



October 24-26

# **HackMTY 2025**

## ***Pick & Pack of the Future***

Smart Cities Track  
Sponsored by gategroup

**gate**group

**gategroup is a global food and hospitality company  
and the world's leading inflight caterer.**



**200+** units across six continents  
support daily airline operations

**Ca. 3.8M** flights prepared and  
delivered with onboard catering solutions



**Ca. 650M** passengers served on  
flights around the world every year

**300+** airlines and aviation partners  
rely on gategroup's catering expertise



**45,000+** employees working  
globally to deliver safe and reliable service



## What is Pick & Pack?

Airline catering has **two main assembly steps**:

- **Make & Pack (M&P)** → assembly of *fresh food trays* (meals served in economy, business, and first class).
- **Pick & Pack (P&P)** → assembly of *everything else* needed for the flight.

**Pick & Pack includes:**

- 🍷 **Beverages** → soft drinks, water, wine, spirits
- 🍷 **Snacks & packaged food** → sandwiches, sealed meals, prepackaged goods
- 🛍️ **Duty-free products** → perfumes, cosmetics, tobacco, alcohol
- ✈️ **Cabin equipment & service items** → cups, napkins, cutlery, galley tools
- 📄 **Documentation & menus** → crew manifests, customs forms, printed passenger menus

👉 All of these items must be packed into **trolleys, drawers, and boxes** according to the airline's specifications.

**Why it matters:**

- Each flight may require **hundreds of different SKUs**.
- The contents change depending on **route, airline, service class, and contracts**.
- If one item is missing, wrong, or expired → passengers and crew notice immediately.

👉 Because of this diversity and complexity, **Pick & Pack is one of the most critical and most challenging processes in airline catering**.



# The Big Challenge

## Reimagine Pick & Pack with technology

Today, Pick & Pack is:

- **Manual** → employees rely on visual checks, paper lists, and memory.
- **Complex** → every flight requires hundreds of different items.
- **Time-pressured** → everything must be ready before departure.
- **Error-prone** → missing or wrong items disrupt service on board.
- **Wasteful** → unused products and packaging increase cost and impact.

👉 Your mission: **make Pick & Pack smarter, faster, and more sustainable.**

Think about solutions that could:

- Boost **speed** of the process.
- Improve **accuracy** and reduce errors.
- Provide better **visibility** of what's happening in real time.
- Reduce **waste** and improve sustainability.
- Enhance the **experience of employees** doing the work.

⚡ One challenge. Many possible solutions.

*Your creativity can transform a core process used in 200+ catering units worldwide.*





# Where We Need Your Help (6 Dimensions, 2 Main Pillars)

## Smart Intelligence



### Expiration Date Management

**Today:** Many packaged items (sandwiches, snacks, powdered milk packages, etc.) still expire, but checks are manual. In some units, whole flights are stripped on cut dates and employees inspect every single product. This process is slow, labor-intensive, and prone to human error.

**Challenge:** How can we track and validate expiration **automatically**, so compliance is guaranteed without wasting hours of manual checking?



### Consumption Prediction

**Today:** Flights often return with more than 50% of items unused. There is no reliable way to track what passengers consume, so employees just refill drawers. Heavy unused items also add unnecessary load to the aircraft, increasing fuel burn and costs.

**Challenge:** How can we capture and **predict** consumption, so we only replenish what is needed, reduce waste, and avoid loading items that won't be used or consumed?



### Productivity Estimation

**Today:** The same customer trolley specification can take 3.5 minutes to complete in one unit and 7 minutes in another. This inconsistency makes it difficult to plan schedules or compare performance fairly across locations.

**Challenge:** How can we estimate a realistic expected build time for each trolley or drawer so units can **benchmark** productivity, and schedules can be planned consistently?

## Smart Execution



### Alcohol Bottle Handling

**Today:** Half-full bottles return from flights, and the rules for reuse, refilling, or discarding depend on each airline's contract. For example, some airlines allow partially full bottles to keep flying, others require discarding at certain levels, and some require combining half bottles into full ones. Employees currently make these decisions by judgment, which consumes time and leads to inconsistent results.

**Challenge:** How can we automate these decisions, so employees instantly know the correct action for each bottle, ensuring both efficiency and **compliance** with airline-specific rules?



### Real-Time Error Detection

**Today:** Errors such as missing or wrong items are often discovered late, sometimes after trolleys are sealed, causing delays and rework. Current checks are manual or require employees to stop and trigger validation. Mistakes can even reach the aircraft, leading to passenger impact.

**Challenge:** How can we continuously monitor drawers and detect mistakes in **real time**, guiding corrections without slowing employees down?



### Employee Efficiency

**Today:** Packing is repetitive, stressful, and varies in speed and accuracy depending on experience. New employees take longer to adapt, while motivation is low due to the repetitive nature of the work. This makes it harder to maintain consistent output across staff and shifts.

**Challenge:** How can we help employees work faster, more accurately, and with higher **engagement**?

# How You Can Approach the Challenge

You have full freedom to define your approach:

- Choose one **pillar** to focus on, either **Smart Intelligence** or **Smart Execution**.
- Within that pillar, address as many of its **three dimensions** as possible to build a complete, high-impact solution.
- Teams are encouraged to combine all dimensions within their chosen pillar for stronger results and a greater chance to stand out.

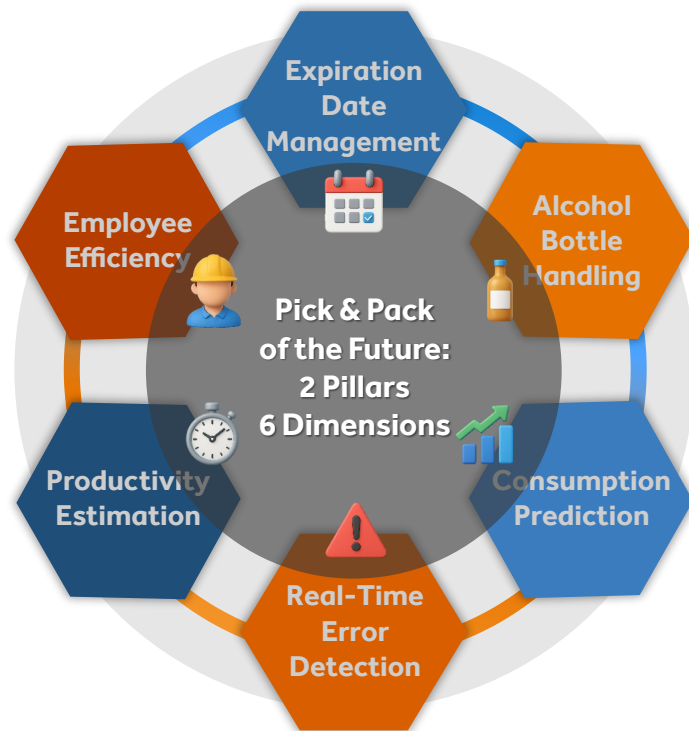
There is **no single right answer**. We value bold, practical, and creative ideas that deliver measurable results.

Possible approaches include:

- 🤖 **AI / Machine Learning** → prediction, automation, anomaly detection
- 📷 **Computer Vision / IoT Sensors** → expiry checks, error detection, bottle handling
- 🛠️ **Automation & Robotics** → smarter packing flows, guided workflows
- 📊 **Dashboards & Analytics** → tracking consumption, benchmarking productivity
- 🎮 **UX / Gamification / AR** → guiding and motivating employees in real time

What we value most:

- ⚡ **Speed** → faster workflows
- 🎯 **Accuracy** → fewer mistakes
- 🌍 **Sustainability** → less waste, smarter loading
- 👤 **Employee Experience** → safer, more engaging work



Each prize recognizes the best complete solution within a pillar.

## Prizes & Recognition

The most impactful solutions for **Pick & Pack of the Future** will be awarded - one per pillar.

Teams address all three dimensions within **Smart Intelligence** or **Smart Execution**.



### Smart Intelligence Award

Best data-driven solution using prediction, analytics, or automation to make Pick & Pack smarter and more efficient.



### Smart Execution Award

Best human-centered solution using technology to enhance execution, efficiency, and employee engagement.



*"Winning teams will be awarded and recognized for their contribution to shaping the future of Pick & Pack."*

## Why This Challenge Matters



### Better flights

→ gategroup prepares **3.8M+ flights** a year, serving **650M passengers**. Even small gains in accuracy or efficiency can improve the onboard experience worldwide.



### Sustainability impact

→ Smarter packing and prediction across **200+ units** can cut **waste, weight, and fuel use**, reducing environmental impact at scale.



### Empowered employees

→ With **45,000+ people** working daily in fast operations, digital tools that make work **safer, faster, and more engaging** can transform frontline performance.



### Global scalability

→ Serving **300+ airlines across six continents**, your idea could shape how airline catering runs globally.



**"Your ideas can help transform a global core process, from accuracy to sustainability to employee experience."**



# Thank you

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