



ACUMEN

Title: Asset Management (Delivery Condition, Maintenance Reserves, Redelivery Planning, Remarketing, Residual Value, Lease Transition, End of Life)

Presented by: Amit Tyagi (Acumen Aviation)

Date: 9th April 2021

About Speaker

Amit Tyagi

Chief Intelligence Officer

Amit joined Acumen in 2009 and, as Chief Intelligence Officer (CIO), leverages his expertise as a certified ISTAT appraiser. This is combined with a wealth of over nineteen years' of technical and commercial experience in the aviation sector supporting the needs of a sophisticated and diverse clientele. Amit has appraised various ABS transactions, asset sale purchases, market values, Due Diligence & Fly forward analysis during last few years.

Amit is responsible for the management of assets on behalf of investors and provides asset market insights, life-values and risk and ownership assessments. Prior to becoming CIO, Amit successfully held the post of Chief Technical Officer of Acumen and has been key member since inception of Acumen

He holds a Bachelor degree of Aeronautical Engineering, B.Sc. (PCM), BAMEL (EIR). Amit is Pursuing GMAE from IIM Bangalore, MBA program which is in collaboration with Toulouse Business School, France



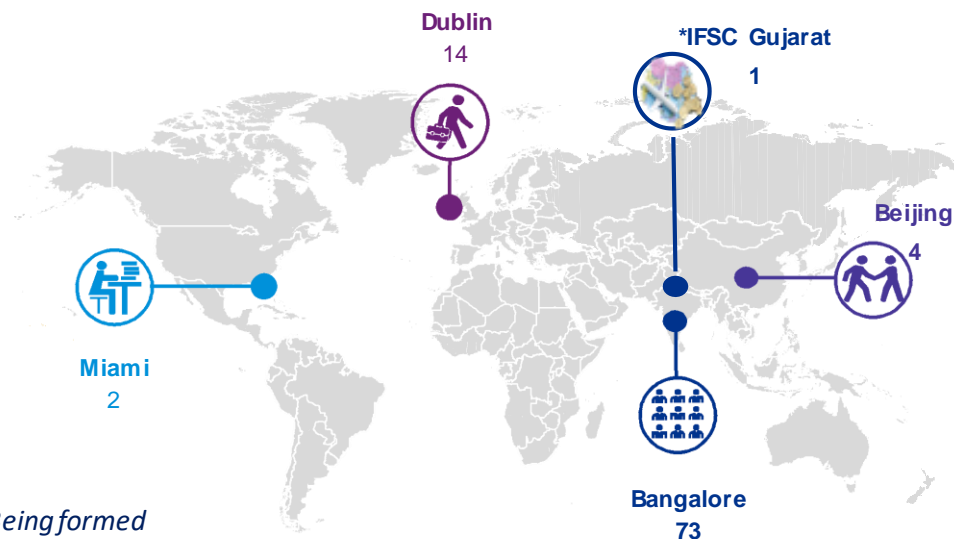
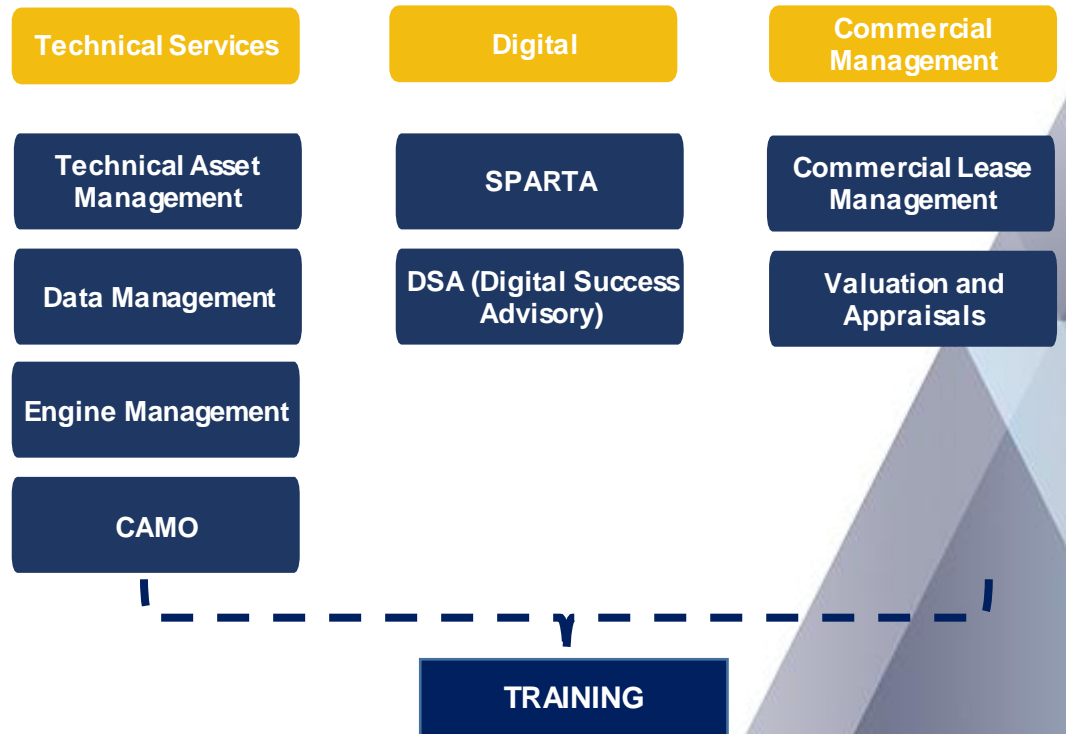
About Acumen

Business Description

Acumen is a multiple service aircraft asset manager that supports an aircraft in all stages of its lifecycle. The Company delivers its “cradle to grave” offering through the use of its Artificial Intelligence and Machine Learning. Acumen offers a full range of services throughout the lifecycle of the aircraft including sourcing, due diligence, project management, lease management, re-marketing, fleet audits, asset valuations, aircraft trading and power plant management. Acumen’s customers include aircraft lessors, airlines, banks, private equity and investors.

With highly skilled employees located across the globe, Acumen has the expertise to respond to difficult and challenging industry issues quickly and with ease. It can service clients globally and has consultants available in most jurisdictions. Acumen has gradually moved from man hour based services to a milestone based service offering. It has a total of 600+ assets under varied management and operates across four broad divisions including;

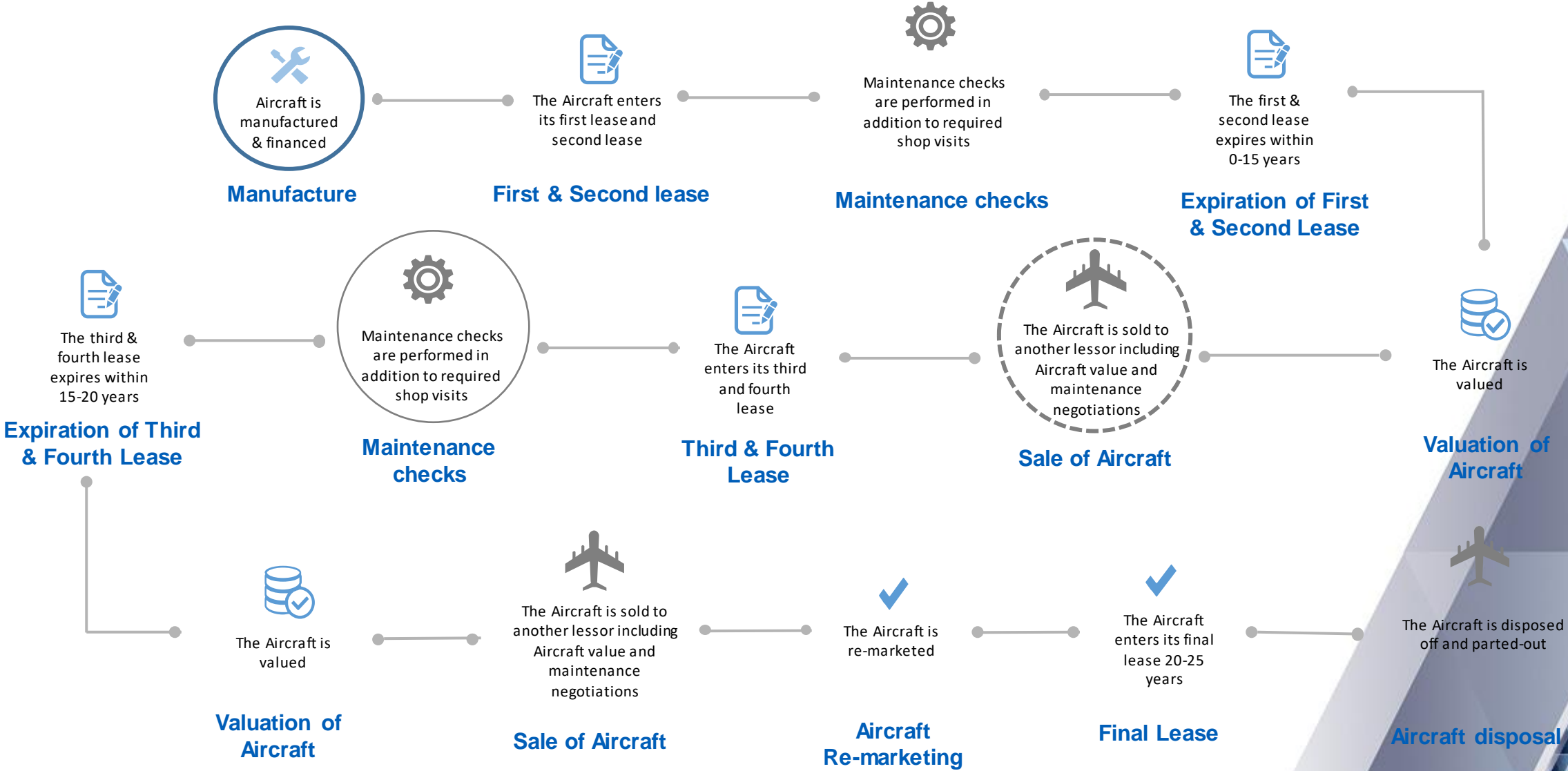
It operates across three broad divisions with training as a support to all



*Being formed

www.acumen.aero

Aircraft life cycle



Delivery condition

- Delivery Conditions in a Lease are the conditions agreed by the lessor with lessee and meeting these requirement is pre-requisite to which aircraft and its major assemblies (including its configuration and Maintenance status) must comply at the time of delivery of aircraft.
- Any Deviation from Delivery condition (if any) agreed by lessee is generally mentioned in the Certificate of Technical Acceptance signed by lessee at the time of accepting the aircraft from lessor along with agreed remedial action (as necessary)
- Lessee Representative performs inspection of records and Physical Inspection of aircraft i.a.w. condition as agreed in lease. In case of new aircraft such inspections are done at Assembly line and during testing of aircraft and for used aircraft generally at delivery location

Redelivery planning and remarketing

- Redelivery planning starts generally 12 to 18 months in advance by lessors and lessee may also start preparing at the same time for an faster and smooth redelivery. If any lease extension option is available in lease that is generally discussed at this stage between lessor and lessee and if no lease extension is agreed then redelivery planning starts
- Based on Lease return conditions, Lease Managers starts looking for suitable next lessee and starts remarketing of the aircraft based on credit risk appetite and suitable lessees are approached. Discussion for any change requirement (Major Modification etc.) happens with next lessee and related commercial discussion (cost sharing and essential kits arrangement etc.) are done in consultation with next lessee, OEMs/STC Holder etc.
- Redelivery meeting between lessor and Lessee is generally planned 6 to 12 months in advance of redelivery date and redelivery location, MROs, lease return check package etc. are decided in advance to ensure lease return compliance task are included in the package (e.g. HT items, required structural check task, painting requirement etc.). If necessary and required, lessor may add additional requirement from next lessee into lease returns check (or as a separate package) and settles necessary cost directly to MROs (or as agreed between the parties)

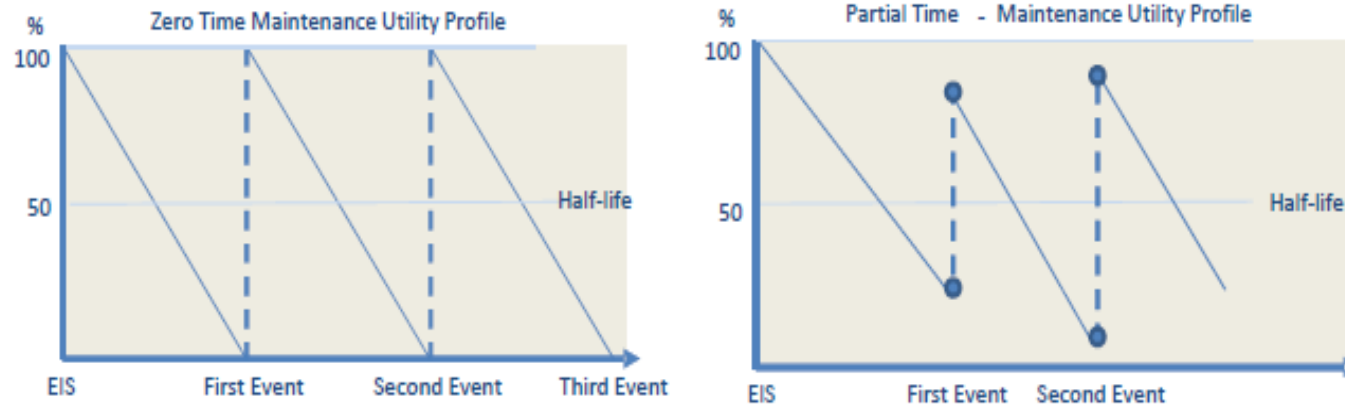
Lease Transition

Following are major points for smooth lease transition i.e. transferring aircraft on lease from current lessee to next lessee;

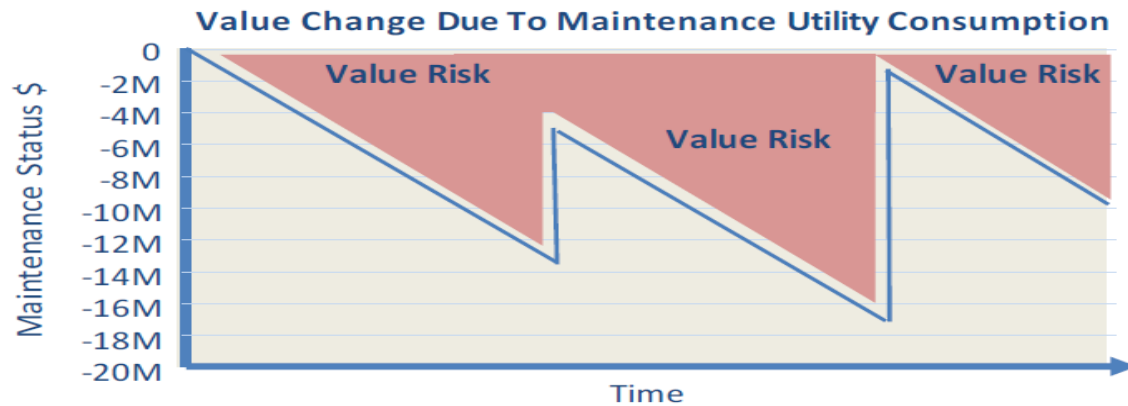
- Must be well planned in advance and the best scenario is current lessee redelivery condition matches with next lessee delivery conditions
- If any deviation exist between current lessee re-delivery condition and next lessee delivery conditions then all difference must be discussed in advance and ensured that they are complied during redelivery check, material, kit if necessary are arranged in advance.
- Lessors generally sends its Technical Representatives for detailed Records review as per agreed lease return conditions and such review generally starts 45 to 90 days in advance and any observation noted during review is generally corrected or compensated (if not corrected) as agreed between lessor and lessee.
- Detailed physical Inspection of aircraft for structural repairs and related records, physical condition of paint, seats upholstery, cabin items etc. are done. Engine Borescope review, test flight are also performed / monitored by Lessors rep before accepting the aircraft.
- Records review is simultaneously performed by next lessee and cut-off window to highlight any issue should be in advance, to ensure such observations could be rectified during redelivery check when access is available
- Lessor aims to take aircraft from current lessee and deliver the aircraft to next lessee immediately as soon as lease ends with current lessee

Maintenance utility profile during Aircraft life

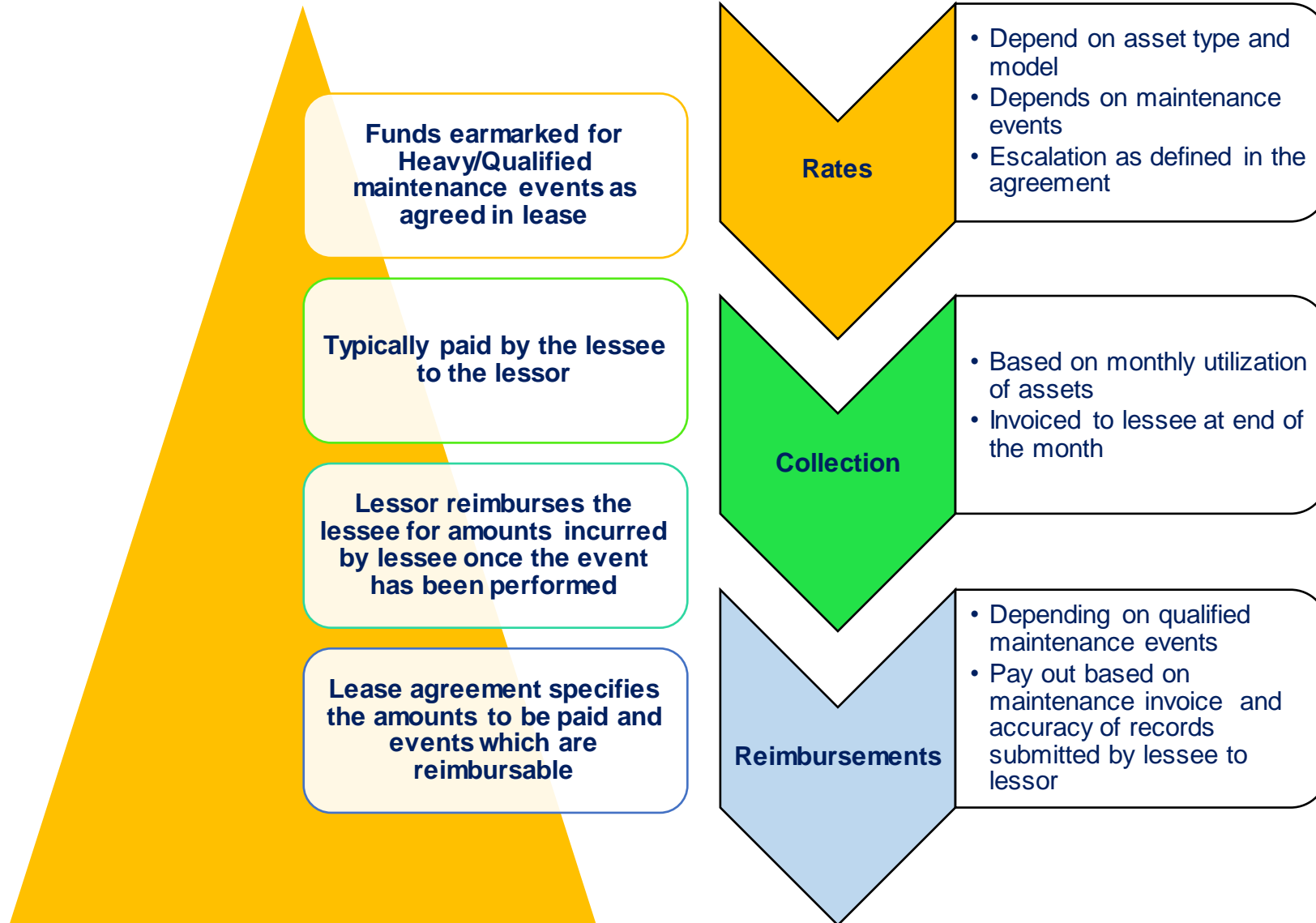
As shown below maintenance utility profile changes due to elapse time or usage (FH/FC) depending on type of maintenance for each assembly which is explained through two side by side example profile below, while third figure shows maintenance utility exposure for an lessor based on utilized life , if MR is collected equivalent to utilized life than no exposure :-



Example Maintenance Utility Profiles



Maintenance Reserves



Asset valuation

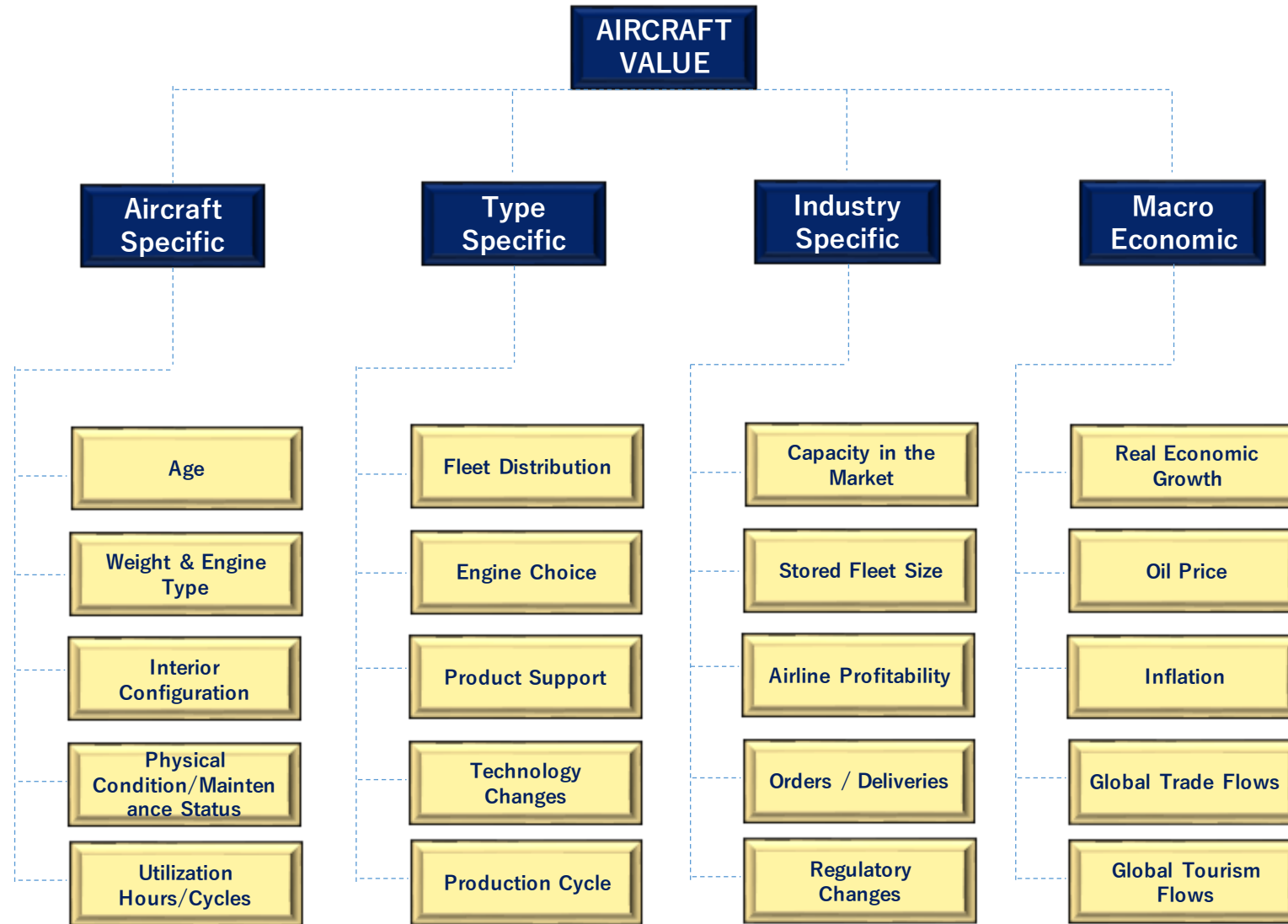
- Asset Manager needs Asset valuation (Appraisal) due to different reasons and at several stages during life cycle of an aircraft and hence it is essential to know about different type of appraisals and their use
- What is an Appraisal- Act or process of estimating value of asset i.a.w. definitions as contained in appraisal report. An appraisal is un-biased opinion on asset value.
- Why to perform Appraisal- To ensure the correct value is obtained and utilized based on purpose of assignment. Valuation would be needed for several purposes (Sale, Purchase, Insurance claim, decision for exit strategy, tax purpose, value of lease etc.)
- Whom to approach for Appraisal – For Commercial Transport Aircraft appraisals “ISTAT certified Appraisers” are well recognized and accepted worldwide (by Lessors, Investors, Banks, P E Funds, Insurer, Re-insurers). The International Society of Transport Aircraft Trading (ISTAT) is a non-profit society whose members have common interests in the manufacture, purchase, brokerage, leasing, maintenance and appraisal of transport aircraft. ISTAT provides certification who satisfactorily demonstrate that he/she is qualified to appraise an aircraft.

Note: Acumen has 3 ISTAT Certified Appraiser and two ASA appraiser including a Senior ASA appraiser

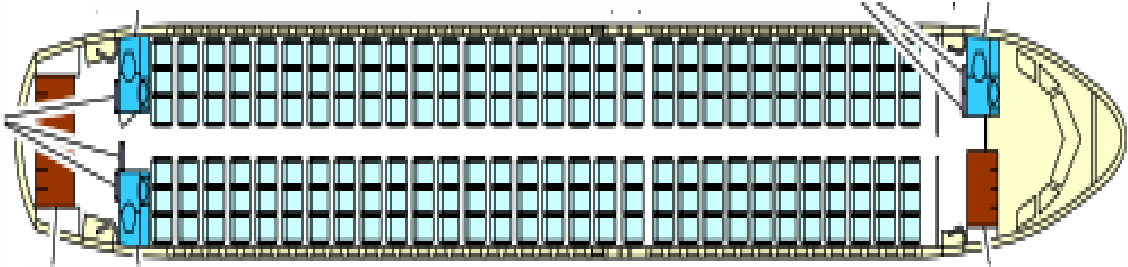
Different Values

- **Base Value** is the Appraiser's opinion of the underlying economic value of an aircraft in an open, unrestricted, stable market environment with a reasonable balance of supply and demand, and assumes full consideration of its “highest and best use
- **Market Value** is the Appraiser's opinion of the most likely trading price that may be generated for an aircraft under the market circumstances that are perceived to exist at the time in question. Fair Market Value is synonymous with Market Value
- **Residual Value** - is the value of an aircraft, engine or other item at a future date, often used in connection with the conclusion of a lease term.
- **Distress Value, Forced Sale Value, Liquidation Value** are terms to describe the Appraiser's opinion of the price at which an aircraft (or other assets such as an engine or spare parts) could be sold in a cash transaction under abnormal conditions – typically an artificially limited marketing time period, the perception of the seller being under duress to sell, an auction, a liquidation, commercial restrictions, legal complications, or other such factors that materially reduce the bargaining leverage of the seller and give prospective buyers a significant advantage that can translate into heavily discounted actual trading prices
- **Securitized Value or Lease-Encumbered Value** is the Appraiser's opinion of the value of an aircraft, under lease, given a specified lease payment stream (rents and term), and estimated future residual value at lease termination, and an appropriate discount rate
- **Part-out/ Salvage Value** is the actual or estimated selling price of an aircraft, engine or major assembly based on the value of marketable parts and components that could be salvaged for re-use on other aircraft or engines. The value should be determined and stated in such a way to make clear whether it includes adjustment for removal costs.

Factors impacting Aircraft values



Single Aisle Aircraft Values (an example)



Feature & Characteristic

Seating capacity

Min 100
Max 240

Coverage

Best suited for short & medium haul

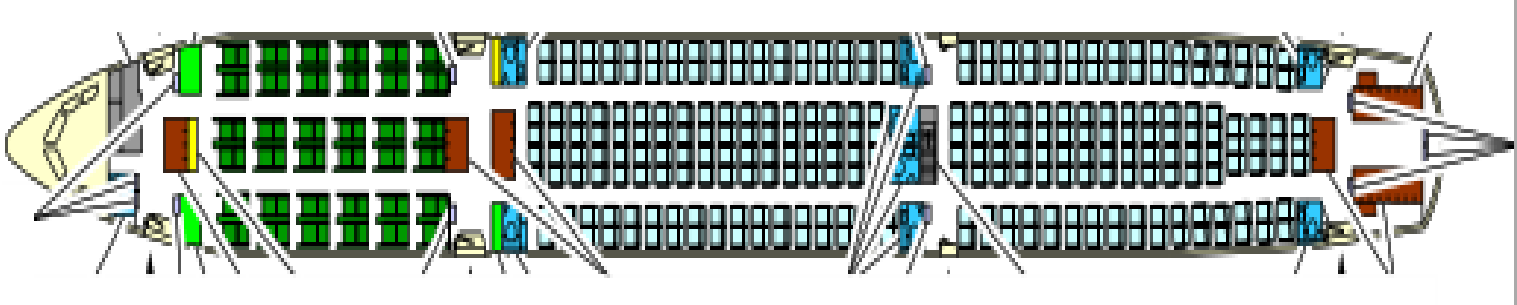
List price of new Aircraft

Approx. \$ 100m to \$110m

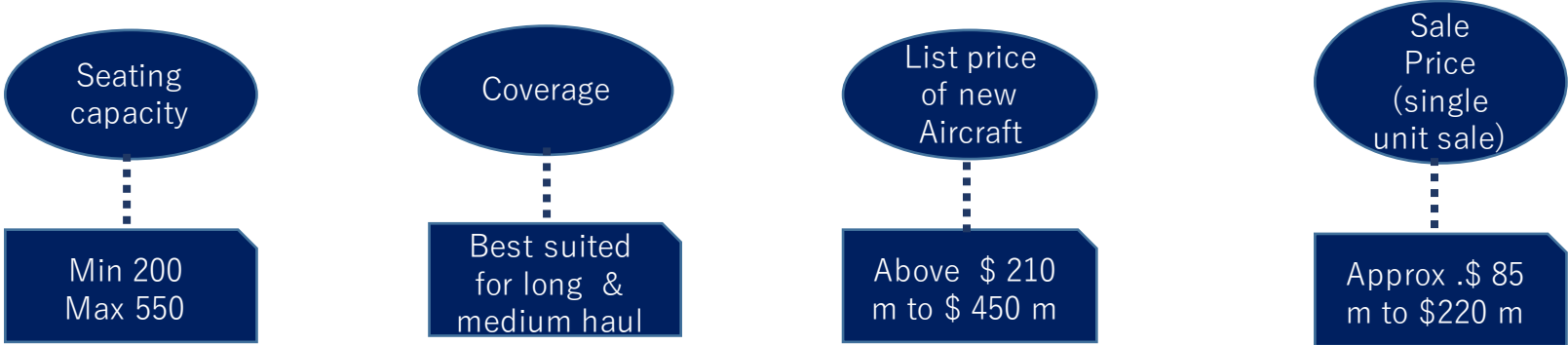
Sale Price (single unit sale)

Approx. \$ 44m to \$55m

Wide Body Aircraft Value (an example)



Feature & Characteristic



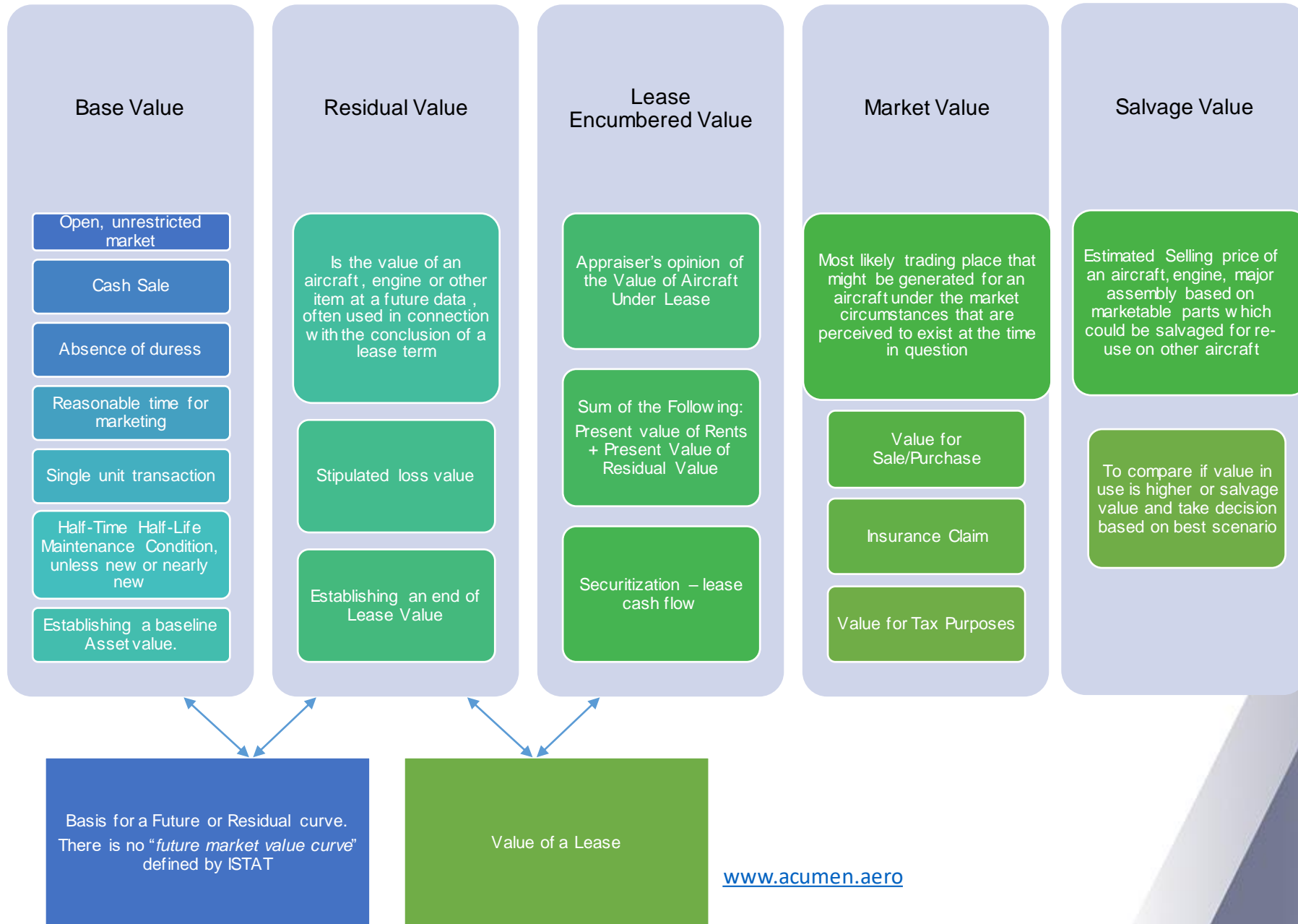
Residual Value

Residual value of an aircraft is the value at any future date , often used in connection with conclusion of lease term.

Every Asset Manager tries its best that Residual value of the managed aircraft is maintained in best possible way. To ensure and meet this requirement Asset manager/Investors often needs to perform following functions:-

- Regular audits including physical Inspection and records collection from lessee (generally done every 12 Months to 36 Months) based on credit risk profile as decided by lessor/lease manager
- Monitoring Financial health of lessee and take timely action as per lease, should financial health of lessee deteriorate and more frequent onsite visits, surveillance could be necessary
- Ensure no financial/technical default is continuing (e.g. Titled assemblies should be installed on aircraft if so necessitated by lease)
- Try to avoid situation of no utilization / storage (if possible). If aircraft is preserved then monitor that parts are not removed by lessee to service other aircraft in its fleet as this situation cannot only force longer term grounding but also poses higher risk for lessor to recover aircraft

Use of Appraiser's values





ACUMEN

Q & A

THANK YOU

Amit Kumar Tyagi | CIO and ISTAT Certified Appraiser | M: +91 741 1034376

amit.tyagi@acumen.aero

www.acumen.aero