

# MAINTAIN YOUR COMPETITIVE EDGE

PROCESS IMPROVEMENT METHODS CUSTOMIZED  
FOR AIRCRAFT MAINTENANCE SMEs.

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## MORE INFORMATION AND CONTACT

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# MAINTAIN YOUR COMPETITIVE EDGE

**“What are the opportunities for Small & Medium MRO companies, given their specific characteristics, to improve and consolidate their performance?”**

## OBJECTIVE

Small- and Medium Enterprises (SMEs) which operate in the MRO-sector are characterized by small (often changing) production volumes and large product variety. This makes their processes less predictable. These companies have specific characteristics that make existing improvement methods, such as LEAN or 6 Sigma, less or not suitable. Those methods are mostly focussed on large-scale enterprises. This research seeks for suitable tools that can optimize the processes of a SME MRO company.

## THE EXPECTED RESULTS

Maintain your competitive edge provides a number of direct results:

### For MRO SMEs:

- Improved insight in performances through an integrated and relevant set of KPIs;
- Increased productivity, lower costs, better lead times and higher stock reliability through improved processes;
- Renewed methods applicable to shop floor, presented in a manageable toolbox.

### For the Dutch aviation market/sector:

- Improved competitiveness of SME MRO suppliers of larger companies such as KLM, Dutch Royal Air Force, etc.;
- Improved safety, management and monitoring through increased professionalism of MRO companies;
- Increased professionalism of maintenance technicians.

### For higher education on Aviation Maintenance;

- Renewed methods for performance monitoring and process improvement for MRO companies;
- Gathering knowledge about implementation of process optimization within MRO companies;
- Case studies to illustrate and transfer the newly gathered knowledge during education.



## THE RESEARCH PROGRAM/METHOD

Over the course of four research phases (Figure) we will develop an optimal set of improvement methods. At the end of every phase we ask participating companies to give feedback on the findings and direction of the project. Special feedback meetings are organised for participants.

## THE RESEARCH TEAM

The research team consists of two research lecturers, two research trainees and a varying number of graduate researchers. A consortium, consisting of among others TNO, TU Delft and the Netherlands Aerospace Group (NAG), give direction to the research. A number of experts on various research areas support the research team with their expertise.

### PHASE 1. KNOWLEDGE TRANSFER & DIAGNOSE (Spring 2013)

Determining a baseline & comparing participating companies to a benchmark.

### PHASE 2. ANALYSES & DESIGN (Fall 2013)

Identifying potential improvement methods.

### PHASE 3. TESTING (Spring 2014)

Application of modified improvement methods at the companies.

### PHASE 4. SYNTHESSES (Fall 2014)

Evaluation of modified improvement methods, final development of improvement methods and creation of toolbox.