

Center of Competence

## Cabin/Cargo Interior & Payload Systems

„Developing complete technical solutions and technologies for all Cabin/Cargo systems and components“



Airbus Deutschland GmbH  
Kreetslag 10  
21129 Hamburg  
Tel.: +49 (0) 40 743 82 376

EMAIL: [rainer.vonborstel@airbus.com](mailto:rainer.vonborstel@airbus.com)  
Web Site: [www.airbus.com](http://www.airbus.com)

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# Center of Competence Cabin/Cargo Interior & Payload Systems

## Mission

The Center of Competence *Cabin/Cargo Interior & Payload Systems* led by Rainer von Borstel is an engineering organization with more than 800 employees in Hamburg, Bremen and Toulouse. Being responsible for the engineering activities related to all components and systems for the transportation of passengers and freight, the Center spreads its engineering activities from industrial design and definition up to validation and verification. This is applicable for the development of new aircraft, customization activities, but for the assistance to customer service and product evolution as well.



## Cabin Interior and Systems Engineering

The cabin interior engineering includes the development of cabin configurations, furnishing and monuments (e.g. passenger and cabin attendant seats, hatracks, sidewalls, partitions, ceiling, windows), wiring, ducting and piping.

The aircraft cabin gained in the recent past more and more importance for Airbus customers, wanting to reinforce their branding policy. Nowadays, a passenger aircraft offers the highest level of comfort supported by hi-tech cabin systems. Those systems include passenger entertainment systems, such as music and video, telephone systems, video games, or even the possibility to use private PC's with Internet access on board.

Inside the aircraft cabin, some ambient conditions also have to be observed: This is the role of the highly developed air management systems, allowing to adjust and control temperature, ventilation and pressure. Galley and lavatories (including vacuum toilets and water systems) are also important components in the cabin development.



Not only the passengers take advantage of the latest features but also the cabin crew. Optimized working area, improved control of cabin systems, better communication systems between cockpit and cabin, or even crew rest facilities offering the same comfort and safety as the passenger cabin, make Airbus aircraft more pleasant to operate.



## Philosophy

The objective of the Airbus Cabin/Cargo interior and payload systems engineering is to develop complete technical solutions by incorporating state-of-the-art technologies into this highly customizable part of the aircraft. Pillars of the center philosophy are a high responsiveness to customer requests and a close collaboration with marketing, sales and all aircraft programs, in order to achieve the committed in-service maturity. As a major contributor to comfort, safety and health of passengers and cabin crew, the Center of Competence *Cabin/Cargo Interior and Payload Systems* provides the highest quality standards by applying latest state-of-the-art ways of working.

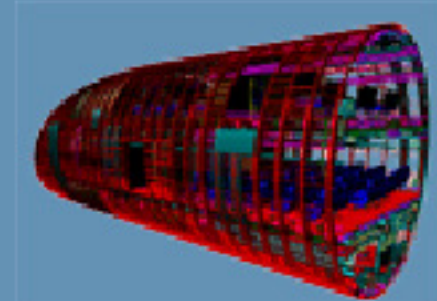
## Cargo Engineering

The Cargo Center in Bremen is responsible for the definition and the development of complete main, upper and lower deck cargo components for passenger aircraft, freighters and combi aircrafts. As for the passenger cabin, the cargo configuration can be highly customized, using various options to tailor aircraft to the needs and requirements of the customers. Various aspects have to be considered, such as ground handling and servicing.



Modularized, robust cargo loading systems are developed in close collaboration with the system suppliers / vendors. These engineering activities also include complete cargo compartment systems, such as drainage systems, fire protection systems and research on environment-friendly fire suppression agents. The development of lightweight but robust cargo compartment linings and their appropriate and replaceable fixations to the aircraft structure (including

the rapid decompression features) is also within the responsibility of the Center.



The cargo compartments, systems and components are demonstrated and tested in the Cargo Mock-up Center in Bremen.

The demand for airfreight capacities has risen drastically over the last years. This demand can only be met by expanding freighter fleets. One of the least expensive solutions to this problem is to convert existing Airbus passenger aircraft into freighters. To cater for this demand, Airbus has developed standard conversion kits for A300 and A310 aircraft.

## Visions for the future

Our future commercial success strongly depends on the development and implementation of innovative design concepts and on the evolution of existing concepts in the field of cabin and cargo interior.

That is the reason why it is crucial to lead conceptual studies and to initialize research activities to ensure our future competitiveness. The Center of Competence *Cabin/Cargo Interior & Payload Systems* provides leadership and guidance to identify future trends and propose directions of development in order to establish and consolidate Airbus market leadership.