

## **TEAM 1**

### **EXECUTIVE SUMMARY**

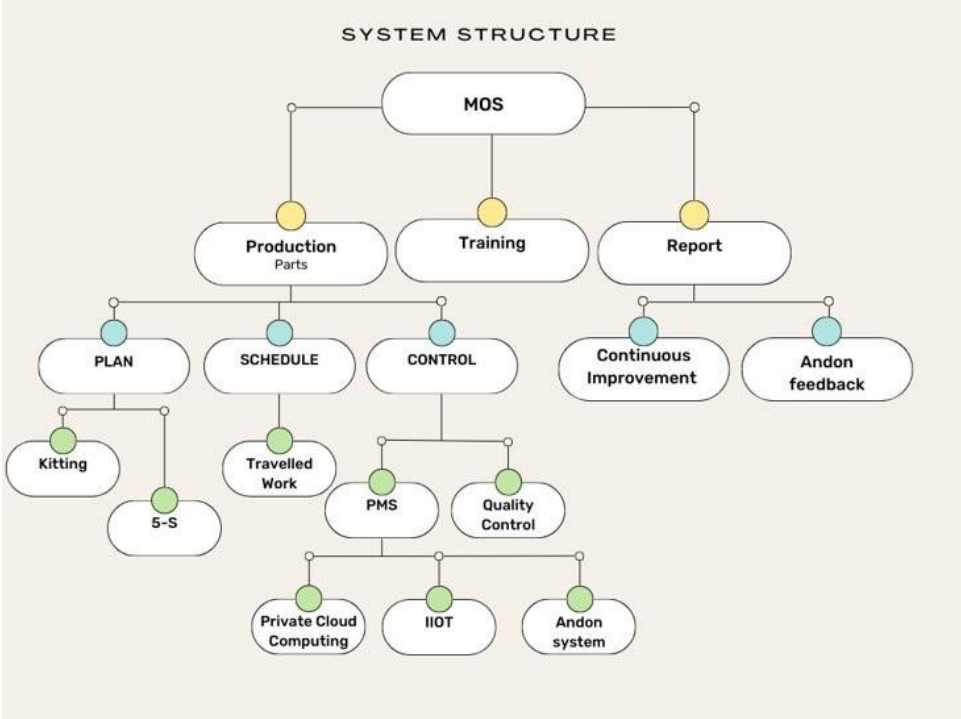
A manufacturing management operating system governs all facets of the manufacturing process — providing guidance for decision-making, scheduling, budgeting, maintenance, procurement, validation, quality, fulfillment, and more. It provides a logical series of control points through which Key Performance Indicators are identified and measured, enabling significant variances to be managed quickly. Formal or informal, an operating system dictates the running and improving of operations – it is the foundation for operational excellence. It works as a link between people and tools, helping an organization reap the full potential of manufacturing. The operating system for manufacturing consists of five core elements supported by visual management, and it is the platform where we execute the operations strategy. The approach is leadership-driven, anchored by internal community owners, securing sustainable implementation. The core approach is to dream big, but start small and scale fast, to ensure quick learnings across all areas. Visualization plays an important part in the manufacturing industry, as it enables organizations to see performance As-Is and what needs improving, thereby visualizing the problems.

The aim of this project is to develop a Manufacturing Operating System for De Havilland Aircraft of Canada. This MOS is designed according to lean manufacturing principles and tailored to supplement of DHC-515 water bomber aircraft production process. This will help in the reduction of waste and re-work requirements, decrease turnaround time and provide nonconformance tracking capability without compromising aerospace standards. This was achieved by analyzing historical data and present lean manufacturing techniques to identify innovative options.

Based on the scope of this project, the structure below was developed. The research for this project is closely followed to the structure below and further developed by adding recommendations into a large flowchart.

Manufacturing systems in this project are assumed in terms of physical resources and functions that define the operations carried out in any MS. Typical functions in our studies encompass forecast, planning, scheduling, execute, and final report.

Each aspect of the research under every topic is explored to collect all the data, analyze the same and make the best recommendations.



**Figure 1: MOS System structure**