



## Enhanced Business Case for Gallery Robots: Transforming Airport Passenger Engagement and Monetization at Copenhagen Airport

### Introduction

Airports across Europe are increasingly focusing on elevating passenger experience, boosting non-aeronautical revenue, and utilizing digital innovation to enhance operational efficiency. Gallery robots at Copenhagen Airport present a unique, dual-purpose solution that meets these demands by engaging international travelers, offering branded interactive entertainment, and creating targeted revenue opportunities. This business case explores the strategic value Gallery robots bring to airports, supported by key engagement metrics, ROI figures, ASQ score enhancements, and versatile commercial features.

### The ASQ Advantage: Elevating Passenger Experience and Recognition

The ACI Airport Service Quality (ASQ) program is the world's leading measure of passenger satisfaction in airports, providing airports with recognition for service excellence. ASQ scores and awards are highly regarded in the industry, impacting an airport's reputation and competitive standing. Gallery robots contribute directly to enhancing passenger experience metrics that ASQ tracks, such as overall satisfaction, airport ambiance, and ease of navigation.

In busy gate areas where passengers wait, Gallery robots become focal points of interaction. Their 2-meter-high structure and dual 55" screens capture attention effortlessly, enhancing the atmosphere and keeping passengers entertained, which positively impacts ASQ scores by improving overall satisfaction and wait-time experience.

### The Engagement Opportunity: Maximizing Interaction in High-Traffic Zones

As demonstrated at Copenhagen Airport, where 90% of passing passengers noticed the robot, Gallery robots provide airports with a modern tool to deliver a memorable experience. The robots not only support ASQ objectives but also help differentiate the airport as an innovator in passenger engagement.

### Case Example:

At Copenhagen Airport, the robot interacted with 29 nationalities in a single day, achieving:

- **Average interactions per day:** 175 (with peak engagement of 202 games)
- **Average interaction duration:** 53 seconds per person
- **Low operational cost:** <€45 per day, resulting in a **cost per interaction of approximately €0.26**

These metrics highlight Gallery's ability to create high-frequency, meaningful interactions at a reasonable cost, making it an attractive option for airports focused on boosting passenger satisfaction and ASQ scores.



## Revenue Potential: Turning Engagement into Advertising Revenue

The Gallery robot goes beyond entertainment—it's a powerful advertising platform that allows airports to generate new revenue streams through dynamic and adaptable digital content. Each interactive session can be branded, with the option to include commercial logos, play pre- and post-game ads, or redirect users to a designated URL on their smartphones after the game.

### Commercial Features:

1. **Branding and Advertising Integration:** Display brand logos or messages **before, during, and after gameplay** to reinforce brand visibility, allowing advertisers to capture passenger attention throughout the entire interactive experience.
2. **Post-Game Engagement:** Redirect passengers to a website or app, ask survey questions, or offer a voucher for retail outlets within the airport. **Advertising content can be customized based on demographics, local geographic information, or even specific flight destinations**, creating a more targeted and relevant experience for each passenger.
3. **Customizable Interaction Options:** Adapt the robot's messaging and content based on passenger demographics or preferences to increase engagement. Airports can leverage these features to tailor interactions to the audience, maximizing both engagement and commercial impact.
4. **New Games and Entertainment Options:** Expand the experience by integrating other types of games and entertainment, such as **AI-based photo features** that allow passengers to take photos and interact with the robot in creative ways. This feature enhances passenger engagement, allowing them to capture memorable moments while offering brands new ways to connect with travelers.

These expanded commercial features offer airports and brands versatile options for engagement, allowing them to turn each passenger interaction into an opportunity for brand exposure, data gathering, and personalized interaction.



### **Passenger Experience Enhancement: Entertainment as a Service**

For airports, enhancing passenger satisfaction is crucial for maintaining customer loyalty and increasing repeat business. Gallery robots contribute to this by transforming waiting areas into zones of entertainment and engagement. The robots' interactive Ping Pong game, controlled via QR codes, is not just a novelty but a thoughtful way to pass time in the otherwise static gate area.

#### **Passenger Satisfaction Highlights:**

- **Interactive and Engaging:** QR code-based control allows passengers to participate instantly, with no app download required.
- **Personalized Engagement:** Passengers can control the robot's content, making the experience dynamic and memorable.
- **Flexible Interaction Times:** With an average interaction of 53 seconds, passengers engage without feeling interrupted, while still offering airports valuable data and engagement insights.

This positive passenger experience impacts ASQ scores, particularly in areas related to ambiance, overall satisfaction, and perception of service quality. By providing an enjoyable experience, Gallery robots support airports in achieving ASQ recognition for excellence in passenger service.

### **Operational Efficiency: Automating Passenger Interaction**

Gallery robots offer airports a way to deliver information, entertainment, and advertisements without placing additional burdens on staff. By automating passenger interactions, airports can enhance their service capabilities even during peak hours, without requiring additional human resources.

#### **Automation Benefits:**

- **Low Maintenance, High Visibility:** Gallery robots require minimal maintenance, allowing airport staff to focus on other critical tasks.
- **Scalability:** With a low cost per interaction and high engagement rate, airports can deploy multiple units without significantly increasing operational costs.
- **Localized Information Delivery:** As a mobile communication tool, the robot can deliver information specific to gate areas, flight destinations, or retail options nearby, providing passengers with real-time information and personalized service.

### **Return on Investment: Justifying the Cost of Gallery Robots**

The Gallery robot's daily operating cost of <€45 and impressive engagement metrics support a strong ROI case. By using each interaction to deliver targeted ads or brand messages, airports can potentially achieve breakeven quickly, with further revenue potential in high-traffic areas.



### ROI Calculation Examples:

- **Daily Cost per Interaction: €0.26**
- **Potential Daily Revenue from Advertising:** If each interaction includes a sponsored ad, and the airport charges €1 per ad view, the robot could generate **€175 in daily revenue**, resulting in approximately **€130 of net revenue** after operating costs.
- **Payback Period:** Assuming an initial investment, a robot could pay for itself within months, driven by ad revenue and cost savings from automated passenger interaction.

### Conclusion: Scalable Potential for European Airports and ASQ Excellence

The success of Gallery robots at Copenhagen Airport demonstrates their potential as scalable, revenue-generating tools for airports across Europe. With customizable advertising options, high passenger engagement rates, and manageable operating costs, Gallery robots are positioned as a compelling addition to airport digital strategies. By positively impacting passenger satisfaction metrics that contribute to ASQ scores, they represent a practical, high-ROI solution that enhances passenger satisfaction, supports operational efficiency, and opens new revenue streams.

### Jonathan Vincentz, Senior Business Developer at Copenhagen Airport, shares:

*“Autonomous Units and their Gallery robot have lifted the customer perception of our entertainment level at Copenhagen Airport. This is obtained with a tool that constantly draws smiles, features in vacation pictures for SoMe, and generates positive attention, regardless of content. A tool that can perform operational duties when our terminals are calm and commercial/entertainment duties when crowded, which can address all ages, genders, and types of personas in writing or speech, change content based on location or time, can work 18-hour shifts 7 days a week, that has no sick days, and does not require any construction or square meters. At Copenhagen Airport, we simply do not possess anything else with this wide range of adaptability and flexibility, and we are unable to match the cost per interaction, interaction time, and flexibility in delivery of content with any other tool.*

*After testing for 9 months in 6 different locations, Copenhagen Airport has entered into a strategic partnership with Autonomous Units, a company spearheading innovation in the European autonomous robot industry, to secure access to resources we do not possess in-house. Autonomous Units open new possibilities for us, not just with a tool, but with actual impact and solutions to improve KPIs, commercial performance, cost reduction, and service level improvements.”*

This powerful testimonial underscores the value and flexibility Gallery robots bring to European airports, showing their capacity to enhance KPIs, passenger experience, and operational efficiency.