WHITE PAPER

Redesigning KLM, rethinking safety

KLM

BAINES SIMMONS
SAFETY SERVICES

ideagen

Looking back over KLM's 100 year history, safety and compliance has constantly been at the forefront of our performance. Continuous improvement has been the driver for KLM's safety programs and systems for as long as we can remember. This means that we need to reinvent our safety methods and processes from time to time to stay at the top of the industry in this field.

To do this, KLM has been fortunate to work together with both Ideagen and Baines Simmons in successfully developing its Integrated Safety Management System (ISMS) and the supporting IT tools to achieve its ambition in safety and compliance.

By using these tools we have been able to better process and capture information and, as a result, successfully link information for thorough root cause analyses, improving our safety even further.

Eric Hoogendijk
Vice President Integrated Safety Services Organisation (ISSO)
Safety & Compliance Monitoring Manager KLM AOC

Introduction

At Baines Simmons we are world leaders in aviation safety. Since 2001, our expertise and practical approach has helped more than 750 aviation organisations and 40 Aviation Authorities around the world with a range of regulatory, compliance and safety improvement programmes.

We have partnered with KLM over many years and are proud to be trusted advisors for the development of their safety management system, most recently realised through the ISMS programme. The focus of our partnership has always been improved safety performance and both of our organisations have learned much along the way.

KLM has made a step change improvement in how they manage safety and are at the forefront of the aviation industry in this regard. In particular, the implementation of the ISSO, as described in this white paper, introduces the concept of an honest broker into the safety management process, which has been a determining factor in the creation and propagation of a just culture. Furthermore, the integration of operational, occupational and environmental safety with operational security, creates a truly integrated safety management system across the organisation. This is at the heart of the improvements described in this paper.

It has been a pleasure to work with Eric and his team in the KLM ISSO and a privilege to collaborate with an airline that is truly pushing the boundary of excellence in safety management.

Ian Holder
Managing Director
Baines Simmons

Executive Summary

KLM Royal Dutch Airlines is an integral part of the journey for more than 32 million people a year, providing scheduled passenger and cargo services to 144 destinations globally through its fleet of 160 aircraft.

KLM, which celebrates its centenary in 2019, has been on a journey of its own for the last three years, in order to make itself simpler, more streamlined and more cost-effective as it prepares for a second century of flight.

Led by CEO Pieter Elbers, the Dutch flag carrier has redesigned its organisation and operations in order to achieve its ambition of becoming Europe's most customer-centric, innovative and efficient airline.

KLM's transformation into a High-Performance Organisation, what Elbers has called "redesigning KLM" is showing positive results in terms of increased productivity, reduced unit costs and an increased number of innovations.

KLM executives believe that reducing the number of management layers, together with clustering and centralising support services and digital services has helped the organisation become leaner, more cost-effective and more customer-centric by laying the foundation for a more energised, focused and streamlined organisation with fewer procedures and more empowered staff.

This strategy can be seen in KLM's setting up an Integrated Safety Services Organisation (ISSO), to renew the focus on safety by centralising and integrating all safety and compliance functions.

In this report, we lay out KLM's industry-leading approach to safety management through its centralisation of safety and compliance, by looking at how it has improved the control, management and delivery of effective safety performance across the airline.

KEY TAKEAWAYS

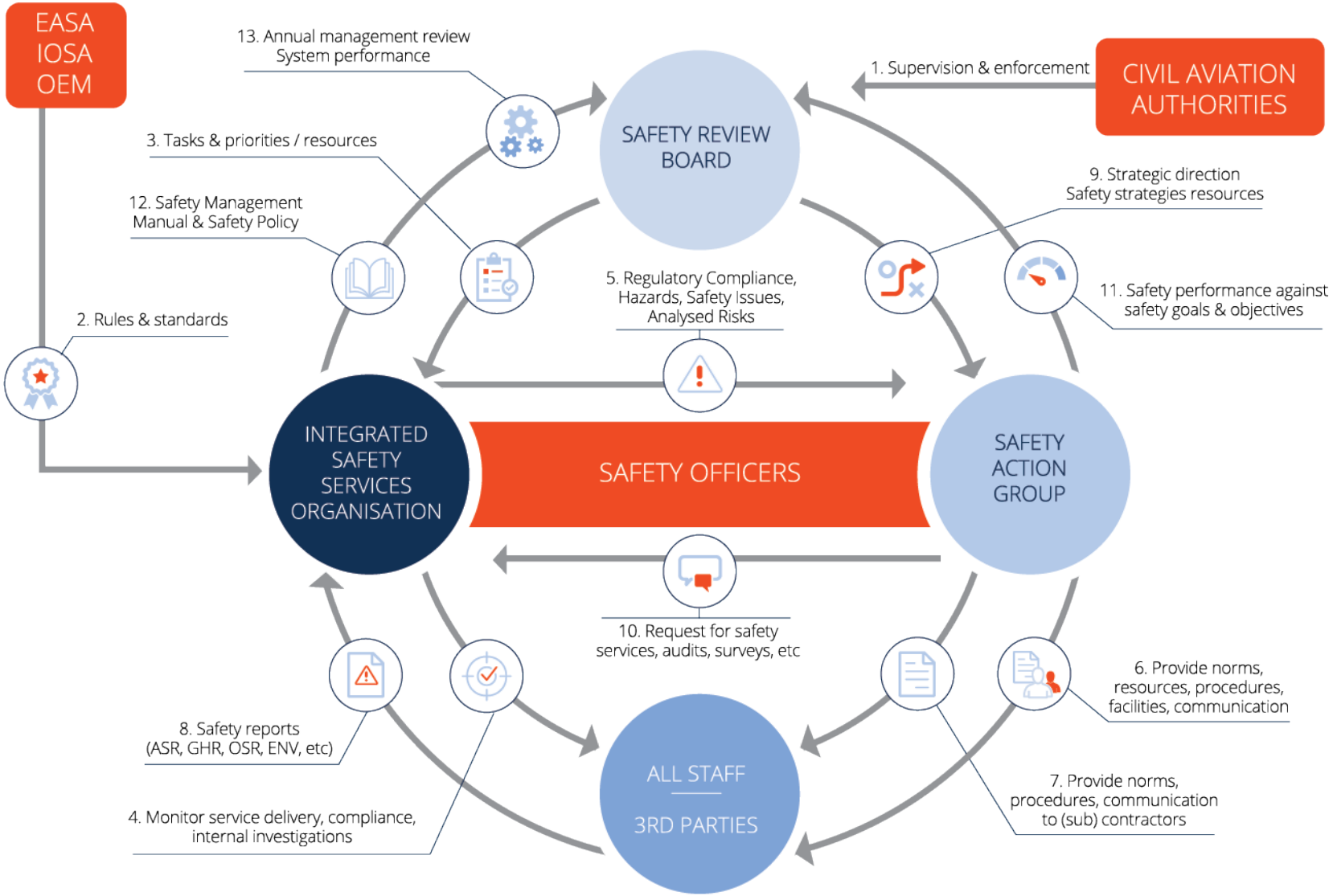
Integrated

- Simplified, streamlined, cost-effective organisation
- Improved quality
- More integrated management system approach to safety

Centralised

- From roles to functions allows further professionalisation
- Increased independence from the business with clear role mandates
- Increased efficiency in SSO organisation and business time used
- Easier to innovate and share best practices

Moving towards an “as integrated as possible; as centralised as necessary” safety management



KLM's ambition is to become Europe's most customer-centric, innovative and efficient network carrier, investing in customers and staff on the one hand, while striving for productivity gains and cost reduction on the other.

In striving to achieve this, by 2015 and as a result of multiple layers of management the airline had become too complex, too slow and too costly. In addition, efficiency gains had been identified in its operations, as well as changes to its culture in order to better reflect its strategic goals and the needs of its customers.

In support of this ambition, KLM embarked on a project to transform the organisation to a High-Performance Organisation (HPO), a concept developed by the Boston Consulting Group.

An HPO aims for a leaner, more cost-effective and, above all, more customer-centric organisation by reducing the number of management layers and clustering and centralising support services and digital services.

In 2017, KLM completed the HPO implementation, laying the foundation for a more energised, focused and streamlined organisation with fewer procedures and more empowered staff.

The project has enabled a transformation towards customer focus, better cooperation within the organisation, more involvement in the organisation and a considerably more efficient operation.

The HPO project was carried out at the same time in each division in order to identify cost savings and efficiencies as well as optimising performance in key functions.

In October 2016, KLM centralised the safety and compliance functions within the organisation as part of the HPO implementation, setting up the Integrated Safety Services Organisation (ISSO). The ISSO is a centralised independent support department that is responsible for monitoring, measuring, policy and advice in order to make sure that KLM continues to comply with the principle of secure, safe and effective operations.

Towards more integrated safety management

A SIMPLIFIED, STREAMLINED, MORE COST-EFFECTIVE ORGANISATION

By centralising the safety function through the ISSO, KLM have been able to achieve a step change improvement in the control, management and delivery of effective safety performance. This goes beyond the continuous improvement typically enabled by an ISMS and should lead to dramatic improvements in performance over time.

The structure of the ISSO also gives KLM a solid foundation on which to build effective Safety Management as part of the framework of a HPO. The ISSO structure represents leading practice in commercial aviation in providing effective oversight and holistic controls of hazards identified in operations, safety intelligence through data analysis and resilience to emergent risk.

Importantly, the structure gives management the ability to monitor and manage risk across divisions and then to assure the activities that are put in place to mitigate them.

By centralising the safety function through the ISSO, KLM has been able to gain a clearer picture of risk across each of its divisions. In addition, it now provides increased oversight in terms of compliance monitoring, risk management through the SIRA process and the analysis of safety data.

The centralisation of safety and compliance through the ISSO has improved the effectiveness and efficiency of the ISMS through, as well as other initiatives, the introduction of dedicated auditors that have enabled an increase in the number of findings and the quality of those findings.

Key roles have been established in support of the ISSO, such as the Integrated Safety and Compliance Managers (ISCM) and the Integrated Safety and Compliance Officers (ISCO), appointed in all KLM's operational divisions.

Doing so addressed an outstanding need within KLM both to improve communication with the divisions as well as to be more connected to them, in order to put everyone's role in context.

The ISCM acts as the link between the ISSO and each division. As part of the ISSO, the role also fulfils a need in making sure that the divisions feel included in the ongoing change and that they recognise the need to change.

IMPROVED QUALITY

In terms of meeting the needs of KLM's internal partners, i.e. the divisions, the quality of the work that's delivered has been improved, in terms of more focused findings. If they do their work correctly and they use the systems correctly, they increase their quality internally as well, as the root cause analysis that needs to be carried out prevents them from taking the same steps again.

A MORE INTEGRATED SAFETY APPROACH

Safety has to be integral to an airline operation and the ISSO has been proactive in identifying leading practice in its safety culture by benchmarking its safety culture against organisations in other industries, as well as in aviation.

Risk is inherent to air transport and KLM has an Integrated Safety Management System (ISMS), contingency plan, with procedures that help the company adapt quickly to changing environments and to anticipate and respond effectively.

The aim of these plans is the effective protection of passengers and staff, operational and service continuity and the preservation of the long-term viability of KLM's businesses.

KLM builds upon leading safety and security practices through an ISMS, a working environment of continuous learning and improvement and a coordinated approach to managing the four safety domains:

- Operational safety
- Occupational safety
- Environmental safety
- Operational security

The ISMS assures the safe performance of all processes within these domains through the effective management of safety risk. The ISMS encompasses all safety management system components and elements as stated in ICAO Annex 19:

- Safety policy
- Safety risk management
- Safety assurance
- Safety promotion

The ISMS complies with relevant national and international legislation. The ISMS is also based on the requirements of other regulatory systems: IOSA, ISAGO, ISO 14001 etc.

KLM has adopted a predictive and proactive approach that forms an integral part of its ISMS. This approach, together with the ISMS, allows risks to be predictively identified and proactively eliminated or mitigated before accidents and incidents occur.

The ISMS also allows safety to be continuously improved by collecting and analysing data, identifying hazards, threats and safety issues, and assessing safety risks to ensure the optimal allocation of company resources.

Acting on the four safety domains in an integrated way:

- enhances the organisation's knowledge of its risks
- enables the organisation to develop and introduce appropriate mitigating actions
- gains insight for further improvements through a large number of company-wide risk assessments and combined audits

The scope of audits at KLM includes EASA legislation and IOSA, but may also include occupational and environmental legislation and policies. The ISSO currently includes all legislative frameworks within their audits, but are in the process of automating updates to legislation.

Q-Pulse is the underlying technology for all of these safety domains in the same way – Q-Pulse helps to standardise and automate the process and procedure, allowing each specialist to bring their best self in terms of their individual areas of expertise.

Operational, environmental and occupational health and safety are already integrated, and areas of future improvement include operational security.

In 2017 the IT support tools were renewed by the introduction of the Q-Pulse system and innovation within KLM's Safety-Data Warehouse, introducing new analytic tools.

They have around 800 users using the system, so the implementation of Q-Pulse has been a success and plays a key role in supporting KLM's ISMS.

Towards more centralised safety management

INCREASED INDEPENDENCE FROM THE BUSINESS WITH CLEAR ROLE MANDATES

As a new corporate department, the ISSO is independent – when its auditors or risk analysts (investigators) identify findings and risks they do so as an independent entity – previously divisions would have their own auditors auditing and investigators investigating their own organisation KLM believes that positioning auditors and risk analysts independent from the divisions increases the ability to have an open and more thorough view on compliance and risk issues.

With the ISSO, KLM now has an independent department which is directly under the accountable manager, providing a more independent position from which to carry out its work.

The independent nature of ISSO is a key aspect of KLM's strategy for achieving an HPO. It is this independence that gives it the mandate to conduct the audits objectively. Therefore, as part of ISSO's commitment to continuous improvement and to underscore that independence, ISSO contracted Baines Simmons to conduct an independent 'performance audit' on itself to baseline its performance. Using the recently published EASA safety promotion material; the Management System Assessment Tool (MSAT) as a framework, KLM was assessed against the widely adopted Present, Suitable, Operating, Effective (PSOE) maturity scale. The core MSAT audit areas are synonymous with the 4 pillars of the ICAO safety management requirements, and, typical of the proactive stance taken by KLM, they were keen to include the fundamental supporting elements of safety performance; compliance and compliance monitoring.

Despite the results of the performance audit being highly positive in many areas, KLM are keen to explore and exploit any opportunity to further mature the ISSO function in its relationship with the operational divisions. In doing so, it will ensure that the full intent of a performance based environment can be realised.

The ISSO also employs a group of predictive Safety Issue Risk Assessment (SIRA) managers, which carries out SIRAs and safety investigations with the same independent mindset. A SIRA is like an audit, but while audit may be driven by legislation, the trigger to carry out a predictive SIRA might be a major change to a business process. A second group of dedicated professional SIRA managers can be assigned to carry out these SIRAs. This represents a step change in terms of safety management.

In terms of preventive SIRA, during the 2 years that the ISSO has been in existence, SIRA as a group process, in which the Safety Action Groups (SAG) sit together and look at all the potential risks, has been widely accepted within KLM. Now, when major changes to the business are planned, for example building a new pier at Schipol, the project managers will know that they need to have a SIRA process upfront to identify risks and, where they're identified, to mitigate them. Another example might be if changes are planned to business class seating, then the project manager will know that they need to involve a SIRA manager to identify the risks before the start of the project.

The biggest benefit of this is that, within the business and the business changes it carries out, everyone is becoming more and more accustomed to thinking about safety in advance. This is an achievement of the ISSO in making everyone aware that they should think about risks before they act and implement major changes.

The ISSO also acts as an independent third party – an honest broker – between KLM staff and managers in receiving event reports relating to safety, which they then follow up with reporters in order to understand events and their context.

In doing so, it enables KLM to retain control of safety data, with professionally trained analysts. Most importantly, it encourages a more open and honest reporting culture by ensuring the confidentiality of event reports and their reporters.

FROM ROLES TO FUNCTIONS ALLOWS FURTHER PROFESSIONALISATION

Prior to the ISSO's creation, every division within KLM had their own quality assurance department, each of which created its own procedures, so they lacked independence.

None of the departments had full-time auditors. For example, there were instances of managers of standards and compliance who were also trained as auditors.

As an outcome of the HPO project workstream, the ISSO has a centralised team of dedicated professional auditors whose sole function is to carry out audits across KLM, including within divisions and outstations.

Quality improvement is the major benefit, with a more independent audit function that can carry out more focused audits which has resulted in both an increased number of findings and more importantly increased quality of findings. Audits now also have more added value for divisions than that previously experienced.

INCREASED EFFICIENCY IN THE ISSO AND BUSINESS TIME USED

Within the ISSO, 70 specialists work in three major areas:

- Incident management
- Audit management
- Safety Issue Risk Assessments (SIRA)

The ISSO carries out most of the work and there are certain workflow steps involving process owners outside the safety department. By centralising the knowledge, the thinking and the processing associated with safety, the ISSO has kept to a bare minimum what they expect from the outside.

In occupational, environmental flying all over the world to carry out a regional audit, auditors can now combine two stations as well as looking at security. This has increased efficiency by reducing the travel times because auditors are not only looking at KLM internally but the KLM network.

EASIER TO INNOVATE AND SHARE BEST PRACTICES

As a result of having electronic data capture systems in place, the ISSO has built a safety data warehouse that receives a snapshot from Q-Pulse of all the data every night and produces overviews of the health of the SMS and QMS.

This has also enabled them to share quality management information with their KLM internal partners, i.e. the divisions and outstations, so both on a system and on a data level, they've made big advancements in terms of quality as a result of the systems that they've implemented.

Safety is of vital importance to KLM's customers and employees. Via our performance-based Integrated Safety Management System, we continuously invest in improving KLM's safety and reliability. Q-Pulse has proven to be a great asset in achieving our ambitions in safety.

R.M. de Groot, Accountable Manager, Chief Operating Officer

Towards a second century of flight

As regulation evolves to a performance based approach and competition compress margins on operations, KLM has proactively reshaped its organisation and operations to better serve its customers and remain safe and profitable in the long-term. This has enabled the airline to further its ambition as a more customer-centric, innovative and efficient organisation.

Through the setting up of the ISSO, KLM has restructured its organisation to focus on establishing an industry-leading approach to safety management, which has enabled a step-change improvement in the control, management and delivery of effective safety performance within the airline.

KLM has adopted a long-term strategy to become Europe's most customer-centric, innovative and efficient network carrier. With safety a prerequisite for customer satisfaction, the airline's goal is now to continuously improve and to continually challenge the ongoing effectiveness of existing and new systems developed to manage safety performance.

Ideagen's SMS software provides centralised and standardised frameworks for maintaining and improving safety management throughout the organisation.

With SMS software from Ideagen, your organisation can implement an integrated approach to managing safety that meets multiple regulatory requirements.

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