usher

noun: usher; plural noun: ushers
A person who shows/leads people to their seats, especially in a cinema or theatre or at a wedding.

verb: usher; 3rd person present: ushers; past tense: ushered; past participle: ushered; present participle: ushering
1. show or guide (someone) somewhere: "a waiter ushered me to a table"
2. cause or mark the start of something new: "the railways ushered in an era of cheap mass travel"

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The main question revolves around how we can achieve growth in a responsible and therefore sustainable way.

The Future of Aviation,
International Civil Aviation Organization
https://www.icao.int/Meetings/FutureOfAviation/Pages/default.aspx

AVIATIONS'S CHALLENGES

Demand exceeds capacity at an increasing number of airports: from 160 in 2012 to 195 in 2022.
Travel Weekly and IATA

Lack of expansion possibilities at congested airports requires new operating concepts.
Travelweekly

The shortage in air traffic controllers leads to increasing delays and cancellations (€ 800 million in Europe, 2022).
Cntraveler.com and eurocontrol

56 percent would switch airline for "more environmentally friendly options."
Travelpulse and McKinsey

12% of the world's airports experience staffing shortages.
Werk&Ik and Nezasa

Aircraft noise is the cause of adverse community reaction to airports.
Internation Civil Aviation Organization

Aviation is one of the fastest growing sources of greenhouse gas emissions (currently 3 percent).
Saur Energy International

As new airplane engines operate suboptimal on the ground, the impact of emissions needs to minimized in ground operations.
IATA

Balancing the need for growth and sustainability, there is a requirement for a future-proof operational concept for handling air traffic.
Onderzoeksraad.nl

With increasingly congested airfields featuring different types of aircraft and ground vehicles as well as staff shortages, the complexity of ground movements means it is:

1) the biggest risk of an incident
2) the bottleneck for airport capacity
3) unsustainable as an operational concept

INTRODUCING A-SMGCS

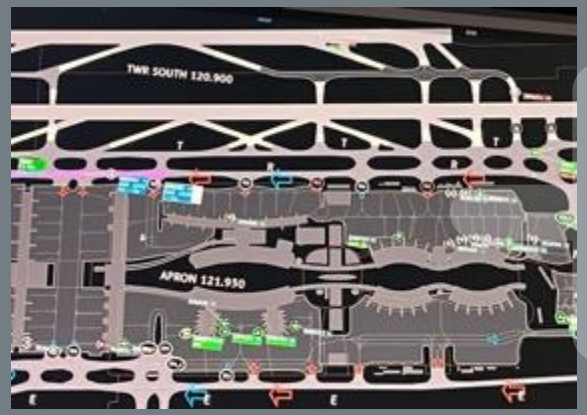
ADVANCED SURFACE MOVEMENT GUIDANCE and CONTROL SYSTEM

usherai

USHERING IN A NEW ERA

EFFICIENT AND PLANNABLE GROUND OPERATIONS

CENTRAL AUTOMATIC ROUTING OF GROUND MOVEMENTS



SUPERVISORY SYSTEM: USHER

Centralized routing optimizes airport efficiency as well as fluency of aircraft movements.

STANDARD AIRPORT PROCEDURE

FOLLOW-ME

The follow-me procedure is an existing procedure today, used when needed (or desired).

AUTOMATED VEHICLES FOR GUIDANCE

AUTOMATED VEHICLES

For automatic guidance of aircraft, dedicated vehicles ensure safety and monitor progress.

INTRODUCTION GROUND REGULATIONS CP1, BY 2030

IMPLEMENTATION A-SMGCS

An Advanced Surface Movement Guidance and Control System will be a requirement.

USHER IS LEADING THE WAY FOR EVERY GROUND MOVEMENT

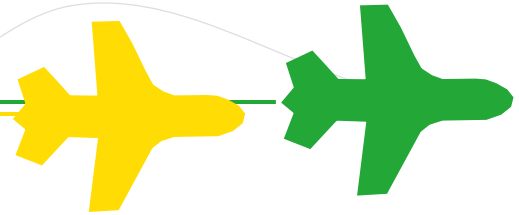
THE BUSINESS CASE

Usher AI delivers **savings worth up to $219 per flight,** ranging from $167 to $269 depending on the airport operations, configuration and location.

In addition, it also enables a capacity increase worth up to **$77 revenue per flight** for constrained airports.

FUEL SAVINGS	TIME SAVINGS	DELAYS SAVINGS	EMISSIONS SAVINGS	DAMAGES SAVINGS	CAPACITY INCREASE (up to)
$54	$78	$27	$10	$50	$77
PER FLIGHT	PER FLIGHT	PER FLIGHT	PER FLIGHT	PER FLIGHT	PER FLIGHT

FLIGHT PATH TO MARKET



1. Proof-of-Concept validation

The design, simulation, concept development and engineering validation for selected airports.

2. Prototype development

Realization of prototype vehicles and supervisory system based on the Proof-of-Concept learnings.

3. Testing: pilot projects

Extensive testing of the supervisory system and the prototype vehicles, including at least two pilot projects.

4. Productization for series production

Productization of the supervisory system and series production vehicles towards the first deployments.

5. Deployment: launching customers

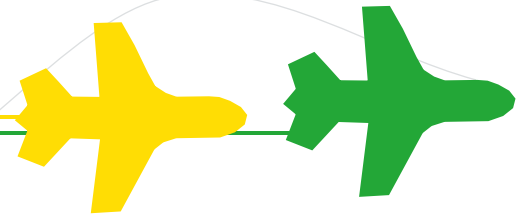
Focus on the successful delivery and reliable operations of the first commercial applications.

6. Continuous Development

Standardization to reduce delivery time and costs, with continuous updates and upgrades.

FLIGHT PATH TO MARKET

CHALLENGES TO MARKET



1. Operational:

Human – machine integration

2. Regulatory framework:

Eurocontrol specification Eurocae EASA AI Roadmap


FOLLOW ME