Health Onboard

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Airbus initiative for a long-term sustainable capability to face potential future pandemic

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Why a Health Risk Assessment Model?

- Air transport related health risks can be addressed in a similar way as aircraft safety.
- Risk can be reduced by layering and overlapping several preventive & protective measures.
- Supporting government stakeholders and regulatory bodies.

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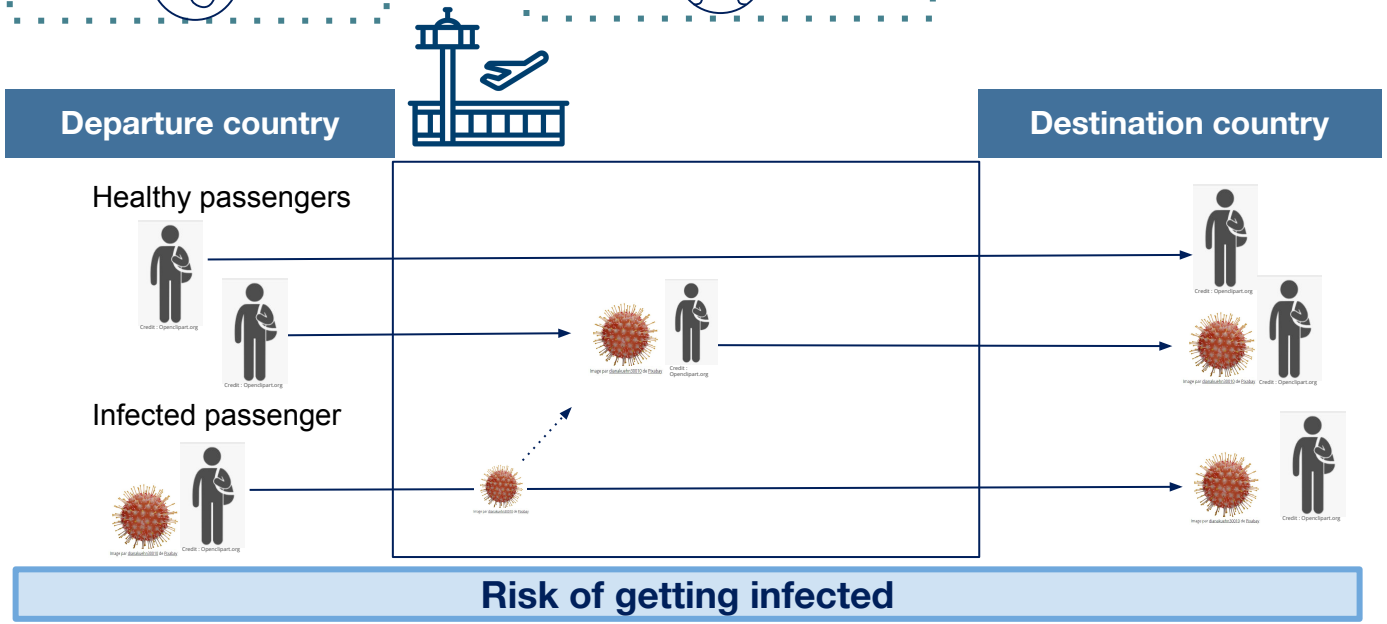
What are the risks of infection?

touching a contaminated surface

OR

inhaling virus droplets emitted by (an)other person(s)



Threat:
Passengers may be infectious *before travel*

Some passengers might infect other passengers *during travel*

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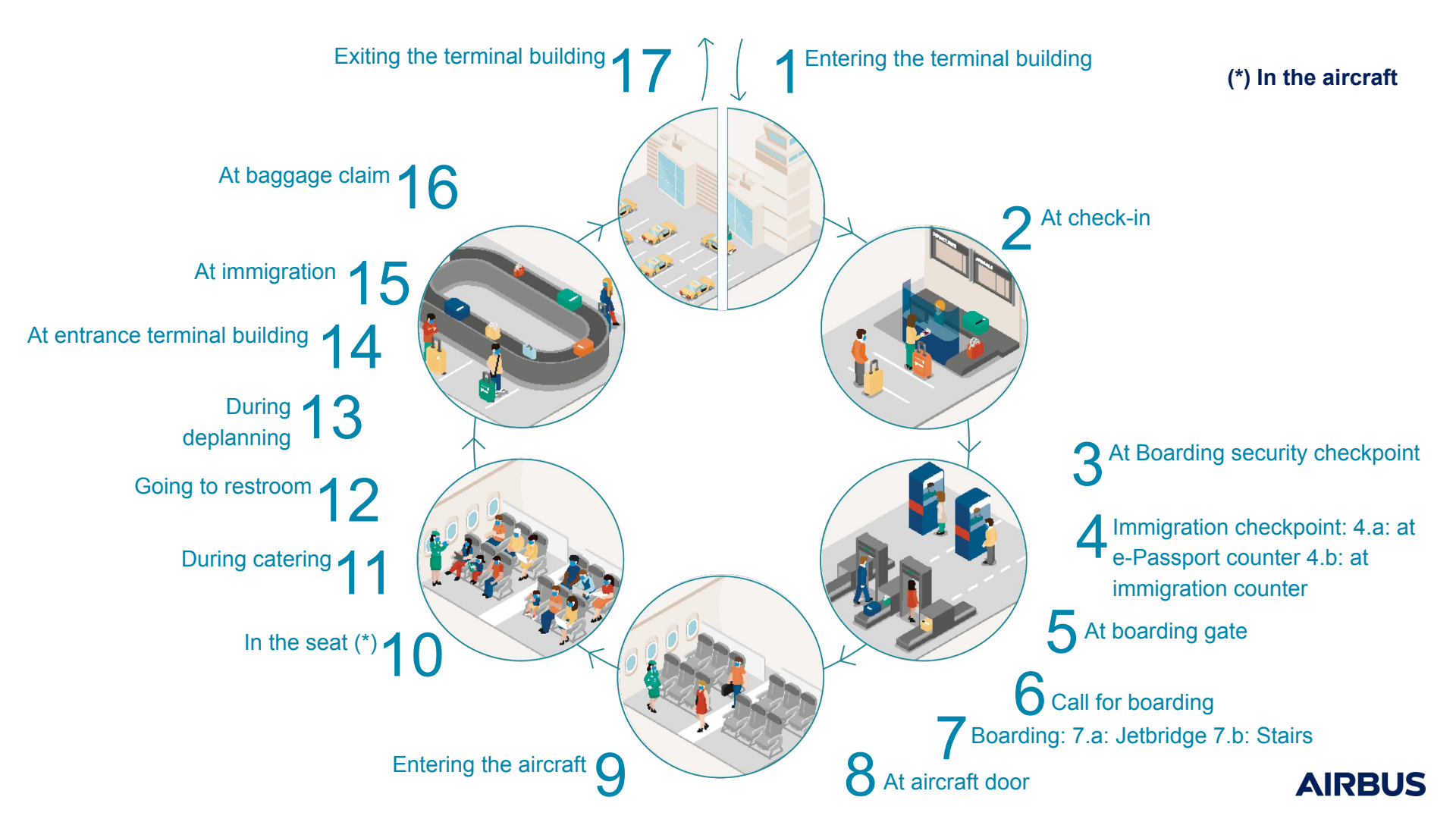
Exiting the terminal building 17
1 Entering the terminal building
(*) In the aircraft
At baggage claim 16
2 At check-in
At immigration 15
At entrance terminal building 14
During deplanning 13
3 At Boarding security checkpoint
Going to restroom 12
4 Immigration checkpoint: 4.a: at e-Passport counter 4.b: at immigration counter
During catering 11
5 At boarding gate
In the seat (*) 10
6 Call for boarding
7 Boarding: 7.a: Jetbridge 7.b: Stairs
Entering the aircraft 9
8 At aircraft door
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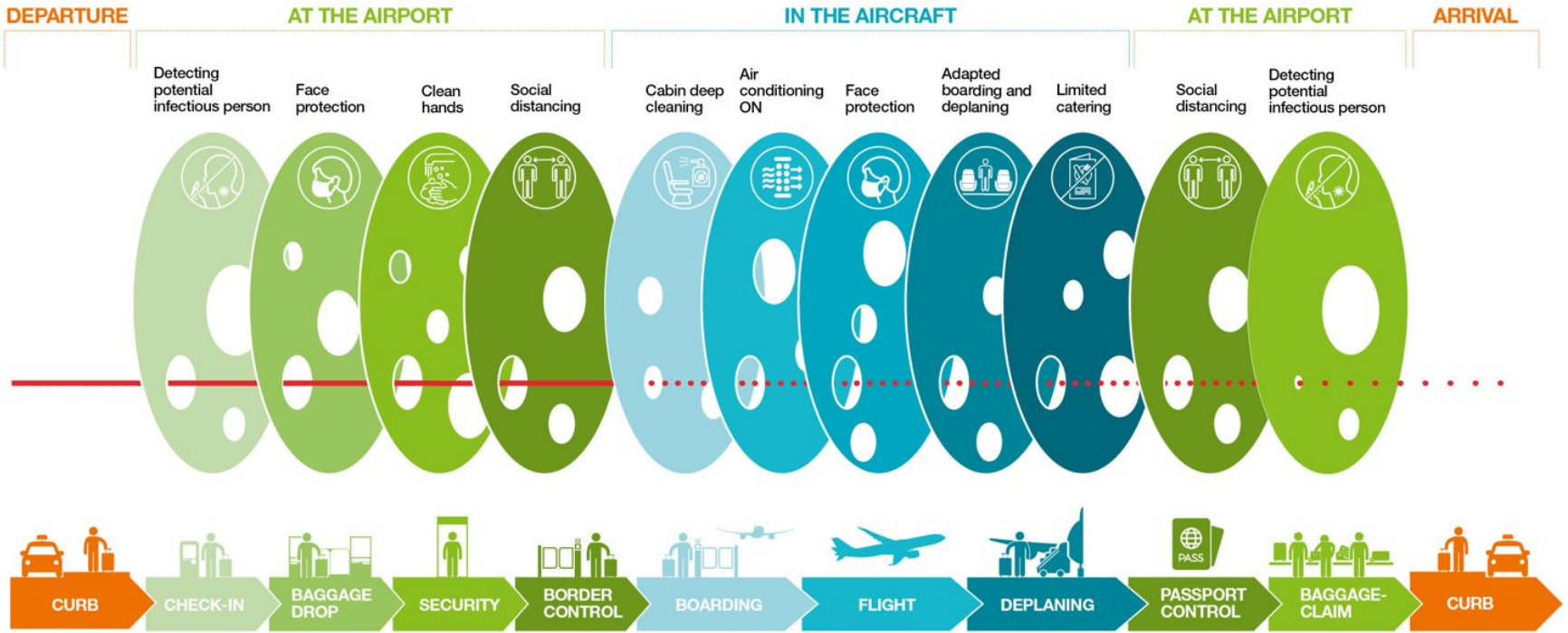
Air travel: A layered approach of preventative measures



Source: Mackay, Ian M. (2020) The Swiss Cheese Respiratory Virus Defence. figshare. Figure. https://doi.org/10.6084/m9.figshare.13082618.v22

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Single Scenario | Exploration | Advanced

Flight Time (h): 1 2 3 4 5 6 7 8 9 10 11 12

Check-in: online | kiosk | counter

Immigration/Passport control: none | kiosk | counter

Total Time in Terminal (h): 1 2 3 4 5

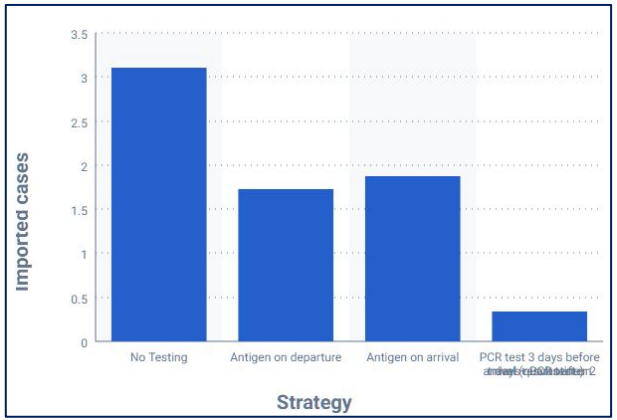
Catering: Yes

Test Strategy: No Testing

Number of pax	200	# of pax in boarding group	24	Seats at gate	100	% Seats blocked at gate	50	# of flights using same gate	10	Fomites factor	1	Air Cond Efficiency Factor	5
% Mask efficiency	80	Time eating (catering)	20	Number of flights since A/C cleaning	0	% of pax eating at the same time	100						
All pax vaccinated		% avg eff at preventing infection	62	% avg eff at preventing disease	75								
Manual Covid inputs		14 day cases	500	Lethality Rate %	0.7	Population (M)	1.5						

Example

Departure Region	Destination Country (reference)	% Air Traffic compared to 2019	% Vaccinated Departure	14 day Incidence Destination	Transmission Rate Destination
Europe	France	100	66	485	1.62



- [x] No Testing
- [ ] PCR test 3 days before travel
- [x] Antigen on departure
- [x] Antigen on arrival
- [ ] PCR test on arrival (results after 2 days quarantine)
- [ ] Quarantine 3 days after travel + Antigen test
- [ ] Quarantine 3 days after travel + PCR test (results after 2 more days quarantine)
- [ ] Quarantine 5 days after travel + PCR test (results after 2 more days quarantine)
- [ ] Quarantine 7 days after travel + PCR test (results after 2 more days quarantine)
- [ ] PCR test 3 days before travel + Antigen on arrival
- [x] PCR test 3 days before travel + PCR test on arrival (results after 2 days quarantine)
- [ ] Antigen on departure + Antigen on arrival
- [ ] Antigen on departure + PCR test on arrival (results after 2 days quarantine)
- [ ] PCR test on arrival + Quarantine 5 days + PCR test (results after 2 more days quarantine)
- [ ] PCR test 3 days before travel + Quarantine 3 days after travel + PCR test (results after 2 more days quarantine)
- [ ] PCR test 3 days before travel + Quarantine 7 days after travel + PCR test (results after 2 more days quarantine)
- [ ] Quarantine 14 days after travel

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Key takeaways

1. Travelling by air remains very safe
2. Risk can be mitigated to an acceptable level by choosing the right screening strategy
3. Aviation today is capable of restricting virus translocation in collaboration with all aviation stakeholders

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Thank you

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