

THNS SHANGHAI



N O V E M B E R 2 0 0 8

CONTENTS

- 1 INTRODUCTION - SCOPE OF WORK
- 2 COMPANY PROFILE
- 3 RAILWAYS DESIGN REFERENCES
- 4 THE MBD DESIGN APPROACH AND ASSETS

INTRODUCTION - SCOPE OF WORK



THE POTENTIAL SCOPE OF WORK FOR
THE SERVICES PROVIDED BY
MBD DESIGN CAN INCLUDE :

INDUSTRIAL DESIGN SERVICES

Full Exterior and Interior Design study, including ergonomics, definition of all shapes, volumes, colours, patterns, in accordance with the technical and economic constraints of an industrial project.

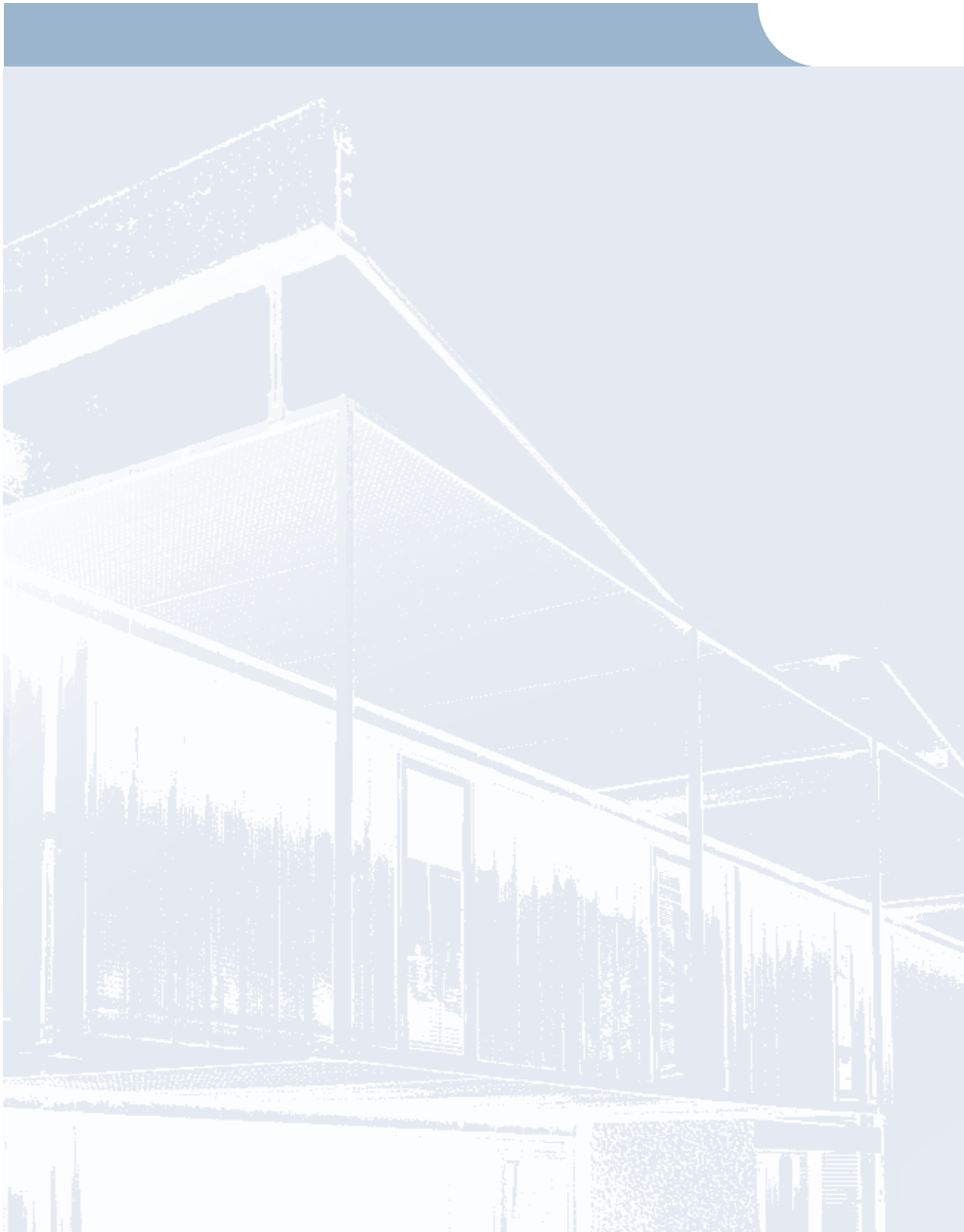
Handling of tender processes, survey and analysis of tender proposals in terms of design quality regarding the original design specification brief.

Close cooperation and assistance to the industrial development teams of any given manufacturer or operator.

ADDITIONAL SERVICES

Full-scale mock-up study, engineering, manufacturing.

Production of specific communication documents : photorealistic landscape imaging, high-quality «design-books», etc...



MBD DESIGN COMPANY PROFILE

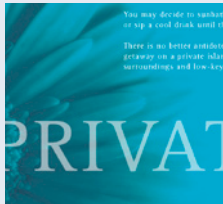
MBD DESIGN COMPANY PROFILE

The Agency

INDUSTRIAL DESIGN



GRAPHIC DESIGN



ENVIRONMENT DESIGN



Established : 1972

Location : Bagnolet (Paris suburb), France

Status : SA

Staff : 25

Designers : 14

CEO : Vincent Creance

Ownership : Vincent Creance 100 %

Three main activities :

- Industrial Design
- Graphic Design
- Environment Design

MBD DESIGN COMPANY PROFILE

Industrial Design



MBD DESIGN COMPANY PROFILE

Graphic Design



MBD DESIGN COMPANY PROFILE

Stand Design - Exhibition booths





MAJOR RAILWAYS DESIGN REFERENCES

MAJOR RAILWAYS DESIGN REFERENCES

EMUs - DMUs



MAJOR RAILWAYS DESIGN REFERENCES

High Speed Trains
South-Korean KTX II



MAJOR RAILWAYS DESIGN REFERENCES

High Speed Trains
French TGV



MAJOR RAILWAYS DESIGN REFERENCES

Main Lines trains



MAJOR RAILWAYS DESIGN REFERENCES

Luxury trains



MAJOR RAILWAYS DESIGN REFERENCES

Heavy gauge Metros



MAJOR RAILWAYS DESIGN REFERENCES

Heavy gauge Metros



MAJOR RAILWAYS DESIGN REFERENCES

Tramways



MAJOR RAILWAYS DESIGN REFERENCES

Locomotives



MAJOR RAILWAYS DESIGN REFERENCES

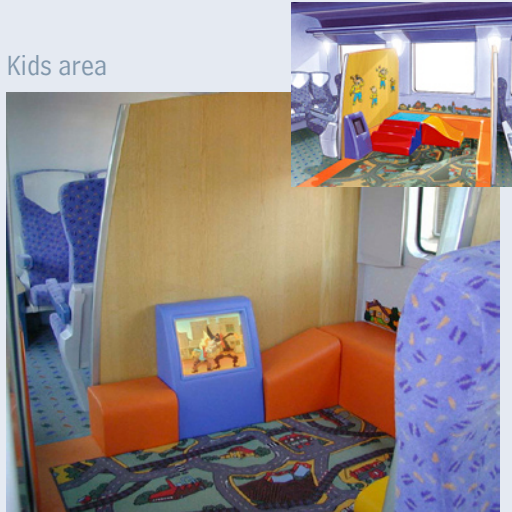
Renovations



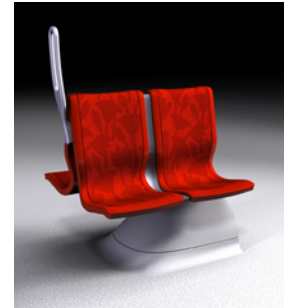
MAJOR RAILWAYS DESIGN REFERENCES

Specific areas and equipments

Kids area



Disabled toilets

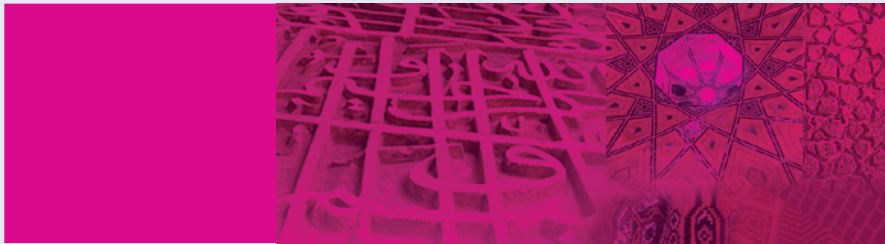


THE MBD DESIGN APPROACH AND ASSETS



- IN-DEPTH CULTURAL INTEGRATION OF THE PROJECT
- QUALITY in the details
- FAULTLESS ERGONOMICS
- INNOVATIVE LIGHTING SOLUTIONS
- RELIABLE AND REALISTIC TECHNICAL DEVELOPMENT
- PRECISE COLOURS, PATTERNS AND MATERIALS DEFINITION
- ELABORATE COMMUNICATION TOOLS

THE MBD DESIGN APPROACH



CULTURAL INTEGRATION

Along the years and through its numerous projects abroad, MBD Design has developed its own investigation techniques to ensure the project integration within its environment.

THE MBD DESIGN APPROACH

IRAN DMU project for Rotem Photographic report



CULTURAL INTEGRATION UNDERSTANDING OF LOCAL CULTURE

Extensive use of photographic reports and visits for clear local culture understanding and general knowledge.



THE MBD DESIGN APPROACH



CULTURAL INTEGRATION UNDERSTANDING OF LOCAL PASSENGER'S BEHAVIOUR

Live observation of human behaviours in the concerned location.



MBD Design Photographic reports



THE MBD DESIGN APPROACH

KTX II preliminary study

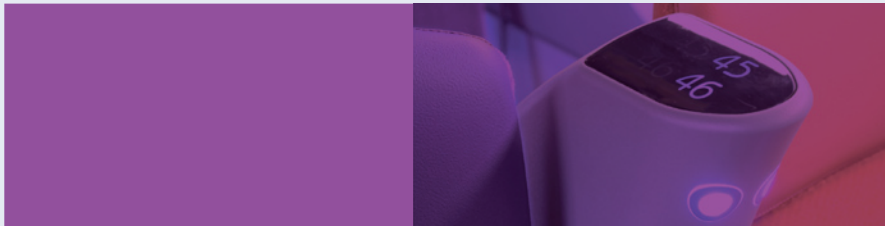


CULTURAL INTEGRATION DEFINITION OF INSPIRATION THEMES

Gathering of synthetic cultural themes in order to provide support inspiration



THE MBD DESIGN APPROACH



QUALITY

Quality in the details is all about careful study, from the start, of all components, together with rigorous consideration of all technical and maintenance constraints.

THE MBD DESIGN APPROACH

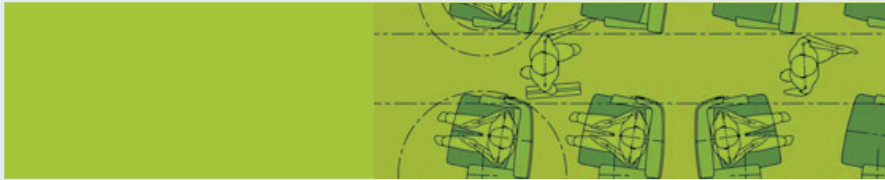


QUALITY OF THE DETAILS

Great care and attention is involved for a high level of detailing and finish from the outset : more a matter of careful design than cost, though.



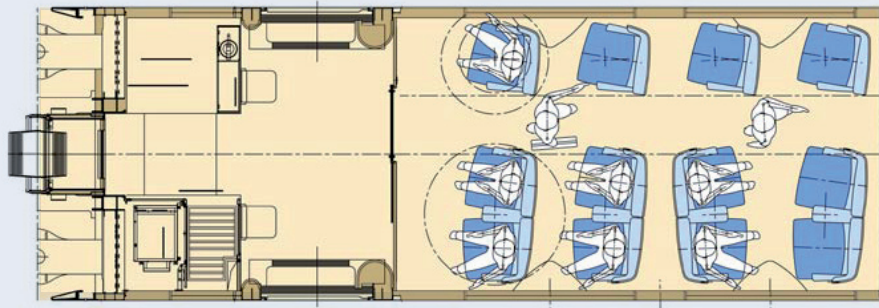
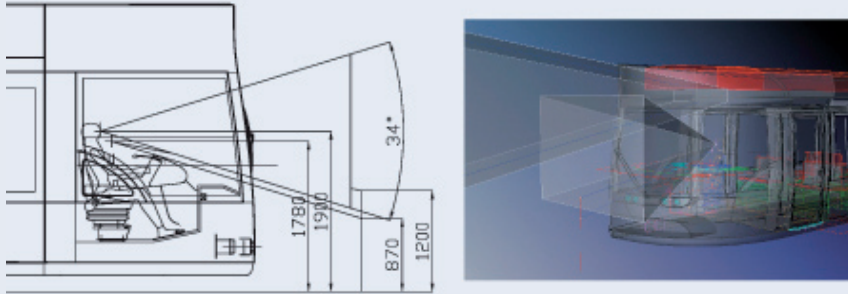
THE MBD DESIGN APPROACH



ERGONOMICS

No-compromise ergonomic study will ensure the highest level of comfort for passengers and crew.

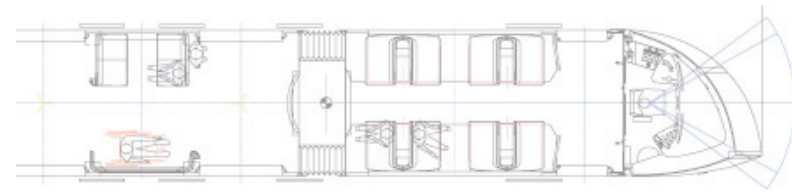
THE MBD DESIGN APPROACH



Images from various MBD Design developments

ERGONOMICS GENERAL LAYOUT

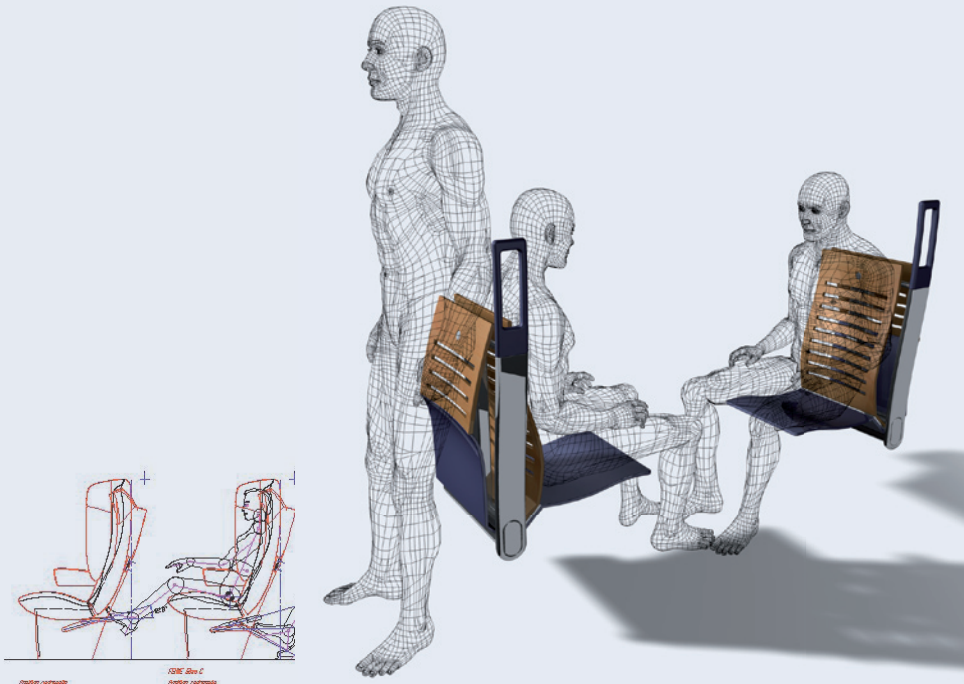
Detailed definition of general layout, including specific areas such as disabled facilities, luggage management solutions, etc...



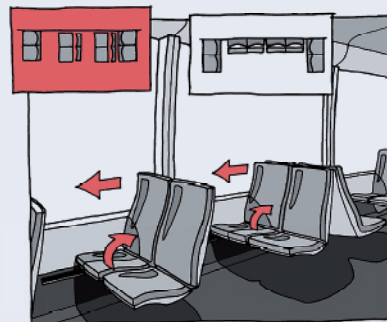
THE MBD DESIGN APPROACH

ERGONOMICS PASSENGER'S AREAS

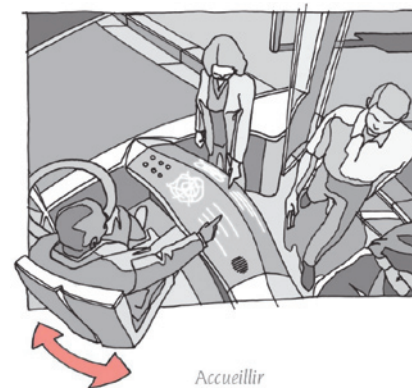
Ergonomics definition of all passenger's related fittings such as seats, grabhandles, etc...



Voyager debout



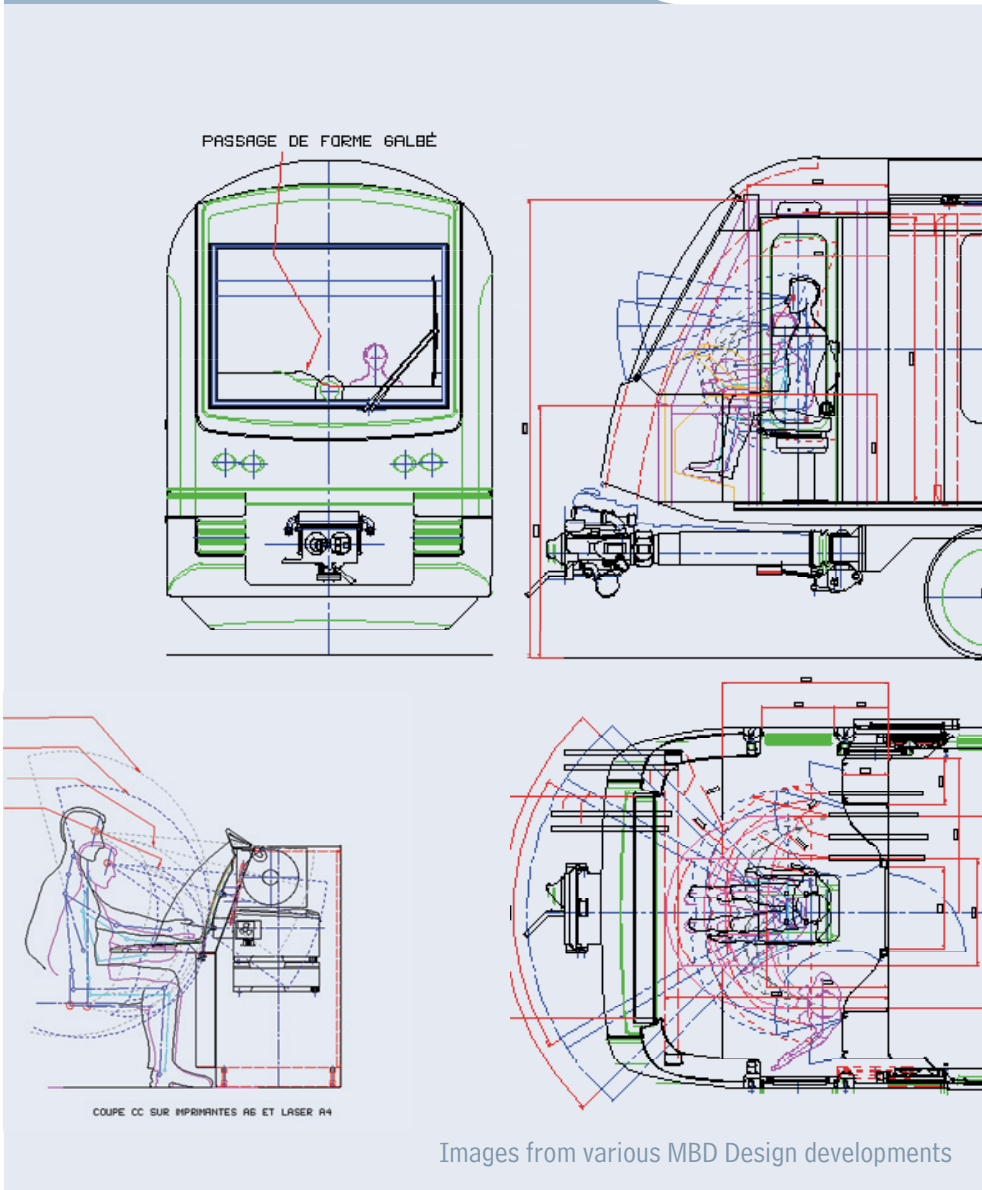
Modularité de l'intérieur



Accueillir

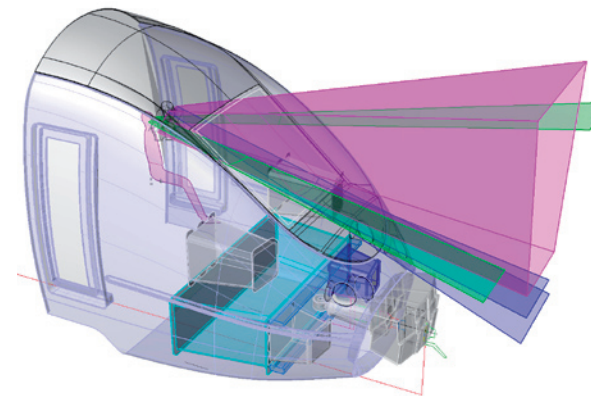
Images from various MBD Design developments

THE MBD DESIGN APPROACH



ERGONOMICS DRIVER'S AREA

Development of the driver's cabin and desk, with consideration of emergency door constraints, and visibility requirements.



THE MBD DESIGN APPROACH



LIGHT AMBIANCE AND MANAGEMENT

Mastered use of innovative lighting solutions and components will ensure seductive and relaxing atmospheres.

THE MBD DESIGN APPROACH



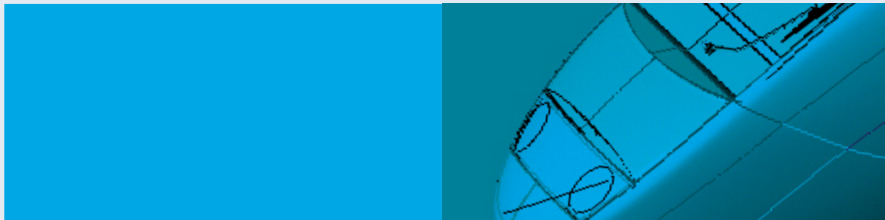
Patterns from MBD Design developments

LIGHT AMBIANCE GENERAL DEFINITION

Definition of innovative and realistic lighting solutions, using up-to-the-minute components such as LEDs.



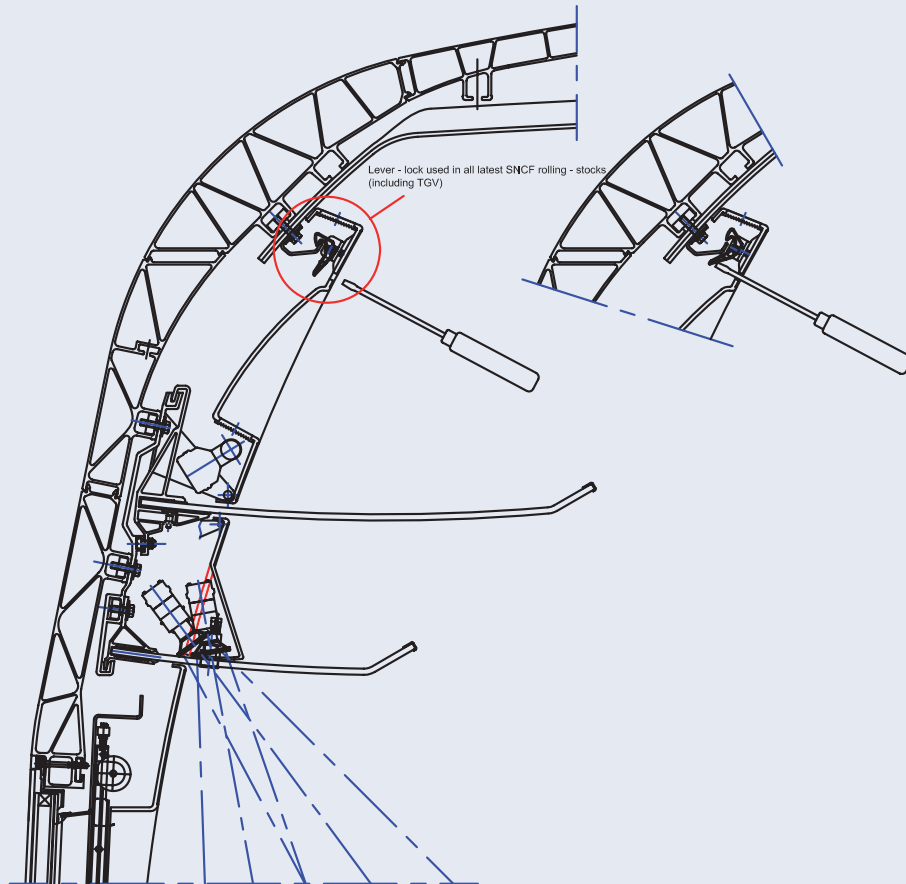
THE MBD DESIGN APPROACH



TECHNICAL DEVELOPMENT

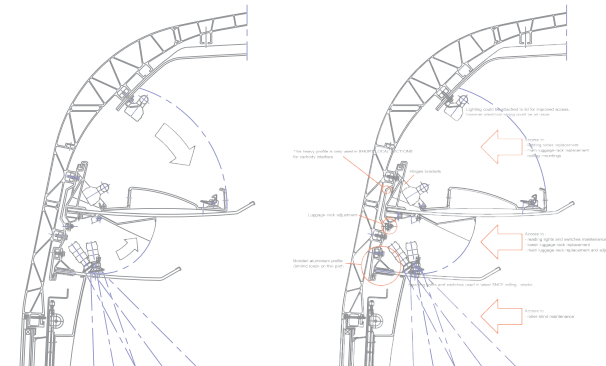
35 years experience in rolling-stock vehicles design allow MBD Design to provide realistic and cost-efficient technical solutions to achieve the proposed designs.

THE MBD DESIGN APPROACH



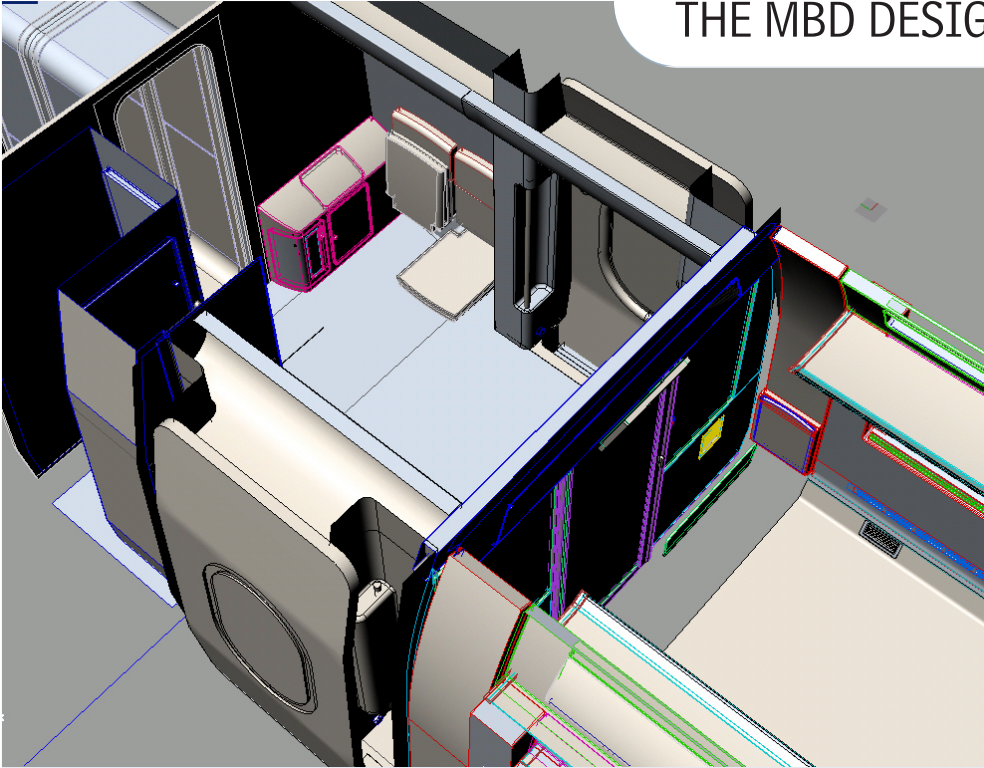
TECHNICAL DEVELOPMENT

Consideration of main building solutions, materials choice and maintenance issues.



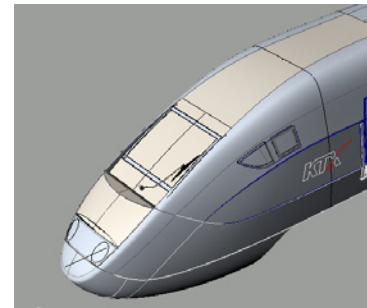
KTX II development study
Main carbody fittings cross-section

THE MBD DESIGN APPROACH



TECHNICAL DEVELOPMENT

Precise, detailed 3D files (transmitted through step or Iges formats) providing all volumes and details, including joints and separate panels.



KTX II development study
Screen-copies of the 3D files

THE MBD DESIGN APPROACH



COLOURS, PATTERNS AND MATERIALS

Every part and item will be referenced using international colour codes as NCS or RAL. All specific patterns will be provided as electronic files.

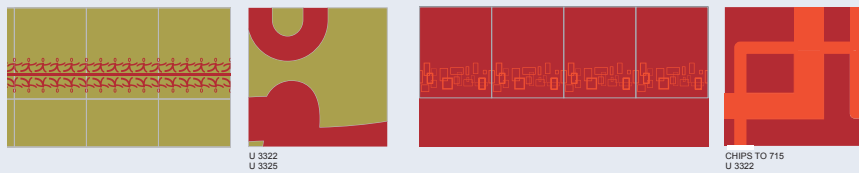
THE MBD DESIGN APPROACH



PANTONE 2612 CVC
PANTONE 2583 CVC
PANTONE 374 CVC
PANTONE Cool Gray 1 CVC

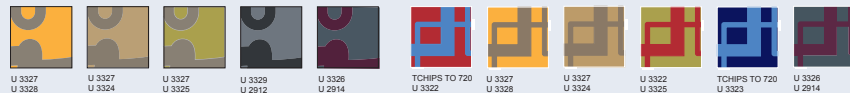
PANTONE 3145 CVC
PANTONE 3125 CVC
PANTONE 389 CVC
PANTONE Cool Gray 1 CVC

PANTONE 476 CVC
PANTONE 4525 CVC
PANTONE 313 CVC
PANTONE 427 CVC



U 3322
U 3325

CHIPS TO 715
U 3322



U 3327
U 3328

U 3327
U 3324

U 3327
U 3325

U 3329
U 2912

U 3326
U 2914

U 3327
U 3328

U 3327
U 3324

U 3327
U 3325

U 3322
U 3323

U 3322
U 3325

U 3327
U 3324

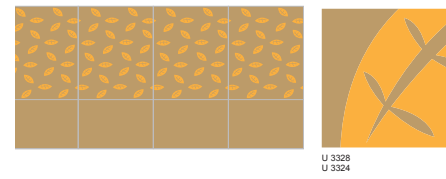
U 3329
U 3328



COLOURS, PATTERNS AND MATERIALS

Definition of original and specific patterns, tailored to the project's needs and specifications.

Precise patterns and colours references definition.



U 3328
U 3324



CHIPS TO 715
U 3322

U 3327
U 3324

U 3325
U 2914

CHIPS TO 720
U 3323

U 2914
U 3329

U 3324
U 3329

Patterns from MBD Design developments

THE MBD DESIGN APPROACH



COLOURS, PATTERNS AND MATERIALS

Photorealistic 3D renderings for reliable atmosphere selection.



3D images from MBD Design development

THE MBD DESIGN APPROACH



COMMUNICATION TOOLS «LANDSCAPE» IMAGING

Photorealistic integration of 3D project within real landscapes photos.



MBD Design images

THE MBD DESIGN APPROACH



COMMUNICATION TOOLS ALL-SCALES MOCK-UPS

Complete engineering and realization of small-size or full-size mock-ups.



Mock-ups realized or defined by MBD Design

MARSEILLE TRAM : REALISM FROM THE BEGINNING



3D proposal, mock up, real tram



THANK YOU FOR YOUR ATTENTION