According to current industry projections, the number of passengers travelling by air will increase dramatically over the next 20 years. If projections are correct, the rate of passenger growth will change from approximately linear to almost exponential.

In order to process this influx of passengers, it is clear that the size of terminal buildings will also have to increase. Based on current models of terminal design, this increase will need to be in proportion to the increase in passenger traffic. However, in many cities, lack of available land for this scale of expansion is a limiting factor.

In places where land is available, expansion if often limited by other factors. It is acknowledged that costs associated with creation, operation and staffing of such exponentially larger terminal buildings are not sustainable. There is a need to develop new paradigms for the design and creation of future passenger terminals.

In efforts to manage this growth culmination of cost pressures within aviation, and the unsustainable nature of existing approaches, the industry as a whole is at a point of rapid innovation. The necessity to develop new ways of thinking about and implementing management, design, operations and evaluation of terminal building and business in the future.

The key to advancing the state of the art in aviation lies in exploring the synergy that can result from the alignment of operations, security, management, control and passenger facilitation. This alignment is being facilitated by the collaborative efforts of partners and research teams for on QUT’s Airports of the Future Project.