

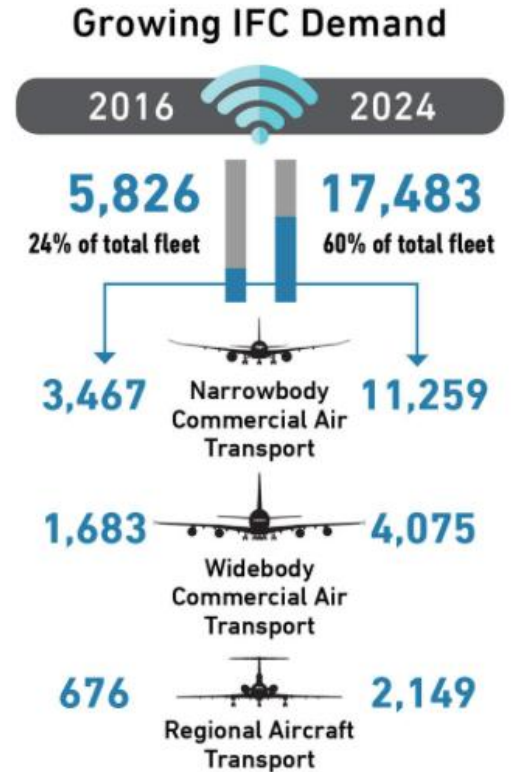
AERO MOBILITY

Q4 2018

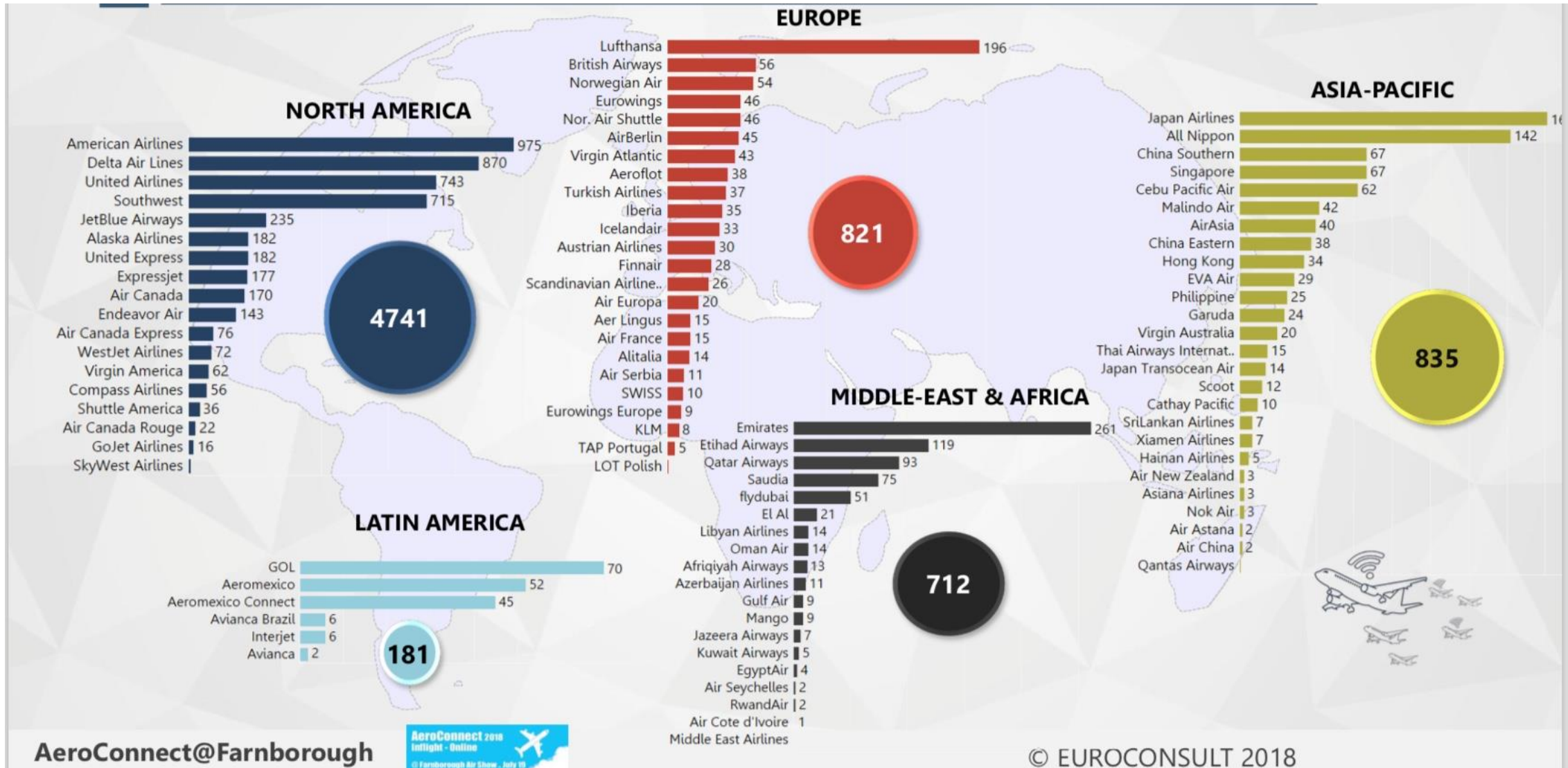
Eutelsat – GMBL (Global Mobility Business Line)

IFC SUPPLY SIDE EVOLVING

- ✓ PAC, GoGo, GEE, Viasat struggling in current market
- ✓ Zodiac, Thales, Honeywell trying to grow market share
- ✓ FPA players - Kymeta, Satixfy, Phasor, NXT-COMM emerging
- ✓ SES announced they will 'not' go direct in commercial aviation
- ✓ Operational solutions continue to progress but at a 'slow' rate
- ✓ HCL Technologies hired by airline to 'create' IFC solution
- ✓ Smaller airlines exploring 'a la carte' approach to solutions
- ✓ KU /KA debate seems non existent at mature airlines
- ✓ LEO / MEO discussion causing 'decision' delay for airlines
- ✓ 'Agile' software companies gaining presence within sector
- ✓ Future eco system will include capacity VNO's that specialise in 'user experier
- ✓ Future solutions need to be modem & frequency agnostic
- ✓ Connected Cockpit needs for aero bandwidth likely to materialise FY21






CAPACITY REVENUES DRIVEN BY EU/NA/ME SHORT – MEDIUM TERM



FREQUENCY AGNOSTIC APPROACH EMERGING

CURRENT IFC POSITIONS - 2018

	ATG	Ka-Band	Ku-Band	L-Band
Global Eagle		Limited exposure	Strong exposure	
Panasonic			Strong exposure	
GOGO	Strong exposure	Value Added Reseller	Strong exposure	Value Added Reseller
Thales		Strong exposure		
Viasat		Strong exposure	Limited exposure	
SITAONAIR		Value Added Reseller		Value Added Reseller
Inmarsat	Strong exposure	Strong exposure		Strong exposure

 Strong exposure
  Limited exposure
  Value Added Reseller

POTENTIAL IFC POSITIONS - 2019

	ATG	Ka-Band	Ku-Band	L-Band
Global Eagle		Strong exposure	Strong exposure	
Panasonic		Strong exposure	Strong exposure	
GOGO	Strong exposure	Value Added Reseller	Strong exposure	Value Added Reseller
Thales		Strong exposure	Strong exposure	
Viasat		Strong exposure	Limited exposure	
SITAONAIR		Value Added Reseller		Value Added Reseller
Inmarsat	Strong exposure	Strong exposure	Strong exposure	Strong exposure

 Strong exposure
  Limited exposure
  Value Added Reseller

CURRENT FEEDBACK FROM AIRLINES

UNDERPERFORMING SUPPLY SIDE

- Airlines 'frustrated' with current levels of service from SP's
- No current provider meeting SLA or 'revenue targets' agreed with the airlines
- Hardware issues proving to be very costly
- GoGo 2KU has corrosion issues and Qatar Airways has had complicated certification issues

MORE CONTROL

- Airlines want to own the passenger experience and not have SP's control it
- Interested in hardware and capacity solutions – less interested in software services
- Considering un-bundling turn-key solutions e.g NAS & Inmarsat
- Prepared to go out and create 'supplier teams' e.g Air Baltic, Delta, S7, easyJet

SERVICE CONSISTENCY

- Inflight connectivity not able to provide 'regular' consistency for passengers
- Airline cabin crew sometimes losing faith in service and choosing to disable or not announce
- Speed tests will continue to be done until a baseline of consistency is achieved
- SP's & Airlines need to help reset expectations of passengers

....Airlines intuitively know that connectivity makes sense but the current performance and costs is making it difficult to get approvals. Airlines keen to get more value for their investment and keen to think outside of the box to explore innovative approaches and keen to see new players enter the market. The current supply side is suffering and new players are emerging.....