓	✗	✗	✗	✗

* LGW operates a shadow RAB

- 3.64 As the table highlights, there is little consistency in how capex is managed at airports and the UK water industry. However, there are several processes at Heathrow that appear to support a robust capital allowance structure, suggesting that elements of this model could enhance the capital allowances process at Dublin, although some processes at other airports may also be blended to offer the optimal solution.

4 Options for the future

Introduction

4.1 In this section we assess potential options for use in the next regulatory determination period at Dublin Airport, and compare their respective advantages and disadvantages as different ways of setting efficient capex allowances.

- Option 1: Ex-ante approach
- Option 2: Ex-post approach
- Option 3: Ex-ante and Ex-post approach
- Option 4: In-period StageGate approach

Option 1: Ex-ante approach

4.2 This process requires the detailed scrutiny of projects within a CIP programme before the start of a regulatory period, to derive the efficient costs of proposed projects.

4.3 We assume that, as is the case currently, the proposed project allowances are subject to a once-off detailed assessment by an independent cost expert commissioned by the CAR. We also assume that this option encompasses grouped allowances with some deliverable projects, as is the case currently. We do not assume the continuation of any element of risk sharing such as the 50/50 approach applied for certain projects in the 2014 Determination.

4.4 The option assumes the involvement of other stakeholders, notably the airlines, at this ex-ante stage, but as it is today at Dublin, primarily from a consultation perspective. They would not have a veto on projects.

4.5 This is the status quo option; all other options are compared against Option 1 in terms of advantages and disadvantages.

Table 4.1: Ex-ante approach – advantages and disadvantages

Advantages	Disadvantages
<ul style="list-style-type: none"> • Robust up-front assessment of efficient costs, allowing for informed decision making on all sides. 	<ul style="list-style-type: none"> • Cost estimates may be efficient at the time of assessment, but may become obsolete before a project is actioned, particularly given the difficulty in assessing projects in the early stage of design.
<ul style="list-style-type: none"> • Strong incentive for Dublin Airport to avoid overspending the grouped allowance without consulting airport users. 	<ul style="list-style-type: none"> • Ex-ante does not allow for changes to the overall quantum of grouped capex allowances, meaning that there is limited in-built flexibility to vary a capex programme as circumstances change.

Advantages	Disadvantages
	<ul style="list-style-type: none"> Efficient variation from the ex-ante allowances cannot be reflected in charges within the period (although this is also difficult under the other options).
	<ul style="list-style-type: none"> Limited financial incentive for Dublin Airport to achieve efficiencies in capex provided that expenditure does not exceed the overall grouped allowance.

Option 2: Ex-post approach

4.6 This process requires the detailed scrutiny of projects within a CIP programme at the end of a regulatory period, i.e. a ‘look back’ assessment, to assess whether expenditure has been efficient.

4.7 Again, we assume that the ‘lookback’ assessment would be carried out by specialised and independent cost experts. But, as with the ex-ante option above, this would be very much a once-off and would not require the full cost of an IFS on an ongoing basis throughout the regulatory period. We assume that the outturn cost of delivering the project would be assessed for any inefficiency to be excluded from the RAB.

Table 4.2: Ex-post approach – advantages and disadvantages

Advantages	Disadvantages
<ul style="list-style-type: none"> Costs for each project can be assessed for efficiency on the money actually spent. This provides flexibility for efficient scope/cost changes to occur across the period. 	<ul style="list-style-type: none"> All stakeholders would have less certainty over the regulator’s view on an efficient allowance until the project is complete, or already committed. This reduces the scope for informed decision making both before and during the period.
<ul style="list-style-type: none"> There is less risk of efficient expenditure being excluded from the RAB. 	<ul style="list-style-type: none"> It can be difficult to distinguish between efficient expenditure undertaken in the interests of airport users, and inefficient expenditure which could have been avoided, particularly in the absence of contemporaneous reports or consultation. Thus there is an increased risk of inefficient expenditure, including potential scope inefficiencies, ultimately entering the RAB.
	<ul style="list-style-type: none"> Limited incentive for the airport to achieve efficiencies in capital expenditure. This is exacerbated by the lack of a regulatory target as per the first disadvantage.

Option 3: Ex-ante and Ex-post approach

4.8 First, an ex-ante assessment would be carried out as per Option 1. Then over/underspent allowances would be re-examined at the end of the period.

4.9 The adoption of both the ex-ante and ex-post approach combines the benefits and weaknesses of both processes. As this option contains elements of both options 1 and 2, the advantages and disadvantages are on a spectrum between them. There are many variations as

to how this approach could be applied. For example, it could be the case that only a broad reassessment is carried out ex-post with the allowances continuing to be generally driven by a detailed ex-ante assessment, or vice versa, or a detailed assessment could be carried out both ex-ante and ex-post with equal weight given to both. The point on the spectrum depends on the respective weight given to the ex-ante and ex-post assessments.

Table 4.3: Ex-ante and Ex-post approach – advantages and disadvantages

Advantages	Disadvantages
<ul style="list-style-type: none"> The ex-post element would more readily allow for efficient scope/cost changes to occur across the period, relative to the status quo- although less than an ex-post only approach. 	<ul style="list-style-type: none"> The scope for fully informed decision making by stakeholders would be reduced relative to the status quo (although increased relative to the 'ex-post only' option).
<ul style="list-style-type: none"> There is likely to be increased in-built flexibility to adjust the overall quantum of allowed capex if circumstances were to develop unexpectedly within the period. 	<ul style="list-style-type: none"> There is likely to be an increased risk of both inefficient expenditure entering the RAB, and also a reduced incentive to avoid overspends, relative to the status quo– although not to the extent that would occur under the 'ex-post only' option.

Option 4: In-period StageGate approach

4.10 This option provides more in-period flexibility.

4.11 The 5-year regulatory cycle would begin with a detailed ex-ante assessment.

4.12 A capex group would be set up, with key stakeholders being:

- Airport management and capital delivery personnel;
- Airline representatives, individually or collectively;
- CAR
- IFS

4.13 The group would meet periodically, covering the development of projects at their various stages.

Suggested Process

4.14 The suggested process would be as follows:

StageGate 0.

4.15 Ex-ante allowances are set in the Final Determination. No within-period price cap adjustments would take place; that is, stakeholders have certainty that the allowances set in the Final Determination are those which will be remunerated over the regulatory period (unless an Interim Review of the Determination were to be carried out which adjusted those allowances).

StageGate 1.

4.16 Within the Determination period, every three months, (or possibly six months would be sufficient) Dublin Airport has the opportunity to advance StageGate projects which were identified in the Final Determination. This should be done when Dublin Airport is ready to proceed with the project, so that there is as much cost certainty as possible, but before it has committed to significant associated costs or scope, in order for the user feedback process to be meaningful. The latter point is particularly relevant if Dublin Airport is proposing any scope

changes to the project relative to that envisaged at StageGate 0 or setting out detailed scope in relation to projects where the scope was underdeveloped at StageGate 0.

- 4.17 If Dublin Airport believes that there have been non-negligible developments in the cost associated with this project since the StageGate 0 allowance was set, it should set this out, together with detailed evidence, in a submission to be provided to the IFS/CAR/Stakeholders. The original StageGate 0 cost work-up (Level 3) would also be made available to the IFS. This should be issued at least two months in advance of the quarterly meeting at which Dublin Airport will propose to advance the project in question. The consultation should focus only on developments since StageGate 0, i.e. the purpose is not to continue any disagreement over the initial costing. It may also focus on risks to the StageGate 1 costing which may develop over the construction period, preferably quantifying these in terms of a potential effect on the outturn cost. If relevant, Dublin Airport should also consult on the programme for delivery; for example, a more condensed programme which might lead to lower cost but increased operational disruption during construction, or alternatively a longer phased programme at higher cost but lower disruption. In particular, Dublin Airport should seek feedback on continued support/opposition to the project and support/opposition in relation to any scope changes or further scope detail, relative to StageGate 0. If Dublin Airport does not wish to advance any projects that quarter, no meeting need be held.
- 4.18 On receipt of the X-2 month submission from Dublin Airport, the IFS will assess the revised costings for efficiency. This assessment will consider any changes proposed by Dublin Airport relative to the StageGate 0 cost allowance. It will also consider whether there have been any other developments, either specific to Dublin Airport, or in the construction or other markets more generally, which would lead it to conclude that the efficient cost of delivering this project has changed since the time the StageGate 0 allowance was set.
- 4.19 The IFS would circulate the report in advance of the meeting. At the meeting, Dublin Airport would present and stakeholders can provide feedback/questions etc, while CAR and the IFS would also attend. The deadline for stakeholders to outline their final views would be (about) 2 weeks after the meeting.
- 4.20 Following this, Dublin Airport would issue a finalised document in which it:
- Must respond in detail to the consultation feedback, i.e. indicate where it has made changes based on feedback received, and where it has not made changes it must explain why.
 - May respond to the report by the IFS.
 - Set out next steps, i.e. whether it will still proceed with the project in the near-term, and to what scope.
- 4.21 StageGate 1 is completed once this finalised document has been issued.

Option B: StageGate 2:

As above, except the IFS continues to assess any cost developments through construction of the project, ahead of each quarterly/six-monthly meeting. Any stakeholder may submit views together with supporting evidence to the IFS, which the IFS will consider as part of its subsequent report. So the IFS' portfolio of projects will continue to be added to across the period, with a final report to be issued in relation to a project on completion of that project. At that point it would exit the IFS portfolio and have completed StageGate 2.

Both Options: StageGate 3: (or StageGate 2 if Option B is not proceeded with)

- 4.22 At the time of the subsequent Determination, for any completed StageGate project, the Commission will assess the outturn cost together with all of the contemporaneous evidence from the IFS and stakeholders to allow for a fully informed roll forward of the RAB, which is reflective of the efficient outturn cost of delivering the project to a scope which is in the interests of current and future users of the airport. The StageGate projects would not be grouped for reconciliation but would be reconciled at an individual level.
- 4.23 For any StageGate projects which are not completed at the time of the next determination, the Commission would, in consultation with stakeholders, re-assess these for continued inclusion, as it does currently.
- 4.24 Each project identified for entry into the process at StageGate 0 must pass through the whole StageGate process. That is, a project designated as StageGate cannot be proceeded with by Dublin Airport on the basis of the StageGate 0 allowance without any further consultation.
- 4.25 Appendix C shows example templates that are based on those used by another regulated airport. The name has been removed, and the stages are referred to as ‘StageGates’. These templates are used in the earlier stages of project development, and the level of detail deepens as the process develops through the different StageGates. It does, however, provide a good indication of the type of information shared with other parties, and provides a platform for ensuring all parties are kept abreast of developments, deviations to plan in terms of scope and cost, keeping all stakeholders on board, with a view to ensuring the smoothest possible passage for the project to be accepted.

Table 4.4: In-period StageGate approach – advantages and disadvantages

Advantages	Disadvantages
<ul style="list-style-type: none"> • Provides an appropriate combination of the strengths of both ex-ante and ex-post assessment. It would enable increased flexibility for efficient scope/cost adjustments, while maintaining and in some cases strengthening the incentive for Dublin Airport to continuously seek efficiencies across the period. 	<ul style="list-style-type: none"> • Requires significant investment in both time and trust. There is the independent support of the IFS, and significant commitment from all sides, which can appear to be burdensome, especially by requiring time from the airport and airline experts.
<ul style="list-style-type: none"> • Supported by the forensic analysis of an independent fund surveyor (IFS) to monitor the costs for efficiency. 	<ul style="list-style-type: none"> • Cost of IFS adds additional burden.
<ul style="list-style-type: none"> • Ultimate allowance should better reflect the true efficient cost of delivering a particular project. 	
<ul style="list-style-type: none"> • The involvement of the airlines during the project evaluation period can ensure that the cost of capex projects can be more closely aligned to airlines’ views on their reasonableness and/or operational trade-offs necessary. 	

Advantages	Disadvantages
<ul style="list-style-type: none">• Closer dialogue would improve all parties' understanding of projects, changes in scope and regulation, and could enable the airport to progress a project at a faster rate if, for example, airlines amend their programmes temporarily to facilitate a faster project completion.	

5 Recommendation

Review of Options

- 5.1 Our recommendation is that the option most likely to lead to an ultimate cost allowance which reflects the true efficient cost of delivering a project in the interests of airport users is **Option 4**, with its StageGate process.

Proposed Option

- 5.2 We set out below considerations about how Option 4 might be implemented at Dublin:

- What meetings would be required
- Supporting documentation / Templates
- Role of the IFS
- Airline involvement
- Project cost reconciliation
- Project grouping considerations

- 5.3 The proposed option provides the benefits of both an ex-ante and an ex-post assessment, giving reassurance to the airlines that projects are costed efficiently, whilst also giving the airport additional assurance that projects where deviations are agreed with stakeholders and identified as justifiable by the IFS are likely to be accepted into the RAB roll forward without challenge.

Meetings

- 5.4 The StageGate process would require the investment of time from the airport and airline stakeholders alike, making themselves available for regular StageGate meetings.
- 5.5 Our proposal suggests a meeting every 3 months. Stakeholders may alternatively consider that every 6 months would be sufficient.

Templates

- 5.6 A sample of templates used at another regulated airport are attached in Appendix C. We propose that a similar set of templates be developed for Dublin Airport, taking into account the nature of the defined process should Option 4 be adopted.

IFS

- 5.7 It is proposed that an IFS features in this approach, in order to provide additional financial rigour to the project assessment, and in doing so, also provides reassurance, notably to the airlines and the regulator.
- 5.8 Based on the number of projects and the proposed frequency of the meetings, we estimate that the total cost of an IFS over the 5 year period would be between €0.5m and €1m.

Airline Involvement

- 5.9 As with Heathrow, there appears to be significant benefit at Dublin in involving the airlines, or an airline group representative such as IATA, as well as an IFS, throughout the StageGate process.
- 5.10 At Dublin, the Summer 2019 seat capacity share is expected to be dominated by Ryanair (39%) and the IAG carriers (Aer Lingus, BA, Iberia and Vueling) (38%) and, of around 40 other airlines in total, no other has more than 3% share. With their large share of operations at Dublin Airport, it would therefore be important to ensure close involvement of both Ryanair and the IAG family of airlines as a bare minimum.
- 5.11 Our proposal for all projects at the StageGate 0 position is essentially the same as it is today, namely that all airline stakeholders provide comments and feedback on all of the capex programme proposals at the time of the initial determination.
- 5.12 The proposed change to the status quo encompasses the large and/or strategically important projects that will be treated as StageGate projects. At the StageGate 1 phase, when the project is soon to be commenced, when the scope is more defined and the costs are more robust, airlines will once again be consulted and have the opportunity to provide their comments and feedback to project proposals, directly or through the IFS.
- 5.13 This feedback will be considered by Dublin Airport, and in the event of negative feedback, can either make amendments to the project cost or scope, provide further explanation regarding the change to the scope and/or costs, or proceed regardless. In the event of the latter, this would not provide the airport with the reassurance of any costs being accepted into a RAB roll forward, whilst the receipt of stakeholder support at this stage would provide them with such reassurance, thus providing the airport with incentive to respond to their StageGate 1 feedback.

Reconciliation

- 5.14 Clearly, even after a StageGate 1 project is agreed to advance to an implementation phase, there will be occasions when the costs will deviate further. The optional StageGate 2, should it be implemented, would enable the IFS to monitor the project all the way through to completion, offering additional scrutiny over the projects, and providing further advice to the airlines as and when projects deviate, along with the reasons behind it.
- 5.15 At the end of a regulatory period (StageGate 3), the airport will go through a process of reconciling the project outturn with the StageGate 1 agreed cost.

Project grouping

- 5.16 Whilst StageGate projects would be treated as individual deliverable projects, the proposal retains the grouping of projects where the application of the StageGate process is not deemed to be required.
- 5.17 Grouping together projects reduces the administrative burden of managing and monitoring many lower value projects, and it adds flexibility to move capital within the envelope of a group of costs, normally a functional cost category such as Asset Care.
- 5.18 The existing capital allowance structure at Dublin allows for such flexibility. There is no particular evidence that the current approach is not fit-for-purpose in relation to these smaller project allowances.

- 5.19 This option enables the airport to react to changes in priorities and means that it does not get tied down to a list of projects that can potentially become obsolete, and where the costing can radically change within a one or two year period.
- 5.20 The airport would then be left to manage those projects within the envelope of the groups as it currently does, with costs associated with the non-delivery of projects removed from the RAB at the end of the period as part of the period end reconciliation.

Conclusion

- 5.21 The advantages and disadvantages of adopting the Option 4 StageGate approach are summarised below.

Table 5.1: Proposed StageGate process – advantages and disadvantages

Advantages	Disadvantages
<ul style="list-style-type: none"> • Provides an appropriate combination of the strengths of both ex-ante and ex-post assessment. It would enable increased flexibility for efficient scope/cost adjustments, while maintaining and in some cases strengthening the incentive for Dublin Airport to continuously seek efficiencies across the period. 	<ul style="list-style-type: none"> • Requires significant investment in both time and trust. There is the independent support of the IFS, and significant commitment from all sides, which can appear to be burdensome, especially by requiring time from the airport and airline experts.
<ul style="list-style-type: none"> • Supported by the forensic analysis of an independent fund surveyor (IFS) to monitor the costs for efficiency. 	<ul style="list-style-type: none"> • Cost of IFS adds additional burden.
<ul style="list-style-type: none"> • Ultimate allowance should better reflect the true efficient cost of delivering a particular project. 	
<ul style="list-style-type: none"> • The involvement of the airlines during the project evaluation period can ensure that the cost of capex projects can be more closely aligned to airlines’ views on their reasonableness and/or operational trade-offs necessary. • Closer dialogue would improve all parties’ understanding of projects, changes in scope and regulation, and could enable the airport to progress a project at a faster rate if airlines amend their programmes temporarily to facilitate a faster project completion. 	

Appendices

A Heathrow Airport Gateway Process

Heathrow short-term plan

It is intended that all business cases and projects within should progress at the appropriate pace through the Gateway Lifecycle process.

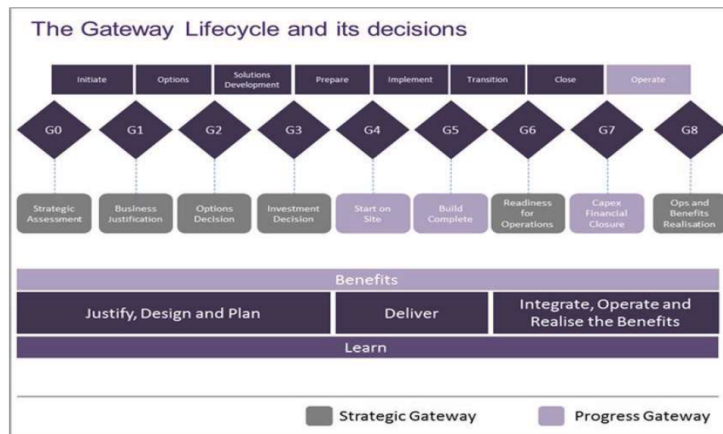


Figure 4 3 Heathrow Gateway Lifecycle

Gateway 0 to Gateway 3 is known as the Development Stage. Development Capital Expenditure (Capex) projects will have a lower definition of scope, schedule, risk and cost than Core Capex projects (post Gateway 3), and may not necessarily have a clearly understood method of delivery.

Gateway 3 is the critical investment decision point, as at this point in the lifecycle, it may be jointly agreed between Heathrow and the Airline Community for the Business Case not to go ahead, as there may not be a requirement for the investment any more. In this scenario, any investment money not spent may either be given back to the Airline Community via a rebate, or, the money may be spent on a new Business Case.

In addition;

- It is the transition point at which Capex passes from Development to Core, via the Capital Portfolio Board
- It is the point of transition where the Business Case goes from the Programme, into Delivery. For this to take place there should be confidence in the schedule, cost and risks prior to awarding a contract to the Delivery Integrator
- It is the point at which Regulatory Triggers are set (if required). One new trigger set in this way during Q6 was relating to the Alpha and Bravo taxiways works in B111 enabling new generation of wide body aircraft.

Planned Capital Investment for the Q6 Regulatory period is currently forecast to be £2.6 billion (outturn). In line with the Regulatory Settlement, the Capital Investment Plan may increase to up to £3.3 billion, but this is subject to further scoping of the remaining individual projects and corresponding approval of the Business Cases.

B Example of templates

Business Case / Project Summary	
Business Case / CIP Reference Number and Name:	
[Previous StageGate] Estimate at Completion	£XXX.XXXm
[This StageGate] Estimate at Completion <i>Explain any variances to previous estimates, cost and scope change etc</i>	£XXX.XXXm
Payback Period (if known)	
Trigger Y/N and Rebate Value	
IFS Involvement Y/N	
1 Presentation date	

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Background / Business Need

Problem / Opportunity Statement

[Include impact of not proceeding through StageGate]
Delete the text above and complete this box.

2 | Presentation date

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Benefits

Quantitative Benefits Description

[Payback period]
[Opex impact]
[ASQ impact]
Delete the text above and complete this box

Qualitative Benefits Description

[Description of alignment to strategic propositions]
Delete the text above and complete this box

Indicative Solution [S1] / Options [S2] / Scope [S3]

Description

[For S1, include indicative solution and the business requirements it must meet]

[For S2, include summary of all options and reason for proceeding with recommended option as well as relevant requirement that this option delivers and potential requirements that cannot be met]

[For S3, include a summary of the agreed requirements and if these can still be met as well as a summary of operational considerations]
State StageGate and delete this text

Indicative Solution [S1] / Options [S2] / Scope [S3] cont.

Description (cont)

[Photos]
[Drawings]
[Artist impressions]
State StageGate and delete this text

6 | Presentation date

Indicative Solution [S1] / Options [S2] / Scope [S3] cont.

Sustainability Impact

[Describe how the project aligns to the Airport's Sustainability Plans; which of the themes are impacted?]
State StageGate and delete this text

Masterplan Assembly Alignment

[Describe how the project supports the longer term strategy (assembly options, additional capacity projects),
State StageGate and delete this text

Project Delivery

Key Risks / Opportunities

[Clarify what is a risk and what is an opportunity]
Delete the text above and complete this box

Key Assumptions / Exclusions

[Clarify what is an assumption and what is an exclusion]
Delete the text above and complete this box

Dependencies / Interfaces

8 | Presentation date

Schedule

Key Milestones

[List past and future StageGate with indicative dates]
[List any other key milestones]
Delete the text above and complete this box

Governance

[List stakeholder groups and dates attended or to be attended for this StageGate. If this an external pack, only list external governance forums]
Delete the text above and complete this box

Cost Plan

These numbers are examples, please fill the table with your support team. The cost plan for this project must be commercially assured.

Cost Plan Summary	Cost Plan £m	%age of Total Cost	Variance to Cost at Determination
Building Works (Base Cost)	0.587	44%	0%
Building Works (Project Specific)	0	0%	0%
Preliminaries	0.244	18%	0%
Contractor Overheads & Profit	0	0%	0%
Design	0.72	5%	0%
Risk (All Parties)	0.264	20%	0%
Inflation	0	0%	0%
Logistics & Leadership	0.18	13%	0%
Cost Plan Total	1.347	100%	0%
		(2 decimal places)	
Optimistic	1.013	75%	0%
Most Likely	1.347	100%	0%
Pessimistic	9.50	127%	0%

Additional questions (example)

Select relevant question, complete the text in brackets and delete other questions.

Does the [relevant internal/external stakeholder forum] agree to this [xxx] for [Business Case / Project Number and Name?] for £XX.XXXm with £XX.XXXm to be spent to [GX]
[or]

Does the [External Stakeholder Group] agree to this [GX] for [Business Case / Project Number and Name] for £XX.XXXm?
[or]

Does the IFS agree to this S1/2/3 for [Business Case / Project Number and Name] with mid-point budget allocation of £XX.XXXm?
[or]

Does the Capital Planning Group agree to the transition from Development Capex to Core Capex for this S1/2/3 for [Business Case / Project Number and Name] for £XX.XXXm?
[or]

Do the Airlines/Airline Reps agree to this S1/2/3 for [Business Case / Project Number and Name] with mid-point budget allocation of £XX.XXXm?

Blank page for additional content if necessary



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