

# CIP.20.07.031

## HBS Standard 3 - Terminal 2

v2

### Project Summary

- **This proposal contains the early estimated costs and programme associated with upgrading the Standard 2 HBS equipment in Terminal 2 to Standard 3 HBS in line with EU Regulations.**

The primary driver for this upgrade is to ensure that HBS at Dublin Terminal 2 is compliant with the requirements of Commission Implementing Regulation 2015/1998.

The Regulation requires that the current Standard 2 Explosive Detection Systems (EDS), used as part of the Hold Baggage Screening (HBS) process in Terminal 2 at Dublin Airport be replaced with new compliant Standard 3 EDS equipment, in line with the requirements and timelines set out in this regulation.

This Regulation stipulates that Standard 2 EDS equipment is removed from service by 1 September 2020.

While the timeline for the project is being driven by regulatory requirements, the solution implemented will be such as to future proof (capacity, structures and systems) for up to 40mppa at Dublin Airport.

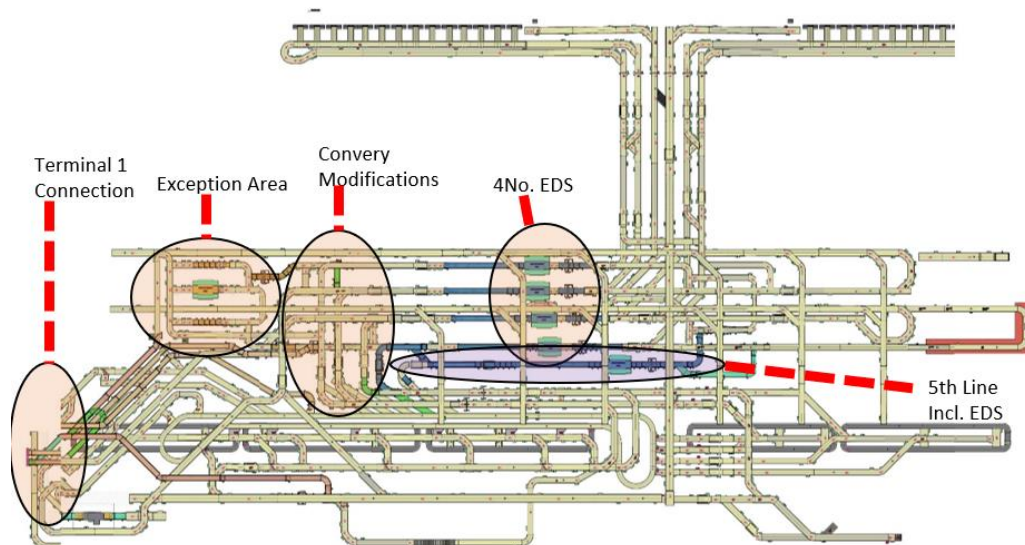


Exhibit 1 : High level representation of proposed design scheme for Terminal 2 HBS

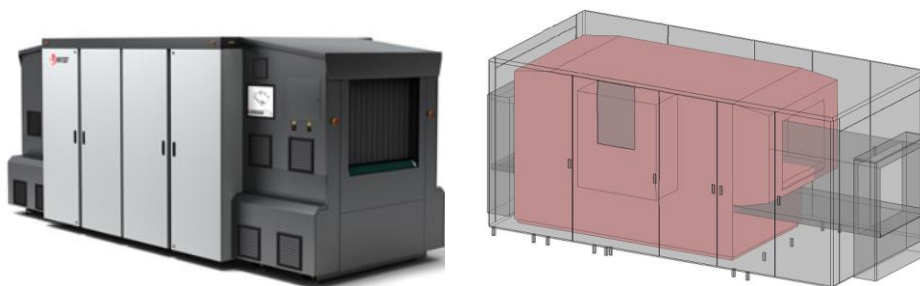


Exhibit 2 : Proposed Standard 3 EDS Screening Machines (and size comparison to existing Standard 2 EDS)

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The existing Terminal 2 HBS (Hold Baggage Screening) system was brought into operation in November 2010 deployed with a mix of Standard 2 and Standard 3 EDS (Explosive Detection Systems). These Standard 2 EDS are due to expire on 1 September 2020 currently (in line with Commission Implementing Regulation 2015/1998). In addition, the EDS screening machines currently deployed have an asset life of 10-12 years and will be reaching end of life in this period.

The project comprises the upgrade of the existing T2 baggage systems to deploy Standard 3 EDS systems in line with the current legislative requirements. The works will involve the replacement of existing EDS screening equipment and upgrades to the existing BHS systems to incorporate the new Standard 3 EDS solution. The baggage system in T2 was designed with a certain level of flexibility to facilitate the integration of new Standard 3 EDS equipment.

The scope of works in T2 is as follows;

- replacement of 6 Standard 2 EDS machines with 5 Standard 3 EDS machines.
- replacement of the Super Out of Gauge (SOOG) X-Ray screening machine.
- modifications to the entry and exit conveyors to ensure correct routing into machines and adequate tracking time after screening.
- modifications to the control system to accommodate the Standard 3 technology.
- re-design of the level-3 HBS area including modifications to the structural support and surrounding services.
- the installation of a fifth screening line to meet capacity demand on completion of installation. The current HBS system in T2 has 4 x level-1 screening machines (3 operational and 1 for resilience). At 35mppa, the passenger demand will require 5 x level-1 screening machines (4 operational and 1 for resilience). In addition, it is not possible to currently remove one level-1 HBS machine as 3 machines are required to manage the current passenger demand and the remaining resilience is essential to safeguard from any system failure. The fifth line is therefore also required to enable the project to be delivered.

The solution in Terminal 2 will require the phased installation to facilitate the new Standard 3 HBS screening technology and associated conveyor changes to be carried out while minimising any operational disruptions.

This project is currently under construction and the costs are based on tender returns. We are requesting that this project is specifically reviewed and considered under the proposed new **Independent Fund Surveyor (IFS)** process, due to the complexity of this project.

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Project Details Summary		
<b>Category: Plant and Equipment</b>		
<b>Primary Driver</b> Regulatory	<b>Secondary Driver</b> Capacity	<b>Total Capex requirement</b> € [REDACTED]m* <i>* Subject to Independent Fund Surveyor process for duration of delivery of project</i>
<b>Underpinning Assumptions and Cost Benchmarks</b>	<ul style="list-style-type: none"><li>• T2 HBS Standard 3 system upgrade is currently under construction and the costs are based on tender returns. There are significant risks associated with the project, similar to most HBS Standard 3 projects completed to date across the UK and Europe. Due to the complexity of the project, the associated risk and the programme challenges it is daa's view and request that this project be controlled under <b><u>an independent fund surveyor (IFS) process</u></b>, which would provide the assurance that capex is scoped efficiently and delivered at efficient cost.</li><li>• Majority of existing BHS system to be maintained in current operational layout.</li><li>• Existing HBS screening equipment to be replaced for inline Standard 3 EDS screening machines.</li><li>• Contingency is based on P80 QCRA assessment.</li></ul>	
<b>Opex Impacts</b>	<ul style="list-style-type: none"><li>• Annual opex impact of €0.2m per annum:<ul style="list-style-type: none"><li>• €0.1m based on tender prices for HBS machine 3<sup>rd</sup> party maintenance support given the higher specification of the new equipment.</li><li>• €0.1m based on tender prices for IT Costs, i.e. - SCADA (Supervisory Control and Data Acquisition) and PLC (Programmable Logic Controller). Standard 3 HBS equipment is more complex, requiring more sophisticated software and hardware support.</li></ul></li></ul>	

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<b>Project Output</b>	<ul style="list-style-type: none"><li>• Standard 3 compliant system in Terminal 2.</li><li>• Re-design of the existing Baggage Handling System to accommodate Standard 3 HBS</li><li>• Replacement of 6 Standard 2 EDS machines with 5 Standard 3 EDS machines.</li><li>• Replacement of the Super Out of Gauge (SOOG) X-Ray screening machine.</li><li>• Modifications to the entry and exit conveyors to ensure correct routing into machines and adequate tracking time after screening.</li><li>• Modifications to the control system to accommodate the Standard 3 technology.</li><li>• Re-design of the level 3 HBS area including modifications to the structural support and surrounding services.</li><li>• The installation of a fifth screening line to meet capacity demand on completion of installation.</li></ul>
<b>Asset Life</b>	<ul style="list-style-type: none"><li>• 15 Years (BHS) / 10 Years (HBS)</li></ul>
<b>Project Delivery Key Milestones</b>	
<b>Procurement complete:</b>	<b>Q3 2019</b>
<b>Start on site:</b>	<b>Q3 2019</b>
<b>Project Handover:</b>	<b>Q4 2020</b>

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## HBS Standard 3 – Terminal 2

LEVEL 1 - Cost Analysis	Represents	Total
Design and Management Costs	Redacted Cost Information	
Construction Costs		
Escalation & Contingency (QCRA P80)		
<b>Total</b>		

LEVEL 2 - Cost Analysis					
Design and Management Costs	Value	% Fee	Total Fee	Total	
Multi Discipline Consultant	1	Sum	Redacted Cost Information		
Capitalised Labour	1	Sum			
Minor Consultants – External	1	Sum			
<b>Total - to summary</b>					
Construction Costs	Quantity	Unit	Rate	Total	
EDS Equipment	6	Nr	Redacted Cost Information		
EDS Equipment (SOOG)	1	Nr			
Enabling Works	1	Sum			
Phasing / Transition / Screening	1	Sum			
T2 Baggage Costs	1	Sum			
T1 / T2 Connectivity	1	Sum			
External Support Teams	1	Sum			
Planning / Surveys – Site etc	1	Sum			
Interface Management	1	Sum			
<b>Total - to summary</b>					
Escalation & Contingency	Value	%		Total	Total
Project Contingency (P80)	1	Sum	Redacted Cost Information		
<b>Total to Summary</b>					