Engine Health Monitoring

Our Engine Health Monitoring enables you to get as close as possible to fully predictable engine maintenance planning. It gives you all the information you need to avoid unexpected engine removals, reduce costs, optimize operations and ultimately extend the life of your engines.

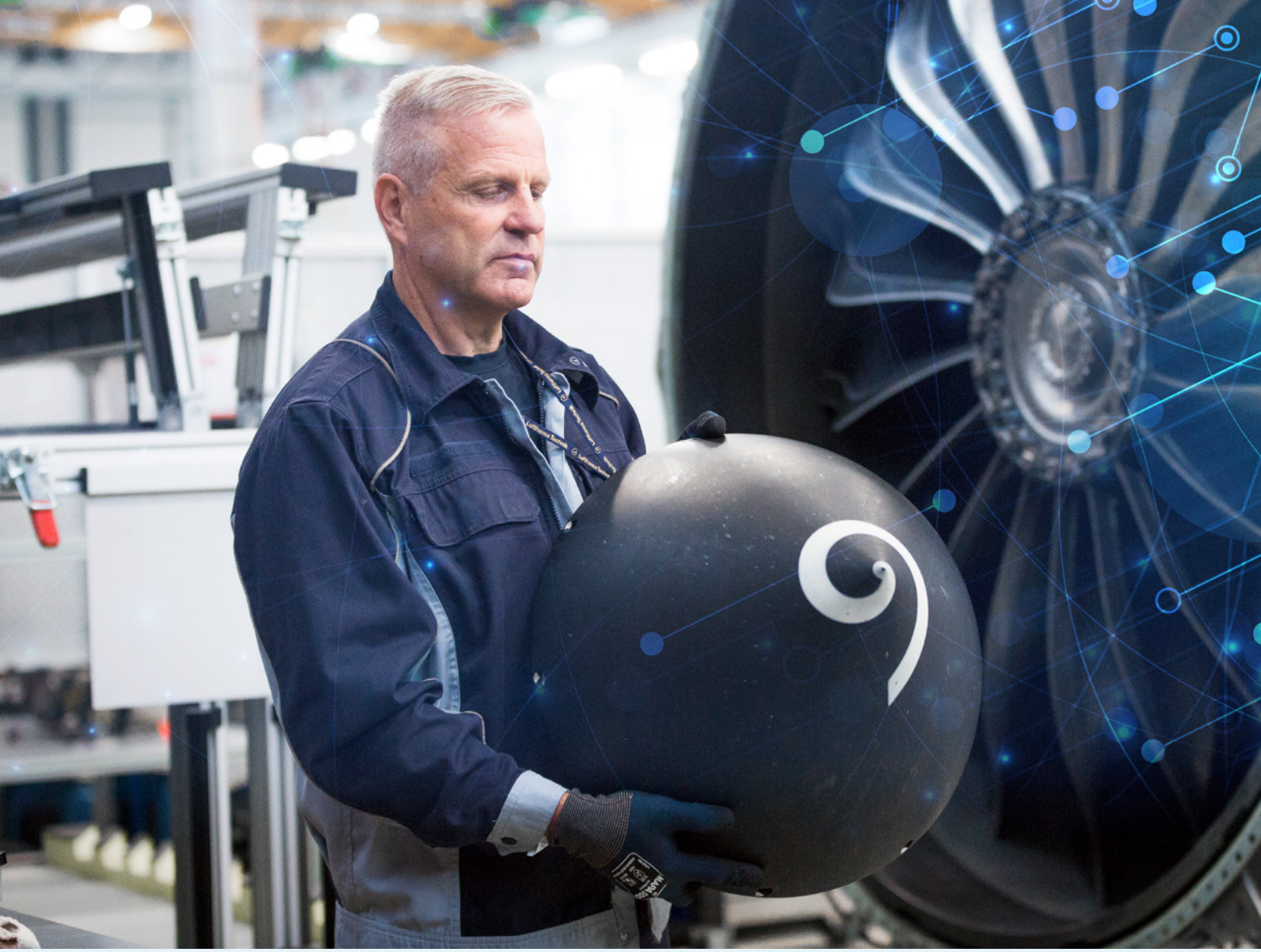
Modern engines are becoming more and more complex, making engine management an increasingly challenging task. Lufthansa Technik has developed a digital solution to help turbine engine operators navigate this complexity. SCATE is based on a digital twin of the engine, which enables the system to process a wide variety of data parameters and monitor entirely new parts of an engine. This approach has already proven to detect flaws that were previously missed by conventional Engine Condition Monitoring.

SCATE is a web-based application that combines and analyses various data sets such as engine performance and many more. It enables experts to detect wear and tear at an early stage by means of optimally adapted alarm rules. If required, experienced Lufthansa Technik engineers can assist in interpreting the data and selecting troubleshooting measures. A very special feature: The alert rules can be adapted to the operational conditions of our customers. Thanks to our in-house development capabilities, we can integrate our maintenance experience to further optimize the solution.

Benefits

- Enables experts to make informed decisions
- Optimizes maintenance planning
- Minimizes the number of unexpected engine removals
- Increases technical reliability and flight safety
- Reduces cost of ownership across the entire lifecycle
- Offers 24/7 expert analysis by our engineers
- Allows monitoring of different engine types in a single solution

Lufthansa Technik



25

Recently 25 customers under contract

Experience you can rely on

2017

Launched in 2017 with further development ever since

1 M

Receiving 1 million aircraft data sets each year

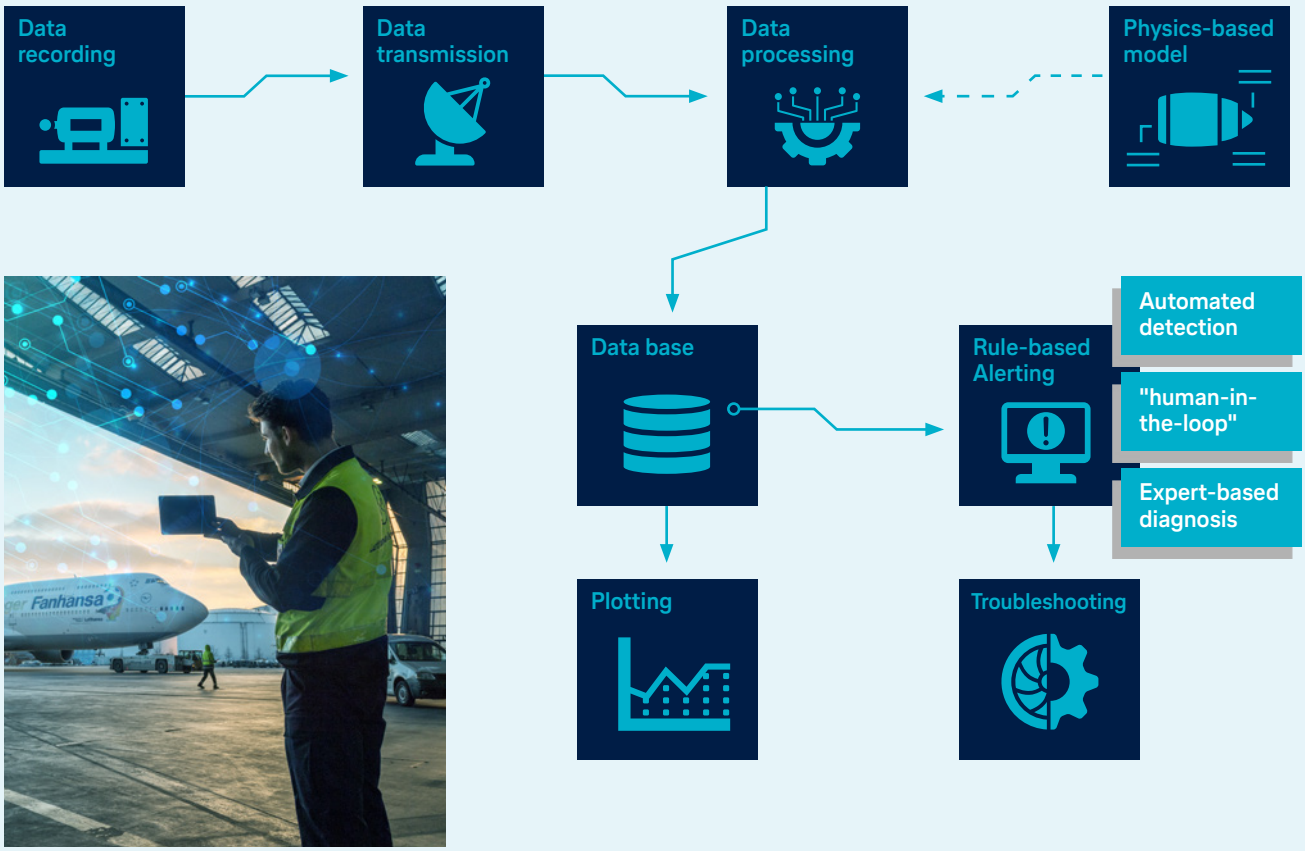
1200

Monitoring more than 1200 engines

25 M

25 million messages already processed

How it works



The choice is yours.
We offer EHM on three different support levels.

Level 1 Basic support

- Provision and management of database
- Data format conversion
- Trend plot access via EHM App in AVIATAR

Level 2 Standard support

- EHM Level 1
- Data Interval Exceedance Monitoring and alerting if no data will be generated
- Daily alert observation – 7 days a week, 365 days a year
- Maintenance recommendation in case of trend deviations
- Monthly trend review / performance report

Level 3 Enhanced support

- EHM Level 1 and Level 2
- Average Thrust Derate Calculations and reporting (if needed)
- Special reporting for instance ETOPS reports etc. (if needed)
- SCAMT Responsibility with all EASA part M requirements (if needed)
- Weekly / monthly phone call meeting (if needed)
- Ad hoc evaluations and recommendations by engineering specialists form our engine shop in Hamburg

BOEING	Engine model
B737NG	CFM56-7B
B737MAX	LEAP-1B
B747-400	CF6-802B1F
B747-400	PW4056
MD11F	CF6-80D1F
B767-200/300	CF6-80C2B6F/B7F
B777	GE90-100
B787	GEnx-1B
B747-8	GEnx-2B

AIRBUS	Engine model
A300-600 / A310-200/300	CF6-80C2A2/3/5/8
A319/320/321	CFM56-5A
A319/320/321	CFM56-5B
A319/320/321	V2500-A1/A5
A319/320/321 NEO	LEAP-1A
A319/320/321 NEO	PW1100G
A340-200/300	CFM56-5C
A330-200/300	CF6-80E1A

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