

Project partners and subcontractors



Advisory Board



Project partners and subcontractors

- TUHH Institute of Aircraft Cabin Systems
- TUHH Inst. of Business Logistics & General Management
- TUHH Institute of Air Transportation Systems
- Lufthansa Cargo AG
- LHU Luft-Hafen-Umschlag GmbH & Co. KG
- HLI Hamburger Logistik Institut GmbH
- Accenture GmbH
- DFN-CERT Services GmbH
- BAM Federal Inst. for Materials Research and Testing
- Smiths Heimann GmbH
- Federal Police (Aviation Security Department)
- LBA Federal Aviation Office
- BMW Group Bayerische Motorenwerke AG
- Luftfahrtcluster Metropolregion Hamburg e.V.
- Logistik-Initiative Hamburg e.V.
- clusterTec GmbH



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Secure Air Cargo Transport Chain

Concepts, strategies and technologies
 for secure and efficient
 air cargo transport chains



source: Lufthansa Cargo AG

Cooperative research project
 under the research program for
 "Security in Air Traffic"

July 2013 - June 2016

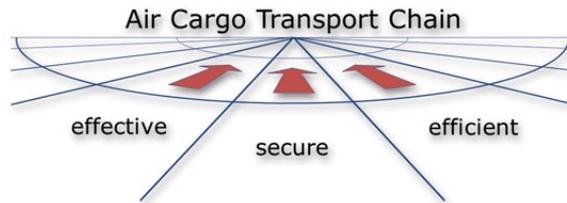
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Project objectives

The project aims at increasing the security of air cargo while increasing - or at least maintaining - the efficiency of the value-adding operative activities within the air freight business.



- establishing a high-level meta-model of air cargo with a representation of current and future process chains
- comprehensive analysis of the main security parameters of the air cargo supply chain
- design of future scenarios, in particular regarding threat, prevention, protection and interaction
- the design of comprehensive and detailed solutions with the proviso to improve aviation security
- demonstration and integration of the concepts designed for a secure air cargo transport chain and subsequently the analysis of the resulting effects in practice
- the aggregation of the achieved results and shaping recommendations for action in entrepreneurial practice and policy making

Requirements

The air cargo business is highly dynamic concerning regulations, the various measures of the stakeholders to protect the freight and furthermore the customer demand. Accordingly there is a high potential for an ongoing improvement of efficiency and security within the entire air cargo transport chain.

The security requirements for cargo transported in passenger aircraft as belly-freight exceed those for cargo on pure freighter. Highly topical for the air cargo and logistics industry are existing rigorous legal requirements for documentation of processes and protection of facilities.

Consequently costs in non-value-adding areas are rising. Furthermore for stakeholders as well as for involved authorities there are considerable uncertainties relating to the ideal implementation of legal standards. Finally there is neither an increase of the level of security nor an improvement of logistical processes achieved.

Prospectively increasing security requirements and novel technologies should not lead to a slowdown of processes, rising costs or to a loss of flexibility within logistics.



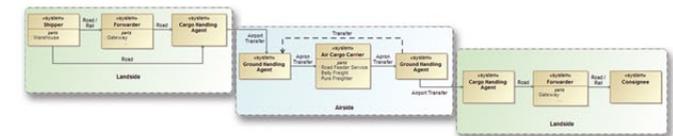
Strategy

The project is divided into three parts:



(I) identifying and analyzing requirements

analysis of current processes and regulations, analysis of relevant technologies, analysis of current deployment of personnel, threat and demand analysis



(II) designing solutions and modeling

drafting of future scenarios, design of solutions for the scope of action for technology, personnel and organization



(III) implementing and demonstrating solutions

demonstration and integration of the developed concepts, analysis of the consequences, recommendations for entrepreneurial practice and policy making