

# **Integrated Management Manual** of the Lufthansa Technik Group Aviation Safety – Quality – Environmental Protection – Occupational Health & Safety



### **Imprint**

This Management Manual (work) is property of Lufthansa Technik AG. Any utilization in form of duplication of this work or parts thereof must be coordinated with the editorial team listed below.

Internal document identity number is 16037.

Editor Lufthansa Technik AG Quality Management LHT-Group (T/TQ) Weg beim Jäger 193 D-22335 Hamburg, Germany

Or for correspondence Postfach 63 03 00 D-22313 Hamburg

Website of Lufthansa Technik AG: <a href="http://www.lufthansa-technik.com">http://www.lufthansa-technik.com</a>

Corporate Headquarters: Hamburg Registration: Amtsgericht Hamburg HRB 56865

### **ProX Process Descriptions:**

ProX process descriptions may be provided in more than one language. In case of Authority approved process descriptions, the Authority approved version shall have precedence.

Please send notes and proposed improvements to: Editorial team Quality Management LHT-Group Management System & Certification (T/TQ-A2) Telephone (+49) 40 5070-66568 Fax (+49) 40 5070-4501 E-mail: stephan.lange@lht.dlh.de

Press date JUN 1st, 2025

# **Revision Highlights**

The following table provides an overview of the changes of Integrated Management Manual:

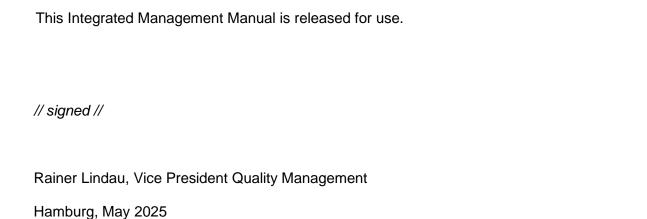
Highlight	Chapter
Title COO & HR officer: HR officer deleted	3
Management board: members adjusted from 3 to 4 and new board members inserted	9
Organization and Responsibilities: chart adjusted	9.1
Management Representative for Environmental & Occupational Health & Safety: adjusted	9.2
MES DUB: name corrected	9.5.9
FRA: employees adjusted	9.5.12
AerQ: deleted	9.5.15
EME: employees adjusted	9.5.16
Certification matrix: adjusted	10

# **Table of Contents**

1		Releas	se	6	
2		Conformity Statements			
	2.1	Conford EN/AS	mity Statement in accordance with DIN EN ISO 9001, EN/AS 9100, 9110, DIN EN ISO 14001, ISO 45001 and ISO/IEC 27001	7	
	2.2	Conformity Statement in accordance with C.A.S.E.*			
3		Applicability and Commitment			
4		Purpose of the Integrated Management Manual			
5		Purpose of Lufthansa Technik Group1			
6		Guiding principles of the company policy / Leitlinien der Unternehmenspolitik			
7		Safety Policy / Sicherheitspolitik			
8		Psychoactive Substance Policy		18	
9		Management of Lufthansa Technik			
	9.1	Organiz	zation and Responsibilities	22	
	9.2				
	9.3	-	ement Representative for Safety Management System (SMS)		
	9.4		ss Scope of the Lufthansa Technik Group		
	9.5	·			
	0.0	9.5.1	·		
			5.1.1 Lufthansa Technik (LHT), Location Hamburg, Germany		
		9.5.1.2 Lufthansa Technik (LHT), Location Frankfurt, Germany			
			5.1.3 Lufthansa Technik (LHT), Airport Berlin, Germany		
			5.1.4 Lufthansa Technik AG, Montreal, Canada		
		9.5.2	5.1.5 Lufthansa Technik AG, Raunheim Lufthansa Technik Middle East (LTME), Dubai World Central Airport, UAE		
		9.5.2	Lufthansa Technik Sofia (LTSF), Sofia, Bulgaria		
		9.5.4	Lufthansa Technik Budapest (LTB), Budapest, Hungary		
		9.5.5	Lufthansa Technik Milan (LTMIL), Milano, Italy		
		9.5.6	Lufthansa Technik Malta (LTM), Luqa, Malta		
		9.5.7	Lufthansa Technik Aero Alzey (LTAA), Alzey, Germany	37	
		9.5.8	Lufthansa Technik Turbine Shannon (LTTS), Shannon, Ireland		
		9.5.9	Lufthansa Technik Turbine Shannon Ltd., Branch Mobile Engine Services Kildare, Ireland		
		9.5.10	Lufthansa Technik Landing Gear Services UK (LTLGS), Hayes (London), l		
		9.5.11	Lufthansa Technik Shenzhen (LTS), Shenzhen, China		
		9.5.12	Lufthansa Technik Component Services (LTCS), Tulsa, USA		
		9.5.13	Lufthansa Technik Engine Services (LTES), Tulsa, USA		
		9.5.14	Lufthansa Technik Puerto Rico (LTPR), USA	44	

		9.5.15 Lufthansa Technik Philippines (LTP), Manila, Philippines		
		9.5.16 EME, Poland	46	
	9.6	Line Maintenance Locations of the Maintenance Organization		
	9.7			
	9.8			
	9.9	Locations of the Continuing Airworthiness Management Organization (CAMO)	47	
10 Certification of the Lufthansa Technik Gro		Certification of the Lufthansa Technik Group and Applicability	48	
11		Aviation Authority Approvals of the Lufthansa Technik Group	49	
12		The Process-Oriented Integrated Management System		
13		ProX – The Documentation System	51	
	13.1	Elements of ProX as a Documentation System	52	
	13.2	Integration of Requirements		
	13.3	Description of Processes	53	
	13.4	The Intranet Application	54	
14		ProX – Process Excellence within Lufthansa Group	55	
	14.1	Process Management Role Concept of ProX	55	
	14.2	The Editorial Process of ProX		

## 1 Release



### Remarks:

The published issue only bears the word "signed" instead of the handwritten signature. The editorial team for the Management Manual of the Lufthansa Technik Group, Authorities & Management System (T/TQ-A), is responsible for the verification that the necessary original signatures were obtained.

## 2 Conformity Statements

# 2.1 Conformity Statement in accordance with DIN EN ISO 9001, EN/AS 9100, EN/AS 9110, DIN EN ISO 14001, ISO 45001 and ISO/IEC 27001

This Integrated Management Manual (IMM), the authority specific Supplements as well as the documentation system ProX, which include the process descriptions, information boxes, activity-related documents and organization charts comply with the requirements for a Management Manual in accordance with DIN EN ISO 9001:2015, EN 9100:2018 / AS 9100:2016, EN 9110:2018 / AS 9110:2016, DIN EN ISO 14001:2015, ISO 45001:2018, ISO/IEC 27001:2013.

With the issuance of the certificates the certification bodies have confirmed, that the Integrated Management Manual, Aviation Authority Supplements, and the documentation system ProX comply with the requirements mentioned above.

## 2.2 Conformity Statement in accordance with C.A.S.E.\*

\* Coordinating Agency for Supplier Evaluation

This IMM as well as the documentation system ProX, which include the process descriptions, information boxes and activity-related documents, complies with the requirements of the C.A.S.E. IA Standard.

## 3 Applicability and Commitment

This IMM, the Aviation Authority Supplements, and the documentation system ProX apply to all segments and divisions of the Lufthansa Technik AG (LHT) including the affiliated companies mentioned in this manual and are mandatory for all employees.

The particular responsibility of the managers is to inform all of the employees about the current state of this IMM, the Aviation Authority Supplements, and the applicable roles and processes in the documentation system ProX at regular intervals and in a comprehensive manner and to actively involve them.

In this IMM, the Aviation Authority Supplements, and the associated documentation system ProX, all applicable requirements from quality management, aviation safety, occupational safety, and environmental protection are illustrated in a process and role-oriented manner.

This IMM, the Aviation Authority Supplements, and the associated process documentation of ProX are herewith put into effect by the chairman of the board.

#### On behalf of the Executive Board

// signed // // signed //

Sören Stark, Chief Executive Officer Chief Operations & Logistics Officer

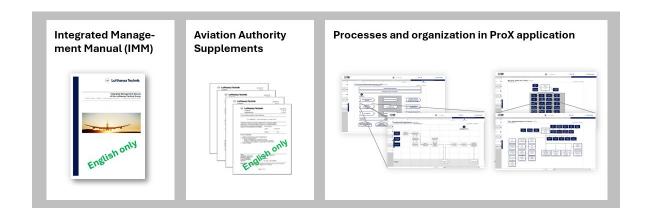
Hamburg, May 2025 Hamburg, May 2025

## 4 Purpose of the Integrated Management Manual

This IMM provides an overview of the process-oriented, integrated management system of the Lufthansa Technik Group. It also shows how the control circuit models of the standards DIN EN ISO 9001:2015, EN 9100:2018 / AS 9100:2016, EN 9110:2018 / AS 9110:2016, DIN EN ISO 14001:2015, ISO 45001:2018 and ISO/IEC 27001:2013 are integrated into the context of the processes within the company. Furthermore it contains a short description of the Lufthansa Technik Group and its facilities.

The IMM addresses all employees, managers, authorities and customers.

This IMM together with the Aviation Authority Supplements and the documentation system ProX (including the process descriptions and the organization charts; excluding the requirements database) form the required documentation for Lufthansa Technik Group with regard to the authority approvals held by Lufthansa Technik AG and the certifications in accordance with the standards for quality management systems, environmental protection and occupational health and safety. The requirement database contains the tasks derived from the requirements laid down in the regulation. These tasks are assigned to processes and roles and are incorporated into the process descriptions. The requirement database is intended to assist the compliance verification towards the airworthiness authorities and certification bodies with regard to the applicable legal requirements, rules and standards.



# Purpose of Lufthansa Technik Group



# Core values and topics at Lufthansa Technik



### **SUSTAINABILITY**

- Maintenance & repair of aircrafts
- Sustainable innovations & products
- Sustainability gains importance for future talent



### **EXCELLENCE**

- · Quality, precision, and going the extra mile
- · Making the impossible possible
- Challenging the status quo to achieve excellence
- German engineering and cutting-edge technology
- Highly skilled employees and high quality of apprenticeship



#### **COLLABORATION**

- Team spirit and combined know-how leading to excellence
- Network of worldwide locations, international collaboration
- Attitude to always help each other, no matter how big the challenge



### **PASSION**

- Intrinsic motivation for work
- · Passion for aviation and flying
- Passion for Lufthansa as organization
- Passionate about connecting people (within LHT and beyond)



#### **SAFETY**

- LHT provides safety for customers, employees, partners alike
- Trust through highest safety standards
- Safety through precision and taking on responsibility
- · Safety as the core of our business

## 6 Guiding principles of the company policy / Leitlinien der Unternehmenspolitik

# The requests of our customers are our obligation

- We do our very best to fulfill the requests of our external and internal customers.
- We strive to achieve the highest degree of reliability, adherence to delivery dates and efficiency.
- We work as economically as possible.
- We strive to create services and products that are safe in their intended use, conserve resources and materials, and prevent pollution throughout the product life cycle.

# Die Wünsche unserer Kunden sind unsere Verpflichtung

- Wir tun unser Bestes, um die Wünsche unserer externen und internen Kunden zu erfüllen.
- Wir streben ein Höchstmaß an Zuverlässigkeit, Termintreue und Effizienz an.
- Wir arbeiten so wirtschaftlich wie möglich.
- Wir streben danach, Dienstleistungen und Produkte zu schaffen, die in ihrer Anwendung sicher sind, Ressourcen und Materialien schonen und Umweltbelastungen während des gesamten Produktlebenszyklus vermeiden.

# We are always aware of our responsibility

- We are responsible for the company, our colleagues, the environment and our society.
- To be conscientious also means that we try to be as cost effective as possible.
- We orient ourselves towards the principle of sustainable economic operation and careful use of resources. Thus, we design, manage and operate our facilities to maximize safety, promote energy efficiency and protect the environment.
- We actively promote the conservation and the improvement of our employees' health.
- Anticipatory actions that estimate the results in advance are an expression of our responsibility.

# Wir sind uns unserer Verantwortung stets bewusst

- Wir tragen Verantwortung für das Unternehmen, unsere Kollegen, die Umwelt und unsere Gesellschaft.
- Gewissenhaft zu sein bedeutet auch, dass wir versuchen, so kosteneffizient wie möglich zu sein.
- Wir orientieren uns am Prinzip des nachhaltigen Wirtschaftens und des schonenden Umgangs mit Ressourcen. Daher planen, verwalten und betreiben wir unsere Anlagen so, dass sie die Sicherheit maximieren, die Energieeffizienz fördern und die Umwelt schützen.
- Wir f\u00f6rdern aktiv die Erhaltung und Verbesserung der Gesundheit unserer Mitarbeitenden.
- Vorausschauendes Handeln, das die Ergebnisse im Voraus abschätzt, ist Ausdruck unserer Verantwortung.

- Climate change is a relevant issue. Its impact on our organization as well as the attempt to reduce our impact on climate change itself is considered.
- Der Klimawandel ist ein relevantes Thema. Die Auswirkungen auf unsere Organisation als auch unsere Wirkung auf den Klimawandel selbst, wird berücksichtigt.

# We are not just satisfied with what we have achieved.

## In all that we do, we strive for continuous improvement. The instruments we use are audits and the definition and measurement of performance indicators.

- When errors or problems occur we look for the root causes in order to eliminate them sustainably, and we verify the effectiveness of countermeasures taken.
- We completely utilize the knowledge and potentials of employee experience by participating our workers in the continuous improvement of our working environment and processes.
- We encourage creative thinking and reward innovative ideas.
- We promote the buildup of capital of knowledge through further and advanced training. We offer the necessary tools, programs and instruments as well as encourage our employees to use them.
- We ensure that all employees are aware of their role and responsibility to fulfill and sustain our management system and policy.
- We are open for impulses from the outside and in-house, and we also learn from our customers and suppliers.

# Wir sind nicht nur mit dem Erreichten zufrieden.

- Bei allem, was wir tun, streben wir nach kontinuierlicher Verbesserung. Die Instrumente, die wir dabei einsetzen, sind Audits sowie die Definition und Messung von Leistungsindikatoren.
- Wenn Fehler oder Probleme auftreten, suchen wir nach den Ursachen, um sie nachhaltig zu beseitigen, und überprüfen die Wirksamkeit der ergriffenen Gegenmaßnahmen.
- Wir nutzen das Wissen und die Erfahrungspotenziale unserer Mitarbeitenden voll aus, indem wir sie an der kontinuierlichen Verbesserung unserer Arbeitsumgebung und -prozesse beteiligen.
- Wir f\u00f6rdern kreatives Denken und belohnen innovative Ideen.
- Wir fördern den Aufbau von Wissenskapital durch Fort- und Weiterbildungsmaßnahmen. Wir bieten die notwendigen Werkzeuge, Programme und Instrumente an und ermutigen unsere Mitarbeitenden, diese zu nutzen.
- Wir stellen sicher, dass sich alle Mitarbeitenden ihrer Rolle und Verantwortung für die Erfüllung und Aufrechterhaltung unseres Managementsystems und unserer Politik bewusst sind.
- Wir sind offen für Impulse von außen und innen und Iernen auch von unseren Kunden und Lieferanten.

## 7 Safety Policy / Sicherheitspolitik

- At the Lufthansa Technik Group our commitment is to ensure the safety of our products and services while also focusing on the protection of our employees and the environment.
- Our safety policy outlines our dedication to maintaining the highest standards of safety.
- We are passionate about promoting a safety culture that encourages open reporting, learning from mistakes and continuous improvement.
- In der Lufthansa Technik Gruppe haben wir uns verpflichtet, die Sicherheit unserer Produkte und Dienstleistungen zu gewährleisten und uns gleichzeitig auf den Schutz unserer Mitarbeitenden und der Umwelt zu konzentrieren.
- Unsere Sicherheitspolitik beschreibt unser Engagement für die Aufrechterhaltung der höchsten Sicherheitsstandards.
- Wir setzen uns leidenschaftlich für die Förderung einer Sicherheitskultur ein, die eine offene Berichterstattung, das Lernen aus Fehlern und die kontinuierliche Verbesserung fördert.

### Safety ranks first for us

- We prioritize safety as a core value above all other considerations in our operations.
- In case of conflicting interests, we will decide in favor of safety!
- This does not only apply to the aircraft, engines and components that are entrusted to us, but also to the safe and responsible operation of facilities and installations, the safe use of chemicals and the prevention of work-related accidents and illnesses.
- To enable a sustainable health and safety management system and culture, we involve our employees in the identification of safety hazards, opportunities and the formulation of our policies and targets.
- The management is committed to promoting a positive safety culture and providing the necessary resources to implement and run the safety policy but also to incorporate changes to the safety policy if necessary.

# Sicherheit steht für uns an erster Stelle

- Wir stellen die Sicherheit als zentralen Wert über alle anderen Belange in unserem Betrieb.
- Im Falle von Interessenkonflikten entscheiden wir zugunsten der Sicherheit!
- Dies gilt nicht nur für die uns anvertrauten Flugzeuge, Triebwerke und Komponenten, sondern auch für den sicheren und verantwortungsvollen Betrieb von Anlagen und Einrichtungen, den sicheren Umgang mit Chemikalien und die Vermeidung von arbeitsbedingten Unfällen und Krankheiten.
- Um ein nachhaltiges Gesundheits- und Sicherheitsmanagementsystem und eine entsprechende Kultur zu ermöglichen, beziehen wir unsere Mitarbeiter in die Ermittlung von Gefahren und Chancen sowie in die Formulierung unserer Richtlinien und Ziele ein.
- Die Geschäftsleitung verpflichtet sich, eine positive Sicherheitskultur zu fördern und die notwendigen Ressourcen für die Umsetzung und

- We take human factor guidelines into account for the design and performance of all activities. Due care is taken to the risk of fatigue.
- We ensure that everyone who is dealing with us, also meets appropriate safety standards.
- Durchführung der Sicherheitspolitik bereitzustellen, ebenso um Änderungen an der Sicherheitspolitik vorzunehmen, falls dies erforderlich ist.
- Wir berücksichtigen die Richtlinien des Human Factors bei der Gestaltung und Durchführung aller Aktivitäten. Auf das Risiko von Ermüdung wird geachtet.
- Wir sorgen dafür, dass jeder, der mit uns zu tun hat, auch entsprechende Sicherheitsstandards erfüllt.

## Safety objectives

- The overall safety objective is to prevent incidents and accidents within aircraft operations, to protect our employees from safety risks and unhealthy working conditions and to protect the environment.
- We comply with or exceed all applicable aviation, environmental, health and safety requirements.
- We identify, mitigate and communicate safety risks in our operations, with a particular focus on high risks because we want to prevent them from occurring in the first place.
- We identify and share safety significant information and mitigation actions with authorities, design approval holders and customers.
- We identify safety hazards by ourselves rather than having them identified by external parties.

### Sicherheitsziele

- Das übergeordnete Sicherheitsziel besteht darin, Zwischenfälle und Unfälle im Flugbetrieb zu verhindern, unsere Mitarbeitenden vor Sicherheitsrisiken und ungesunden Arbeitsbedingungen zu schützen sowie die Umwelt zu schützen.
- Wir erfüllen oder übertreffen alle geltenden Luftfahrt-, Umwelt-, Gesundheits- und Sicherheitsanforderungen.
- Wir ermitteln, reduzieren und kommunizieren Sicherheitsrisiken in unseren Betrieben, wobei wir uns besonders auf hohe Risiken konzentrieren, um zu verhindern, dass sie überhaupt entstehen.
- Wir identifizieren und teilen sicherheitsrelevante Informationen und Maßnahmen zur Risikominderung mit Behörden, Haltern von Design Approvals und Kunden.
- Wir erkennen Sicherheitsrisiken eigenständig, anstatt darauf zu warten, dass externe Parteien sie identifizieren.

## Compliance is the safety baseline

 All employees are obliged to comply with all legal requirements and safety standards when accomplishing their tasks.

# Regelkonformität ist die Sicherheitsgrundlage

- Alle Mitarbeitenden sind verpflichtet, bei der Erfüllung ihrer Aufgaben alle gesetzlichen Vorschriften und Sicherheitsstandards einzuhalten.
- Wir überprüfen und verbessern ständig unsere Sicherheitspraktiken, um den

 We continuously monitor and update our safety practices to stay ahead changing regulations. sich ändernden Vorschriften immer einen Schritt voraus zu sein.

#### Safety risk management

- We proactively identify hazards, assess and manage risks associated with our products and services.
- Risk management procedures are integrated into our processes, from design and production to maintenance and service delivery.

## Sicherheitsrisikomanagement

- Wir erkennen proaktiv Gefahren, bewerten und beherrschen die mit unseren Produkten und Dienstleistungen verbundenen Risiken.
- Risikomanagementverfahren sind in unsere Prozesse integriert, von der Entwicklung über die Produktion bis hin zur Wartung und Bereitstellung von Dienstleistungen.

# Safety culture based on just culture principles

- We promote a positive safety culture that motivates all employees to use our internal safety reporting scheme and to actively participate in safety initiatives.
- Our commitment to open and transparent communication includes sharing safety-related information and learning from past experiences.
- We apply just culture principles to encourage our employees to report safety-related concerns and incidents without fear of punishment or retribution. We believe in treating incidents such as errors or near misses, safety issues and identified hazards as learning opportunities rather than seeking to assign blame.
- Confidentiality will be maintained for any information entrusted to us, including anonymous and nonanonymous internal safety reports, ensuring protection of individuals from any unfair treatment.

# Sicherheitskultur auf Basis einer Redlichkeitskultur

- Wir fördern eine positive Sicherheitskultur, die alle Mitarbeitenden dazu motiviert, unser internes Sicherheitsmeldesystem zu nutzen und sich aktiv an Sicherheitsinitiativen zu beteiligen.
- Unser Engagement für eine offene und transparente Kommunikation schließt den Austausch von sicherheitsrelevanten Informationen und das Lernen aus früheren Erfahrungen ein.
- Wir wenden die Prinzipien einer Redlichkeitskultur an, um unsere Mitarbeitenden zu ermutigen, Sicherheitsbedenken und Vorfälle ohne Angst vor Bestrafung oder Vergeltung zu melden. Wir glauben daran, Vorfälle wie Fehler oder Beinahe-Unfälle, Sicherheitsprobleme und identifizierte Gefahren als Lernmöglichkeiten zu behandeln, anstatt Schuld zuzuweisen.
- Alle Informationen, die uns anvertraut werden, einschließlich anonymer und nicht anonymer interner Sicherheitsmeldungen, werden vertraulich behandelt, um den Schutz der betreffenden Personen vor ungerechter Behandlung zu gewährleisten.

- We do not punish for errors as long as individuals involved show a safety and compliance-oriented attitude. However, intentional acts of negligence, reckless behavior, or willful violation of processes or procedures will not be tolerated.
- Safety-related reports will be thoroughly investigated to determine the root causes and take appropriate measures to prevent future recurrences or at least to mitigate the risk to an acceptable level.
- Honesty is the prerequisite for trust.
   Cooperation with auditors and investigators is self-evident for us.
- Wir bestrafen die beteiligten Personen nicht für Fehler, solange sie eine auf Sicherheit und Regelkonformität beruhende Haltung zeigen. Bewusste Unterlassungen, grobfahrlässiges Verhalten oder vorsätzliche Verstöße gegen Prozesse oder Verfahren werden jedoch nicht geduldet.
- Sicherheitsrelevante Meldungen werden gründlich untersucht, um die Ursachen zu ermitteln und geeignete Maßnahmen zu ergreifen, um eine Wiederholung zu verhindern oder zumindest das Risiko auf ein akzeptables Maß zu reduzieren.
- Ehrlichkeit ist die Voraussetzung für Vertrauen. Die Zusammenarbeit mit Auditoren und Untersuchenden ist für uns selbstverständlich

## Training and competency

- We provide comprehensive and mandatory safety training to all employees to ensure they have the necessary knowledge and skills to perform their duties safely.
- We promote continuous learning for our employees to enhance their safety awareness and competency.

## Schulung und Befähigung

- Wir organisieren umfassende und obligatorische Sicherheitsschulungen für alle Mitarbeitenden, um sicherzustellen, dass sie über die erforderlichen Kenntnisse und Fähigkeiten verfügen, um ihre Aufgaben sicher zu erfüllen.
- Wir fördern das kontinuierliche Lernen unserer Mitarbeitenden, um ihr Sicherheitsbewusstsein und ihre Sicherheitskompetenz zu verbessern

### **Continuous improvement**

- We continually monitor, review and enhance our safety management system and processes to improve safety performance. The management of our safety performance is based on defined safety performance indicators that are in line with our safety objectives.
- Lessons learned from safety-related incidents are shared with relevant target groups in the course of our safety promotion and recurrent training

### Kontinuierliche Verbesserung

- Wir überwachen, überprüfen und verbessern kontinuierlich unser Sicherheitsmanagementsystem und unsere Prozesse, um die Sicherheitsleistung zu verbessern. Das Management unserer Sicherheitsleistung basiert auf definierten Sicherheitsleistungsindikatoren, die mit unseren Sicherheitszielen im Einklang stehen.
- Die aus sicherheitsrelevanten Vorfällen gezogenen Lehren werden im Rahmen unserer Aktivitäten zur Förderung der

activities. We encourage feedback to continually improve our safety practices.

Sicherheit und der wiederkehrenden Schulungen an die entsprechenden Zielgruppen weitergegeben. Wir fördern Feedback, um unsere Sicherheitspraktiken kontinuierlich zu verbessern.

## Safety communication

- We communicate our safety policy to all our employees and stakeholders to foster a strong safety culture. We ensure that all employees are aware of and understand our safety policy.
- We are committed to an open dialog with customers, suppliers, authorities and the public.

## Sicherheitskommunikation

- Wir kommunizieren unsere
  Sicherheitspolitik an alle unsere
  Mitarbeitenden und Interessengruppen,
  um eine starke Sicherheitskultur zu
  fördern. Wir stellen sicher, dass alle
  Mitarbeitenden unsere Sicherheitspolitik
  kennen und verstehen.
- Wir engagieren uns für einen offenen Dialog mit Kunden, Lieferanten, Behörden und der Öffentlichkeit.

## 8 Psychoactive Substance Policy

- Lufthansa Technik Group is committed to provide a safe, just and productive work environment. Misuse of psychoactive substances, which include but are not limited to alcohol, drugs and medication with a potential adverse effect on human performance, pose a threat to the health, wellbeing and safety of our employees and customers as well as to aviation safety and the safety of our equipment and facilities.
- Lufthansa Technik Group verpflichtet sich zu einem sicheren, gerechten und produktiven Arbeitsumfeld. Der Missbrauch von psychoaktiven Substanzen, zu denen unter anderem Alkohol, Drogen und Medikamente gehören, die sich negativ auf die menschliche Leistungsfähigkeit auswirken können, stellen eine Bedrohung für die Gesundheit, das Wohlbefinden und die Sicherheit unserer Mitarbeitenden und Kunden sowie für die Flugsicherheit und die Sicherheit unserer Geräte und Einrichtungen dar.
- Lufthansa Technik Group takes responsibility to raise awareness among our employees, to prevent misuse of psychoactive substances at the workplace and to provide support in case of a problematic use.
- Lufthansa Technik Group übernimmt die Verantwortung, das Bewusstsein unserer Mitarbeitenden zu schärfen, den Missbrauch von psychoaktiven Substanzen am Arbeitsplatz zu verhindern und bei einer problematischen Nutzung Unterstützung zu leisten.
- All employees must ensure that any consumption has no influence on the employment relationship. In particular,
- Alle Arbeitnehmenden müssen sicherstellen, dass jeglicher Konsum keinen Einfluss auf das Arbeitsverhältnis hat. Insbesondere darf

- this consumption must not impair work performance under any circumstances.
- This means, that employees may not show up for work in a state in which they cannot perform their duties, nor may they put themselves in such a state at work.
- dieser Konsum unter keinen Umständen die Arbeitsleistung beeinträchtigen.
- Das bedeutet, dass Arbeitnehmer sich nicht in einem Zustand zur Arbeit begeben dürfen, in dem sie ihre Pflichten nicht erfüllen können, und dass sie sich bei der Arbeit nicht in einen solchen Zustand versetzen dürfen.
- Lufthansa Technik Group undertakes not to assign tasks to employees who are clearly unable to carry out their work without danger to themselves or others. The consequences do not depend on whether the consumption involves legal or illegal intoxicating substances.
- If employees must stop work under the influence of substances, the manager supports them in finding measures to ensure that the employee gets home safely.
- Lufthansa Technik Group verpflichtet sich, Mitarbeitende, die erkennbar nicht in der Lage sind, ihre Arbeit ohne Gefahr für sich oder andere auszuführen, nicht mit Aufgaben zu beschäftigen. Darauf, ob es beim Konsum um legale oder illegale berauschende Substanzen handelt, kommt es bei allen Konsequenzen nicht an.
- Falls Mitarbeitende unter dem Einfluss von Substanzen ihre Arbeit niederlegen müssen, unterstützt die Führungskraft dabei, Maßnahmen zu finden, damit der Mitarbeiter sicher nach Hause gelangt.
- In order to prevent any problematic use of psychoactive substances and to raise awareness to the potential adverse effects, Lufthansa Technik Group offers training and information for all employees. For safety-sensitive personnel this training includes information about:
  - Effects of psychoactive substances on individuals
  - Individual responsibilities of all employees in respect to prevention and detection of misuse of psychoactive substances
- Additionally, comprehensive information is provided on the intranet.
- Um einen problematischen Konsum von psychoaktiven Substanzen zu verhindern und das Bewusstsein für mögliche Nebenwirkungen zu schärfen, bietet die Lufthansa Technik Group Schulungen und Informationen für alle Mitarbeitenden an. Für sicherheitsrelevantes Personal umfasst diese Schulung Informationen über:
  - Auswirkungen psychoaktiver Substanzen auf Individuen
  - Individuelle Verantwortung aller Mitarbeiter in Bezug auf die Prävention und Aufdeckung von Missbrauch psychoaktiver Substanzen
- Zusätzlich werden umfassende Informationen im Intranet zur Verfügung gestellt.
- Lufthansa Technik Group supports their employees in case of a problematic use of psychoactive substances. Support
- Lufthansa Technik Group unterstützt ihre Mitarbeitenden im Falle eines problematischen Konsums von

measures will be coordinated with the superior and HR Department and comprise referral to specialist and priority access to medical institutions as well as temporary suspension and leave of absence.	psychoaktiven Substanzen. Die Unterstützungsmaßnahmen werden mit dem Vorgesetzten und der Personalabteilung abgestimmt und umfassen Überweisungen an Fachärzte und vorrangigen
	<ul> <li>Zugang zu medizinischen Einrichtungen sowie die vorübergehende Suspendierung und Beurlaubung.</li> </ul>
<ul> <li>Lufthansa Technik Group offers psychological counseling for its employees and is collaborating with internal and external institutions.</li> </ul>	<ul> <li>Lufthansa Technik Group bietet psychologische Beratung für ihre Mitarbeitenden an und arbeitet mit internen sowie externen Institutionen</li> </ul>
<ul> <li>The previously mentioned measures may vary depending on the country of employment.</li> </ul>	<ul> <li>zusammen.</li> <li>Die zuvor genannten Maßnahmen können je nach Beschäftigungsland variieren.</li> </ul>
<ul> <li>Specific national requirements are not repealed by this policy.</li> </ul>	<ul> <li>Spezifische nationale Forderungen werden nicht durch die Policy aufgehoben.</li> </ul>

# 9 Management of Lufthansa Technik

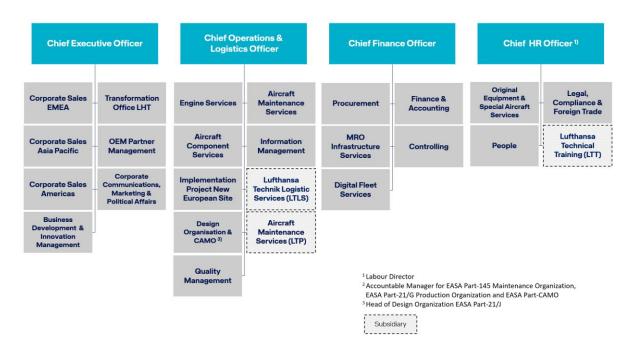
Lufthansa Technik is managed by the Board. The Board consists of four members. It needs any two of them to present the company legally.



# From left to right:

- Chief Finance Officer Dr. Christian Leifeld
- Chief Operations & Logistics Officer Harald Gloy
- Chief HR Officer Dr. Janna Schumacher
- Chief Executive Officer Sören Stark

# 9.1 Organization and Responsibilities



Simplified organizational chart. The responsibilities are described in the ProX process maps, process descriptions and in the tasks assigned to roles.

# 9.2 Management Representatives for Quality-, Environmental-, Occupational Health & Safety and Information Security Management System

The management representatives of Lufthansa Technik AG in the sense of ISO 9001; EN/AS 9100/9110, ISO 14001, ISO 45001, ISO/IEC 27001 are listed as follows.

#### **Accountable Manager:**

Harald Gloy, COO

Deputy: Sören Stark CEO

#### **Senior Persons:**

Mr. Rainer Lindau, T/TQ (VP Quality Management and representative for ISO 9001, EN/AS 9100/9110)

Dr. Martin Wagner, T/TQ-U (Head of Environmental Management and representative for ISO 14001/45001)

Mr. Stephan Drewes, T/TI (VP Information Management and representative for ISO/IEC 27001)

# 9.3 Management Representative for Safety Management System (SMS)

The Accountable Manager as well as the Safety Manager in terms of EN/AS 9100/9110 and 12. BlmSchV (Hazardous Incident Ordinance) are:

## Accountable Manager (SMS):

**Harald Gloy, COO** 

Deputy: Sören Stark, CEO

# Safety Manager (SMS):

Rainer Lindau, T/TQ (VP Quality Management LHT Group)

Deputy: Dr. Janina Bergmann, T/TQ-A (Senior Director Authorities & Management Systems LHT Group)

### The Lufthansa Technik Group

To accommodate the growing importance of the worldwide network, of the Lufthansa Technik Group, Lufthansa Technik decided to integrate all companies were Lufthansa Technik holds majority interest into its management system and documentation by means of this founding the Lufthansa Technik Group.

The following chapter describes all companies of the worldwide Lufthansa Technik Group Network. Their facilities are part of the scope of authority approvals held by Lufthansa Technik.

The ProX process descriptions combined with this Integrated Management Manual, and Aviation Authority Supplements are obligatory for these group companies.

# 9.4 Business Scope of the Lufthansa Technik Group

With its approx. 28.000 employees¹ (~22.900 from fully consolidated companies), Lufthansa Technik Group provides the following scope: "Sales, procurement, design of changes and repairs, maintenance of aircraft, engines and aircraft components and design and production and installation of commercial, governmental and special aircraft operators and other services." These services range from the continuing airworthiness management and other technical services.

Lufthansa Technik has five segments:

- 1. Engine Services (ENG)
- 2. Aircraft Component Services (ACS)
- 3. Aircraft Maintenance Services (AMS)
- 4. Original Equipment & Special Aircraft Services (OES)
- 5. Digital Fleet Services (DGF)

The customers of Lufthansa Technik are commercial carriers, OEMs, Design Organizations, Production Organization and Maintenance Organizations as well as business jets / VIP / government aircraft operators and special aircraft operators.

<sup>&</sup>lt;sup>1</sup> Measures in FTE (full time employees)

## 9.5 The Companies and Locations of the Lufthansa Technik Group

In the following all Lufthansa Technik Group companies to which this IMM applies are briefly described.

## 9.5.1 Lufthansa Technik AG (LHT)

Lufthansa Technik AG was founded on October 17<sup>th</sup>, 1994. Before 1994 it was the integrated Maintenance Organization of Lufthansa German Airlines (Deutsche Lufthansa AG) established in 1954. Lufthansa Technik AG has approx. 10.000 employees at its maintenance location Hamburg, Frankfurt, Berlin-Schoenefeld and branches in and outside Germany. LHT operates worldwide with branches, subsidiaries and shareholdings of companies both in Germany and abroad.

## 9.5.1.1 Lufthansa Technik (LHT), Location Hamburg, Germany

The following segments with approx. 8700 employees are located at our facilities in Hamburg:

- Engine Services (ENG)
- Aircraft Component Services (ACS)
- Aircraft Maintenance Services (AMS)
- Original Equipment & Special Aircraft Services (OES)
- Digital Fleet Services (DGF)

These also include material warehouses, engineering and administrative divisions.

In addition to the Lufthansa Technik Board, the following support divisions are also located at our headquarters in Hamburg:

- LHT Group Quality Management
- Corporate Sales
- Strategy, Business Development & Innovation
- Information Management
- Finance & Accounting LHT Group
- Controlling LHT Group
- Procurement LHT Group
- HR Management LHT Group
- Legal, Corporate Affairs & Compliance
- MRO Infrastructure Services

### MAINTENANCE ORGANIZATION CAPABILITIES

- Aircraft line / base maintenance
- Engines / APU maintenance
- Components maintenance

#### **DESIGN ORGANIZATION CAPABILITIES**

- Design of changes and repairs

## PRODUCTION ORGANIZATION CAPABILITIES

- Parts / appliances

## **CONTINUING AIRWORTHINESS MANAGEMENT ORGANIZATION CAPABILITIES**

- Continuing airworthiness management
- Airworthiness review
- Permit to fly

Our facilities are located at the southern section of Hamburg airport (HAM).



View on the LHT headquarter base in Hamburg

Lufthansa Technik AG, Weg beim Jaeger 193, 22335 Hamburg, Germany

# 9.5.1.2 Lufthansa Technik (LHT), Location Frankfurt, Germany

## Facilities in the north and south of Frankfurt Airport

LHT employees working in Frankfurt including facilities in the north and south of Frankfurt am Main International Airport (FRA) is approx. 1100.

# MAINTENANCE ORGANIZATION CAPABILITIES

- Engines maintenance
- Components maintenance

## **DESIGN ORGANIZATION CAPABILITIES**

- Design of changes and repairs

## **CONTINUING AIRWORTHINESS MANAGEMENT ORGANIZATION CAPABILITIES**

- Continuing airworthiness management



Hangar 5, Frankfurt



A380 Hangar (above and below), Frankfurt



Lufthansa Technik AG, Frankfurt Airport, 60546 Frankfurt / Main, Germany

Lufthansa Technik Maintenance International GmbH, Airport Cargo City Sued, 60549 Frankfurt / Main, Germany

## 9.5.1.3 Lufthansa Technik (LHT), Airport Berlin, Germany

There are approx. 20 employees at the Berlin location.

### MAINTENANCE ORGANIZATION CAPABILITIES

- Components maintenance

## **DESIGN ORGANIZATION CAPABILITIES**

- Design of changes and repairs

The facilities of the Berlin maintenance center are located in the southern part of Berlin-Airport.



Lufthansa Technik Hanger at Berlin Schoenefeld Airport

Lufthansa Technik AG, BER T/FE5, Berlin Airport, Elly-Beinhorn-Ring 4, 12529 Berlin, Germany

# 9.5.1.4 Lufthansa Technik AG, Montreal, Canada

The new facility in Montreal (YUL) employs approx. 50 people performing work on CFM56 engine type including mobile services.

## **MAINTENANCE ORGANIZATION CAPABILITIES**

- Engines maintenance



1800 Chemin St-Francois, Dorval, H9P 2P6, QC, Canada

## 9.5.1.5 Lufthansa Technik AG, Raunheim

The new facility Raunheim employs approx. 170 people performing engineering services and SCAMT tasks.

## **DESIGN ORGANIZATION CAPABILITIES**

Design of changes and repairs



Lufthansa Technik AG, Am Messeplatz 1, D-65479 Raunheim

# 9.5.2 Lufthansa Technik Middle East (LTME), Dubai World Central Airport, UAE

## MAINTENANCE ORGANIZATION CAPABILITIES

Components maintenance

The facility in Dubai has approx. 90 employees.



## Facilities at Dubai World Central Airport (DWC)

Lufthansa Technik Middle East, Building 1 – Warehouses No. 1 & 2 Aerospace Supply Chain, Aviation District, Dubai World Central, Dubai, UAE

# 9.5.3 Lufthansa Technik Sofia (LTSF), Sofia, Bulgaria

Lufthansa Technik Sofia (LTSF) has approx. 1250 employees.

### **MAINTENANCE ORGANIZATION CAPABILITIES**

- Aircraft line / base maintenance
- Components maintenance

The facilities of LTSF are situated at Sofia Airport Complex site between Terminal 1 and Terminal 2 of the Bulgarian capital, Sofia



Hangar



Hangar

Lufthansa Technik Sofia OOD, Airport Complex - Terminal 1, Block 3, 1540 Sofia, Bulgaria

# 9.5.4 Lufthansa Technik Budapest (LTB), Budapest, Hungary

Lufthansa Technik Budapest (LTB) has approx. 400 employees.

# MAINTENANCE ORGANIZATION CAPABILITIES

- Aircraft line / base maintenance
- Engines maintenance
- Maintenance of aircraft components

The facilities of the LTB are located at the Budapest Liszt Airport.



Hangar

Lufthansa Technik Budapest, Budapest Ferenc Liszt International Airport, 1185 Budapest, Hungary

# 9.5.5 Lufthansa Technik Milan (LTMIL), Milano, Italy

Lufthansa Technik Milan (LTMIL) has approx. 110 employees.

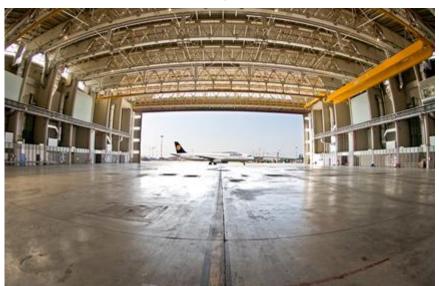
## MAINTENANCE ORGANIZATION CAPABILITIES

Aircraft line / base maintenance

The facilities of the LTMIL are located in the northern area of Milan Malpensa-Airport, Italy between Terminal 1 and Terminal 2.



Hangar



Lufthansa Technik Milan S.R.L., Fabbricato 181, Terminal 1, Milan Malpensa Airport, 21019 Somma Lombardo (VA), Italy

# 9.5.6 Lufthansa Technik Malta (LTM), Luqa, Malta

Lufthansa Technik Malta (LTM) has approx. 500 employees.

## MAINTENANCE ORGANIZATION CAPABILITIES

- Aircraft line / base maintenance
- Maintenance of aircraft components

The facilities of the LTM are located at the Luqa-Airport.



Hangar

Lufthansa Technik Malta, Hal Farrug Road, Luqa LQA 3079, Malta

# 9.5.7 Lufthansa Technik Aero Alzey (LTAA), Alzey, Germany

Lufthansa Technik AERO Alzey GmbH (LTAA) has approximately 700 employees.

## MAINTENANCE ORGANIZATION CAPABILITIES

- Engines maintenance
- Components maintenance

The facility is located about 70 kilometers southwest of Frankfurt Rhein-Main Airport in the industrial area of Alzey.



**Facilities** 

Lufthansa Technik AERO Alzey, Rudolf-Diesel-Straße 10, 55232 Alzey, Germany

# 9.5.8 Lufthansa Technik Turbine Shannon (LTTS), Shannon, Ireland

Lufthansa Technik Turbine Shannon (LTTS) has approx. 310 employees.

#### **MAINTENANCE ORGANIZATION CAPABILITIES**

- Components maintenance



**Facilities** 

Lufthansa Technik Turbine Shannon, World Aviation Park, Shannon, County Clare, Ireland

# 9.5.9 Lufthansa Technik Turbine Shannon Ltd., Branch Mobile Engine Services DUB, Kildare, Ireland

The facility in Dublin (DUB) employs approx. 60 people performing work on CFM56 engine type including mobile services.

#### MAINTENANCE ORGANIZATION CAPABILITIES

- Engines maintenance



Lufthansa Technik, Mobile Engine Services, Unit 1, Esprit Logistics Park, Moortown, Celbridge, Co. Kildare, Ireland

# 9.5.10 Lufthansa Technik Landing Gear Services UK (LTLGS), Hayes (London), UK

Lufthansa Technik Landing Gear Services Hayes, UK (LTLGS) has approx. 320 employees.

## MAINTENANCE ORGANIZATION CAPABILITIES

Components maintenance

The company is situated in Hayes.



**Facilities** 

Lufthansa Technik Landing Gear Services UK, Unit 3, Dawley Park, Kestrel Way, Hayes, Middlesex UB3 1HP, United Kingdom

# 9.5.11 Lufthansa Technik Shenzhen (LTS), Shenzhen, China

Lufthansa Technik Shenzhen (LTS) has approx. 650 employees.

## MAINTENANCE ORGANIZATION CAPABILITIES

- Engines maintenance
- Component maintenance

## **DESIGN ORGANIZATION CAPABILITIES**

- Design of changes and repairs



**Facilities** 

Lufthansa Technik Shenzhen Co. Ltd., Bao'an International Airport, 518128 Shenzhen, Guangdong, P. R. China

## 9.5.12 Lufthansa Technik Component Services (LTCS), Tulsa, USA

Lufthansa Technik Component Services (LTCS) is located in Tulsa, Oklahoma with approx. 350 employees.

#### MAINTENANCE ORGANIZATION CAPABILITIES

- Components maintenance

#### **DESIGN ORGANIZATION CAPABILITIES**

- Design of changes and repairs

The facilities are located on the north side of the airport across from the passenger terminals at Tulsa International Airport.



**Facilities** 

Lufthansa Technik Component Services, 7424 East 30th Street, North Tulsa, OK 74115-2340, USA

# 9.5.13 Lufthansa Technik Engine Services (LTES), Tulsa, USA

Lufthansa Technik Engine Services (LTES) is located in Tulsa, Oklahoma with approx.. 170 employees.

## MAINTENANCE ORGANIZATION CAPABILITIES

- Engines maintenance
- Components maintenance (C7)

The facility is located in the north eastern side of the airport across from the passenger terminals at Tulsa International Airport.



Lufthansa Technik Engine Services, Inc.

3515 N. Sheridan Rd. Tulsa, Oklahoma 74115 United States of America

# 9.5.14 Lufthansa Technik Puerto Rico (LTPR), USA

Approx. 380 employees are located at the facilities in Aguadilla, Puerto Rico, USA.

#### MAINTENANCE ORGANIZATION CAPABILITIES

- Aircraft line / base maintenance



**Facilities** 



Lufthansa Technik Puerto Rico, 102 San Antonio Road, Aguadilla, PR 00604, Puerto Rico

# 9.5.15 Lufthansa Technik Philippines (LTP), Manila, Philippines

Approx.3200 employees are located at the facilities of Lufthansa Technik Philippines.

# 



Hangar



Hangar

Lufthansa Technik Philippines, Macro Asia Special Economic Zone, Villamor Air Base, 1309 Pasay City, Philippines

## **9.5.16 EME, Poland**

The new facility of EME was completed in 2019 and currently employs more than 1150 employees. EME is a specialized for engine maintenance with the following capabilities.

#### MAINTENANCE ORGANIZATION CAPABILITIES

- Engines maintenance
- Components maintenance

The facility is located at Jasionka in Poland.



**Facilities of EME** 

Jasionka 949, 36-002 Jasnionka, Polska / Poland

# 9.6 Line Maintenance Locations of the Maintenance Organization

With our Part-145 Maintenance Organization approval (approval number DE.145.0001), we provide line maintenance services at various stations across the globe. All stations are listed within the approved document "Scope of Line Maintenance". Furthermore, a detailed description of all line maintenance stations is contained in the list "Line Station Facility Description".

## 9.7 Locations of the Design Organization

The EASA Design Organization (approval number EASA.21J.019) extends beyond the Lufthansa Technik Group. Services and locations are further detailed and listed in an internal document.

# 9.8 Locations of the Production Organization

Currently all activities of our approved Production Organization (approval number DE.21G.0047) are conducted at our headquarters in Hamburg.

# 9.9 Locations of the Continuing Airworthiness Management Organization (CAMO)

The Continuing Airworthiness Management Organization (approval number DE.CAMO.0001) is currently approved at the following locations:

- Hamburg, Germany
- Frankfurt, Germany
- Shannon, Ireland

# 10 Certification of the Lufthansa Technik Group and Applicability

In the following all LHT Group companies <u>included</u> in the Quality/ Environmental/ Safety multiple site certificates are listed respectively. <u>Single site</u> certificates are listed with their own certificate number.

- EN/AS 9100/9110 Quality Management Systems Requirements
- ISO 14001 Environmental Management System Requirements
- ISO 45001 Occupational Health and Safety Management System Requirements
- ISO 27001 Information Security Management System Requirements

LHT Group Company	Standard					
	EN/AS9100 incl. ISO9001	EN/AS9110 incl. ISO9001	ISO14001	ISO 45001		
	LHT Group Quality Standard Certificates					
		10000518063-MSC- ACCREDIA-DEU	10000407377-MSC- RvA-DEU	10000407733-MS0 RvA-DEU		
Lufthansa Technik AG Hamburg (HAM)	10000518039- MSC- ACCREDIA- DEU	included	included	included		
Lufthansa Technik AG German Locations:		included:	included:	included:		
Frankfurt Nord (FRA Nord)		FRA Nord	FRA Nord	FRA Nord		
Frankfurt Süd (FRA Süd)		FRA Süd	FRA Süd	FRA Süd		
Berlin-Schönefeld (BER)	n/a	BER	BER	BER		
Köln (CGN)		CGN	CGN	CGN		
Stuttgart (STR)		STR	STR	STR		
Raunheim (RAU)						
Lufthansa Technik AERO Alzey (LTAA)	n/a	included	included	included		
Lufthansa Technik Milan (LTMIL)	n/a	included	included	included		
Lufthansa Technik Budapest (LTB)	n/a	included	included	included		
Lufthansa Technik Sofia (LTSF)	n/a	included	included	included		
Lufthansa Technik Malta (LTM)	n/a	included	included	included		
Lufthansa Technik Turbine Shannon (LTTS)	n/a	included	included	included		
Lufthansa Technik Landing Gear Services UK (LTLGS)	n/a	included	included	included		

Lufthansa Technik Shenzhen (LTS)	n/a	included	included	included		
Lufthansa Technik Component Services (LTCS), Tulsa	n/a	included	included	included		
Lufthansa Technik Component Services (LTCS), Miami	n/a	included				
LHT Group Company	Standard					
Lift Group Company	EN/AS9100	EN/AS9110				
	incl. ISO9001	incl. ISO9001	ISO14001	ISO 45001		
		LHT Group Quality Standard Certificates				
		10000518063-MSC- ACCREDIA-DEU	10000407377-MSC- RvA-DEU	10000407733-MS0 RvA-DEU		
Lufthansa Technik AG Mobile Engine Services Montreal	n/a	included				
Lufthansa Technik Mobile Engine Services Dublin	n/a	included				
AerQ GmbH (a cooperation with LG-LHT Passenger Solutions GmbH and LG-LHT Aircraft Solutions GmbH)	included	n/a	included			
Lufthansa Technik Philippines (LTP)	n/a	<u>19003</u>	<u>66432</u>	<u>67410</u>		
Lufthansa Technik Engine Services (formerly BizJet)		C0293318-AS17				
Avionic Design GmbH	1221042879	n/a				

Due to the large number of sites certified according to ISO/IEC 27001, only a link to the current ISO/IEC 27001 certificate is provided here: <a href="https://doi.org/10.1016/joseph.com/bio/scattering/bio/instance

## 11 Aviation Authority Approvals of the Lufthansa Technik Group

The Lufthansa Technik Group holds the European approvals (Part-145, Part-21/J, Part-21/G, Part-CAMO) issued by the Luftfahrt-Bundesamt (LBA) or the European Union Aviation Safety Agency (EASA) and in addition further aviation authority approvals issued by various national airworthiness authorities.

The approval certificates are available on the Lufthansa Technik website and via the intranet of Lufthansa Technik. The scope of approval is only available via the Lufthansa Technik Intranet.

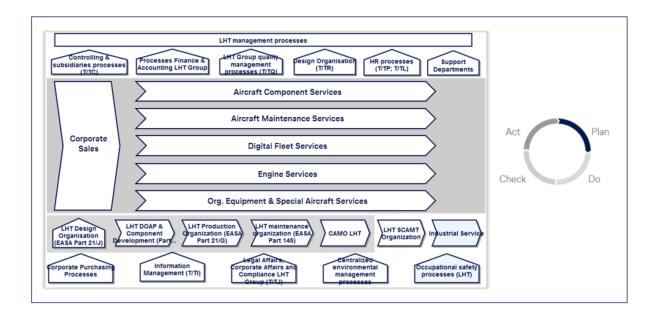
## 12 The Process-Oriented Integrated Management System

The Process-Oriented Integrated Management System is based on the company vision and the guidelines of the company policy of the LHT Group. It is the central instrument to control the LHT Group with respect to the areas of aviation safety, quality, environmental protection and occupational health and safety, information security and other requirements.

The Process-Oriented Integrated Management System of the LHT Group

- Reinforces process safety and increases the employees' competence by providing a transparent and uniform structure of the main business processes;
- Ensures in a systematic manner that all products and operational sequences fulfill
  the requirements with respect to aviation safety, quality, environmental protection,
  and occupational health and safety;
- Promotes further development of all processes in the interests of customers, partners and employees so that Lufthansa Technik can consolidate its top position in the international market and communicate a positive public image.

The goal of the Process-Oriented Integrated Management System of the Lufthansa Technik Group is to manage processes by means of a continuous improvement process. Consequently, all processes are arranged according to the Deming Cycle (Plan, Do, Check, Act).



Within the scope of the management processes, the Executive Board of Lufthansa Technik specifies the vision, strategy, guidelines of the company policy and the goals of the company (Management Processes).

Necessary resources are specified and supplied within the scope of corporate planning as well as personnel planning and development (Resource Management).

The generation of products and services is controlled locally in the five segments (Product and Service Implementation Management).

The performance and quality system results are centrally measured, analyzed, and improved by controlling and quality management processes. Instruments such as product and process related key performance indicators, internal and external audits and risk management are used for improvements (Measurement, Analysis and Improvement).

The systematic assessment within the scope of the Process-Oriented Integrated Management System makes sure that information that is relevant to control the company (e.g. in form of vital signs, reports from the areas of aviation legislation, quality, environmental protection and occupational health and safety) is brought to the attention of the Executive Board. This feedback system enables the Board to start improvements and to approve changes to the management system (Management Processes).

The process model integrates customers and other interested groups, such as authorities and the public, who play an important role in the specification of the requirements and in the implementation of products and services.

## 13 ProX – The Documentation System

ProX is the documentation platform for the description and documentation of the Process-Oriented Integrated Management System of the LHT Group for internal (management, employees) and external (authorities, certification bodies, customers, etc.) stakeholders. This platform includes:

- Process Descriptions,
- Organization Charts,
- Roles,
- Requirement Management,
- Document Management.

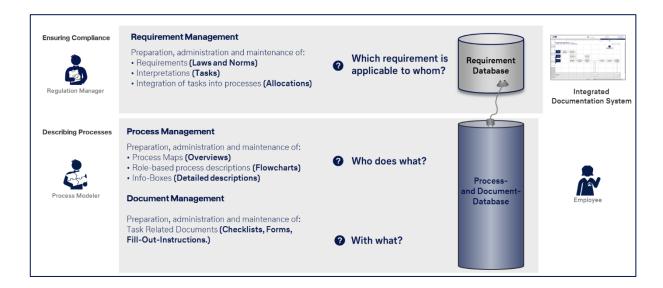
The integrated documentation system ProX describes the organization and processes. It specifies the responsibilities and obligations with respect to

- The legal requirements of the European Union (EU) and the European Union Aviation Safety Agency (EASA) that apply to the Maintenance, Design, Production and Continuing Airworthiness Management Organization of LHT;
- The legal requirements on environmental protection, occupational health and safety;
- The requirements of oversight and reporting about greenhouse gas emissions in accordance with regulation 2003/87/EG;
- The requirements of DIN EN ISO 9001, EN/AS 9100, EN/AS 9110, DIN EN ISO 14001, ISO 45001 and ISO 27001.
- The Safety Management System.

The documentation platform ProX provides a detailed overview of the organization and processes of the company for managers and employees and therefore strengthens process safety, increases competence and consolidates the employee solidarity to the company.

## 13.1 Elements of ProX as a Documentation System

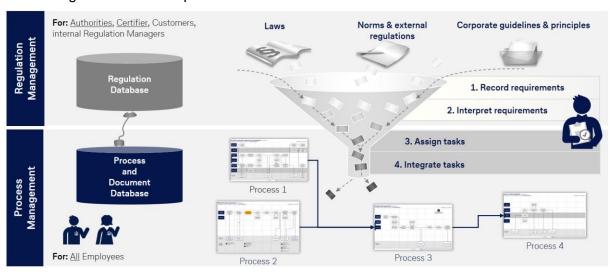
The ProX system consists of a requirement database and a process and document database. The requirement database allows the recording of laws and standards and enables regulation managers to derive tasks from these requirements that will be assigned to individual processes during conformity checks. The process and document database includes all described processes, organization charts and documents that are published.



## 13.2 Integration of Requirements

The requirement database contains all relevant laws, regulations and standards within the areas of aviation, quality, environmental protection, occupational health and safety which are applicable to the LHT Group. For any specific requirements which are not applicable to the LHT Group, a justification is recorded in the database. All requirements are analyzed and interpreted by regulation managers and corresponding tasks are derived.

These tasks are assigned to the process descriptions during conformity checks which are performed before publishing of a process description. This approach ensures that all employees perform their work in compliance with the regulatory requirements when following the instructions provided in ProX.



## 13.3 Description of Processes

The organizational and operational structure of the LHT Group is described in four levels with an increasing level of detail by means of:

- Process maps;
- Role-based process descriptions (flowcharts);
- Activity boxes;
- Activity-related documents; and
- Organization charts.

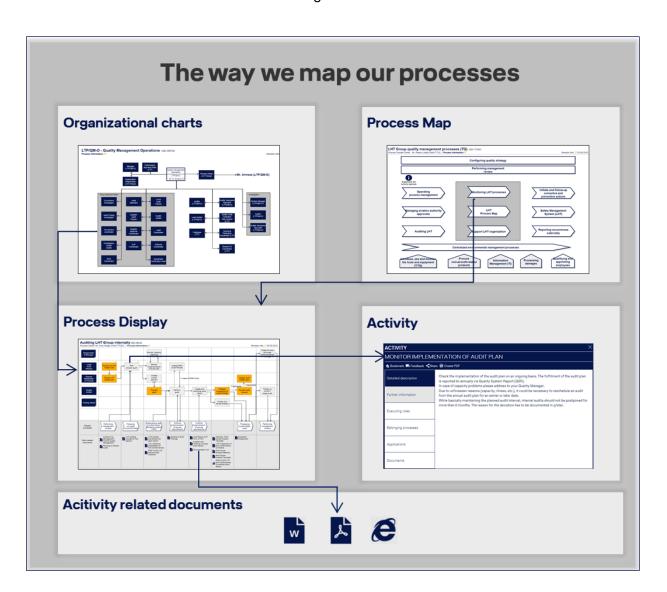
The **process maps** apply particularly to process owners and managers. They provide an overview of the connections and dependencies and thus enable fast navigation through the processes of the LHT Group.

With the **process description**, ProX satisfies the different needs of our employees by means of multiple levels of information. While the operational sequences are described in the role-based **process descriptions** (flowcharts), **activity boxes** provide additional

information on a more detailed level. This is in particular helpful for tasks which are not performed on a daily basis or for new employees and job entrants.

Finally, **activity-related documents** supplement the Info Box and supply tools, such as check lists and forms.

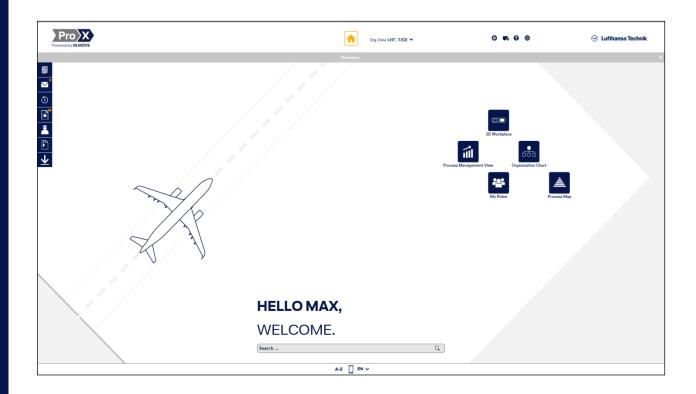
These documentation elements are linked together as follows:



# 13.4 The Intranet Application

LHT Group employees use the LHT Intranet to access the documentation platform ProX. This takes all of the different information needs of the various target groups into account (authorities, process owners and managers, employees) and allows for different entry points (access paths) making the scope of the documentation more understandable for the individual employee.

With its multi-level structure, the ProX platform creates transparency and makes an essential contribution towards the continuous improvement and better coordination of LHT Group processes.



## 14 ProX - Process Excellence within Lufthansa Group

ProX is the brand of process orientation within the Lufthansa Group which also extends to the LHT Group as part of Lufthansa Group.

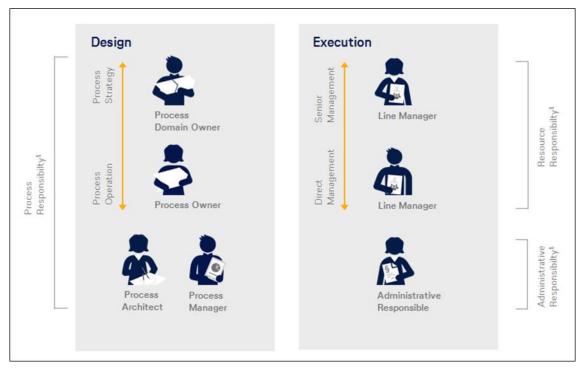
ProX provides a set of methods and concepts for process management and excellence, such as but not limited to FAR+ and process improvement methods.

# 14.1 Process Management Role Concept of ProX

For the management of processes, ProX uses the "Framework for Assignment of Responsibilities" (FAR+) as governance role concept.. FAR+ allows the clear assignment of process management roles with defined accountabilities and responsibilities to designated persons.

Core of FAR+ is the differentiation between Design and Execution roles. The Design roles take over "Process Responsibility" by defining how an employee is supposed to perform an activity within a business process. Process Responsibility is split up and granted to the four roles Process Domain Owner, Process Owner, Process Architect, and Process Manager.

In contrast, Execution roles define what an employee is supposed to do. The Line Manager role takes over "Resource Responsibility" (e.g., assigning roles), the "Administrative Responsible" (e.g., signing employment contracts) takes over Administrative Responsibility.



<sup>1</sup> includes accountability in the RACI sense

For a precise specification of these roles, parts of the RACI framework are applied (R: Responsible, A: Accountable, C: Consulted, I: Informed). In the following, the different tasks of the FAR+ roles are described in detail.

#### Roles of the Execution:

- The Administrative Responsible is accountable and responsible for signing legal contracts, issuing power of attorney, and granting Resource Responsibility to Line Manager role and Process Responsibility to design roles. Consequently, the Administrative Responsible bears the risk of organizational faults occurring.
- The Line Manager is accountable for the process accomplishment in the respective organizational unit. This includes budget fulfillment as well as leading of employees (e.g., role assignment to employees, target agreement, personnel development) within the organizational unit. Furthermore, business strategy for an organizational unit is defined, goals are derived, and the accountability for their fulfillment is taken on. This includes planning and controlling revenues, earnings, costs, capital, and expenditure related to resources such as personnel, material, infrastructure, etc.

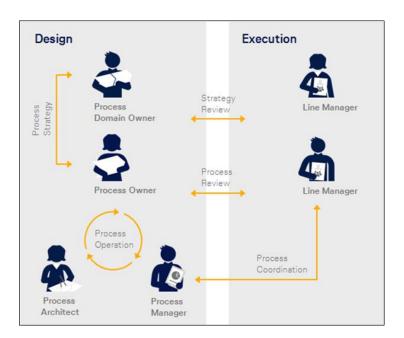
#### Roles of the Design:

 The Process Domain Owner is accountable for the strategic direction of a process domain. A process domain groups several business processes within a defined topic

(e.g., accounting processes or production processes). The Process Domain Owner nominates the Process Domain Owners of sub-domains and Process Owners of processes within his or her domain.

- The *Process Owner* is accountable for the definition, improvement, and overall coordination of a process.
- The Process Architect is responsible for definition, operational risk management and continuous improvement of a process by operationally driving the activities to support the Process Owner (e.g., definition of trainings for process employees, specification of IT tools, KPIs).
- The *Process Manager* is responsible for cross-unit coordination of a process instance. A process instance could be the product-, location-, or customer-specific execution of a process. For each process instance, a Process Manager has to be nominated. Consequently, a process can have several Process Managers.

For a successful realization of the framework's benefits, it is essential to establish structured and goal-directed communication and collaboration by defining communication flows which are presented in the following figure.



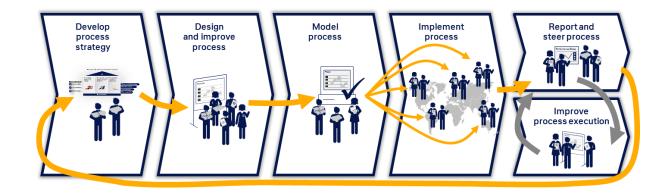
FAR+ uses five core communication flows, which are explained from a bottom-up perspective, starting with the operational communication flows:

 Process Operation: Process Owner, Process Architect, and Process Manager discuss all topics related to the execution of a specific process within Process Operation. In this context, a structured procedure for continuous process improvement is defined.

- Process Coordination: The different Process Managers represent their process instances and bring in the ideas for improvement identified within the Process Coordination.
- Process Review: In addition to Process Operation, the coordination between, Process Owner and Line Managers of the process participants ensures applicability of the process improvements. These improvements are developed by Process Operation participants to the requirements of the involved organizational units (e.g., coordination of adjusted capacity, increased qualification requirements, or additional tools and equipment).
- Process Strategy: To align the process results defined at the Process Operation and the further development of a process with the process domain strategy, coordination between Process Owner and Process Domain Owner is necessary.
- Strategy Review: Similar to Process Review, coordination between Process Domain Owner and Line Managers on senior management level facilitates the alignment of process domain strategy and corporate strategy.

#### 14.2 The Editorial Process of ProX

The process "Process Modeling" (IQM.3412860) as part of the Process Excellence process describes how content is edited, accepted and checked for conformity within the ProX platform.



ProX application and ProX methods are designed and operated by Lufthansa Technik's Center of Excellence for Process Management Methods & Tools for the entire Lufthansa Group. The service includes the management by a central Process Owner in order to ensure the applicability of the system and methodology throughout the participating Lufthansa Group companies.