What are the real, applied, achievements of the Airports of the Future Project (AoTF) so far?

The AoTF demonstrates the power of collaboration to produce outstanding research. The extraordinary benefits that industry can tap into by supporting this research is far reaching and goes beyond original deliverables. We believe that the AoTF is visionary and is moving our partners, Queensland and Australia into the forefront of research around aviation. But don’t just take our word for it. Here are some of the real, applied, achievements of the project to date, and where we are headed in the final year of the project, 2013.

**Redesign of the security screening point at Brisbane Airport Corporation.**

Reduced average waiting times at security from 20 minutes to 3.9 minutes.

Increased passenger throughput from 260pax/hr to 340pax/hr: a 25% improvement for domestic operations and 15% improvement for international operations.

Increased capacity at screening points by 48%, i.e. operations through 5 screening points in peak periods, reduced from 7 points (2012 forecast) and 10 points (2015 forecast). This increased capacity translates to a 40% reduction in the need for new x-ray machines for the period 2010-2012.

Decreased security costs of almost 20% with no impact on security, as evidenced at Brisbane Airport.

**Airport space optimisation, through improved infrastructure design.**

Enhanced passenger experience and satisfaction by providing better facilitation measures and communication with passengers. Crowd counting, queue monitoring and abnormal event detection, passenger tracking and soft biometrics, and human activity recognition within the airport environments using footage from surveillance cameras.

Automatic monitoring of passenger traffic, service and usage, relative to dwell time metrics, throughput and congestion, to enable decision makers to visualise and simulate quantitative links between different airport areas.

Improved airport crisis and recovery planning preparation.

International Air Transport Association (IATA) endorsed business process management outcomes, and its pending recommendation of them as an Industry Best-Practice Guide to its partners (approximately 240 airlines).

Nomination for the B-Hert Awards in the category of Outstanding Achievement in collaboration in Research & Development, Higher Education & Training.
What next?
Outcomes for completion by December 2013 include:


Integration of outcomes into an ‘Airport Information Model’ to support visualisation, which will include a 3-dimensional Building Information Model.

Completion of the Performance Framework trial at Brisbane Airport, and commencement of a second trial at Darwin Airport.

Completion of an intuitive way-finding prototype to enable easy movement of passengers within the airports.

Testing and validation of video analytic prototypes for live trials.

Completion and deployment of the passenger facilitation process reference tool prototype, which will aid stakeholders to automatically adapt or configure a process to accommodate changes to airport environments.

These deliverables will be scalable and transferable to other complex socio-technical systems, providing potential to transform a range of other critical infrastructure.

Want more information?
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