

Project Management Office (PMO) as a Managed Service: Delivering on the Airbus A350 XWB Program

Engagement delivered by Mi-GSO in France, Germany, Spain and the UK



To understand the nature of the truly complex project, consider what Airbus achieved when it undertook the design and manufacturing of the A350 XWB. At its peak that effort encompassed 12,000 interdependencies and an overall project team of 12,000 people. It has been no small task to coordinate and manage that program to get all of the pieces in the right place at the right time.

Airbus Project & Program Center of Competence (P&PM CoC) chose Mi-GSO to provide Program Management Office (PMO) services in numerous areas (more on that shortly). But what's particularly distinctive about the collaboration is that the aircraft manufacturer chose a managed service format. Instead of hiring project experts under a standard time-and-materials arrangement, the CoC contracted with Mi-GSO to supplement internal capabilities and provide valuable PMO expertise as managed service. This approach offered a multitude of benefits to Airbus, from higher productivity to reduced procurement effort, from greater staff stability to innovative practices.

Vital Stats of the Jetliner

The Airbus A350 XWB ("Xtra Wide Body") is a medium- to long-haul jetliner that took seven years to move from

concept through production. The company currently manufactures the plane in four countries and 12 locations. For example, the wings are made in Filton; the tail fin is made in Stade; the fuselage is built in both Saint-Nazaire and Hamburg and the whole sections are brought together in Toulouse final assembly line.

More than half of the A350 XWB's structure is made up of carbon fibre material, resulting in a lighter body that reduces fuel consumption. Composite materials are corrosion and fatigue free, resulting in easier maintenance. The wings of the aircraft use a unique tapered design inspired by bird flight that morph while the jetliner is airborne, changing their shape to reduce fuel burn. Overall, the aircraft uses 25 percent less fuel than comparably-sized competitors. It flies at a maximum altitude of 43,100 feet with a top speed of just under 600 miles per hour.

The aircraft addresses passenger comfort in a number of ways: wider seats and wider windows; dynamic LED mood lighting that cycles tones and colours to suit the time of day and destination; an air management system that filters the air every few minutes and keeps it optimally humidified; low noise levels; and state-of-the-art in-flight entertainment systems.

5 Lessons for Doing PMO Managed Services Right

1. Choose a partner with industry and domain knowledge.
2. Be prepared to allow your PMO Managed Service provider to feel empowered to help you challenge political and operational "sacred cows" in order to drive improvements - the partner needs to be able to bring "lessons learned" forward in order to add value to your program.
3. Plan on a two- or three-year delivery-based work package to ensure that the PMO Managed Service provider has the room to invest in its people and build up skills and knowledge. Payment is based on delivery of milestones or outcomes, not on time and materials. The exact shape of that gets worked out as part of the start-up phase.
4. The partner -- not the client -- selects and manages its' own resources in order to deliver the right outcomes.
5. It's crucial that the two partners follow a similar program or project methodology.

So far the company has 780 A350 XWBs on order with three of those currently in operation. The aircraft officially entered commercial service in January 2015 when Qatar Airways flew the first "revenue" flight.

Program Involvement: Xtra Challenge

Airbus began using Mi-GSO's services in project and program management starting in 2006, during the feasibility phase and going through concept, design, flight tests and production of the first five airplanes. As the development phase of the A350-900 (the core version of the aircraft) was moving to the integration and qualification phase, part of the team on-boarded the A350-1000 program (the first and largest family derivative).

What began as a Mi-GSO team of about 25 people eventually grew to a corps of nearly 120, embedded into the numerous parts of the organisation on behalf of Airbus P&PM CoC -- the chief engineer, airframe design, program management, customer services, finance, final assembly line design, the A350-1000 derivative, and systems and power plant areas.

What Mi-GSO handled covered a wide spectrum:

- Set up and management of project plans and activities;
- Support of the project organization set-up and deployment;
- Monitoring and control of project performance, actions, risks and earned value;
- Support for client project leaders in their TCQP accountabilities (Time, Cost, Quality, Performance); and
- Facilitate animation and coordination of all stakeholders (internal & external).

Overall, Mi-GSO consultants supported the P&PM CoC, acting as co-navigators to help guide and shape the projects teams. Our people worked alongside Airbus project leaders to make sure that quality standards were being executed in the different areas consistently across the organization.

About 60 percent of the work performed by Mi-GSO was in the area of schedule management and keeping the program on course. Another 20 percent focused on managing cost and ensuring that the right decisions were made around cost-tradeoffs. 10 percent emphasized risk identification and mitigation. The remainder of effort was dedicated to management of resources, suppliers, change control and non-conformity of parts.

Key Benefits of Continuity: Innovation

An advantage of the managed services approach is the continuity a long-term agreement brings to program management. Airbus had worked with Mi-GSO previously on its A380, the world's largest passenger jetliner. As a result of that on-going partnership the PMO Managed Service team was able to introduce a number of improvements into the production process, two of which are

notable for the amount of time they removed from the construction timeframe -- helping reduce it from 24 months down to 18 months.

The first innovation involved assembly of on-board toilets and galleys. Previously, the parts for each were brought in through the door of the plane and assembled bit by bit inside the fuselage. Mi-GSO recommended that those components be assembled before the fuselage was put together and then the prefabricated assemblies slid into place.

The second innovation involved wing construction. Previously, if a problem surfaced during the completion of a wing in Bristol, the effects of the delay could be felt all along the assembly chain. Mi-GSO advised that the wing be sent onto Toulouse (whether it was ready for installation or not) and that a wing team be sent as well to complete the final assembly on site rather than delaying all of the logistics and causing a backlog for other parts.

Why PMO Managed Service

PMO provided as a managed service is billed as a flat fee based on reaching milestones or delivering outcomes, the details of which are sorted out early in a discovery phase of the engagement. As in other kinds of outsourced transactions, the contract may stipulate incentives or discounts for deadlines exceeded or missed.

The format delivers significant benefits to the client:

- The structure serves as a catalyst for on-time, on-budget performance.
- It provides a way to supplement internal capabilities on programs with the least amount of client effort.
- The infusion of the service provider throughout the organization ensures effective interdependency management -- a vital ingredient when there are some 12,000 of them.
- Clients have seen a 20 percent higher productivity rate from managed service PMO staff than from contract or employee resources.
- The partner absorbs peak workload, overtime, handovers and vacation coverage.
- There's a reduced procurement effort on the part of the client, which

doesn't have to manage individual PMO contractors. Airbus had to deal with only a single company rather than 120 contractors.

- There's also reduced client management effort from on-site team leadership. The client is involved in talking to the managed service provider on a one-on-one basis. It's the provider's job to manage the PMO team.
- PMO staff size can be rapidly mobilized to mirror the ramp-up in the client organization.
- The PMO Managed Service provider maintains a stable workforce with access to a community of experts and know-how (cross industry insight, best practice benchmark, methodologies, tools and training) as well as an emphasis on continuous improvement.

About MI-GSO

MI-GSO, the leading European project management consultancy, and P Cubed, a global management consulting firm focused on delivering business transformation, program and portfolio management, form a group:

- of over 1,000 expert Consultants
- operating in Europe, North America, Asia and Australia
- with a wide industry expertise addressing Aerospace, Automotive, Rail, Defense, Energy (Utilities and Oil & Gas), Financial Services, Telecom, Technology & Media, and Public Sector.

Every day, we support our clients by steering major Projects and Programs, managing Project Portfolios, improving maturity and efficiency of PM Organizations, addressing business transformation and change management issues.

For more information please contact:

info@mi-gso.com
