



# BelugaXL

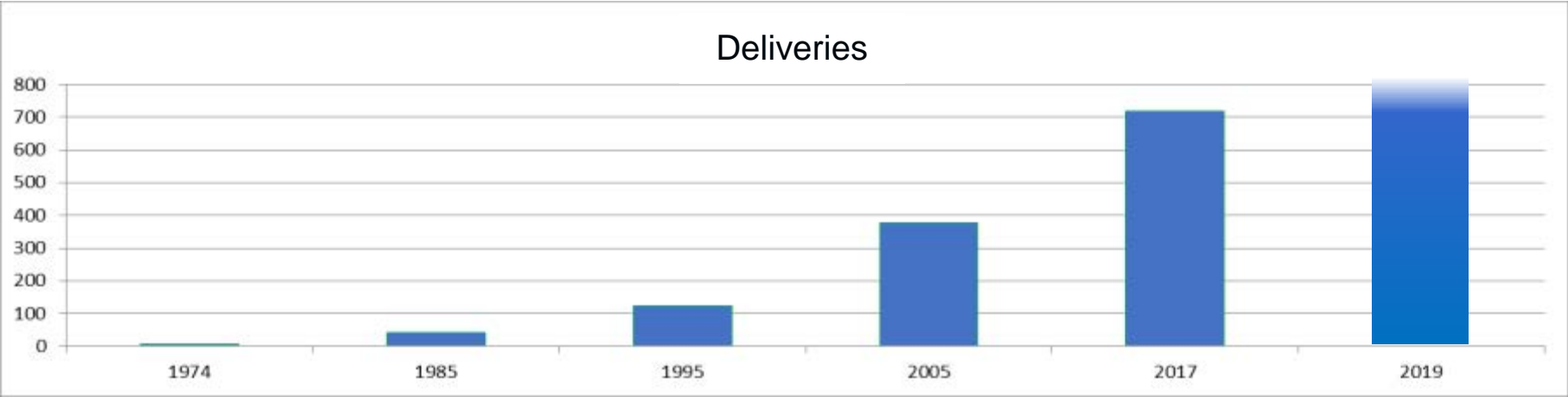
## Overview

Bertrand GEORGE - Head of BelugaXL Programme

20 March 2018

**AIRBUS**

# Oversize Air Transport – An historical choice



Super-Guppy

Beluga ST

BelugaXL



1974

1995

2019

# Oversize Air Transport – End to End solution



- ❑ An airline, ATI, Airbus subsidiary since 1996
- ❑ A fleet of 5 Beluga ST
- ❑ A network of 11 stations
- ❑ Infrastructures & processes adapted to high production rates



# Why a BelugaXL ?



❑ **The Beluga ST cannot carry 2 A350 wings at the same time**

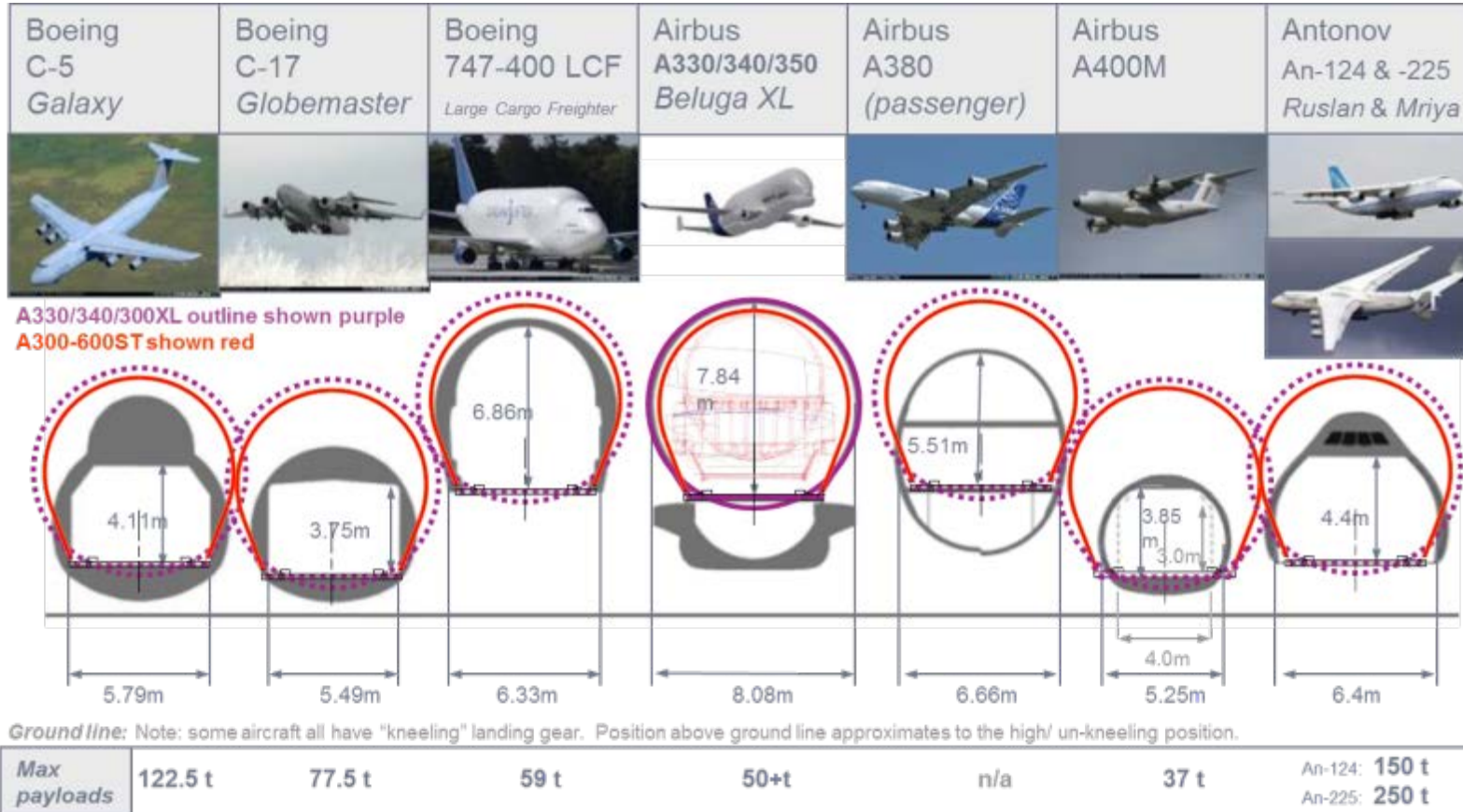
❑ **Beluga ST Flight Hours**

- A320 : ref
- A330 : x3
- A350 : x9

❑ **A system reaching its limits**

- Up to 5 flights / day, 6 days / week
- 10000FH in 2017
- Road and sea transport less flexible and more costly

# Why a BelugaXL ?



## ❑ Requirements:

- 2 A350 wings
- Compatible with existing infrastructures, jigs and tools
- T/O & landing on all sites runways
- EIS in 2019

## ❑ No existing solution on the market

...

# The BelugaXL solution



- ❑ Based on A330-200 Freighter
- ❑ A metal aircraft, better adapted to transformation
- ❑ The Freighter version already structurally reinforced
- ❑ A proven track record

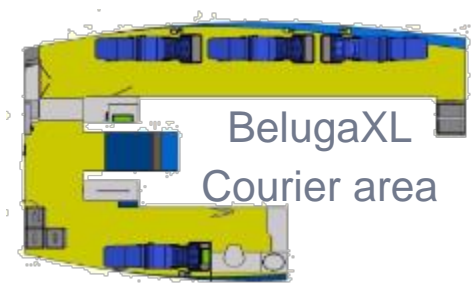
# The BelugaXL solution



- ❑ 5 aircraft
- ❑ 2 in 2019, then 1 per year
- ❑ **Laboratory for Airbus Group**
  - faster
  - cheaper



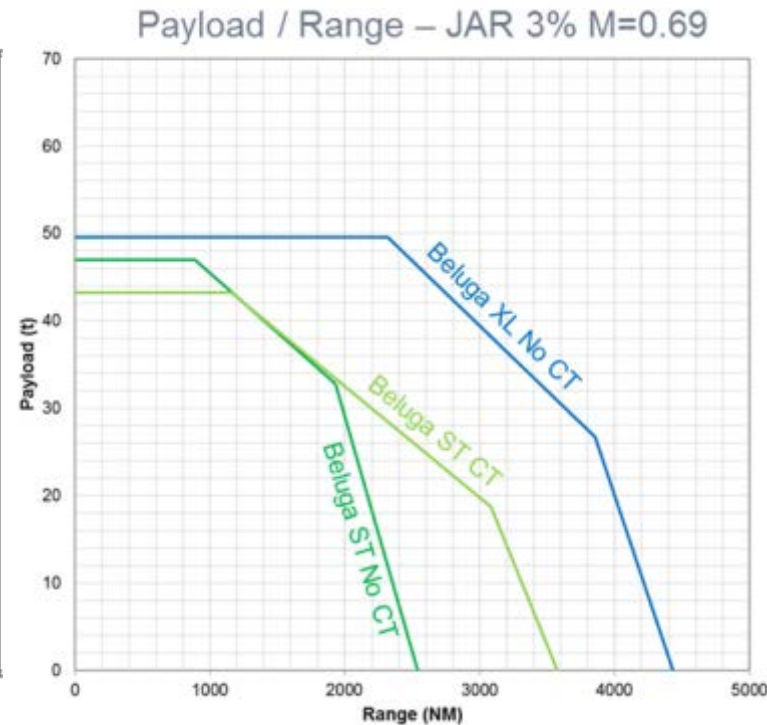
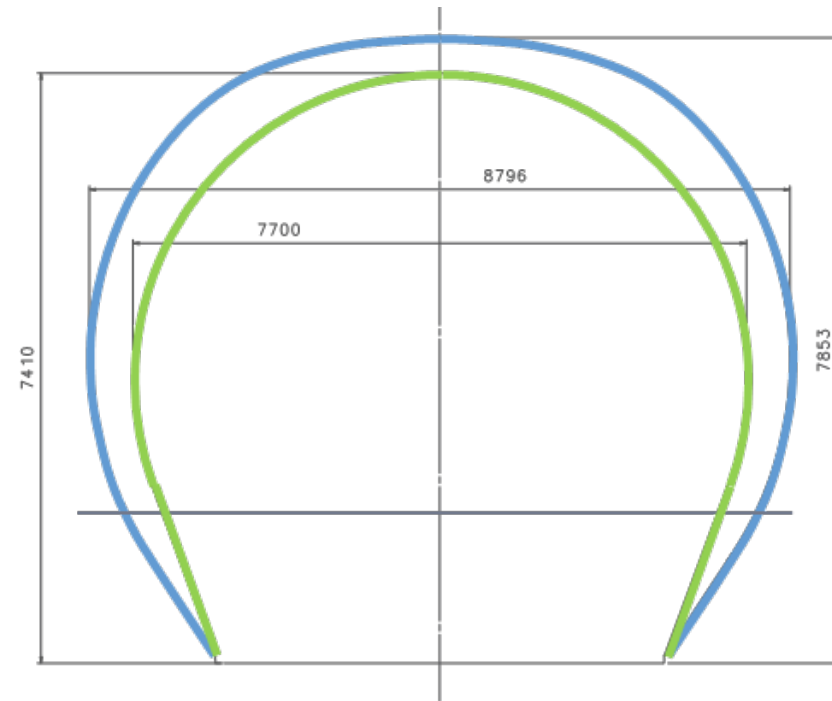
# Beluga ST & BelugaXL



	Beluga ST	BelugaXL
Platform A/C	A300-600R	A330-200F
Engine	GE CF6-80C2A8	A330 RR T772B
EIS	1995	2019
Cruise Mach number / Max altitude	0.69 / 35000ft	0.69 / 35000ft
Noise	Chap 4	Chap 4 / Chap 14
Cockpit / Courier area	Cockpit for 2 flight crews + 3 jump seats	Cockpit for 2 flight crews + 1 jump seat 4 seats in courier area



# Beluga ST & BelugaXL



## ❑ Cargo bay

- Length + 6m
- Width + 1m
- Height + 0.5m

## ❑ Max payload weight

- Beluga ST 47 tonnes
- BelugaXL 51 tonnes

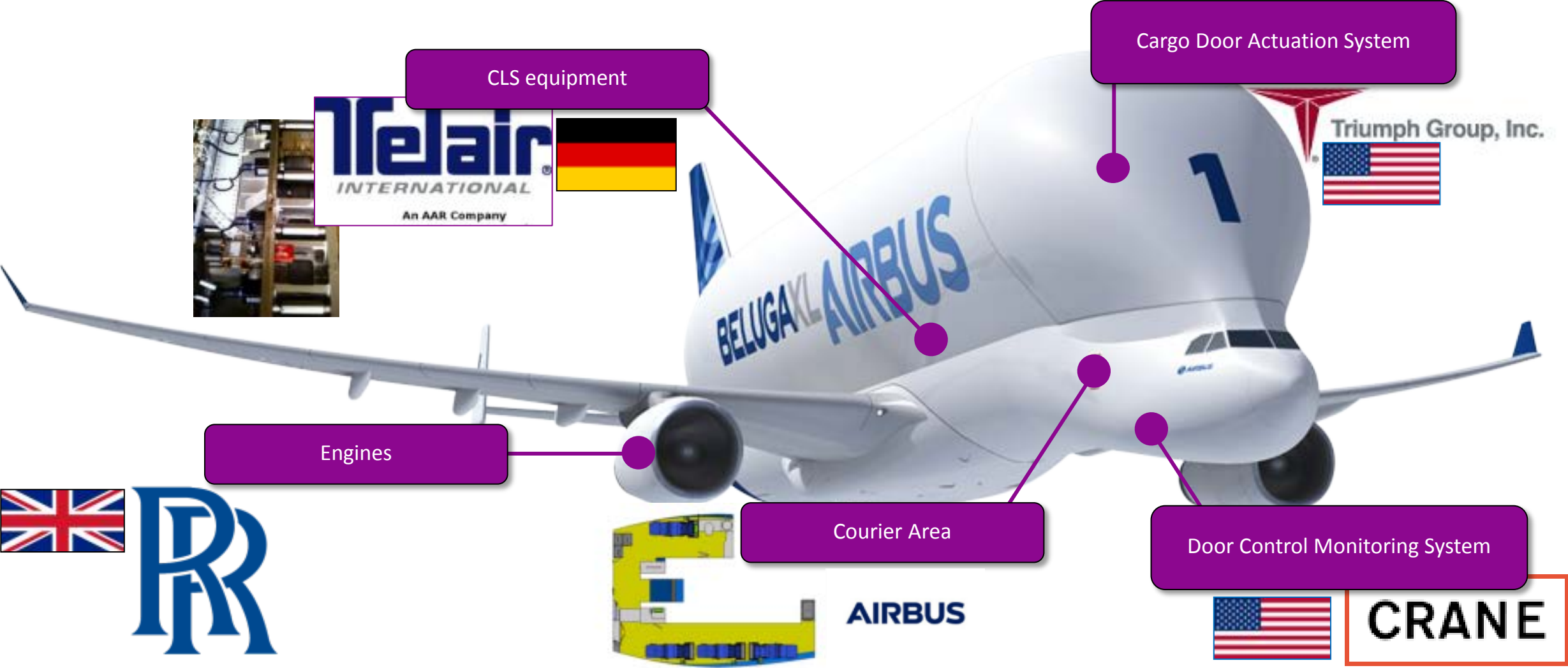
## ❑ Max range at max payload

- Beluga ST 900nm
- BelugaXL 2300nm

# Main suppliers: Major Structure & SI Suppliers

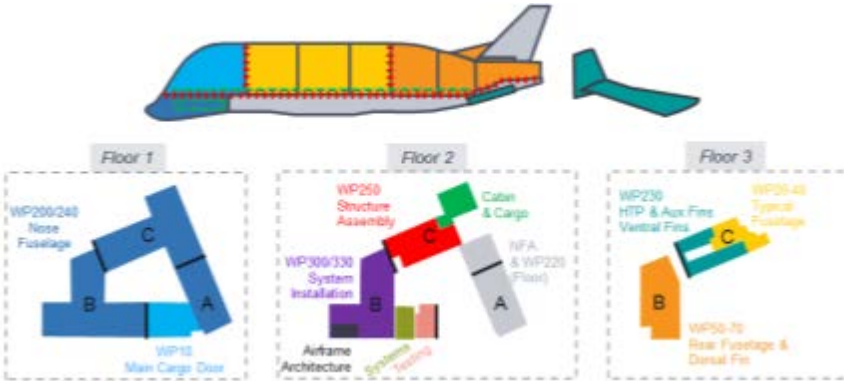


# Main suppliers: Major Equipment / Systems Suppliers





# 2 years of development



- ❑ Co-location in D55, JLL
- ❑ Around 1000 people at peak
- ❑ All Airbus functions & partners
- ❑ Open book & Trust



End 2016, the A330 platform is ready



# Moulding in L34



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# Cutting of A330 upper fuselage



# Junction installation





# Integration of new components - 1





## Integration of new components - 2



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# Integration of new components - 3





## Integration of new components - 4





## Integration of new components - 5





## Integration of new components - 6



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# Integration of new components - 7



## Integration of new components - 8





# Integration of new components - 9



## End 2017, full electrical Power/On





## January 2018 - Aircraft move



- ❑ **A/C 1 moving from conversion to test station...**



- ❑ **And A/C 2 arriving in conversion station**



# Last status



# What's next ?



- ☐ Ground Tests
- ☐ First Flight this summer
- ☐ Flight Tests and Certification by mid-2019
- ☐ 5 aircraft by mid-2022 ...



# In parallel, the airline and infrastructures are getting prepared



- ❑ Stations adaptations
- ❑ Broughton runway re-surfacing
- ❑ Adaptation / development of jigs





Thank you

**AIRBUS**





**Thank you**