CVP Innovator Award

Winner: BRITISH AIRWAYS

Sponsored by: FREEMANTLEev
**Project overview**

- British Airways is undertaking a significant change programme on the ramp at Heathrow to improve its safety, punctuality and cost performance.
- By introducing a new piece of technology that is based on each stand, it has opened up the possibility to change our turnaround model and reduce the demarcation of roles.
- The Mototok is cheaper to purchase, maintain and operate than a conventional towbarless tug which has allowed us to purchase enough units to position 1 per stand in T5A (25 stands in total).
- Each Mototok is capable of pushing back an Airbus A321 aircraft at max take off weight and can typically operate 25 pushbacks between charging. Charge time is typically 3 hours.

**Once fully deployed the Mototoks will replace towbarless tugs on:**

- 170 SH Flights a day
- 62,050 Annual Flights / Current TBL 280 Movements
- Saving 1,241,000 minutes engine run time per annum, (based on 20 minutes engagement)

British Airways is the first operator and Heathrow is the first International Airport in the world to have multiple electric remote control pushback tugs in use to pushback commercial flights.
Environmental and Operational Benefits

Deploying the Mototok at Heathrow Terminal 5 delivers the following benefits:

• Supports HAL Vision of emission reductions and air quality targets
• Reduction in CO2 emissions of 7.4 million kg per annum
• Reduction in NOx emissions of 27.7 thousand kg per annum.
• Reduction in ultra-fine particulate emissions.
• Reduction in heavy vehicle movements and congestion (particularly western campus)
• Increased punctuality performance and airfield resilience - Aircraft tug related delays are the 3rd highest contributing factor to T5 short haul delays
• Improved H&S around aircraft side during turn through reduction in numbers of staff operating within hazardous zone
• Reduction in airline vehicle fleet operational costs

Opportunity

• Use of Mototok Tugs will inform future electric GSE roll out across the campus
Todays World – TBL 280 Heat Map

12 hour view of TBL280 movements Aug 2017
Tomorrows World – T5A Operation Dec 17
Punctuality Benefits – Mototoks on stand

Each Mototok will have a dedicated parking position on each stand with charging point. Charging will take place overnight between last flight and first flight.

Infrastructure is being rolled out in 2 phases starting on 21st August 2017 and will be completed by the end of 2017.
Mototok operation – An overview
ITV London News, Tues 26th Sept 17
Thank you