

HAL RBP UPDATE - REVIEW OF CAPEX CATEGORIES AND DELIVERY OBJECTIVES

October 2021

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Project Objectives

The objectives for this project were to support the CAA's H7 capex incentives workstream by:

1. Reviewing the capex categories included by HAL in its June 2021 RBP update (HAL continues to use programmes to structure its capex plan, so the assessment would be of the programmes set out in the plan) and assess compliance with CAA definition of a capex category.
2. Provide a view for each capex category or programme included by HAL in its plan (under both the “Safety Only Plan” and the “Optimal Plan” envelopes included in the RBP update 1), whether it is suitable for implementing capex incentives in H7 – for example whether a delivery objective / obligation can be effectively identified for the category and whether it would be possible for the CAA to undertake an assessment of the delivery obligation, once the work has been delivered.
3. Developing a proposed approach / methodology for the asset management programme, splitting it into several capex categories, consistent with the CAA definition of capex category. This would involve working closely with the CAA to test proposed approaches before moving forward with a specific methodology.
4. Jointly developing and agreeing an approach to review delivery objectives proposed by HAL in the RBP update and develop worked examples of delivery objectives which are consistent with the CAA's definition. The number and scope of worked examples will be discussed by the CAA and the consultants once the approach has been agreed.

Project Outputs

A slide pack report setting out the approach and findings. This report will be published alongside the Initial Proposals document.

1. Set out a **list of Capex Categories (HAL programmes)** – undertake a review of these Capex Categories to determine whether they are compliant with CAA definition.
2. Review and provide view of the **suitability of each Capex Category set out by HAL to set capex incentive** against during H7.
3. Agree **approach** to split the Asset Management Programme (Capex Category) into Capex Categories consistent with CAA definition.
4. A set of **worked examples of delivery objectives** which are consistent with the CAA's definition based on an agreed approach with the CAA. To be included in CAA initial proposals to help demonstrate how a delivery objective can be developed based on HAL's proposed capex plan. The worked examples will be used to further engagement with HAL and airlines on delivery objectives.

In delivering the scope of this project, Arcadis has concluded the following:

1. HAL Programme compliance with CAA Capex Category definition

- The majority of HAL programmes comply with the CAA definition of a Capex Category with similar risk and controllability characteristics.
- For the Asset Management and the Future Ready Airport Programmes, which as proposed by HAL include projects with varying levels of risk in delivery, we propose that these should be split into several capex categories that meet the CAA definition more closely. Splitting these into further capex categories would also enable HAL to set Delivery Objectives that would be SMART (specific, measurable, achievable, relevant and time bound).

2. Suitability of Capex Categories for Capex Incentives in H7

- All Capex Categories included in HAL's plan are suitable for ex ante Capex Incentives. Risk and Controllability attributes are similar for the plan as a whole, and a SMART Delivery Objective can be set (noting the point above about splitting the Asset Management and Future Ready Airport programmes into further capex categories).
- We consider that it is feasible to have 13 separate Capex categories, based on HAL's updated RBP plan, with similar risk and controllability profiles and which are suitable to set a SMART Delivery Objective against.

3. Splitting of HAL Asset Management Programme

- We consider it is feasible to split the asset management programme into 6 capex categories that can be used for capex incentives where SMART Delivery Objectives can be set.
- In addition, it is feasible to further split the Future Ready Airport Programme into 2 capex categories where the delivery risk are better matched and that a SMART Delivery Objective can be set.

4. Worked examples of Delivery Objectives

- We consider that HAL's programme Objectives are not SMART and cannot be used as Delivery Objectives.
- Arcadis has developed some illustrative examples to demonstrate how a SMART Delivery Objectives can be developed for capex categories that could be used by the CAA as part of the Capex Incentives framework for H7.

Our approach



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Our approach

Arcadis has developed and followed a methodology that has supported the delivery of the scope of this project.

Our current scope has required us to review, examine, develop, test and validate our thinking in an agile and collaborative way with the CAA.

We understand that the introduction of a new regulatory regime for H7 is a developing process and we have sought to engage with the CAA throughout our work as we have progressed through our methodology and developed our thinking.

Methodology

Review

- Review our previous work which was to test different approaches for defining delivery objectives / obligations based on HAL's initial RBP submission
- Review HAL Capex Categories set out in the RBP Update
- Review any evidence HAL has made regarding Delivery Objectives

Evaluate

- Whether the Programmes in HAL's Updated RBP meet the CAA Capex Category definition
- Whether the Asset Management Programme should be sub-divided into smaller Capex Categories to meet the CAA definition
- Method for sub-dividing the Asset Management Programme into suitable sub-categories
- Whether HAL has updated or set any Delivery Objectives / Obligations in the RBP Update

Develop

- View on HAL Programmes and level of compliance to CAA definition
- Develop and agree methodology for splitting Asset Management Programme into sub-categories that comply with CAA definition
- Worked examples for the Capex Categories (HAL Programmes) that can be used for Capex Incentives
- Develop methodology for establishing Delivery Objectives

Test

- Share opinion with CAA on compliance with definition of capex category
- Methodology and approach with CAA for splitting Asset Management Programme
- Illustrative Delivery Objective examples against CAA assessment criteria

Validate

- Position regarding HAL compliance.
- The identified Capex Categories within the Updated RBP against Capex Incentives proposals
- Propose sub-categories for Asset Management Programme using agreed methodology
- Whether HAL's Delivery Objectives are robust and fit for purpose
- Whether illustrative examples provide the required level of information to support Capex Incentives

Recommend

- What HAL, airlines and the CAA needs to do next to support the development of the Capex Category and Delivery Obligation workstream



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Review

- HAL acknowledges in Chapter 5 (5.3.6) of the RBP update 1 the CAA requirement to divide its capital plan into capex categories. HAL continues to use programmes to categorise its capital spend and therefore for the purpose of capital efficiency incentives defines its capex programmes as ‘capex categories’.
- HAL has developed a structure in the Updated RBP that underpins the delivery of the updated RBP set out in Chapter 6.1.
- HAL indicated that the Updated RBP has now been revised to set clear criteria for treatment of capex categories, setting of delivery obligations and reconciliation.
- HAL has set out its approach to Capital Governance in Chapter 6.1.6 and its response to CAP2139 which seeks to limit the application of ex-ante incentives to a sub-set of HAL’s Capex Programmes.
- HAL has sought to split its programmes in a manner that would allow ex-ante to apply to the elements it believes are suitable for ex-ante treatment. This approach is largely based on the work undertaken by HAL’s consultants (Jacobs).
- HAL acknowledges that its ‘Delivery Objectives’ are still under development with input from the airline community.
- HAL has produced ‘Capital Programme Mandate one-pagers’ (Appendix A) that use the terminology Objective within them.
- In its RBP Update, HAL has proposed that for the programmes that it has proposed should be in scope of ex ante incentives, delivery objectives would be agreed with airlines and linked to service quality where applicable (Table 4, chapter 6.1). However, in its response to the CAA CAP2139 consultation, HAL indicated that it does not think separate Delivery Objectives are necessary because it has proposed that measures from the OBR /SORB regime could be used instead.

Evaluation

- It is possible to translate HAL Programmes into Capex Categories that can meet the CAA definition however, it is necessary to divide some of the HAL Programmes into smaller 'sub-categories' to achieve this.
- For example, Arcadis has developed an approach to divide the Asset Management Programme into sub-categories that are compliant with the CAA definition of capex categories. The smaller capex categories have similar replacement activities so that SMART Delivery Objectives can be developed.
- Arcadis recommends that the Crossrail Contribution is not treated as a programme (capex category) for the purpose of capex incentives as this is pre-agreed commitment as part of the Q6 settlement that HAL makes a contribution to the cost of Crossrail. The Crossrail contribution costs included in the H7 plan represent the deferral of the payment into the H7 period rather than a new investment decision therefore Arcadis recommends this is treated as a cost pass-through and not subject to ex ante incentives.
- Arcadis' view is that all remaining capital expenditure (excluding Crossrail contribution) is suitable for ex-ante capex incentives as HAL's ability to predict and manage the deliverability of the work contained within the programmes is high.
- HAL has longstanding construction and delivery experience in a complex operational environment and its approach to delivering programmes of work in an environment it knows well and understands allows HAL to manage and mitigate many of the potential risks and they have significant levels of control over the programme.
- Although the level of risk and controllability of HAL's Capital Programme may vary between individual programmes, overall, HAL has a reasonable level of control and can manage the risks of the capex portfolio that it has proposed in the RBP update.

Evaluation

- HAL has indicated in the updated RBP that it believes that only some of the capital expenditure is suitable for ex-ante capex incentives. Arcadis has considered this view but cannot support HAL's position. A review of the capex elements that HAL considers are not suitable for ex-ante have been assessed and it is our opinion that it is feasible to apply ex-ante capex incentives to the entire capex portfolio (with the exception of Crossrail contribution).
- HAL still maintains a high level of controllability and should be able to plan and reasonably control the two-runway capex plan that it has proposed for H7. Overall, we have not identified any significant differences in controllability and risk across HAL H7 capex portfolio. Any-differences that we have identified within HAL's individual capex programmes are not significantly different to warrant different incentive arrangements.
- HAL has neither developed Delivery Objectives or Delivery Obligations for the Capex Categories as set out in CAP 1940 / CAP2139 with little evidence of HAL reflecting of the approach proposed by CAA. HAL has indicated in the Updated RBP that it believes that there is sufficient measurement through the Outcomes Based Regulation (OBR) however it is our view that these are focused on delivering service and performance outside of delivering the Capital Programme and on an ongoing basis..
- HAL's 'Capital Programme Mandate one-pagers' (Appendix A) do have a high-level Objective however these are not SMART and cannot be used for the purpose of the capex incentive framework as set out in the CAA requirements.

Develop

Test

Validate

Capex Categories



Programme and Capex Category Review

HAL has not structured its RBP Update capex plan in terms of Capex Categories, as required in CAP1940, CAP1951 or CAP2139. HAL instead uses capex programmes to organise its capex plan.

Arcadis has reviewed HAL's proposed programmes in the RBP Update to determine whether they can be treated as Capex Categories in line with the CAA definition.

HAL has set out a programmatic framework for the H7 Capital Plan in chapter 5 of the RBP Update (slide 14). *Figure 14* in the chapter sets out the 7 Programmes HAL has proposed, aligned to the three portfolios. In Chapter 6.1 HAL has further sought to disaggregate this into 9 programmes (see slide 23) and has highlighted where they believe ex-ante treatment is and is not applicable for some certain categories.

HAL has provided two 'options' of its proposed capital plan titled Safety Only Plan and Optimal Plan (Slide 15). The Safety Only Plan includes only 6 of the 7 programmes whereas the Optimal Plan includes all 7 Programmes.

HAL uses inconsistent terminology between Programmes and Portfolios (sub-portfolios) as HAL has named its 7 Programmes as Sub-portfolios in RBP Update ± Optimal Plan - Level 2 detail. In addition, HAL uses the terminology 'investment' in the Asset Management Programme which we have interpreted as sub-programmes

Develop

Test

Validate

Updated Programme Chapter 5.3 in RBP Update.

7 Programmes

1

2

3

4

5

6

7

Figure 14: Programmatic Framework for the H7 capital plan

Portfolio	Objective	RBP Update #1	PROGRAMMES						
			Asset Management	T2 Baggage	Security	Commercial Revenue	Efficient Airport	Carbon & Sustainability	Future Ready Airport
Protect the Business	Asset Management & Compliance	£2,138m	Critical Safety, Security & Compliance Scope £1,500m	T2 Baggage £180m	Regulated Compliance £420m			Airspace Modernisation £38m	
	Protect Efficiency and Revenue	£360m				Protect existing Revenues £100m CrossRail £78m	Avoid material Opex Increases £100m iH7 Roll-Over £82m		
Win the Recovery	Efficient Airport	£734m			Security Transformation £130m Security Compliance £230m		Automation & Digitalisation £374m		
	Commercial Revenue Generation	£600m				Generate Incremental Revenues £600m			
Build Back Better	Carbon & Sustainability	£150m						Carbon & Sustainability £150m	
	Future Ready Airport	£185m	Potential to use some allocation for this activity	T2 Baggage Solution £35m			Potential to use some allocation for this activity		Build Resilience, Capacity & Service £150m
Total Portfolios		£4,167	£1,500m	£215m	£780m	£778m	£556m		£150m



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Source: Heathrow

Develop

Test

Validate

Alignment of Programmes in Safety Only vs Optimal Plan (Chapter 5.3) in RBP Update.

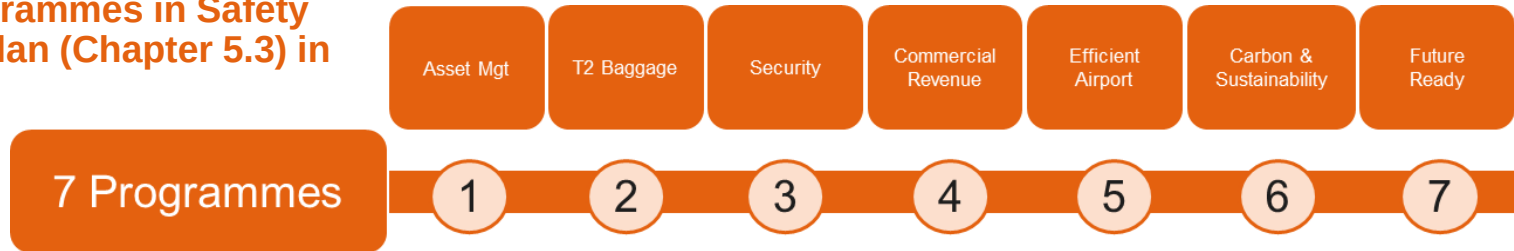


Table 5: Safety Only Plan portfolio

£ 2018 prices		2022	2023	2024	2025	2026	H7
Protect the Business	Asset Management & Compliance	235	309	314	317	325	1,500
	iH7 roll-over (KAD/TTS, T3/T4 ramp up)	63	19				82
	T2 Baggage (prolongation)	10	35	45	45	45	180
	Regulated Security	40	80	100	100	100	420
	Protect Efficiencies	10	25	25	20	20	100
	Protect Revenues	10	25	25	20	20	100
	Carbon - Airspace Modernisation	2	3	14	14	5	38
	Crossrail Contribution	39	39	0	0	0	78
Total Safety Only Plan		409	535	523	516	515	2,498

Source: Heathrow

We have used the HAL programmes on the previous slide to align the programmes with allocation of Capex.

The Safety Only Plan would take the number of HAL programmes down to 6 in number

Table 4: Updated Optimal Plan portfolio

£ 2018 prices		2022	2023	2024	2025	2026	H7
Protect the Business	Asset Management & Compliance	235	309	314	317	325	1,500
	iH7 roll-over (KAD/TTS, T3/T4 ramp up)	63	19				82
	T2 Baggage (prolongation)	10	35	45	45	45	180
	Regulated Security	40	80	100	100	100	420
	Protect Efficiencies	10	25	25	20	20	100
	Protect Revenues	10	25	25	20	20	100
	Carbon - Airspace Modernisation	2	3	14	14	5	38
	Crossrail Contribution	39	39	0	0	0	78
Subtotal Safety Only Plan		409	535	523	516	515	2,498
Win the Recovery	Security Compliance				100	130	230
	Security Transformation	10	30	75	10	5	130
	Commercial Revenues	10	70	160	170	190	600
	Efficient Airport	24	50	100	100	100	374
Build Back Better	T2 Baggage Solution				10	25	35
	Carbon, Sustainability				75	75	150
	Western Campus Connectivity & Efficiency				10	25	35
	Future Ready - Service, Resilience				50	65	115
Total Optimal Plan		453	685	858	1,041	1,130	4,167

Source: Heathrow

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Safety Only Plan

Asset Mgt

T2 Baggage

Security

Commercial
RevenueEfficient
AirportCarbon &
SustainabilityFuture
Ready

7 Programmes

1

2

3

4

5

6

7

Budget (2420)

1500

180

420

100

182

38

0

% of Budget

62

7.4

17.4

4.1

7.5

1.6

0

Optimal Plan

Asset Mgt

T2 Baggage

Security

Commercial
RevenueEfficient
AirportCarbon &
SustainabilityFuture
Ready

7 Programmes

1

2

3

4

5

6

7

Budget (4089)

1500

215

780

700

556

188

150

% of Budget

36.7

5.3

19.1

17.1

13.6

4.6

3.7

Develop

Test

Validate

Alignment of Capex Categories with HAL Terminology

Protect the
Business

Win the
Recovery

Build back
Better

PORTFOLIO

Asset
Replacement

T2 Baggage

Regulated
Security

Efficient
Airport

Commercial
Revenue

Carbon &
Sustainability

Future Ready
Airport

PROGRAMMES

PROJECT

PROJECT

PROJECT

PROJECT

PROJECT

PROJECT

PROJECT

PROJECTS

Programmes are the best alignment with Capex Categories although some could be combined or split based on the CAA definition

Capex Category Definition compliance

“To monitor capex delivery and set incentives at the appropriate level, we propose to split the capex programme into a manageable number of capex categories based on:

- **clearly defined outputs** being delivered; and
- *any significant differences in the degree of **risk** and **controllability**.*”

Source: CAA CAP 1940 (3.11)

Arcadis has assessed the HAL Programmes against the above definition set out in CAP 1940 and repeated in CAP 2139 and the table on slide 20 sets out our view on whether HAL's Programmes can be used as a capex categories as defined above.

In addition, Arcadis has considered additional criteria that HAL has included in chapter 6.1, Table 2 (Ex ante criteria) to determine whether these can act as additional factors to support our validation of whether capex programmes can meet the CAA definition above. The elements of regular and repeated, efficient contracting, planned & sequenced and programme complexity are all in essence detailed elements of controllability and we have used these to test our thinking and validate the two primary criteria of risk and controllability.