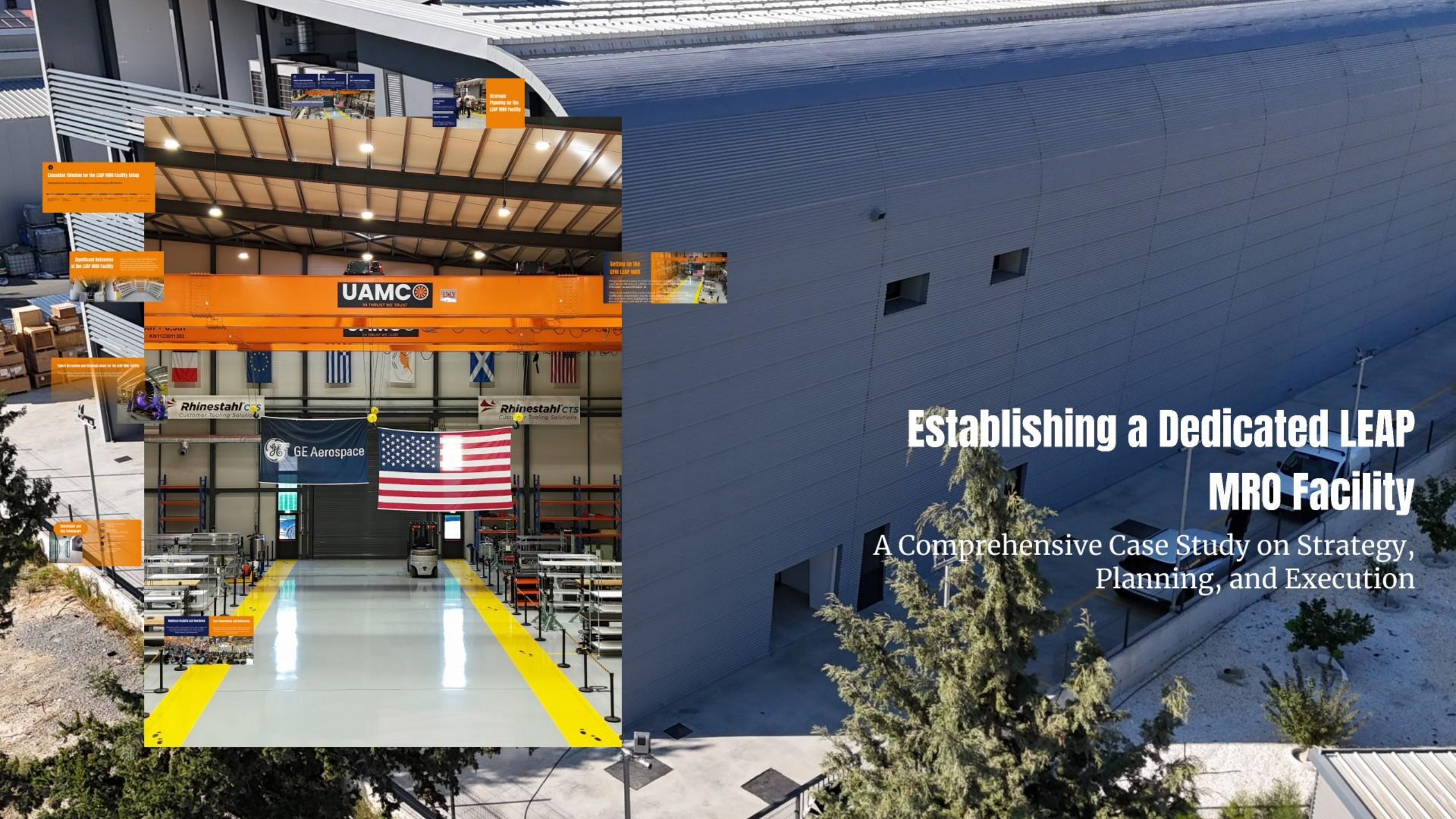




Establishing a Dedicated LEAP MRO Facility

A Comprehensive Case Study on Strategy,
Planning, and Execution

Setting Up the CFM LEAP MRO

This presentation covers in a brief the steps and timeline that was taken to reach the Certification of UAMCO, from EASA, for Approval B1 Rating for CFM LEAP-1A and CFM LEAP-1B.

The process involved the construction of a facility and meet the CFMI Certification requirements and the EASA Approval Requirements, within a two-year time frame, highlighting strategic planning, key challenges, execution phases, and overall outcomes.



Clear Objectives Established

- Target date for the Construction of workshop
- Target date for Approval Certification
- Target date for Training
- Target date for Tooling delivery

Effective Resource Allocation

Resource allocation focused on budgeting but on the same time meeting the time frames, for shop construction, tooling, and training, ensuring that all necessary tools and personnel were in place for a timely and effective setup.

Stakeholder Engagement

Engaging stakeholders was vital for obtaining support and coordinate all the requirements of the project. This was not limited to the selection of key personnel, mainly the shop technicians, the General Contractor and all sub contractors in respect of the facility, the training, the on-schedule delivery of tooling.



Strategic Planning for the LEAP MRO Facility

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Regulatory Compliance Challenges

Regulatory compliance was a critical challenge, requiring adherence to the Regulations that it was introduced on the concept of the Certification of LEAP, as new design engine, requiring more specific demonstration of experience on the maintenance tasks, as the new concept of maintenance for the LEAP.

The introduction of a Quick Turn shop visit with replacement of modules, it was an ambitious concept, as it was proven during operational induction of the engine, it moved earlier in PRSV, requiring Engine Test Cell visits prior to release.



Workforce Training Needs

Workforce training was essential to ensure that staff were equipped, with the necessary skills and knowledge for maintaining the LEAP engines and as this is provided direct, from CFMI and the availability of training slots, is limited and as a new MRO, the priority on slot allocation affected the project schedule.

With the combination of an On Job Experience of personnel as it is a Regulatory requirement, with not available hands on experience, it became a challenge.



Tooling Supply Management Issues

As there are only 3 CFMI Licensed tool suppliers and the tooling requirements for the engine shops, was only anticipated to be required after 2025, the availability of tooling was minimum and only available to the CFMI partners GE / SAFRAN.

In order to ensure on-time delivery, an exclusive provider was selected that could guarantee on time delivery and Technical support.

Rhinestahl CTS or now called RH Aero, was selected. At this key element budgetary considerations were not a key factor, the major factor it was on time delivery and technical support.

Challenges Faced During Implementation





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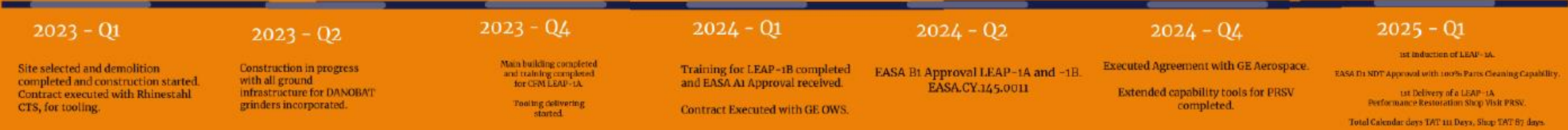
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Execution Timeline for the LEAP MRO Facility Setup

Highlighting key milestones and progress in establishing the MRO facility.





2023 – Q1

Site selected and demolition completed and construction started. Contract executed with Rhinestahl CTS, for tooling.



2023 – Q2

Construction in progress
with all ground
infrastructure for DANOBAT
grinders incorporated.



2023 – Q4

Main building completed
and training completed
for CFM LEAP-1A.

Tooling delivering
started.



2024 – Q1

Training for LEAP-1B completed
and EASA A1 Approval received.

Contract Executed with GE OWS.



2024 - Q2

EASA B1 Approval LEAP-1A and -1B.
EASA.CY.145.0011



2024 - Q4

Executed Agreement with GE Aerospace.

Extended capability tools for PRSV
completed.



2025 – Q1

1st Induction of LEAP-1A.

EASA D1 NDT Approval with 100% Parts Cleaning Capability.

1st Delivery of a LEAP-1A
Performance Restoration Shop Visit PRSV.

Total Calendar days TAT 111 Days, Shop TAT 87 days.

Significant Outcomes of the LEAP MRO Facility



Significant Outcomes of the LEAP MRO Facility

The establishment of the LEAP MRO facility yielded several key outcomes, such as a notable increase in operational efficiency, the capability to offer enhanced maintenance services, and improved financial metrics that reflect the facility's success in the market.



Future Directions and Strategic Goals for the LEAP MRO Facility

This roadmap presents the strategic goals to ensure sustained growth and innovation within the LEAP MRO facility.



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2025 Q4

Installation of DANOBAT grinders and Schenck Balancing.



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2025 Q4

Installation
of DANOBA
T grinders and
Schenck
Balancing.

2026 Q2

C7 Approval for
HPT, LPT and
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New Production
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2027 Q1

Commissioning and Approval of Engine Test Facility.

Conclusion and Key Takeaways



Importance of strategic planning



Overcoming implementation challenges



Achieving operational efficiency

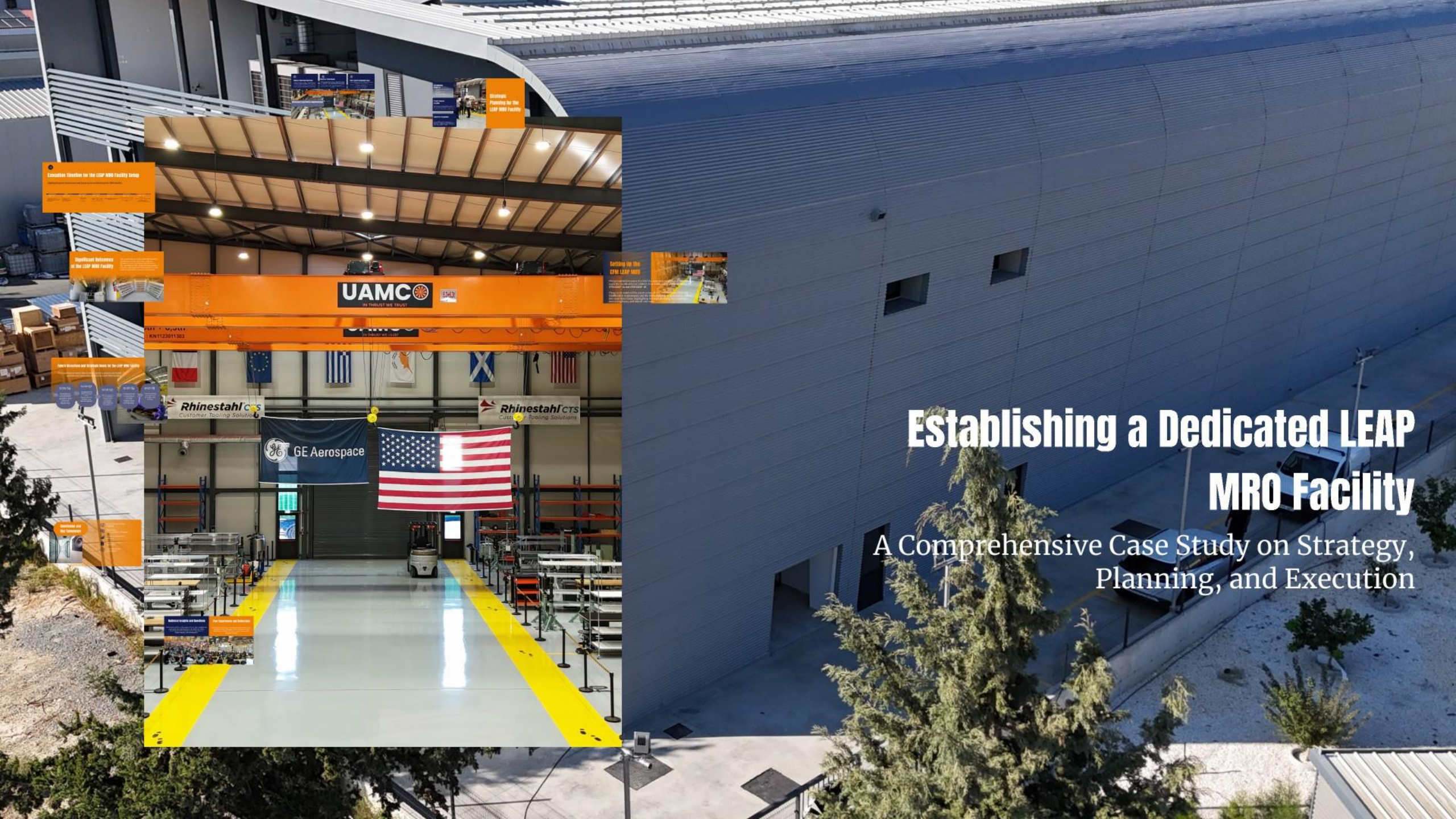


Enhancing service capabilities



Positive financial performance





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