



PORTFOLIO 2026  
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## INDUSTRIAL DESIGN

From Sketch to Prototype Building | Transportation-/ Product Design  
Graphic Design | Ergonomics and Human Factor Studies/Tests  
1:1 Scaled Experimental Mock Up | 1:1 Sales Mock Up (with partners)



## 2D/3D VISUALIZATION, ANIMATION & VIDEO

Photorealistic Renderings | 2D/3D Animation  
Product Video | Corporate Video | Explanation Video



## VR APPLICATION

Interactive Application for 3D VR Goggles and / or Website



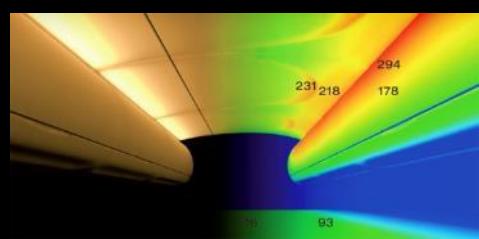
## LIGHTING SIMULATION & LIGHTING DESIGN

Physically Correct Lighting Simulation | Lighting Scenarios Analysis  
Lighting Ergonomics, Optimization | Lighting Concept



## RESEARCH & DEVELOPMENT

Research Projects | Future Projects | Analysis and Verifications  
Innovative Technologies | Case Scenario



## 3D CAD & DATA MANAGEMENT SERVICE

Splines- / Polygon Modelling | 3D CAD Assemblies | Digital Mock  
Up Package | Construction Support | Feasibility Studies

**AIRBUS**



**F FERCHAU**  
ENGINEERING

**DIEHL**



**Lufthansa**

**Lufthansa Technik**  
More mobility for the world

**Schüscke**  
**Solid Solutions**

**spaceapplications**

Bauhaus-  
Universität  
Weimar

**BDLI**

*Möbius*

**TUHH**  
Technische Universität Hamburg

Membership:

**BOMBARDIER**



**eurodomo®**  
einfach mehr Küche.

**H'Aerospace**



**HOCHBAHN**



**Relation**  
ENGINEERING TEAM

**STEMME**



**VÆRIDION**



**HAW**  
HAMBURG

**LZ**  
N  
LASER ZENTRUM NORD



**TÜVRheinland**

**HAMBURG**  
**AVIATION**

**HK** Handelskammer  
Hamburg

**HANSE-**  
**AEROSPACE**



SCIENCE R & T

# Science R & T

## Space Interior Concept | UI & Mock Up

Together with Ariane Group iDS developed an innovative space interior concept and a user interface to control the capsule. The mockup was presented at SPACE TECH EXPO in Bremen.

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# Science R & T

Lightweight bionics I  
Research project and visualization

6

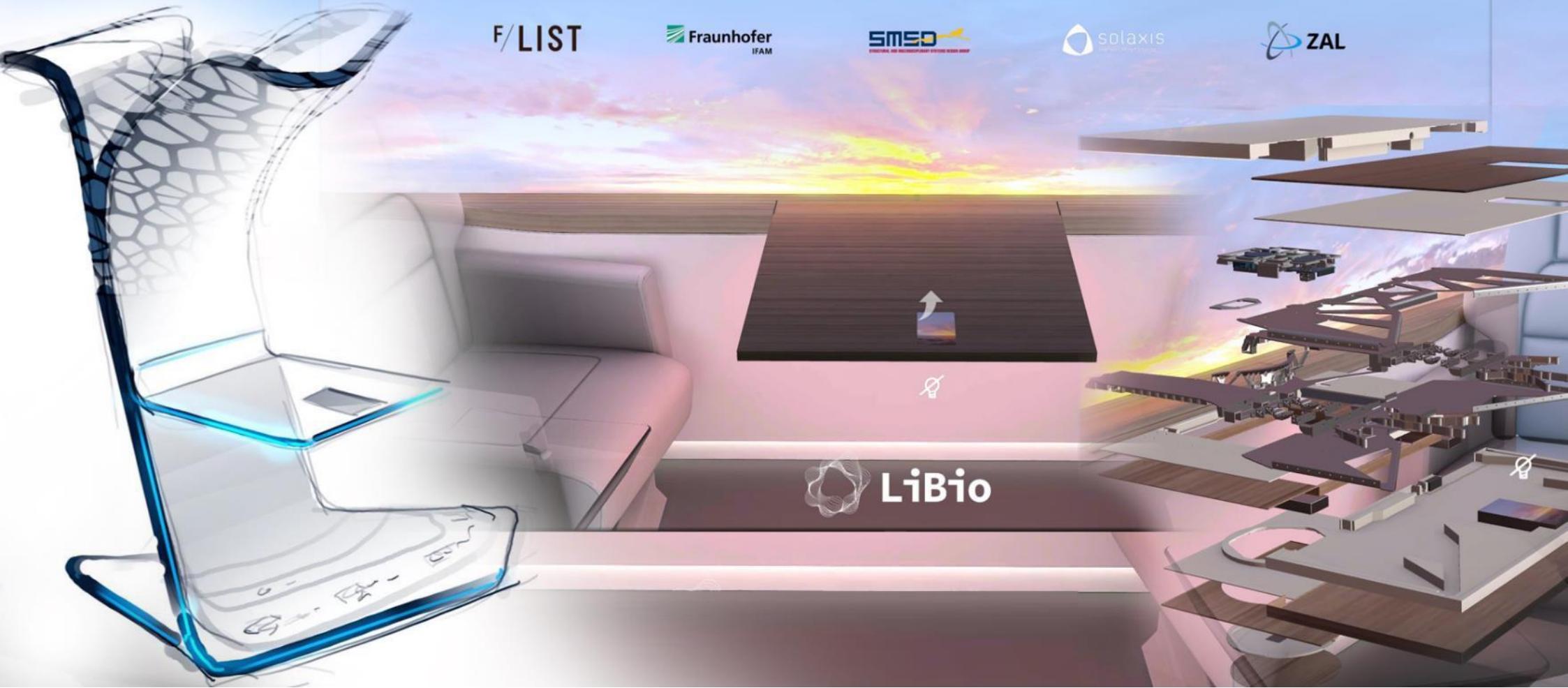
iDS initiated LiBio, a lightweight bionics aircraft table research project together with ZAL as a German - Canadian - Austrian cooperation. iDS provided advanced design concepts, an interactive virtual tour showcasing all cooperation partners and their contributions as well as a demonstrator stela for the presentation of the functional model and the interactive application.



BOMBARDIER



INOCON



# Science R & T

Ergonomic Research | Interior Layout | Graphic Design | Exterior

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**DLR Spaceliner** Prof. Werner Granzeier and iDS support the DLR Spaceliner concept development, with interior layouts and exterior design concept studies. Project lead: Dr.-Ing. Martin Sippel, DLR, German Aerospace Center, Bremen/Germany.





**AC20.40 Cabin Design** The project is supported by iDS with layout concepts, ergonomic research, graphic design/exterior and visualization. An airworthy model has already been developed by Prof. Werner Granzeier, HAW Professors and their students (Scale 1:30, Wing Span 2,70m). Various exterior, interior and research projects are in progress.

# Science R & T

Ergonomic Research | Eco-Efficient Lavatory



ECOLAV PRM (person with reduced mobility) - optimized lavatory with standard footprint, sensor-controlled, voice-operated, colour-optimized for visual impaired people, accessible with onboard wheelchair.

Supported by:



Research Project together with

**AIRBUS**

**DIEHL**  
Aviation





# TRANSPORTATION

# Transportation DESIGN

Cabin | Ergonomics | Interior Design

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Væridion GmbH, a Munich based company that is accelerating the green transformation of aviation with a small electric aircraft that will be certified and delivered before 2030, and iDS industrial Design Studio, Institut für WBOR, Design und Entwicklung Hamburg GmbH, a leading institute on industrial product design and development - specifically aircraft cabins, concluded the first cabin design study for the VÆRIDION Microliner.



# Transportation DESIGN

Cockpit | Ergonomics | Interior Design

VÆRIDION

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Cockpit Microliner

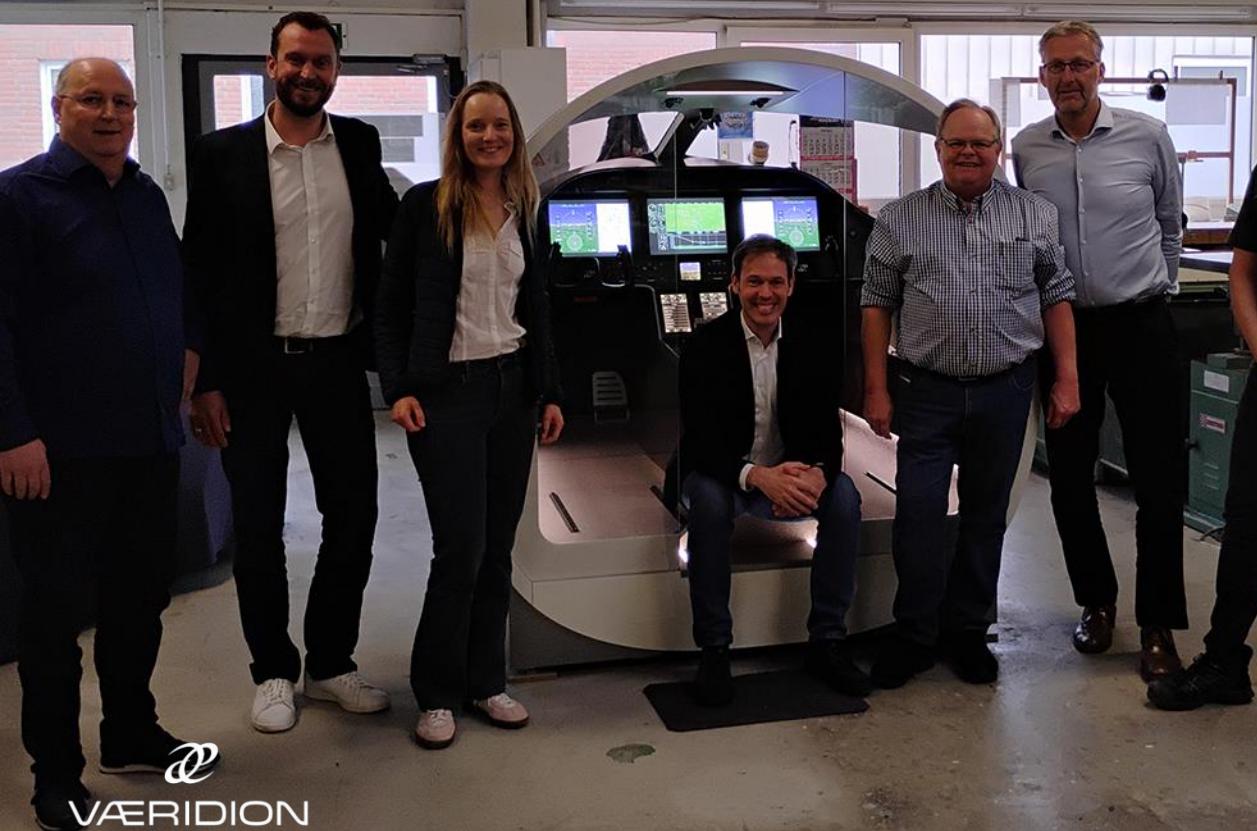
Ergonomic Study – Industrial Design – 2D und 3D Visualization

 VÆRIDION

# Transportation DESIGN

Cockpit | Mock Up

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Cockpit Microliner

Final mock up review at ABU Fertigungstechnik premises  
with VÆRIDION, iDS and ABU.



# Transportation DESIGN

Cockpit | Ergonomics | Packaging

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Deutsche Aircraft D328eco

Cockpit Ergonomics Study and 3D Package/Layout  
Implementation Avionics and Controls

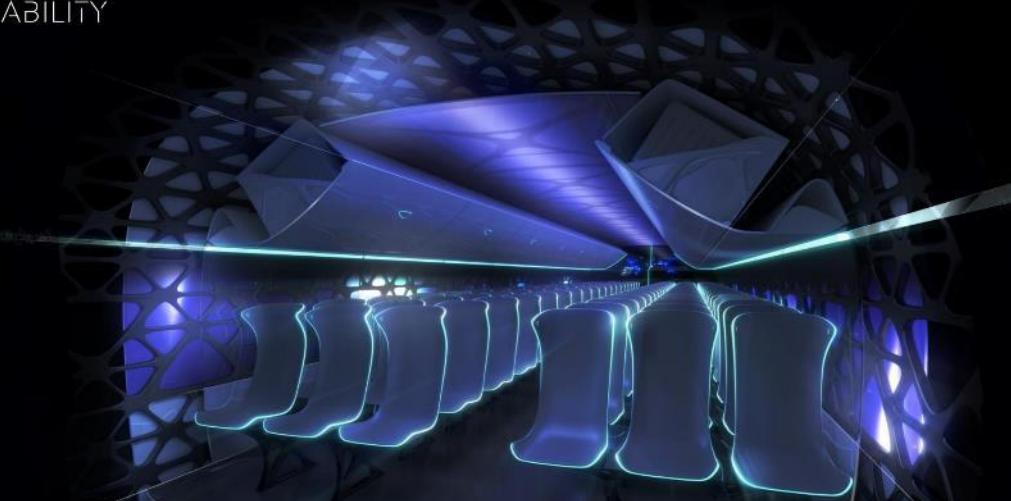
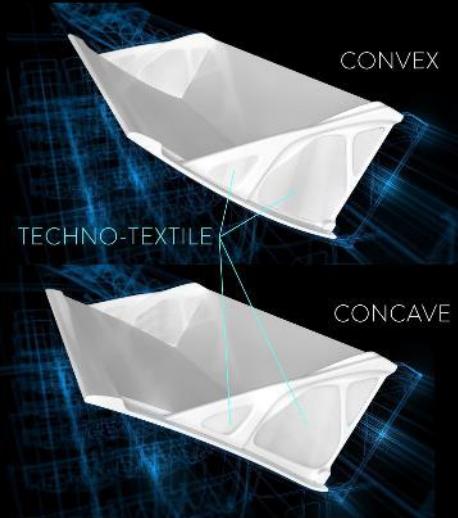
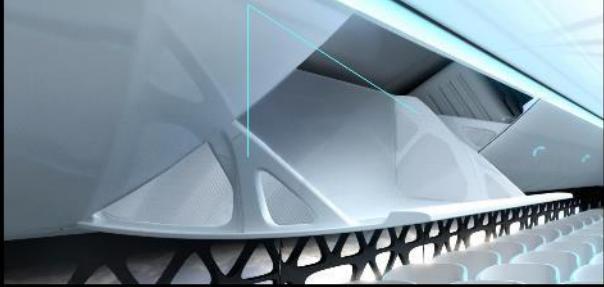
# Transportation DESIGN

Advanced Design Concept

SUSTAINABILITY

INNOVATION

TOPOLOGICAL OPTIMIZED, ULTRA LIGHTWEIGHT  
SUPPORTING STRUCTURE FOR THE HATRACKS



MADE WITH FIBRE COMPOSITE FUTURE MATERIALS  
LONG-LIVING MATERIALS AND PROCESSING

A CABIN BUILT  
FOR HUMANS

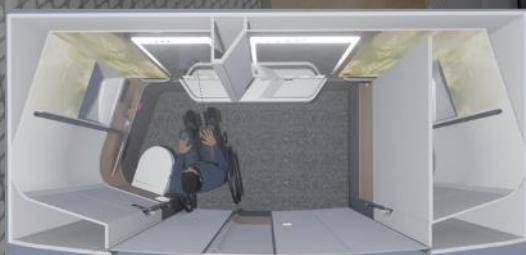
MAXIMIZED LUGGAGE VOLUME  
FOR THE PASSENGERS



# Transportation DESIGN

Interior | Ergonomics | Layout | Sanitary Concepts of the Future

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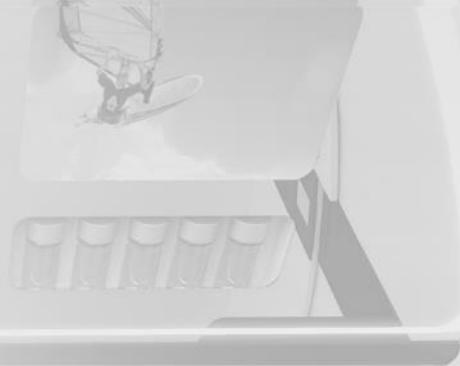


iDS developed various innovative sanitary concepts for Deutsche Bahn, combining ergonomics for passengers and staff, hygienic aspects with special surfaces and shapes for easy and fast cleaning and economic aspects for efficient manufacturing on the smallest possible footprint by combining and interleaving multiple units. This particular design shows a barrier-free universal lavatory combined with a single lavatory, which can also be used as a universal lavatory by moving the partition wall, if the original universal lavatory would be inoperative.

# Transportation DESIGN

Lavatory Design | Ergonomics | Mock Up

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The High Integrated Flexible Lavatory (HILA) offers more space, convenience, comfort and hygiene because of its flexible concept. The development group, AIRBUS, DASELL / DIEHL and iDS Hamburg received the international design award Crystal Cabin Award 2010.



CRYSTAL  
CABIN  
AWARD®

*Let your ideas take off.*

in cooperation with:

**AIRBUS** **DIEHL**  
Aviation

# Transportation DESIGN

Lavatory Design | First Ideas | Concept | Sketches

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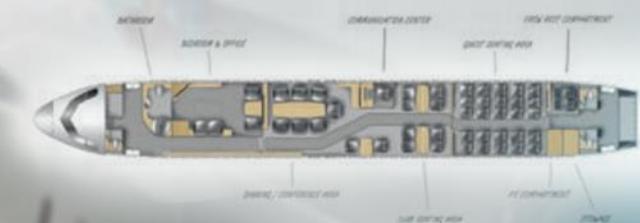
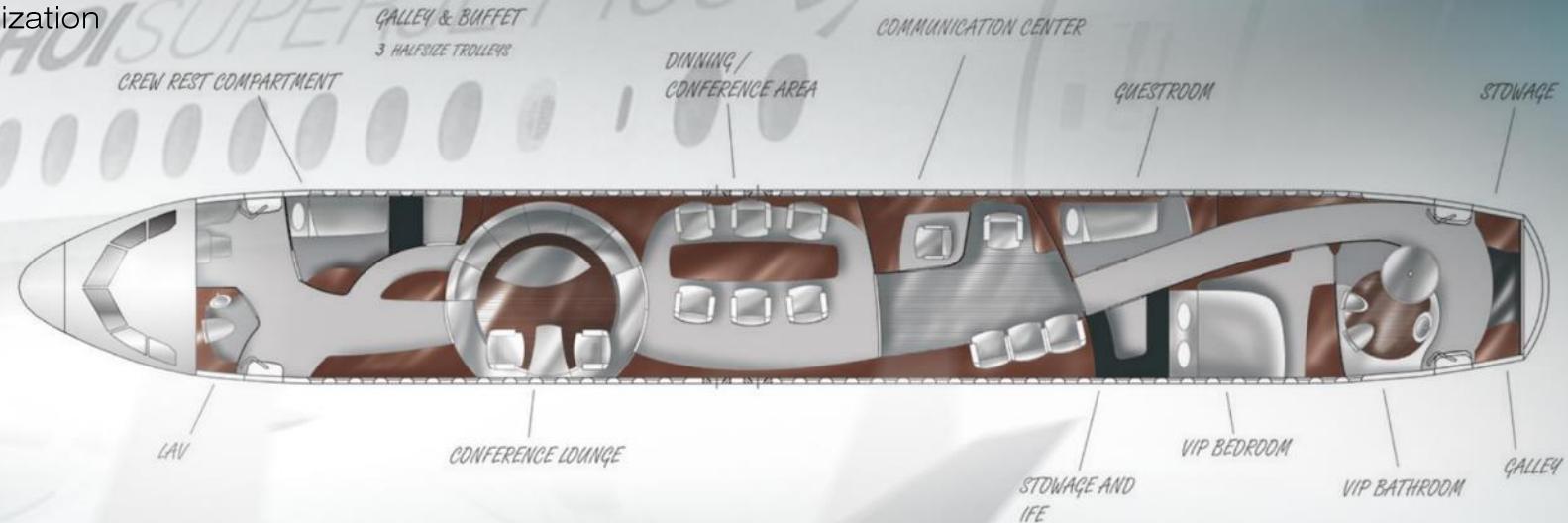


**C919 Lavatory** In an early stage of the design process sketches of design impressions provide first information as well as create an emotional link between the customer and his new products.

# Transportation DESIGN

Layout | 2D Visualization | 3D Visualization

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Interior Layout First layout concepts in 2D, and cabin development in 3D CAD

# Transportation DESIGN

B/C Seat Concept | Layout Optimization

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**Lufthansa**



## B/C Concept and Layout Study

The analysis, work-out and the evaluation of different layout concepts for B747 resulted into a B/C layout with one more seat row in the front.

# Transportation DESIGN

Cabin & Cockpit Design | Ergonomics | Lighting Design | Mock Up



## B717 Interior Design

Interior Design of the entire cabin including cabin lining, hatracks, monuments, placarding, colour and trim and lighting design.

Design Lead: Prof. Werner Granzeier

728JET Cockpit Design from the first sketch, ergonomic studies with pilots, optimized lighting design and preconstruction CAD data to the 1:1 sales mock up.



CRJ 900 Cabin Refurbishment with new hatracks, ceiling and LED-lighting



728JET Cabin Interior Design of the entire 728JET including cockpit, cabin, lavatories, monuments, placarding, colour and trim. Amongst other things IDS optimized the ceilingpanel to achieve a well-balanced cabin illumination with a ceilinglight installed only on one side.

# Transportation DESIGN

Cabin and Cockpit | Ergonomics | Exterior | Graphic Design

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**Sports Utility Jet Interior** Inspired by automotive design: An integrated interior solution for Sports Utility Jets for a private customer - a cabin for four passengers and two pilots. The design of the cabin has been carried out with a closer look for details as well for the overall picture. The overall impression bears witness to a timeless and premium design.

# Transportation DESIGN

Cabin and Cockpit | Ergonomics | Exterior | Graphic Design

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inspired by automotive design: **Sports Utility Jet Interior**

# Transportation DESIGN

Exterior | Interior | Graphic Design



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**Next Generation Train NGT** With the DLR Göttingen, iDS industrial Design Studio has developed a new double decker high speed train: The leading criteria are an outstanding passenger comfort and the improvement of aerodynamics for high-speed.

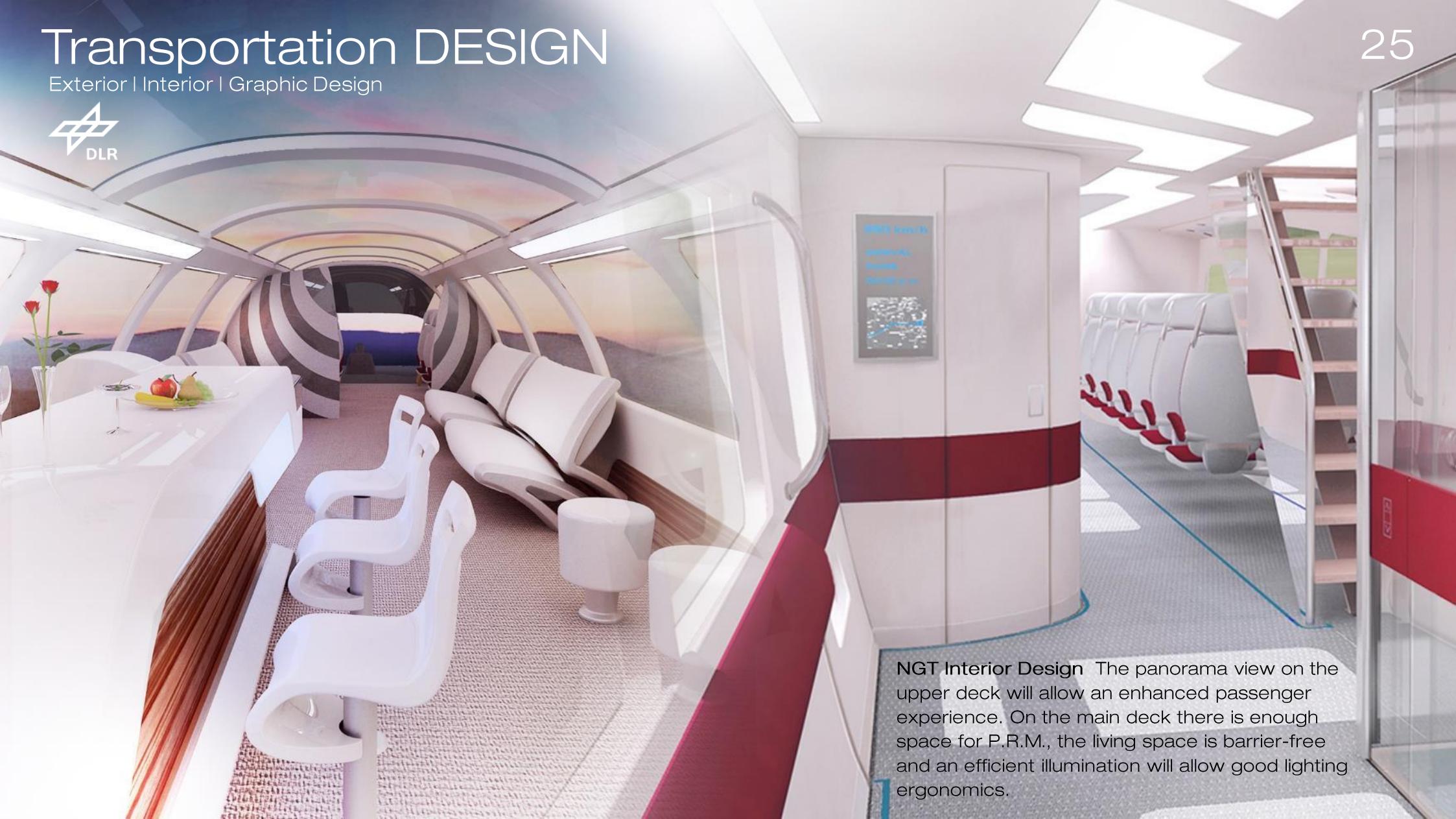


# Transportation DESIGN

Exterior | Interior | Graphic Design



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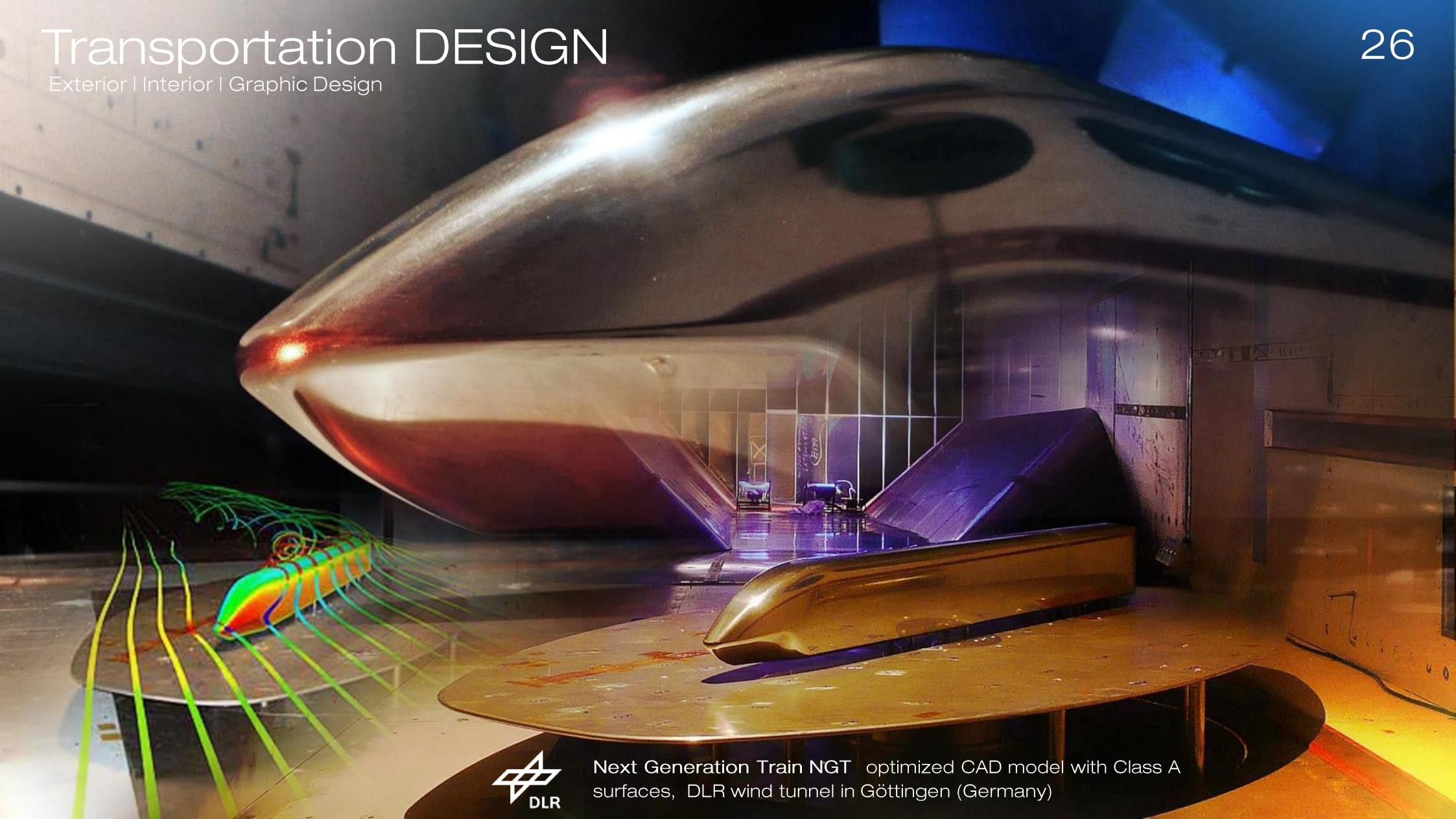


**NGT Interior Design** The panorama view on the upper deck will allow an enhanced passenger experience. On the main deck there is enough space for P.R.M., the living space is barrier-free and an efficient illumination will allow good lighting ergonomics.

# Transportation DESIGN

Exterior | Interior | Graphic Design

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Next Generation Train NGT optimized CAD model with Class A surfaces, DLR wind tunnel in Göttingen (Germany)

# Transportation DESIGN

Exterior | Ergonomics



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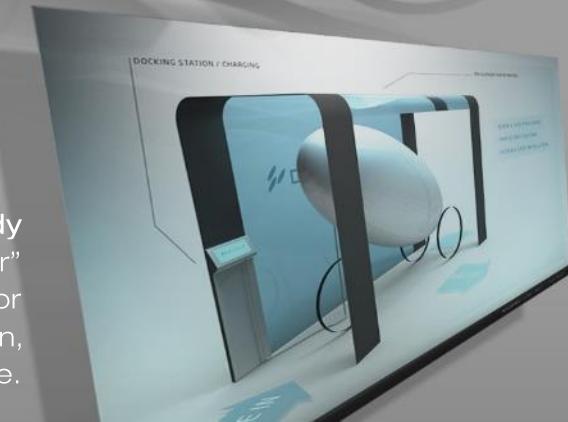


GT Racing Car An exterior design (body) of a GT Racing Car for a private customer as a concept study. Because it has been an individual development, it all had to begin with the analysis of the ergonomic dimensioning which led to a common package and finally to the construction of the car body surface data.



# Transportation DESIGN

Concept Study | E-mobility



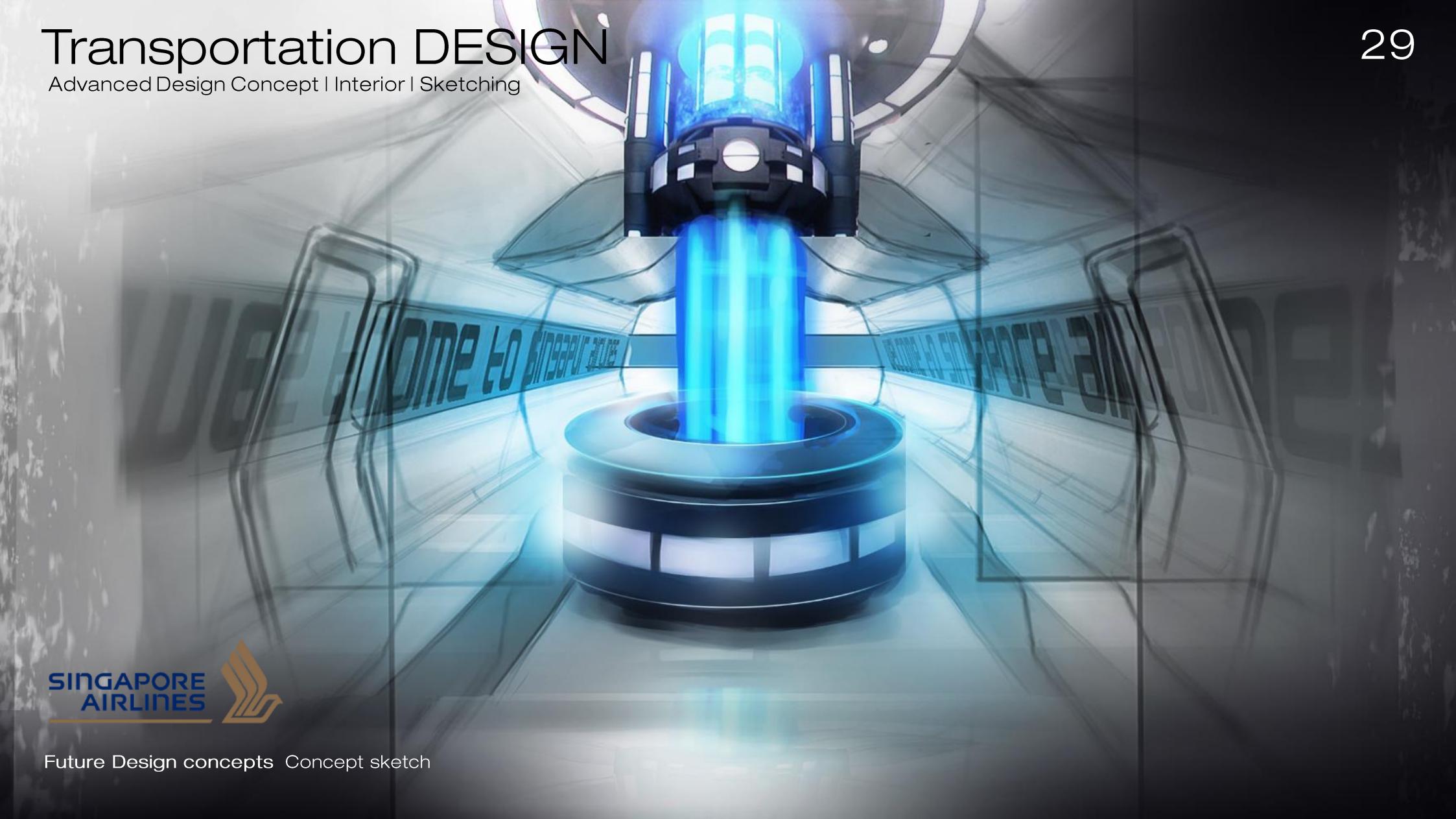
## DRYMER Concept Study

“Sportive like a bicycle, comfortable as a car” is the philosophy of this innovative concept study for DRYMER. Significant characteristics are comfort, design, durability and simplicity for different users like young- and older people.

# Transportation DESIGN

Advanced Design Concept | Interior | Sketching

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SINGAPORE  
AIRLINES



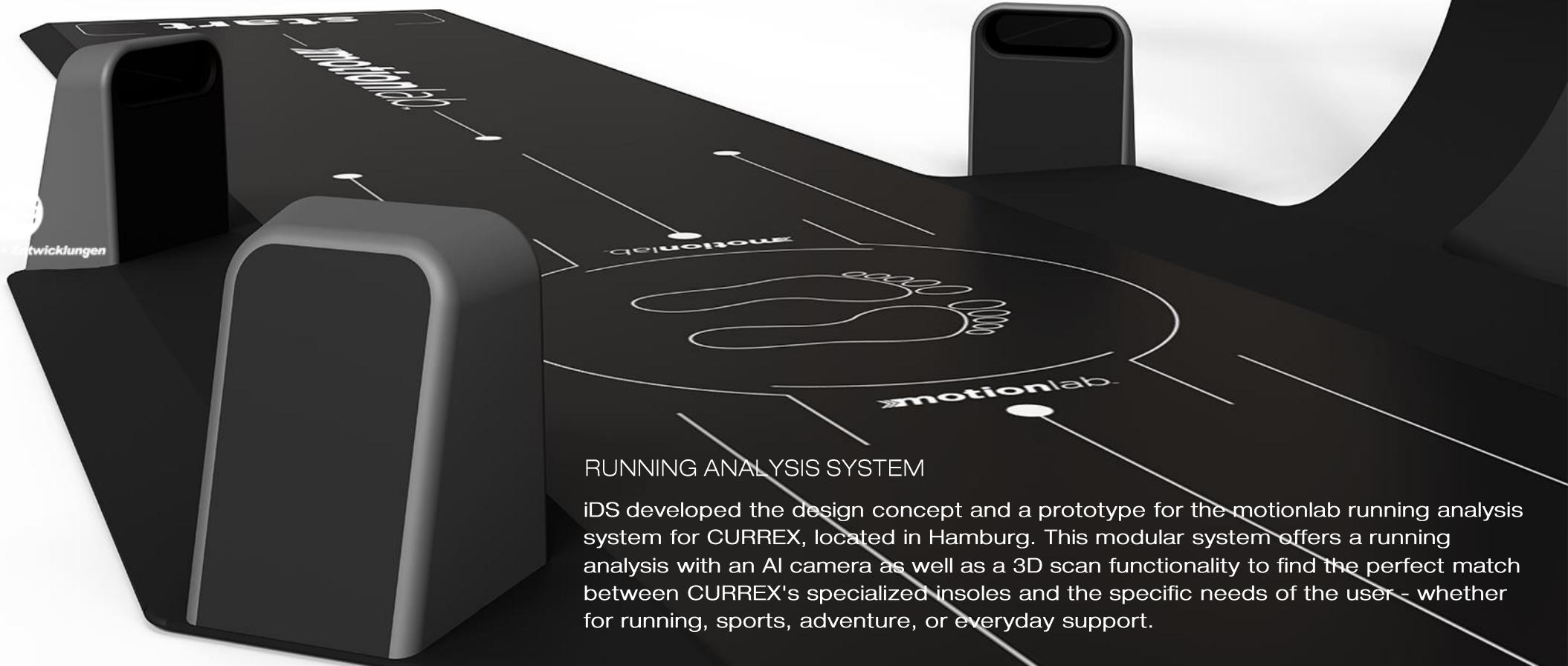
Future Design concepts Concept sketch



PRODUCT  
BYOD

# Industrial DESIGN

CURREX



## RUNNING ANALYSIS SYSTEM

iDS developed the design concept and a prototype for the motionlab running analysis system for CURREX, located in Hamburg. This modular system offers a running analysis with an AI camera as well as a 3D scan functionality to find the perfect match between CURREX's specialized insoles and the specific needs of the user - whether for running, sports, adventure, or everyday support.

# Industrial DESIGN

Product | Ergonomics | Pre Construction

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**EcoStar 500** A moulding for the products of MHG Heiztechnik (former MAN Heiztechnik), a leading premium manufacturer of oil-heating value technology, which consequently covers the entire product line-up. EcoStar 500 does not only reflect accuracy and quality of the products but also adds its own identity which corresponds to its high-grade appearance. We continuously used a special blue color accent for the MHG corporate design. The products are currently being sold successfully, specifically within the European markets.

# Industrial DESIGN

Seat Design | Ergonomics

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*Fischer + Entwicklungen*

**Pilot Seat** Helicopter seats have to fulfil highly demanding requirements, especially corresponding to lightweight construction, ergonomics, emergency landing conditions and crash scenarios. The design of the pilot seat reflects the ambitious technological demand. The prototype has successfully been showcased at various exhibitions. Customer: F&E, Fischer and Developments from Landshut / Germany



# Industrial DESIGN

Interior | Ergonomics | Functional Model

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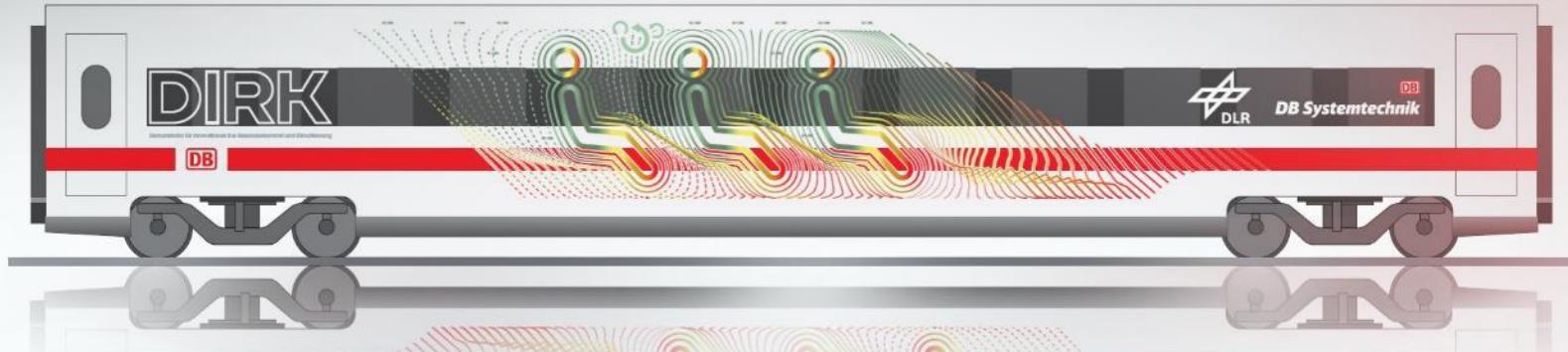
**Insert Sink PRIMA 45** The design for the sink included an 1:1 scaled functional model. It was made for Eurodomo Haustechnik GmbH in 2006 and has a very scratch-resistant surface which is also easy to clean. Currently the sink is offered within many european markets as a very successful serial product.

**eurodomo**  
einfach mehr Küche.

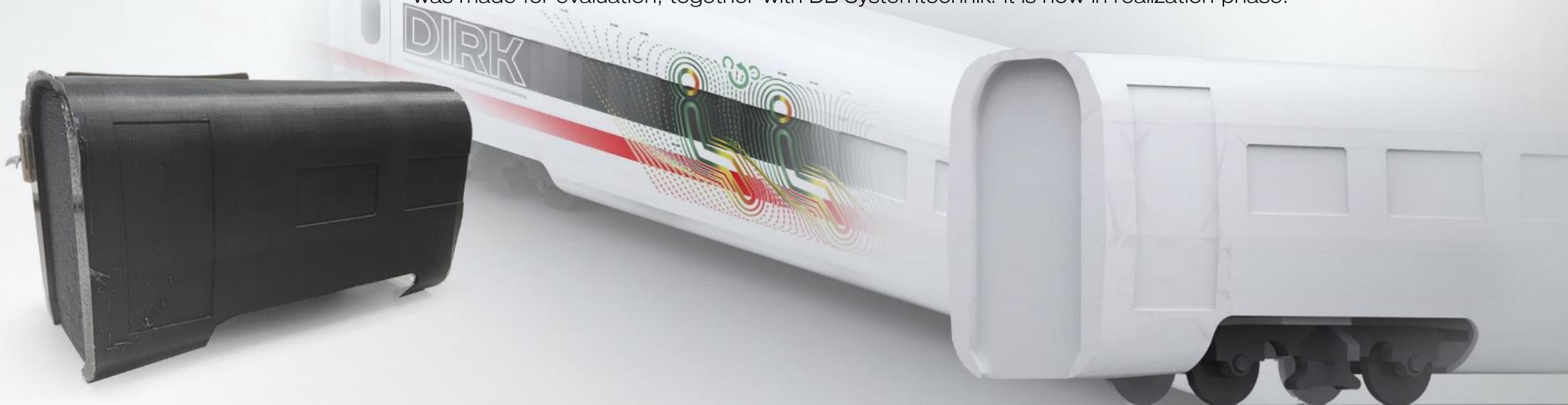
# Graphic DESIGN

Exterior | Graphic | Scaled Model

35



DLR Labor Wagon D I R K ,Demonstrator für Innovationen im Reisendenkomfort und Klimatisierung' Exterior graphics for the new laboratory wagon D I R K for the German Aerospace Center (DLR). A 3D-printing model was made for evaluation, together with DB Systemtechnik. It is now in realization phase.



A dark, atmospheric background featuring a clapperboard on the left and a VR headset on the right, both partially illuminated by a blue light.

# 3D ANIMATION VIDEO & VR

# 2D/ 3D ANIMATION

Visualization | 360° Panorama

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**3D Animation** Animations help to understand complex correlations quicker and better. They also highlight special functionalities of your product. For teaching or descriptions of processes they can support a better understanding.

# Corporate VIDEO

Storyboard | Filming | Film Editing | Post Production | VFX

38



**Video** We develop sophisticated storyboards together with our customers. A combination of real video and 3D animations might be useful to transport the philosophy, soft- and hard factors with the individual corporate design. The video can describe design quality, functionalities and benefits of an idea or product in an efficient way.

# VR APPLICATION

Interactive | Ergonomics | Visualization

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## Virtual Reality

**VR Applications** Interactive VR applications with high-immersive perception help to assess the design quality of future products before building them. Show your customers different solutions, designs, functions, colors and trim. With VR goggles it is possible to enter a designed room, to develop best ergonomics and HMI human-machine interface solutions. You can use the interactive VR platform as well for your website to let your customers get part of your immersive vision.

# VR APPLICATION

Interactive | Ergonomics | Visualization

Interactive VR applications with high-immersive perception help to assess the design quality of future products before building them.

Show your customers different solutions, designs, functions, colors and trim.



RIGG/SAILS ELECTRICS/ELECTRONICS DESIGN/ENGINEERING SHIPYARDS INTERIOR/SUPPLIES PROPULSION EQUIPMENT SERVICE/CONSULTING SHOW ALL MEMBERLIST



With VR goggles it is possible to enter a designed room, to develop best ergonomics and HMI human-machine interface solutions.

You can use the interactive VR platform as well for your website or with touchscreen at trade fairs to let your customers get part of your immersive vision.

# VR APPLICATION

Interactive | Ergonomics | Visualization

41

Interactive VR applications with high-immersive perception help to assess the design quality of future products before building them.

Show your customers different solutions, designs, functions, colors and trim.



DEUTSCHE AIRCRAFT

With VR goggles it is possible to enter a designed room, to develop best ergonomics and HMI human-machine interface solutions.

You can use the interactive VR platform as well for your website to let your customers get part of your immersive vision.



DATA  
VISUALIZATION  
SIMULATION

# 3D VISUALIZATION

Visualization | 360° Panorama

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**High End Visualization** Presentations in 2D or 3D for the VIP and VVIP Interior cabin market extend and complement the expertise of providers, completion centers, OEMs and planning teams. High quality 3D visualizations of the entire cabin support the developing process of a VIP-cabin significantly with well-founded image information (also available as 360° panorama).



**RUAG**

# 3D VISUALIZATION

Visualization | 360° Panorama

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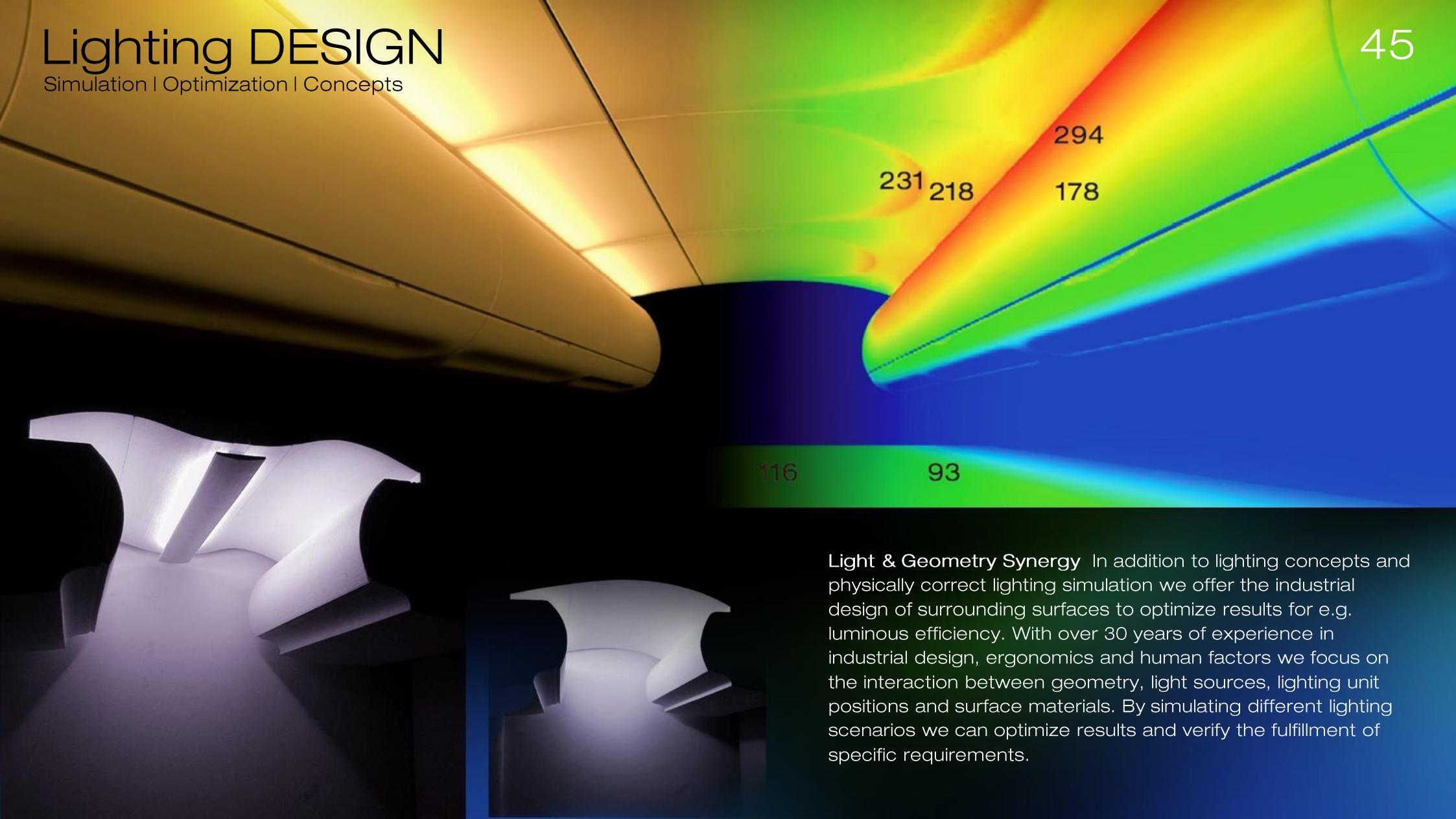
High End Visualization Detail

**RUAG**

# Lighting DESIGN

Simulation | Optimization | Concepts

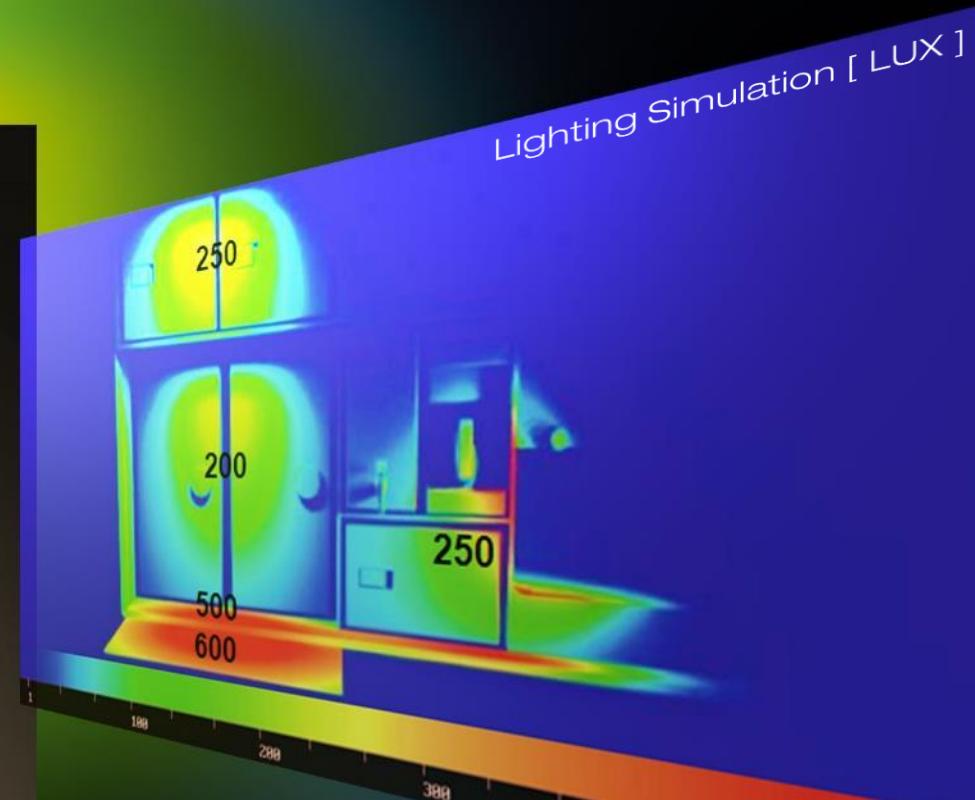
45



**Light & Geometry Synergy** In addition to lighting concepts and physically correct lighting simulation we offer the industrial design of surrounding surfaces to optimize results for e.g. luminous efficiency. With over 30 years of experience in industrial design, ergonomics and human factors we focus on the interaction between geometry, light sources, lighting unit positions and surface materials. By simulating different lighting scenarios we can optimize results and verify the fulfillment of specific requirements.

# Lighting DESIGN

Simulation | Optimization | Concepts



**Lighting Optimization** We offer physically correct lighting simulation and lighting optimization in aircraft cabins, for monuments as well as other transportation interiors and architecture projects. Ergonomic design and analysis of illumination level on e.g. work spaces that can also be represented in false colour renderings (e.g. for illuminance [ LUX ]) can support the design process in an early stage and can validate the fulfillment of specific requirements or customer needs.



AIRBUS

HALL PLANNING

CORPORATE DESIGN

# Industrial DESIGN

Hall Planning | Colour Definition | Visualization

48



Hall Planning Visualization and realization of the definitions of C.I. colors for the Airbus A380 production hall for Diehl Aerospace.

# Industrial DESIGN

Hall Planning | Colour Definition | Visualization

49

**Hall Planning** Visualization of hall planning process of the wind tunnel for models for the DLR Institute in Göttingen/ Germany. Different layout concepts were discussed, and the corporate design language of DLR was realized with RAL definitions and documentation.





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