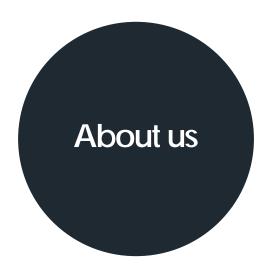


www.materna-ips.com



Materna IPS, the aviation brand of the Materna Group, has been a leading player in the aviation industry for over three decades as an international service provider for automated passenger handling to airlines, airports and ground handling companies. Our customers include companies like Lufthansa, easyJet, Emirates, Westjet and Eurowings as well as the following airports: Denver, Toronto Pearson, John Wayne, Montreal, Quebec, Victoria, Fort McMurray, Bangalore, Tokyo Haneda, London Gatwick, Oslo, Stockholm, Vienna, Athens, Budapest, Milano Malpensa, Bergamo and Hamburg. With over 150,000 daily bag drops and a leading number of installations, Materna IPS takes No. 1 position in self bag drop.

Our well-proven one-stop-shop portfolio consists of kiosk check-in, baggage drop-off and access solutions. We are a dynamic team with certified project managers and experienced software developers. We accompany our customers from the consulting stage and selecting the appropriate solution right through to delivering service management and on-site support. For a seamless travel experience, we integrate biometric identification as well as payment services into our solutions.

As a longstanding IATA member, we actively drive the market, contribute to the creation of new standards and are present at all the relevant hotspots for the industry.

A great way for your passengers to start a trip.

Our worldwide footprint

> 150,000 DAILY BAG DROPS

> 300,000 DAILY CHECK-INS

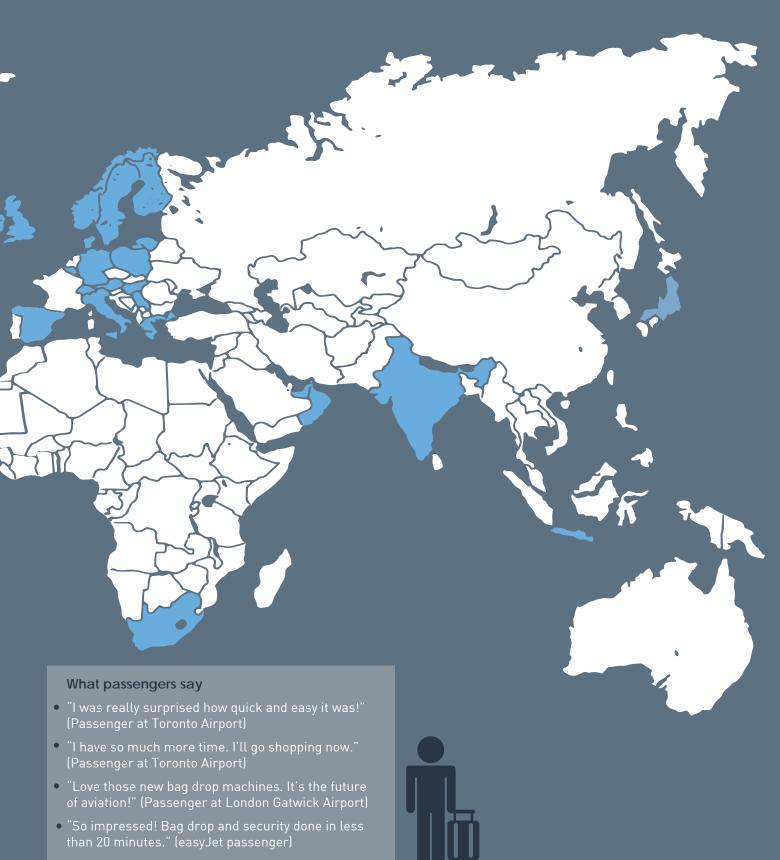
> 80
AIRPORTS

> **800**

What our customers say

- Swedavia: "The solution from Materna fulfilled our requirements, such as for ease of use, very well indeed. Materna also delivers great cost effectiveness." Lena Rökaas, Head of Operations
- Toronto Pearson International Airport: "We have had some amazing customer reactions. People are excited to take care of their own bags. And even if we are still in the initial phase of the project we already see the benefits." Richard Hayward, Manager Customer Service
- London Gatwick Airport: "We are extremely pleased to have Materna on board, as we work together so well." Gavin Jackson, Project Leader Check-In Transformation
- Hamburg Airport: "Many of our passengers have already discovered the benefits of the kiosks for themselves and given us very positive feedback. We have hardly encountered any technical anxiety on the part of our passengers. The system is straightforward and self-explanatory." Johannes Scharnberg, Director of Aviation
- Spirit Airlines: "The self bag drop helps a lot with social distancing and minimum interaction or need for the use of the full service counter, it should be even more efficient once Biometric starts." (May 2020) Julian Tiburcio, LGA-Station General Manager LaGuardia Airport







Materna IPS installation @ Stockholm/Arlanda



Check-in

Simple, easy to use and intuitive

Passenger check-in is one of our core competencies. We have been the market leader in this area for many years and offer kiosk check-in solutions, mobile and web check-in as well as counter solutions based on CUPPS and CUTE. Materna IPS check-in solutions allow passengers to do their kiosk check-ins in a pleasingly short time. With our flexible and robust kiosk systems we also offer our certified CUSS-platform and application which are fully compliant with IATA RP 1706c and allow easy airline integration. While integrating future technologies into our solutions, we offer biometrics and payment functions for an improved passenger experience.

- Lowest possible maintenance effort due to the large paper stocks for boarding cards and bag tags
- Space and cost savings due to multi-airline usage at the same kiosk (100% IATA CUSS standard compliance)
- Maximum convenience for passengers due to flexible payment and biometric integration in the check-in process directly at the kiosk
- Low failure risks due to the use of longlasting premium hardware components





Baggage drop-off

Drop your bag off in less than 30 seconds

With a baggage drop-off time of less than 30 seconds, our self bag drop solutions for airlines, airports and ground handlers allow passengers to enjoy a maximum of comfort and to gain lots of time. As a pioneer in self-service baggage drop-off we have continuously improved our systems and are the proud provider of the world's largest automated bag drop installation at London Gatwick Airport. Our systems are extremely flexible: they can even handle groups of passengers as well as providing built-in payment services for excess baggage.

Our self bag drop solutions are CUSS- and CUWS-compliant (IATA RP 1701f and RP 1741) and support multiple airline departure control systems (DCS). We support all options for one-

step and two-step baggage processing (kiosk, retrofit and off-airport).

- Individual solutions through multiple models for freestanding and retrofit self bag drops
- Space and cost savings due to multi-airline usage on the same kiosk (100% IATA CUSS and CUWS standard compliance)
- Hassle-free excess baggage handling because of the built-in payment function
- Waste-free and incredibly quick bag tag attachment processes due to compatibility with linerless bag tags





Access

Best mix of security and convenience

Our access solutions offer a reliable, fast and convenient access to airport security areas for passengers and staff. We provide certified single or multi-line gates for the following:

Pre-security

When passengers pass from landside to airside, our software checks their boarding passes and verifies the information by comparing it with the airport's database.

Lounge

Our solution allows secure access to specific areas, such as lounge access. Boarding pass validity and validity corresponding to flight times are also checked.

Self-boarding

Our self-boarding gates interact with the airline-

specific applications based on AEA criteria. So, no more adaptations to the airline applications are required.

- Full usage transparency via a dashboard with numerous reports and statistics
- Improved security by avoiding multiple access, tailgating and misuse - biometric functions available as an additional security feature
- More convenience for passengers due to mobile reception of additional information such as estimated walking times to the gates
- More flexibility through the creation of airside passenger lists

Intelligent Passenger Solutions











CUSS platform SBD application CUWS CUPPS





Pax.Go



Tag.Go B



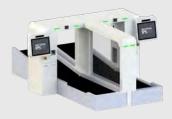
Drop.Go A



Drop.Go B



Drop.Go C



Flex.Go double unit



Flex.Go hybrid version



Common Use Payment integration



Biometric Suite ID check Biometrics on the move



Cloud operations Monitoring Reporting Field service



Materna IPS installation @ London Gatwick Airport



Payment Pay for extras on the spot

Let your passengers pay any additional charges directly at the point of request so they don't have to search the airport for a payment counter! Our payment services provide a payment system that can be used by airlines and airline applications operating on our devices, such as on check-in kiosks or self-service bag drop systems in Common Use or dedicated environments.

You can also make use of our handheld payment devices for passenger service agents. Our payment services provide a PCI DSS-compliant, simple to implement and manageable system that is based on strict but simple relations between customers, Materna and a payment service provider.

- Maximum passenger convenience as payment systems are integrated directly in the kiosks
- Multi-airline payments at kiosks due to CUSS payment standard implementation
- Best practice with chip-and-PIN-based credit card payment
- One-stop-shop due to full service offering (kiosk hardware and software, payment integration)



Materna IPS biometrics installation



Biometrics

Seamless travel with single token

In times of increased security measures, biometrics offer the perfect solution for maintaining strict security standards for airports and airlines and a safe and convenient travel experience for passengers. Materna IPS offers biometric identification for all their solutions.

One of the many cases where biometrics is used is in the US Customs and Border Protection (CBP) Entry/Exit program. With extremely high security standards, biometric technologies make it a lot easier for airports and airlines to follow the country's guidelines.

Materna IPS has been working actively with the CBP on their program and continue to advance biometric technologies for the future.

- Supports single biometric tokens
- Biometric scanner units can be installed at all biometric touchpoints (check-in, bag drop, access)
- Flexible use of biometric technology (iris scan, fingerprint, face or voice recognition)
- Experience with US Customs and Border Protection (CBP) Entry/Exit program





Software

Well proven Common Use Software Solutions

We deliver state of the art Common Use solutions covering passenger and agent facing systems, Common Use Web-Services and payments. Our CUSS platform and applications have already been proven in many self bag drop and check-in installations worldwide and have also been integrated in other vendors' hardware.

We offer certification for 3rd party applications that are to be operated on our platforms and provide appropriate training programs for CUSS and CUPPS to airports, airlines, ground-handlers and partners.

- Materna plays a significant role in defining the Common Use standards.
- Our solutions comply with the latest IATA standards.
- IPS biometric solutions are in line with the IATA One-Identity program.
- Using our services reduces costs through simplified development, installation, support and ongoing maintenance.



Easy management of self-service systems

We not only support our customers in consulting and purchasing self-service hard- and software. We also offer appropriate professional tools for managing applications, statistical data and the

configuration of systems. For that purpose we developed various tools helping customers with their daily operational work.

Ground Manager App Overview of all operating kiosks

Data Manager Real-time statistics from check-in and bag drop kiosks

CUSS Manager Kiosk- and SBD platform configuration and management

Application Manager Configuration and maintenance of server-based applications

Gate Manager Status monitoring and control for security access and boarding gates



Service

Solving issues before they become problems

You can only work proactively, instead of just reacting, if you always know the status of your applications, machines and connections. You can easily find out about your traffic numbers, upcoming maintenance requirements, failures, downtime or peak loads, on our intuitive dash-board-based control center.

Send your technicians to do predictive maintenance or repairs before issues become problems and before your passengers suffer from any delays or inconvenience. Or even better – completely outsource this to us. Our certified cloud-based data center can host and monitor your applications 24/7 and our service team can take care of all your equipment out in the field.

- Certified cloud-based data center for hosting and monitoring
- Intuitive dashboard-based control center for real-time surveillance
- Our own service and maintenance team

Some of our customers



- Air.Go Double Unit (SBD Trial)
- Materna IPS bag drop application, Servicing American Airlines self bag drop Proof of Concept



YOUR

LONDON

AIRPORT

Gatwick

- Second largest airport in the UK
- Self bag drop (CUSS platform and applications) for easyJet, Thomson Airways and British Airways



- Only commercial airport in Orange County, California (35 miles south of Los Angeles)
- Check-in kiosks and CUPPS workstations. self bag drop system tests
- CUSS platform, integrated payment with chip-and-PIN



- Drop.Go C units for self bag drop
- Materna IPS SBD application



- Austria's biggest airport and hub for Austrian Airlines, Eurowings
- · Check-in kiosks and retrofit self bag drop
- Administration, management, remote services



- Air.Go self bag drop units
- Materna IPS SBD application



 Self bag drop at New York LaGuardia Airport



- Main domestic hub for Norway and second busiest airport in the Nordic countries
- Retrofit self bag drop systems



• Retrofit self bag drop systems based on CUSS platform



- Largest Airport in Denmark and the Nordic countries
- Retrofit self bag drop systems



- CUPPS platform (Check-in & Gates)
- CUPPS workstations



- Busiest airport in Greece and main base for several regional airlines
- Retrofit self bag drop systems based on CUSS platform
- Pre-security gates



- Largest German airline and largest airline in Europe (fleet size)
- Web check-in, check-in kiosks, self bag drop, on-site airport maintenance, hosting, mobile encashment
- CUSS platform and check-in application



- Largest airline in the Middle East
- CUSS platform and check-in application



- Dubai national air transport association
- CUSS platform and check-in applications
- Application in use by more than 20 airlines



- German low-cost airline, subsidiary of the Lufthansa Group
- CUSS platform and check-in application
- Check-in kiosks
- Self bag drop



- Operates most of the civil airports in Norway
- Check-in kiosks
- CUSS platform



- Owns and operates the ten major airports in Sweden
- Check-in kiosks, self bag drop
- Based on CUSS and CUWS standards
- Boarding gates



- British low-cost carrier, second largest airline in Europe (no. of passengers)
- Check-in application and self bag drop systems
- CUSS platform and check-in application
- Integrated payment with chip-and-PIN



- Fifth-busiest commercial German airport (no. of passengers)
- ourg Airport Check-in kiosks, self bag drop, pre-security gates
 - · Based on CUSS standard



- double units Air.Go (SBD)
- Materna IPS CUSS platform and applications



- Largest and busiest airport in Canada
- Self bag drop based on CUSS standard



- CUPPS platform
- CUPPS workstations



- Operates nine of South Africa's airports
- Secure access points
- Central hosting, administration and management in Johannesburg



- Milan Airports
- Self bag drop systems based on CUSS platform



- Maintains and develops 28 Finnish airports
- CUPPS platform (UltraCUSE)
- 3rd level and remote support



- The 4th biggest airport in the world
- Materna IPS CUSS platform
- Flex.Go SBD units in T2 and T3



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