
Asia/Pacific ANSPs Life-Cycle Management Survey Summary

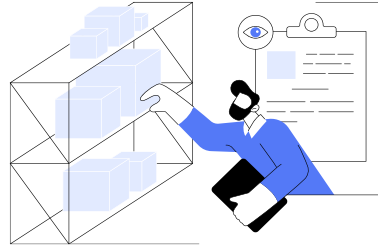
AAC Workstream 1 Task 7

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Focus Areas



Planning



Procurement Experiences



Procurement Target



Implementation



Maintenance



Whole-Life Management



Additional Insight

Responded Organizations



Overall Summary

In planning, ANSPs face shifting regulations, user-acceptance issues, and coordination complexity, while success depends on clear requirements, technology readiness, and structured project management. Procurement processes emphasize transparency, compliance, and strong documentation, with open tendering as the primary method and selective or limited procurement used when appropriate; fairness is reinforced through objective evaluations and conflict-of-interest controls.

ANSPs see potential in group procurement for systems such as digital towers, DME, GB-ADS-B, SWIM, and CRV, although differing national rules limit feasibility.

Implementation challenges focus on resource management, system validation, and certification linked to regulatory approvals and audits. Maintenance follows ICAO and national frameworks using preventive, corrective, and predictive approaches, supported by strong coordination between ATC, engineering teams, and vendors.

Whole-life management incorporates lifecycle planning, upgrade triggers, early migration strategies, after-sales support, and total cost of ownership monitoring, complemented by KM tools such as asset databases, CMDBs, and training systems.

Overall, the survey indicates regional convergence and highlights opportunities for deeper collaboration through harmonized procurement guidance, modular architectures, and shared knowledge platforms.

Planning



Challenges in Planning

Planning faces budget limits, regulatory changes, legacy system integration, and vendor readiness issues.

Keys to Success

Clear requirements, technology readiness, disciplined management, and stakeholder involvement enable success.

Best Practices

Use structured cycles, standardized methods, and collaboration with regulators and partners for effective planning.

To be ensured quality, adding frequently reviewing schedules with vendors and involving regulators directly during Factory and Site Acceptance Testing (FAT/SAT).

Strategic Frameworks

Combine waterfall for simple projects and agile or hybrid for complex ones to ensure adaptability.



Resilience

Redundant Systems Implementation

Redundant systems and dual-building configurations enhance resilience by preventing single points of failure.

Layered Redundancy and Monitoring

Layered redundancy combined with continuous monitoring ensures early detection and rapid response to disruptions.

Contingency Planning Integration

Contingency planning throughout the lifecycle helps mitigate risks from natural disasters and system failures.

Procurement



Transparency and Compliance

Procurement emphasizes transparency, compliance, and thorough documentation to ensure fairness and accountability.

Competitive Bidding and Evaluation

Fairness is reinforced through competitive bidding, clear evaluation criteria, and managing conflicts of interest.

Advanced Procurement Methods

Techniques like two-part tenders, RFIs, and cost-benefit analysis enhance procurement decision-making.

Group Procurement Challenges

Group procurement suits standardized systems but faces hurdles due to differing national laws.



Implementation

Resource Management Challenges

Effective implementation requires managing resources efficiently to meet project goals and timelines.

Certification and Compliance

Certification issues arise from regulatory approvals and external audits essential for system acceptance.

Change Management and Testing

Structured change management and thorough system testing ensure safe deployment and operational readiness.



Maintenance

Comprehensive Maintenance Framework

Maintenance integrates preventive, corrective, and predictive approaches with strong after-sales support and change management.

Common Maintenance Challenges

Challenges include human resource shortages, vendor support gaps, and outdated technology impacting maintenance quality.

Best Maintenance Practices

Mandatory Refresher training for technical staff, scheduling during low-traffic periods, using backup systems, and clear communications ensure minimal disruptions.

Whole-Life Management



Lifecycle-Oriented Approach

Whole-life management embraces planned upgrades, mid-life refresh, and end-of-life decommissioning to optimize assets.

ISO 55001 Asset Framework

Asset management aligns with ISO 55001 standards, ensuring structured and effective lifecycle management practices.

Knowledge Management Tools

Tools like CMDBs, lessons-learned repositories including investment plan and supplier recommendation context , and training systems support effective asset management and knowledge retention.

Continuous Improvement

Post-project evaluations and performance reviews drive ongoing improvements in safety, efficiency, and operations.



Legacy Systems

Critical Role of Legacy Systems

Legacy systems like VOR/DME and ILS provide essential resilience and compliance during modernization transitions.

Phasing Out Older Technologies

Older technologies such as Non-Directional Beacons and paper-based tools are gradually being replaced by digital solutions.

Ensuring Operational Continuity

A phased approach supports smooth transition while maintaining system reliability and operational continuity.

Regional Priorities

Stakeholder Participation

Modular Architectures & Standards

ICAO Initiative Alignment

Importance of In-Person Meetings

Thank you