Lose the excess wait

Once synonymous with interminable baggage delays, Leonardo da Vinci-Fiumicino Airport has experienced a miraculous turnaround thanks to a new automated baggage handling system. Fiumicino's general manager of infrastructure **Giorgio Gregori** talks to Ross Davies about how the new system has slashed carousel waiting times and upped passenger satisfaction.

Rome, August 2009. On a balmy summer's evening, mayor Gianni Alemanno is photographed leaning languidly against a pillar within the confines of his home city's airport, staring at an empty carousel. Having alighted from a short flight from Venice some two hours before, there is still no sign of his luggage. While his annoyance is evident, passengers familiar to Leonardo da Vinci-Fiumicino Airport aren't surprised. Seemingly, when it comes to baggage delays, the moniker Eternal City takes on an ill-famed new meaning.

Two years on from this episode – which hit the headlines in the following day's *Corriere della Sera* – Giorgio Gregori, general manager of infrastructure at Fiumicino, proudly expounds the intricacies of his airport's new baggage handling system (BHS), launched in July of last year. Over the intervening months, the baggage of approximately 30 million visitors has been processed and handled by the state-of-the-art BHS, with close to a 100% success rate. Previously, the airport had relied on a number of baggage handlers – long-suffering by all accounts – which Gregori freely admits was "not ideal".

"We didn't have a handling system," he says. "Instead, we had five different carousels deployed around the airport with the sorting being done manually by handlers. With so many travellers passing through each year, we knew we really needed a centralised system able to sort out baggage as quickly and as efficiently as possible."

Considering Fiumicino's former reputation for baggage roulette, Gregori's high spirits are understandable. Although primarily serving transit passengers, the new NET 6000 automated system supplied by Elsag Datamat is able to handle up to 6,000 bags per hour. Covering roughly 7,000m², it is strategically placed next to the airport's runways, resulting in a dramatic reduction in transport times and trolley traffic congestion at terminals.

"It starts with the handler bringing the bags from the incoming craft to the system," explains Gregori. "The system then provides a number of functions such as identification through RFId tags and X-ray security checks. Within three minutes, the bag is then delivered to the holding bay before being loaded onto the aircraft.

"This has also saved a lot of time and I think the improvement has been appreciated by our passengers. Also, compared to the standard sorting system, we have really cut back on energy consumption through the use of green technology."

International advancement

Fiumicino isn't the only airport implementing changes; the industry is currently in the midst of a domino effect. In March of this year, Amsterdam's Schiphol Airport introduced a new BHS, which handles 70 million bags per year – an increase of 40%.

Meanwhile, stateside, JFK recently announced plans for the installation of a new automated baggage handling system at Terminal 4. Set for completion in 2013, it will be able to handle 6,500 bags per hour.

These advances have been supported by the International Air Transport Association (IATA). In 2007, it launched its new Baggage Improvement Programme (BIP) in a bid to reduce the rate of mishandled baggage. Having cost airports billions of dollars over the years, it appears that there is a big industry push to learn from past mistakes.

Denver Airport's disastrous system is perhaps the most infamous example. Opened in 1995 to considerable billing, it was closed down ten years later after construction costs allegedly reached $1 million a day during numerous periods of modifications and repairs.

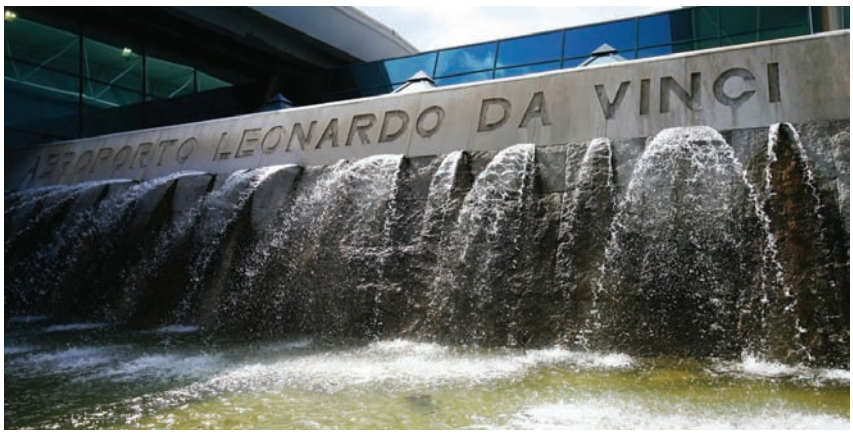
More recently, in 2008, Heathrow's Terminal 5 suffered a less-than-auspicious opening at the hands of a baggage system failure, leading to the cancellation of 34 flights on its first day and a phalanx of disgruntled passengers.

Considering the high demands made on transit baggage systems in order to allow flights to depart on schedule and ensure satisfied customers, where did it all go right for Fiumicino in averting the aforementioned pitfalls of installing a new BHS?

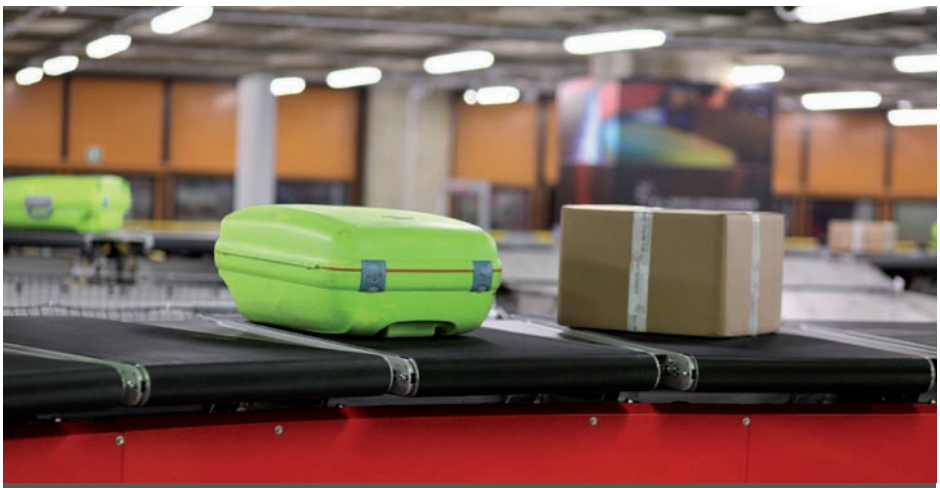
"The reason is quite simple; we didn't really need to make major changes to our infrastructure," he says. "We utilise a stand-alone system situated in a separate building originally used to sort mail bags. The turnaround time from decision to opening up traffic took less than four months – this is something of which we are particularly proud."

A synchronised system

Other facets of the system include its cross-belt handling technology, ensuring optimum handling for a wide spectrum of articles including objects that are fragile, have high friction surface or are irregular in shape. ››



Eternal wait: Leonardo da Vinci-Fiumicino Airport was once infamous for its underperforming BHS.



Despite the quick turnaround time in terms of installing and deploying the system, Gregori claims the art to a successful BHS relies on a collaborative approach during the design process.

"We worked very tightly together with Elsag Datamat," he says. "They worked side by side with our technicians on the designing and installation processes. We cooperated very well with each other in customising the product to meet our needs. After these initial stages, when we had decided on the optimum design for the installation, Elsag pretty much did everything by themselves."

Despite having only installed its system less than a year ago, Gregori is aware that Fiumicino will have to follow suit in further developments.

As one of the world's most popular tourist destinations, coupled with a number of budget airlines travelling there, Rome's principal airport is set to be deluged with an increasing number of tourists in the coming years, requiring a state-of-the-art BHS.

> "The new NET 6000 automated baggage handling system covers 7,000m^2 and is able to handle up to 6,000 bags per hour."

"As I said before, at the moment, our system is a stand-alone situation," he says. "Therefore, we have major plans within the next ten years to have an originating and transfer bag sorting system integrated with each other. This would mean that all arriving bags would be sent into a system that will automatically be able to sort and transfer outgoing baggage directly to the reclaim carousels."

While such advancements are set to sound the death knell for manual baggage handling at some of the world's biggest airports, the need for higher efficiency and passenger satisfaction is simply too great. Just ask Mayor Alemanno. ■