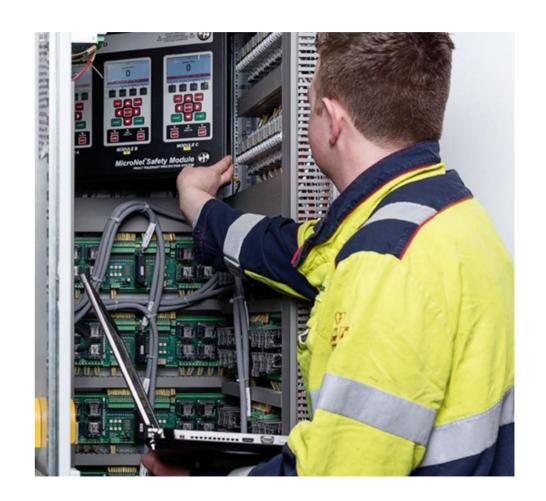


Effective engine fleet maintenance management

Jan Slagter, technical director



- 1. Maintenance management for engine fleets
- 2. Gas turbine maintenance management
- 3. Engine fleet maintenance management
- 4. Topics in effective engine fleet maintenance management
- 5. Benefits of effective engine fleet maintenance management



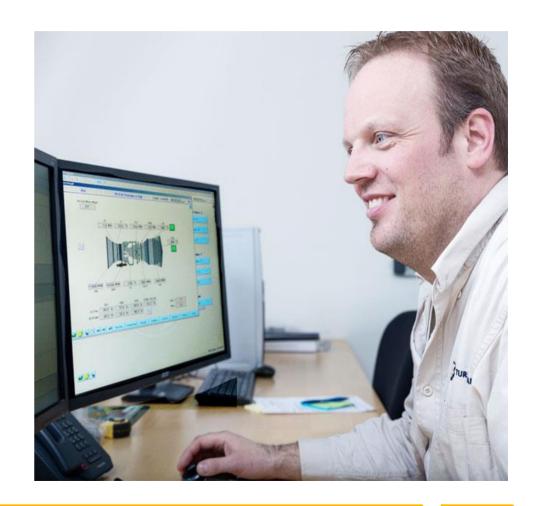


#### Maintenance management for engine fleets

In general gas turbine maintenance management strategies are developed from the perspective of an individual engine.

Maintenance management strategies developed for a fleet of engines will be more (cost) effective than strategies that are developed for a single engine.

Smart remote solutions enable effective engine fleet maintenance management and ensure maximum reliability, availability and maintainability with a significant reduction of operation & maintenance costs.





### Gas turbine maintenance management

Effective gas turbine maintenance management pays attention to:

- Maximum support for the revenue generating process of the operator
- The operating profile of the gas turbine
- Systematic improvement of reliability, availability & maintainability
- Systematic reduction of operation & maintenance costs

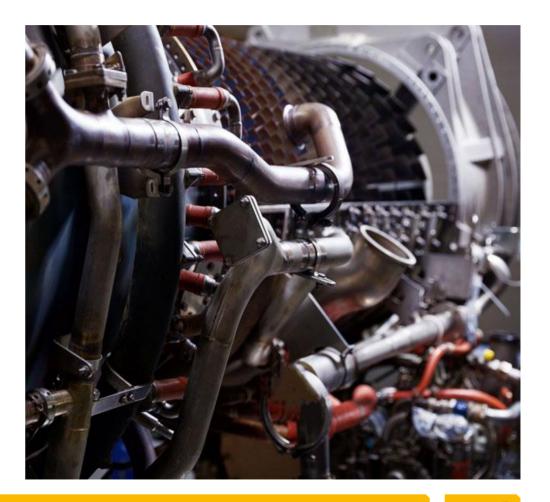




### Engine fleet maintenance management

Effective engine fleet maintenance management adds on top of that:

- Smart remote solutions to enable optimization of maintenance over an entire fleet of engines.
- More effective & efficient allocation of operation & maintenance engineers, spare engines, spare parts & dedicated tooling.
- Systematic knowledge/competence development for the operation & maintenance staff on site.





## Topics in effective engine fleet maintenance management

- Purpose of the gas turbine operation
- Gas turbine key performance indicators
- Operating profile of the gas turbine
- Location of the engines in the fleet
- Organization of turbine operation & maintenance – central or decentral?
- Current maintenance status
- Time-based vs. (data-driven) condition-based scheduled maintenance





# Topics in effective engine fleet maintenance management

- Depot maintenance vs. on-site maintenance
- Availability of spare engine(s)
- Availability of spare parts
- Availability of dedicated tooling
- Expertise & competence of on-site operation & maintenance staff





# Benefits of effective engine fleet maintenance management

- Improved performance by the business process that is enabled by the engine fleet
- Improved engine fleet revenue generation
- Reduced engine fleet operation & maintenance costs

