

Accelerating AI in Aviation: Amach's Expertise in Action

Case Study on AI Engagement & Measurable Impact

The Challenge

Airlines today operate in one of the most complex and demanding industries in the world. They face constant pressure from rising operational costs, fluctuating passenger expectations, disruption management, strict regulatory requirements, and the need to keep fleets reliable and efficient. Traditional systems and processes are struggling to keep pace, leaving airlines searching for smarter, faster, and more resilient solutions.

Why Amach?

Amach specialises in a structured methodology for accelerated software and AI delivery within the Aviation Industry. By defining clear success metrics, validating solutions early, and applying agile decision checkpoints, we enable organisations to invest confidently in the initiatives that generate measurable value. This approach optimises resources, ensures alignment with business objectives, and drives results in months rather than years.

Amach's Success Engagement Model

Stage 1 - Sprint
Discovery (2
Weeks)

Stage 2 -
Prototype/POC
(2-3 Sprints,
4-6 Weeks)

Stage 3 - MVP
Build
(3-4 Sprints,
6-8 Weeks)

Stage 4 - Pilot
(2-3 Sprints,
4-6 Weeks)

**From Idea
to Business
Value
In 5 Months**

Stage 1

Sprint Discovery (2 weeks)

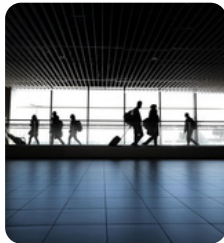
Activities: Define use case, map data availability, outline KPIs.

Success Metrics Checkpoint:

- Data sources identified and accessible (>70% coverage of needed data).
- Clear airline KPI link (e.g., reduce delay minutes, improve crew utilisation, lower call volume).
- SME + stakeholder buy-in (ops staff agree problem is real).

Decision Gate:

- Proceed → If data + business case are solid.
- Stop → If data gaps are too large or no measurable business value.



Stage 2

Prototype / PoC (2–3 sprints, 4– 6 weeks)

Activities: Define use case, map data availability, outline KPIs.

Success Metrics Checkpoint:

- Model performance > baseline (e.g., delay prediction $\geq 15\%$ better than rule-based).
- Latency within operational limits (e.g., <2s API response).
- End-user acceptance (OCC, crew, or call center staff find value in demo).

Decision Gate:

- Proceed → If model shows promise and users validate utility.
- Stop → If accuracy too low, latency too high, or ops staff don't trust results.

Stage 4

Pilot (2–3 sprints, 4–6 weeks)

Activities: Deploy in controlled production (one hub, one crew group, one call center shift).

Success Metrics Checkpoint:

Demonstrated business value:

- E.g., **Delay prediction** → $\geq 10\%$ reduction in unplanned disruptions.
- **Crew optimisation** → $\geq 5\%$ improvement in roster efficiency.
- **Passenger chatbot** → $\geq 20\%$ containment of queries without agent.
- End-user satisfaction $\geq 75\%$ (survey/feedback).
- Compliance approval (no regulatory blockers).

Decision Gate:

- Scale → If KPIs hit and users trust system.
- Stop → If ROI not demonstrated or staff reject system.

Stage 3

MVP Build (3–4 sprints, 6–8 weeks)

Activities: Productionise PoC, integrate into ops dashboards, add guardrails.

Success Metrics Checkpoint:

- Stable integration with test airline systems (no major downtime).
- Accuracy maintained within $\pm 5\%$ of PoC benchmark.
- At least 50% of pilot users engage with AI suggestions.

Decision Gate:

- Proceed → If MVP is stable and users adopt it.
- Stop → If system fails integration or adoption <30%.



Use Cases

- **AI Call Centre Containment** – 70%+ queries resolved without agents.
- **IROPs AI Transformation** – AI & automation reduce disruption costs.
- **Predictive Maintenance** – AI detects faults earlier, increasing uptime.

Ready to accelerate AI in your airline?

Amach proves that AI in aviation can move beyond vision to reality—delivering measurable impact in months through domain expertise, agile delivery, and clear decision checkpoints.

Contact Us



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