



EASA - ASEAN

Workshop on Health Issues in Air Transport Passenger Protection

Mads BONDERGAARD, COO, Airbus Asia Pacific
23 Sept 2020

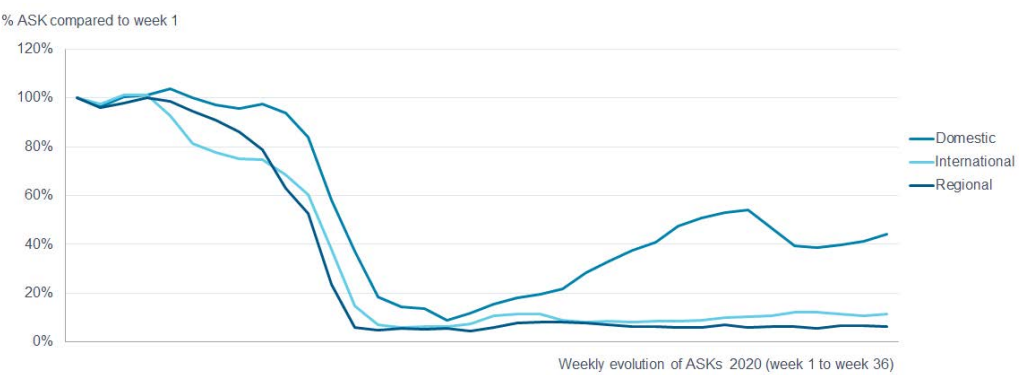
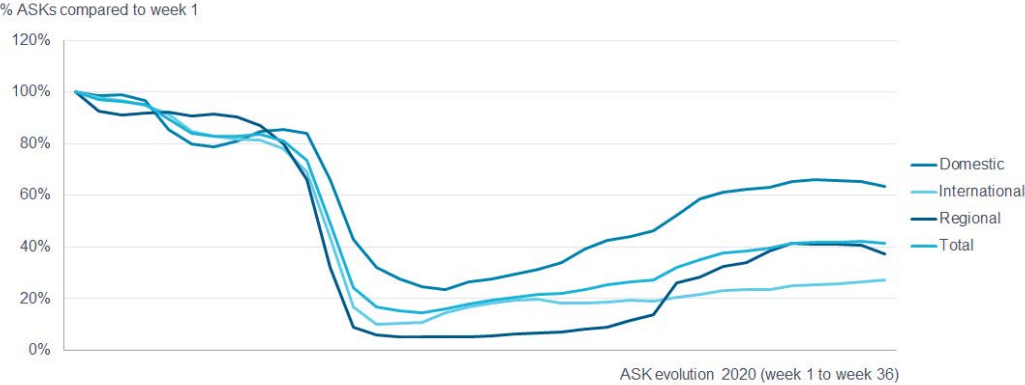
AIRBUS

Key points

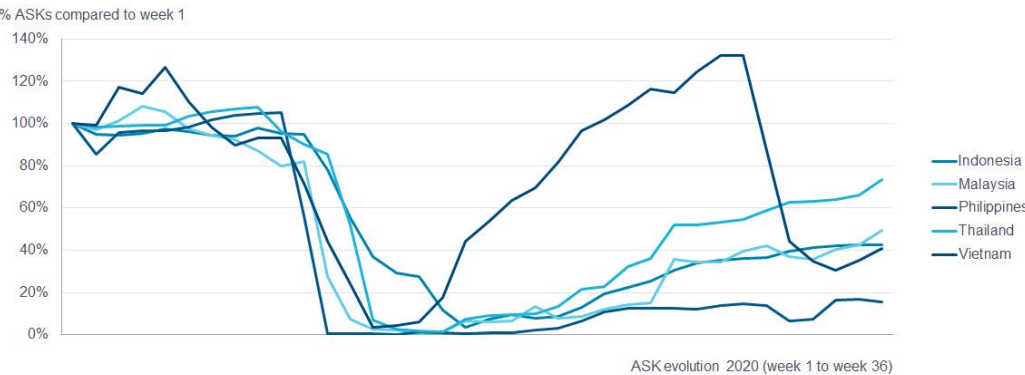
- 1 ASEAN decline in air travel
- 2 Safety of carriers
- 3 Passenger safety
- 4 Government support

ASKs evolution

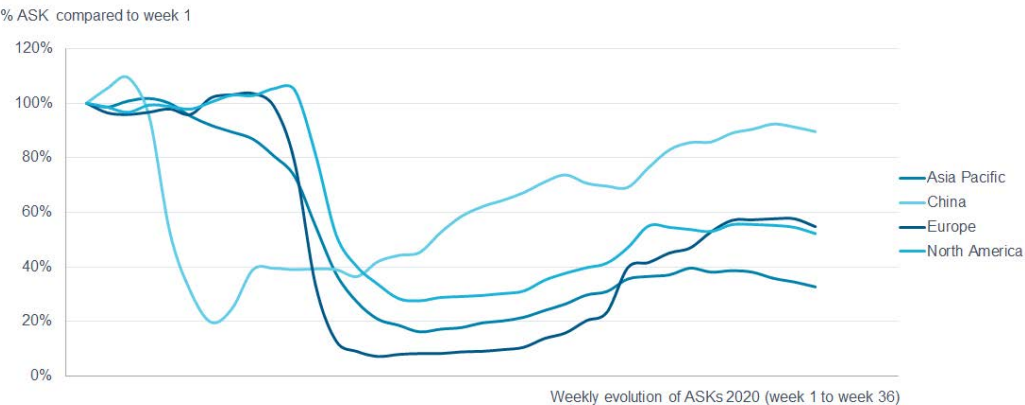
NOTE: ASKs compared: 1st Jan to 6th Sept 2020 / Source: Flightradar24



Global ASK evolution in 2020



ASEAN ASK evolution during 2020

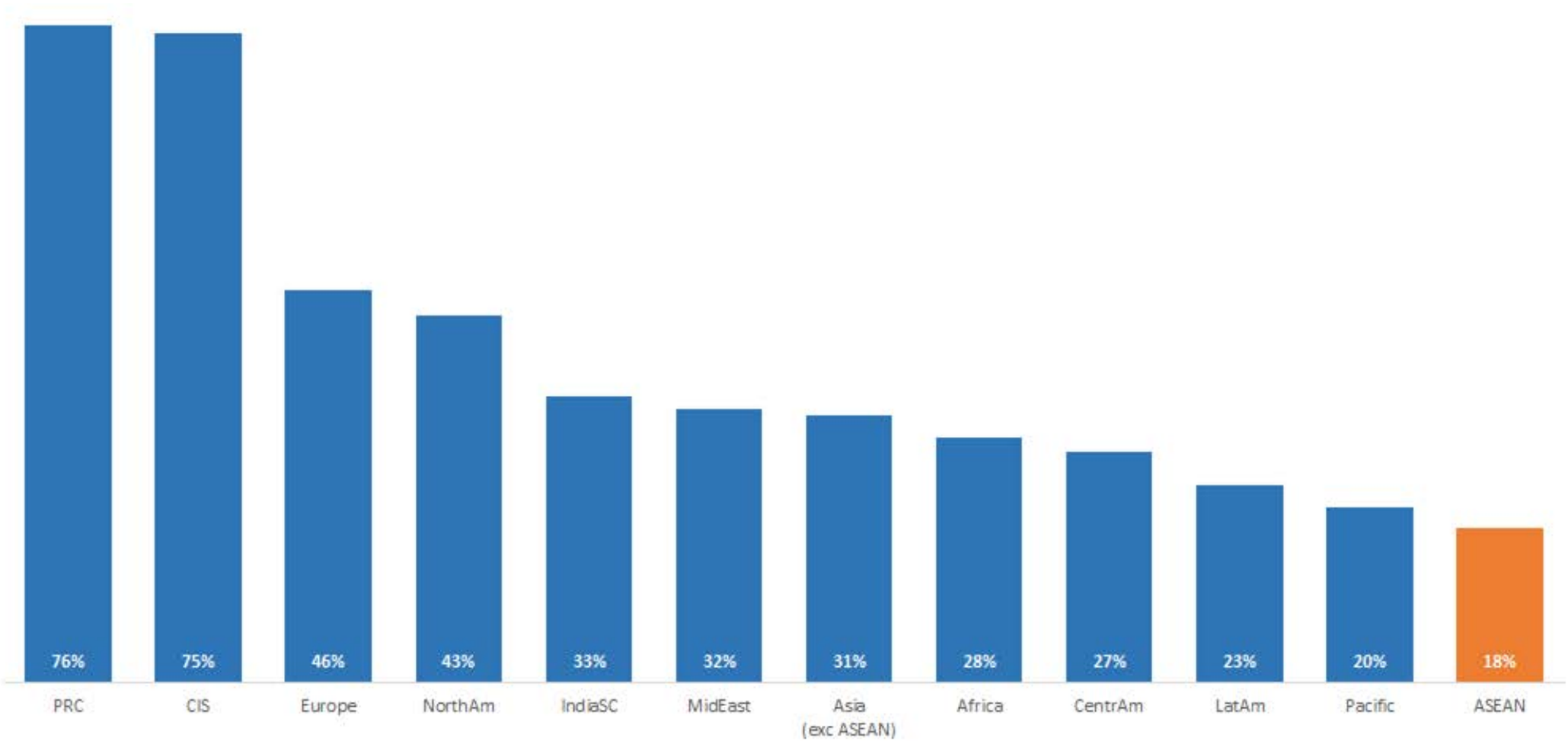


ASEAN largest domestic markets' evolution in 2020

ASEAN region "domestic" market evolution compared to other large domestic markets

Regional comparison

NOTE: ASKs compared to 1st Jan 2020 / Source: Flightradar24



Total ASKs (6th Sept vs 1st Jan 2020)

Key issues and opportunities

- “***Return to Flight Operations***” - implementation of ICAO & EASA recommendations
- Common ASEAN ***sanitary protocol***
- ***Consistency*** of recommendations to carriers
- Pilot’s Proficiency Check
- ***Crews*** travelling for SIM training & aircraft deliveries
- “Never let a good crisis go to waste”: Recovery of ASEAN ***open skies*** policies
- ***Opening*** of safe intra-ASEAN routes

Thank you

Stay safe!

A photograph of four Airbus A320neo aircraft lined up on a runway. The aircraft are white with blue accents on the tail and engines. They are parked on a paved surface with yellow and blue ground markings. In the background, there are some buildings and a clear sky.

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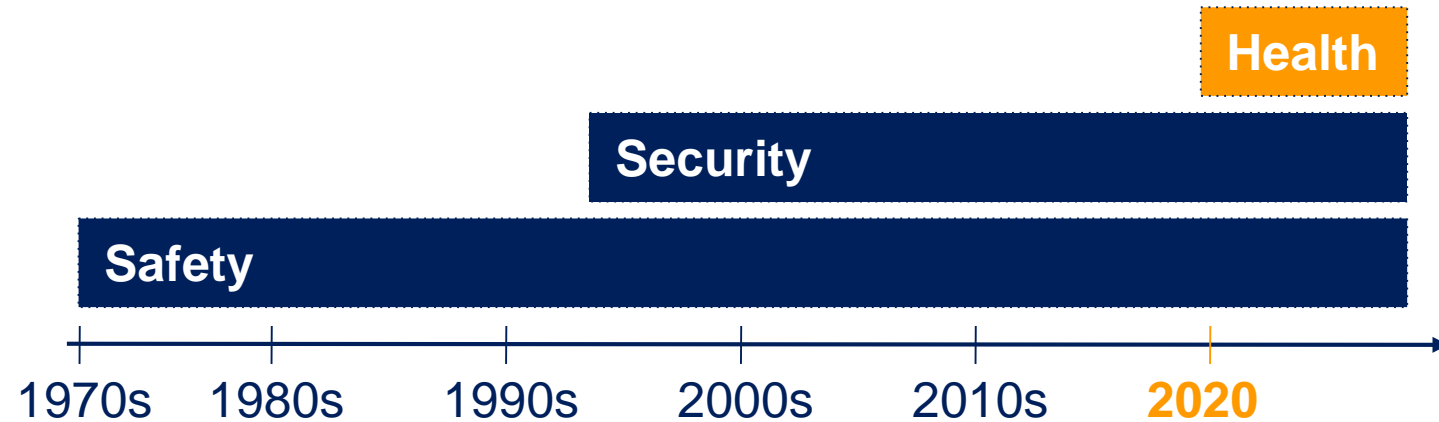
Charbel YOUZKATLI, Support Director – Keep Trust in Air Travel Initiative
23rd September 2020

AIRBUS

Keep Trust in Air Travel

Airbus, alongside our aviation and regulatory partners, is examining all aspects of the end-to-end travel experience to ensure it remains healthy and safe.

- Achieve a collective response to maintaining passenger trust.
- Enable a safe and quick return to airline operations.
- Bring together airlines, airports, aircraft manufacturers, and regulators to drive end-to-end solutions to enable the return of mass air travel.





Clean Interior



Clean Air



Clean Touch

Aircraft Clean Space

Clean Air

Air renewed every 2-3 min
HEPA filters capture viruses
Top-down airflow patterns

Clean Interior

Disinfection methods
Antimicrobial surfaces

Clean Touch

Touchless functionality
Hand sanitizers

Conditioned, filtered, fresh air for a safe and healthy flight

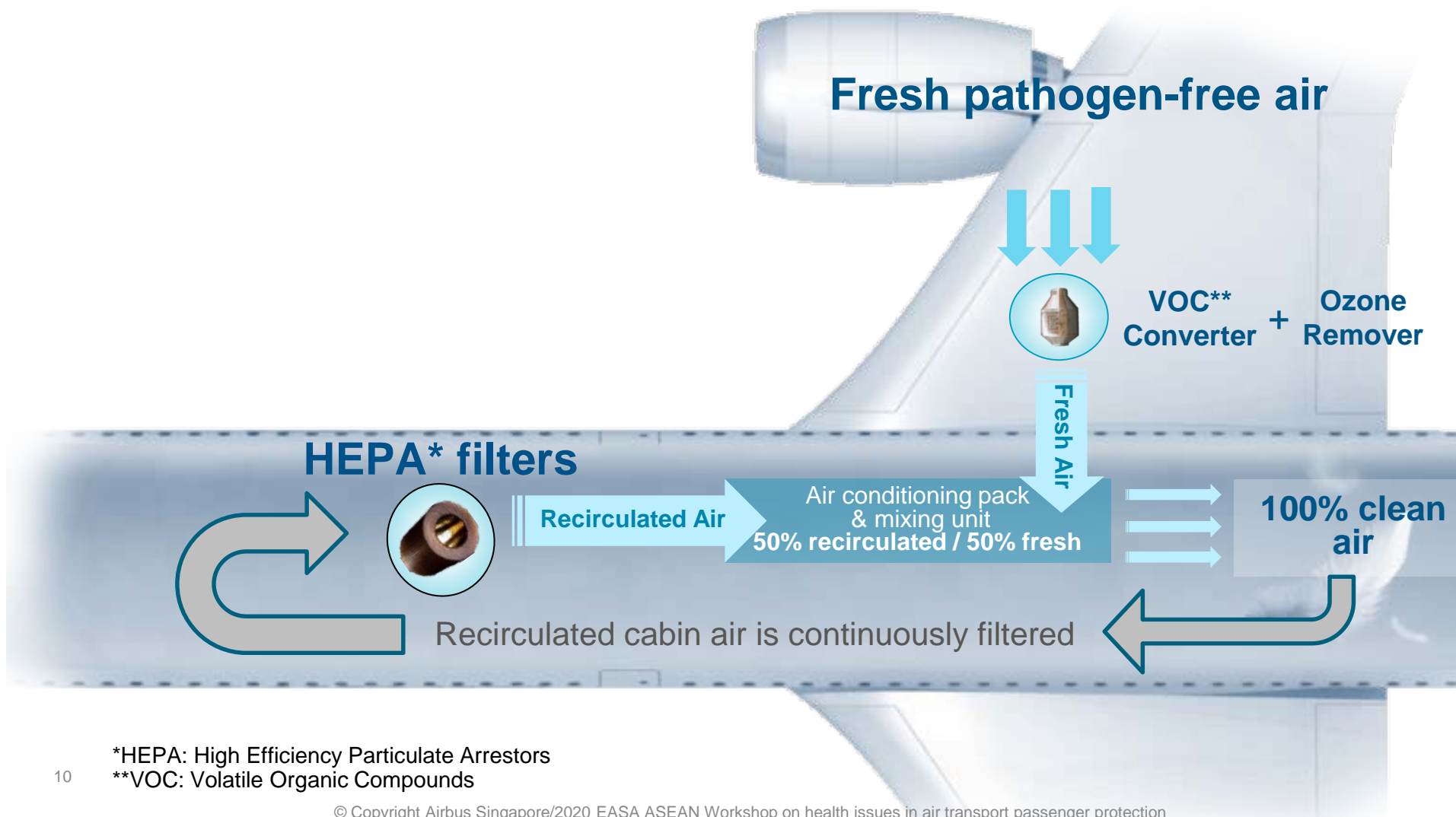


Advanced filtration

The air is fully renewed every 2-3 min

HEPA filters remove more than 99.9% of particles, virus and bacteria

Hospital-grade air filtration



*HEPA: High Efficiency Particulate Arrestors

**VOC: Volatile Organic Compounds



Clean Air

HEPA Filtration: hospital-grade efficiency

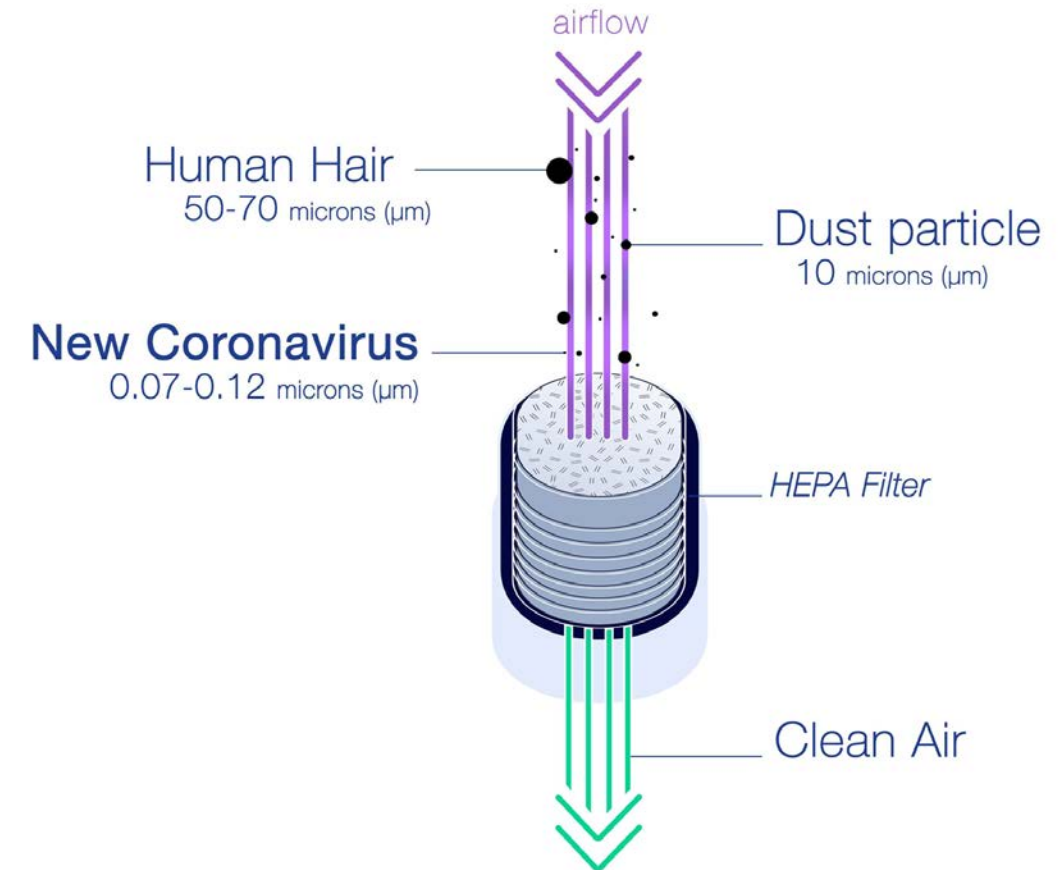
HEPA filters capture **more than 99.9%** of particles, including viruses and bacteria

HEPA filters use different filtration methods addressing different particle sizes

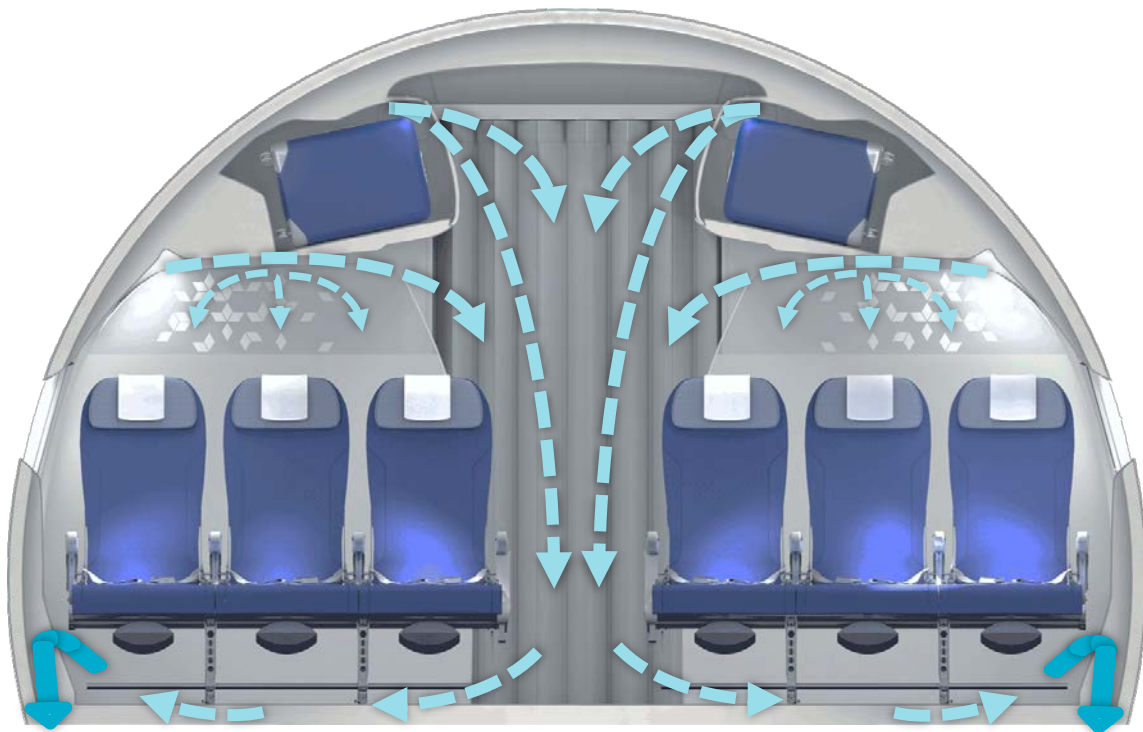
Small particles like **Coronavirus** are **captured** in the HEPA filter

Similar filters are used in hospitals

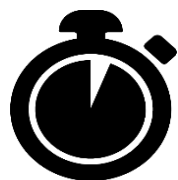
All Airbus aircraft manufactured since 1994 are fitted with HEPA filters



The cabin air supply is virus-free

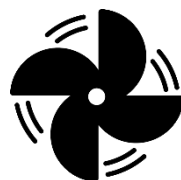


Optimised **top-to-bottom airflow** patterns
Avoiding spread of virus/bacteria



Cabin air
continuously renewed
every 2-3 minutes

(hospitals≈10min, offices≈20min)



Well-positioned air inlets &
 outlets: **efficient** cabin air
distribution



**Fresh &
 clean air by
 design**

The **air** is fully
renewed every
2-3 min

Flow patterns limit
 air mixing along the
 cabin

Lavatory and galley
 air is directly
 exhausted outside

Touchless features on A320 FAMILY



Cabin Options:

Touchless features

Hand sanitizers

Antimicrobial surfaces



Clean Interior

Disinfection Methods

“Apply & wipe-off” method

- Already applicable
- Described in the aircraft maintenance documentation
- Products compliant with SAE AMS 1452 & 1453



Alternative methods being investigated:



FOGGING
SPRAYING



THERMAL



UVC



HYDROGEN
PEROXYDE



OZONE



IONIZATION

AMS: Aerospace Material Specification
SAE: SAE International - formerly Society of Automotive Engineers



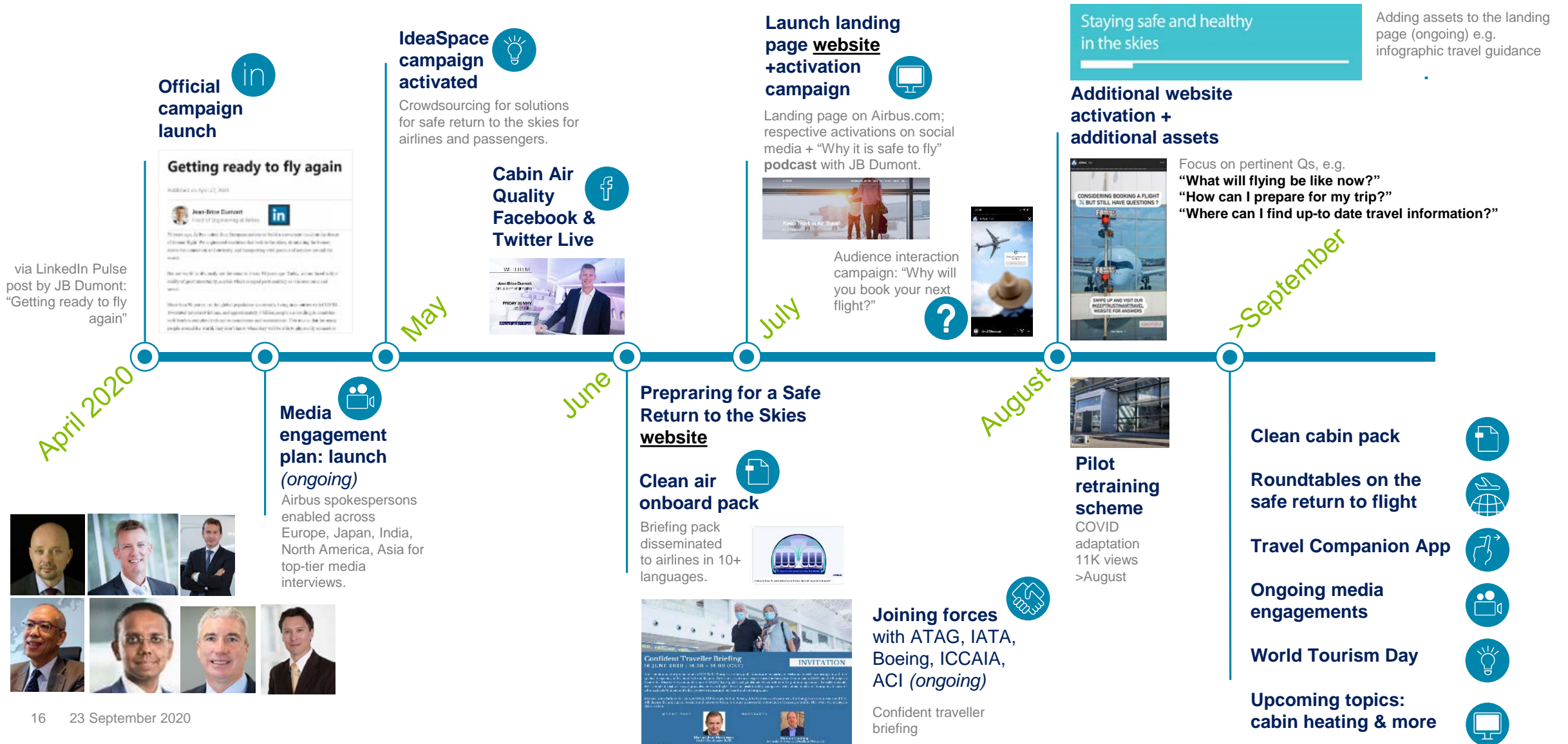
Airbus Cabin Droplets Study

Objective:

Understand particle propagation in an Airbus aircraft cabin resulting from a simulated passenger droplet emission event (coughing, sneezing, breathing, talking).

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Educate and build trust with facts



- **Layered approach** across the passenger end-to-end journey
- Aircraft cabin environment is **safe**: HEPA filtered Air and Hygienic surfaces
- Air transport limits the risks of SARS-CoV-2 transmission as much as possible
- Airbus is committed to driving solutions for a safe and healthy journey so that passengers can continue trusting air travel, from the moment they consider boarding an aircraft to the minute they leave the airport
- **Collaboration** across the Aviation industry is the key for recovery; **Regulators'** and health authorities' role is more important than ever
- **Flying is as safe**, if not safer, than other regular daily activities

[#KeepTrustInAirTravel](#)

Thank you