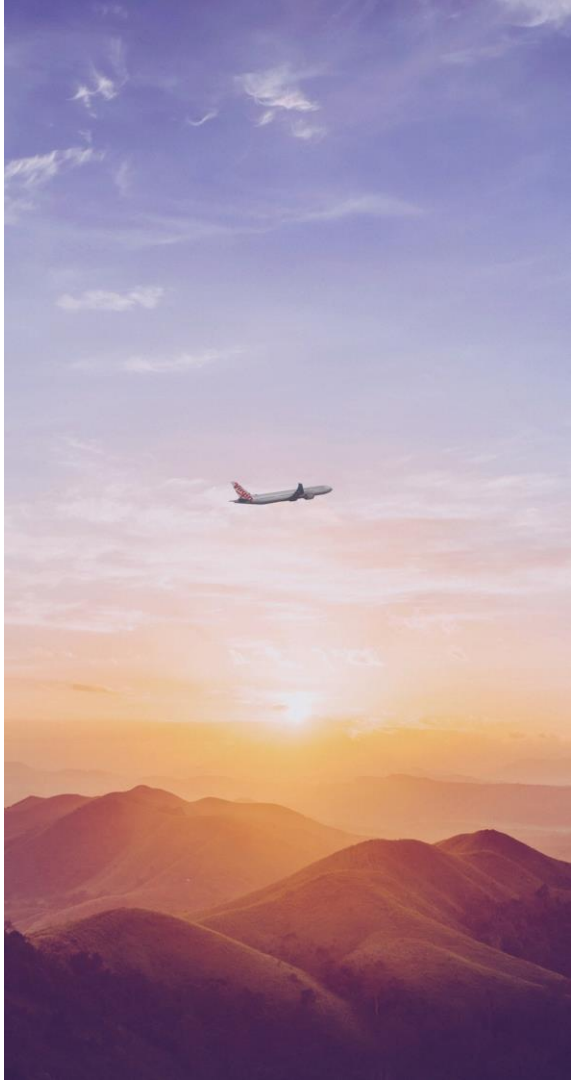
The Cabin Factor

Performance Metrics

Maintenance Economics & Operational Availability

IATA MCC Athens
September 2019



CABIN APPEARANCE

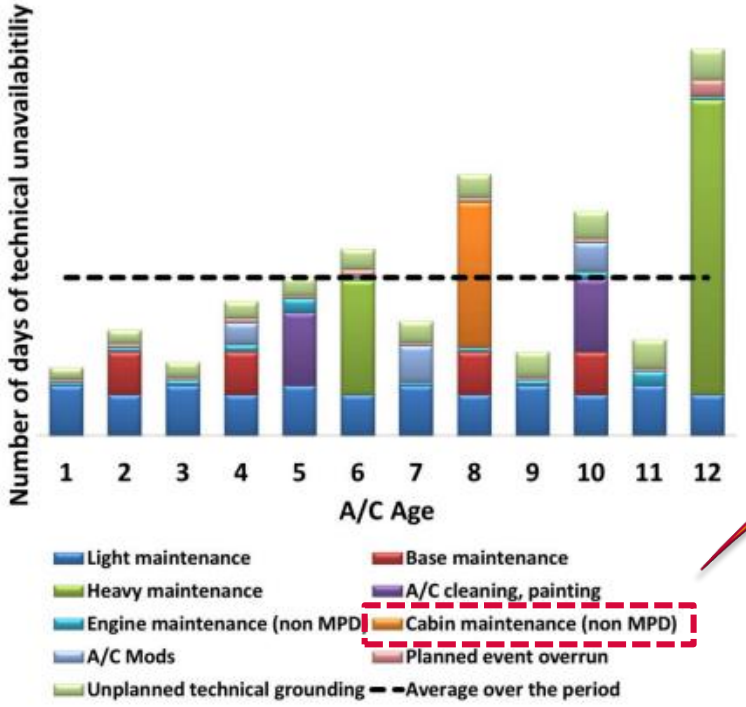
EFFECTS

- GUEST COMFORT
- BRAND
- LOYALTY
- REVENUE

AIRCRAFT INTERIORS APPROACH

- **P** PRESENTABILITY
- **A** AVAILABILITY
- **S** SAFETY
- **S** SERVICEABILITY

Cabin Maintenance



Source: Aircraft Operational Availability; IATA 2018; 1st Edition

TANGIBLE BENEFITS ?

MAINTENANCE COSTS ↓

GUEST SATISFACTION ↑

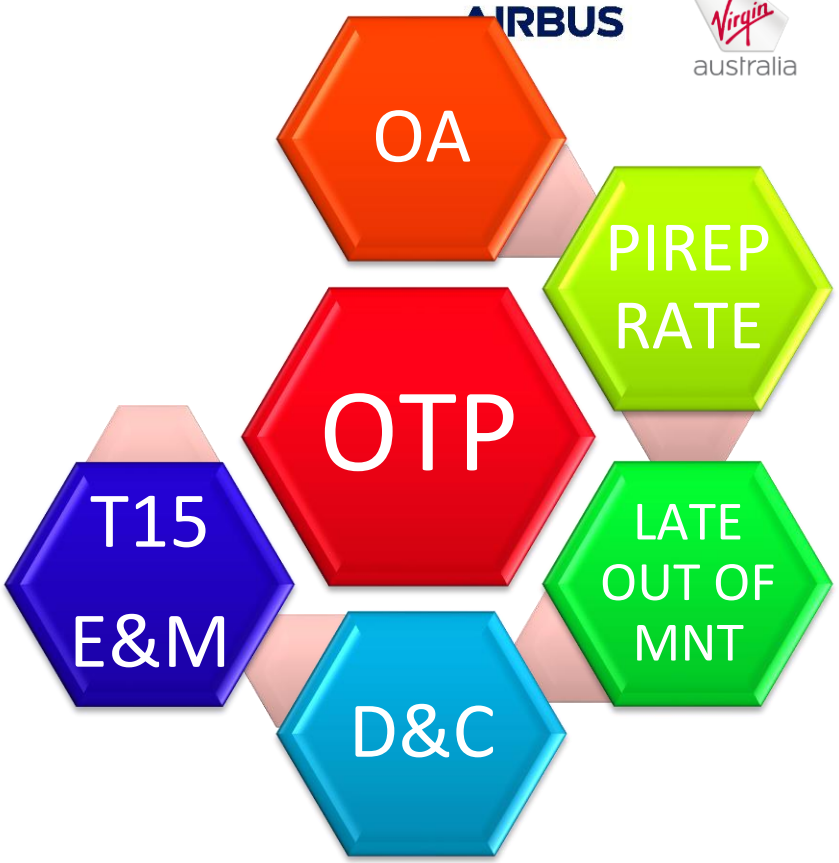
PRODUCT EXPECTATIONS ?

KPI Landscape

CABIN KPI

??

- Reported as a Rate (PIREP)
- Often hidden – white noise
- Fails to identify down to P/N level
- Fails to highlight Guest Comfort impacts



Cabin Performance Index

IDENTIFIABLE

CHALLENGING

DATA INTENSIVE

CABIN DEFECT

+

SEVERITY INDEX

PERFORMANCE & AVAILABILITY

Cabin Severity

What ?

- Translates cabin defects to actual business impact considering:
  - Passenger (Experience and Comfort) Impact
  - Brand Impact
  - Cost to business
  - Revenue (loss potential)
  - Crew Workload Impact
  - Maintenance Workload

Defect → Effect → Severity

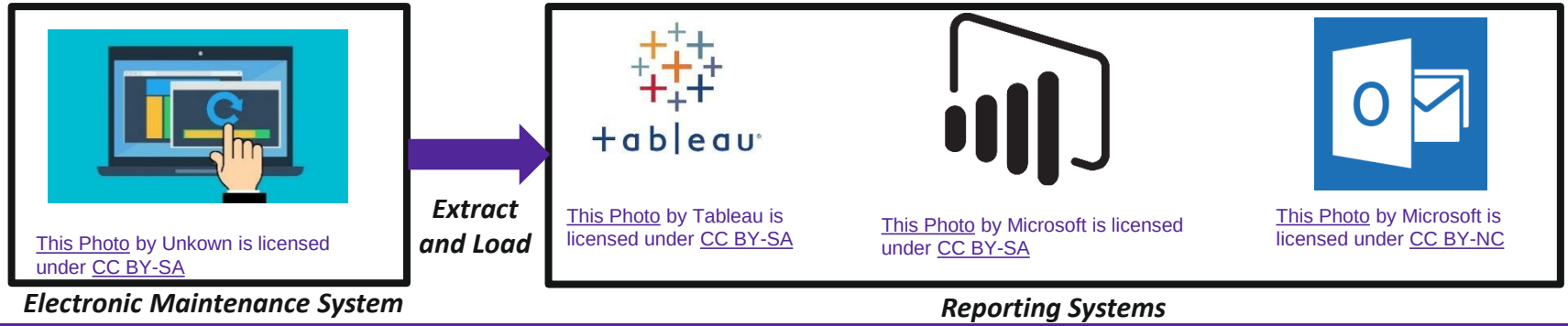
Cabin Severity

Why?

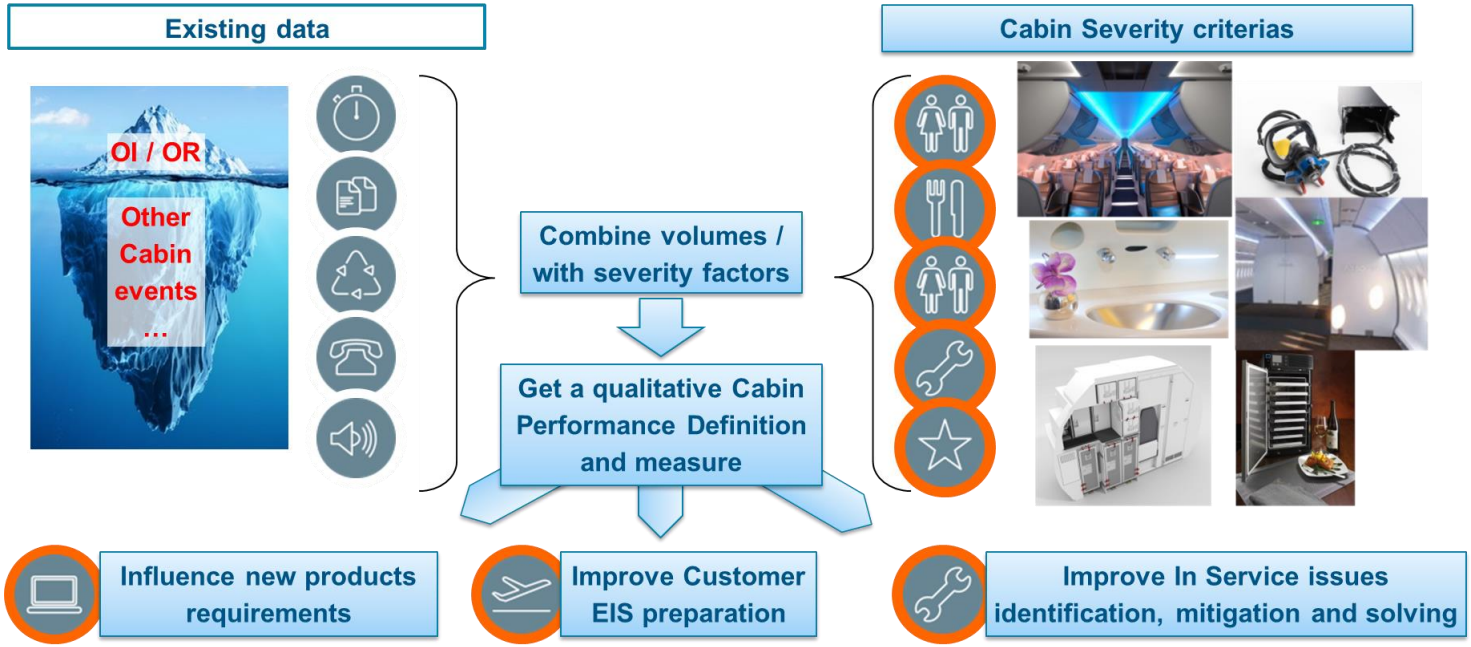
- Highlights pain points from business perspective, rather than rate of reports alone.
- Enables prioritisation of defects for rectification.
- Guides OEM focus to key areas for product improvement.

How?

- Setup impact scores and rules (customised to your operations)
- Automate data extraction and calculation
- Deliver on Customised Schedule through Dashboard/E-mail.



Cabin Severity – Principles



Set right priorities - Collaborative approach to define the missing metrics

Cabin Severity - Matrix

	Airline Impact							Occurrence rate		Cost	
Sub-Category	Pax Comfort	Cabin Crew Impact	Maintenance workload	A/L brand A/L Image	A/L services A/L revenues	OR impacts	Global rating (1-10)	CAREP rate (main) MTBUR (??) OI rate (??)	Global rating (1-10)	Criteria	$$
PAX SEAT - ARMREST	H	L	M	H	L	M	5.3	1.30	7		
PAX SEAT - BACKREST	H	L	H	H	M	M	6.8	0.11	5		
PAX SEAT - BOTTLE HOLDER	L	L	L	M	L	L	1.7	0.74	6		
PAX SEAT - COVER	L	L	L	H	L	M	3.2	4.14	9		
PAX SEAT - ELECTRICITY/MOTION	H	M	H	H	L	M	6.8	2.09	8		
PAX SEAT - FAIRINGS/FRAME	L	L	H	M	L	L	3.2	0.21	5		
PAX SEAT - FOOTREST/LEGREST	M	L	M	M	L	L	3.0	0.69	6		
PAX SEAT - HEADREST	H	L	M	M	L	M	4.5	0.67	6		
PAX SEAT - LITERATURE POCKET	L	L	L	M	L	L	1.7	0.52	6		
PAX SEAT - PED/USB POWER	H	L	M	H	L	L	4.7	2.77	8		
PAX SEAT - PLUG/JACK	H	L	M	H	M	L	5.3	0.33	5		
PAX SEAT - RECLINE	H	L	H	H	H	H	8.5	7.25	10		
PAX SEAT - SEAT TRACK	L	L	H	L	L	L	2.5	0.15	5		
PAX SEAT - SEATBELT	H	L	M	M	H	H	6.8	0.73	6		
PAX SEAT - TRAY TABLE	H	M	M	H	L	M	6.0	3.70	9		

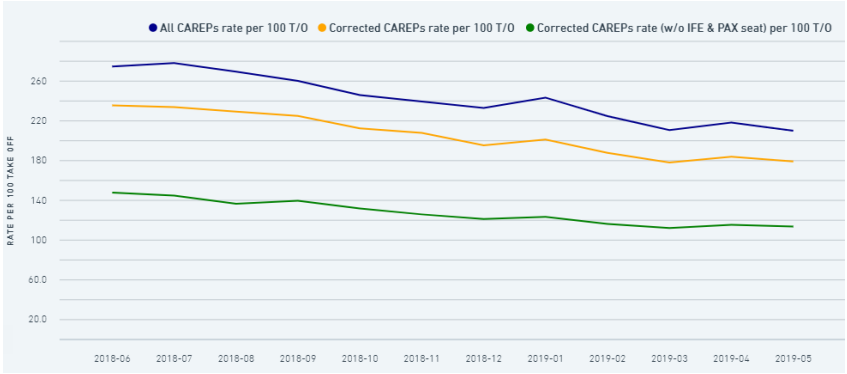
Severity of each occurrence

Today based on CAREP rate

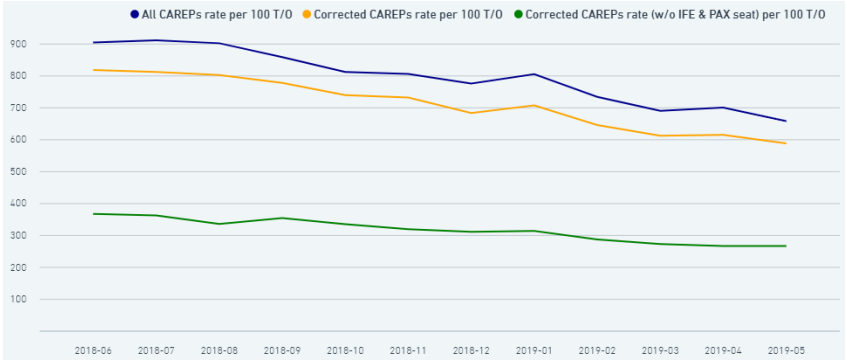
Cabin maintenance cost Unavailability cost?

Cabin Metrics - Dashboard

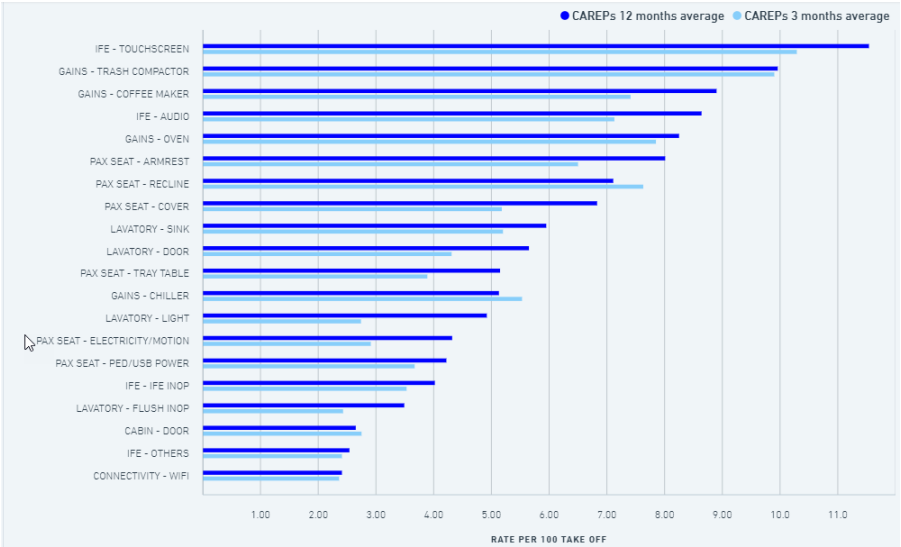
Rate



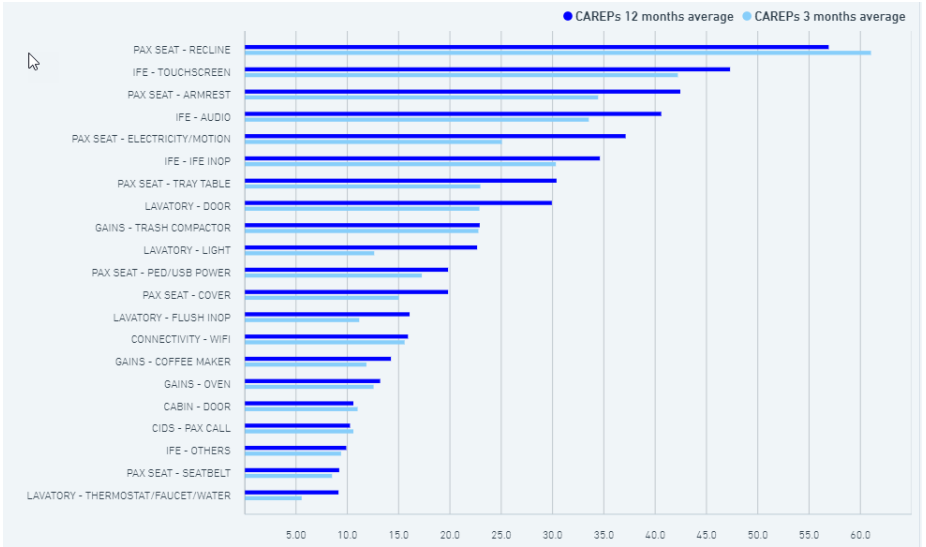
Rate and Severity



Cabin Metrics - Dashboard

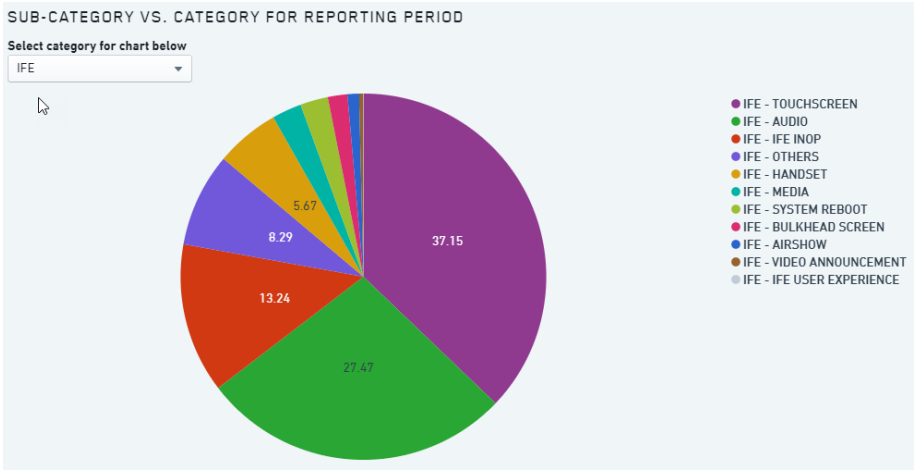


Rate

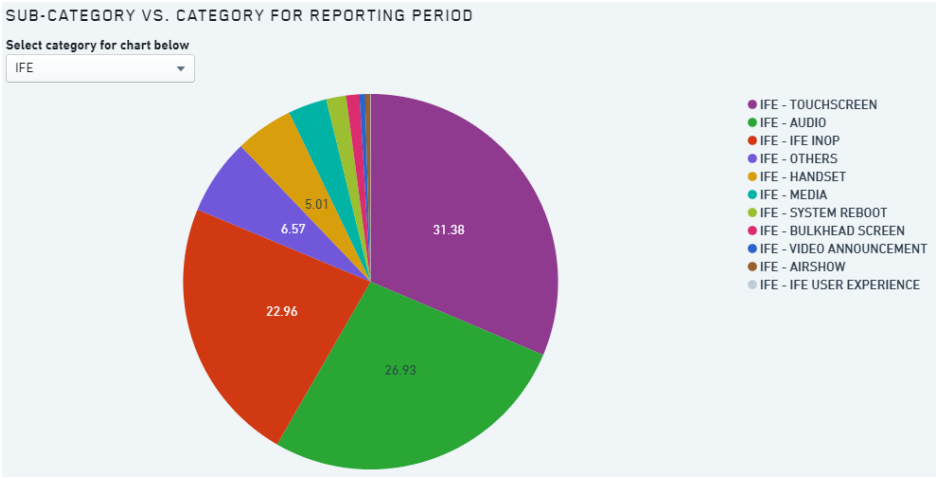


Rate and Severity

Cabin Metrics - Dashboard



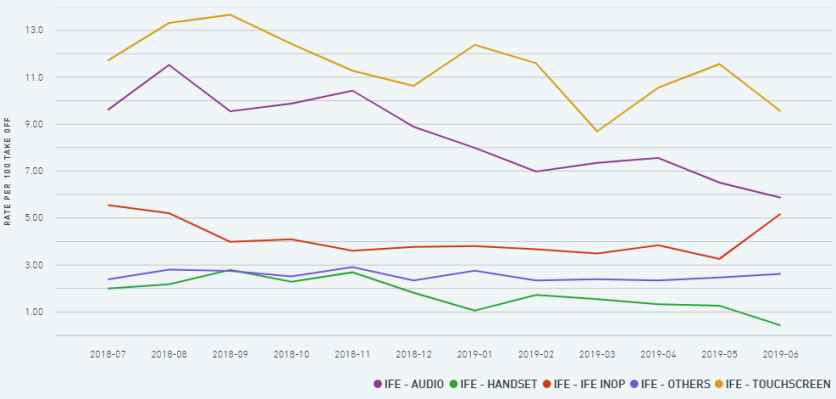
Rate



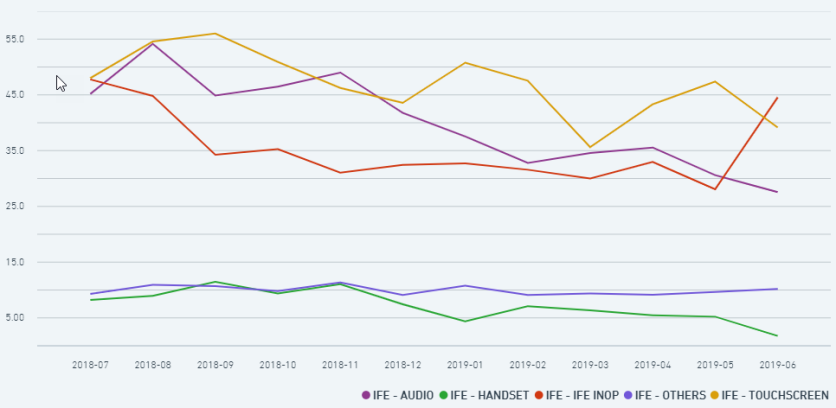
Rate and Severity

Cabin Metrics - Dashboard

Rate



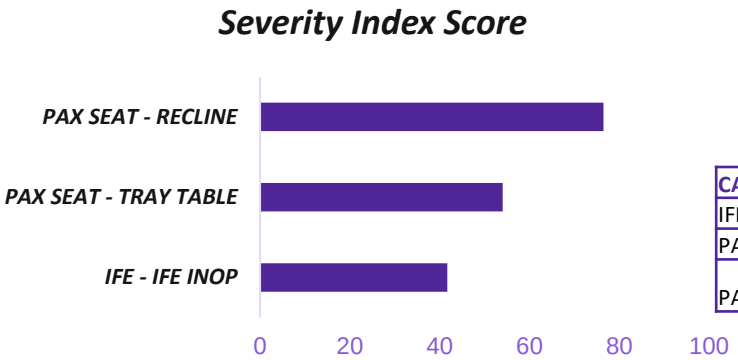
Rate and Severity



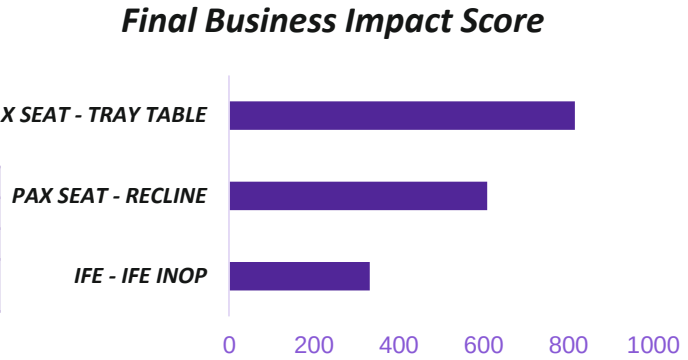
Extending the Concept…

Integration with out-of-service time provides an, ‘impact factor’, a holistic view of effect to the airline:

1) Aircraft maintenance/defect rectification efforts
2) Product improvements



CATEGORY	IMPACT FACTOR
IFE - IFE INOP	4.10
PAX SEAT - RECLINE	8.34
PAX SEAT - TRAY TABLE	16.37



Significant potential as algorithm can incorporate:

1) Defect Resolution Timeframes
2) Aircraft Utilisation
3) Average Load Factor
4) Routes Flown

* Airline Customisable

SUMMARY

- Cabin Appearance and functionality impacts Brand and Revenue
- Cabin performance metrics are available, but challenging to identify pain points
- Cabin factors when integrated with a Severity Index can provide an effective performance indicator
- Operators define the Severity based on Product expectations to create customised reporting
- Extend the concept to define a holistic approach on impacts


Thank you.
Questions?