Innovation at the top
Make your ideas fly…and innovation inevitable

Dr. Helge Sachs
Head of Corporate Innovation Management & Product Development
MRO Americas, Dallas, 05 April 2016
Innovations at Lufthansa Technik are new products, services and business models as well as technical processes that are new to the market and implemented successfully.

Innovations contribute to growth, differentiation and job security.
Innovation Drivers
Customer Needs

Clever Repair & Modification

MRO Cost Reduction

Cabin Innovation

Dr. Helge Sachs | MRO Americas, Dallas | 05 April 2016
Copyright © 2016 Lufthansa Technik AG. All rights reserved. Subject to restrictions and disclaimer on last page.
Innovation Drivers
Technological Challenges

New Aircraft and Engine Types

New Materials & Production Technologies

New Systems & Technology with Increasing Complexity

IT & Big Data Challenges
The Lufthansa Technik Innovation System…

…consists of different elements.
Innovation Strategy

Innovation Fields

MRO for Future Aircraft

MRO Value Chain Innovation

Digital MRO

Original Equipment Innovation

MRO Service Innovation

“Innovation drives our growth”

Dr. Helge Sachs | MRO Americas, Dallas | 05 April 2016

Copyright © 2016 Lufthansa Technik AG. All rights reserved. Subject to restrictions and disclaimer on last page.
Innovation Process

Idea Funnel

- Birth of idea
- Selected
- Enriched
- Synergy Review
- Hot
- Management Review
- Financial Permit
- Approved
- Project at Work
- Finished

Idea

- Product Division Innovation Circle
- Corporate Innovation Circle
- Innovation Review Board

Dr. Helge Sachs | MRO Americas, Dallas | 05 April 2016

Copyright © 2016 Lufthansa Technik AG. All rights reserved. Subject to restrictions and disclaimer on last page.
LHT Innovation Roadmap with +160 projects
Aircraft Upgrade

- MRO Value Chain Innovation
- Digital MRO
- MRO for Future Aircraft
- MRO Service Innovation
- Original Equipment Innovation
Innovation Projects
Shark Skin Coating

Development of an automated device to apply riblets on large scale on commercial aircraft

- **Project objectives:**
  - Develop shark skin coating for aircrafts with a special structured surface to influence turbulent flow
  - Development of an automated device to apply riblets on large scale on commercial aircraft
  - Test flights with riblet patches on two commercial aircraft for 24 months
  - First coated test aircraft shall be available by end of 2017

- **Key customer benefits:**
  - Reduced drag
  - **Reduced fuel consumption by more than 1%**
  - Extended range
Innovation Projects
Aerodynamic Improvements
Digital MRO

- MRO Value Chain Innovation
- MRO for Future Aircraft
- Digital MRO
- Aircraft Upgrade
- Original Equipment Innovation
- MRO Service Innovation
Data-driven decision support based on advanced analytics

- **Project objectives:**
  - Collect and merge all available data
  - Apply newest big data analytics (e.g. predictive analytics, pattern recognition, regression analysis, machine-learning)
  - Create actionable new insights (e.g. dynamic and individual check planning depending on aircraft health status)

- **Key customer benefits:**
  - High A/C and component availability
  - High Dispatch Reliability
  - Optimal remaining useful life at component removal
  - Optimized spare part inventory
Are you ready to co-innovate with us?
Lufthansa Technik Innovation Center and ZAL
Thank you for your attention.

Dr. Helge Sachs  
Head of Corporate Innovation Management and Product Development  
Email: helge.sachs@LHT.DLH.de  
Mobile: +49 (0)151 5891 8817

Copyright © 2016 Lufthansa Technik AG. All rights reserved.

The information contained in this presentation is proprietary to Lufthansa Technik AG and is disclosed in confidence. The presentation and the information contained herein shall be kept strictly confidential and shall not be used, disclosed to others or reproduced without the expressed written consent of Lufthansa Technik AG. Nothing contained in this publication shall constitute any warranty, guarantee or liability for Lufthansa Technik AG, its subsidiaries and affiliates, but is for information purposes only. Accordingly, Lufthansa Technik AG, its subsidiaries and affiliates neither expressly nor conclusively accept responsibility or liability for the actuality, accuracy and completeness of the statements and information contained in this publication.