

# DAIMLERCHRYSLER

## Archiving CATIA V5 in the EDM System Smaragd

Connecting Metaphase and CATIA V5 with CMI

## Content

- DaimlerChrysler Today
- The EDM System Smaragd
- The CATIA Pipeline
- CAD and EDM users at Mercedes Car Group and Commercial Vehicles Group
- The principle of CATIA V5 archiving
- Mapping the CATIA V5 structure into the Smaragd product structure
- The CMI functions for CATIA V5 and V4

# DAIMLERCHRYSLER'S CORE BUSINESS IS THE AUTOMOTIVE BUSINESS AND SERVICES

## Passenger Cars

Mercedes Car Group

Chrysler Group



- Mercedes-Benz
- smart
- Maybach

- Chrysler
- Dodge
- Jeep

## Commercial Vehicles



- Mercedes-Benz
- Freightliner
- Sterling
- Setra
- Detroit Diesel
- MTU/Diesel Eng.

## Services



- Daimler-Chrysler Services
- DC Bank

## Participations



- MTU Aero Engines
- EADS

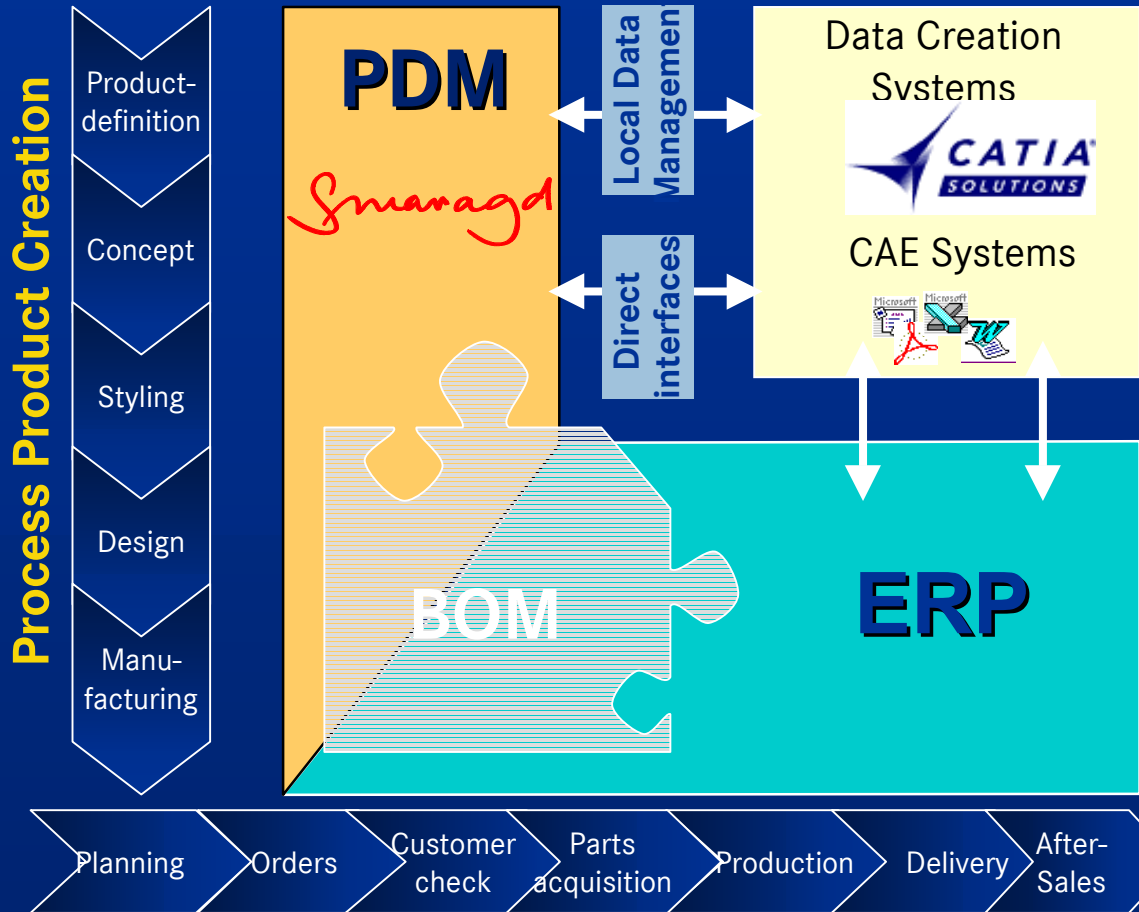
## Strategic Partners



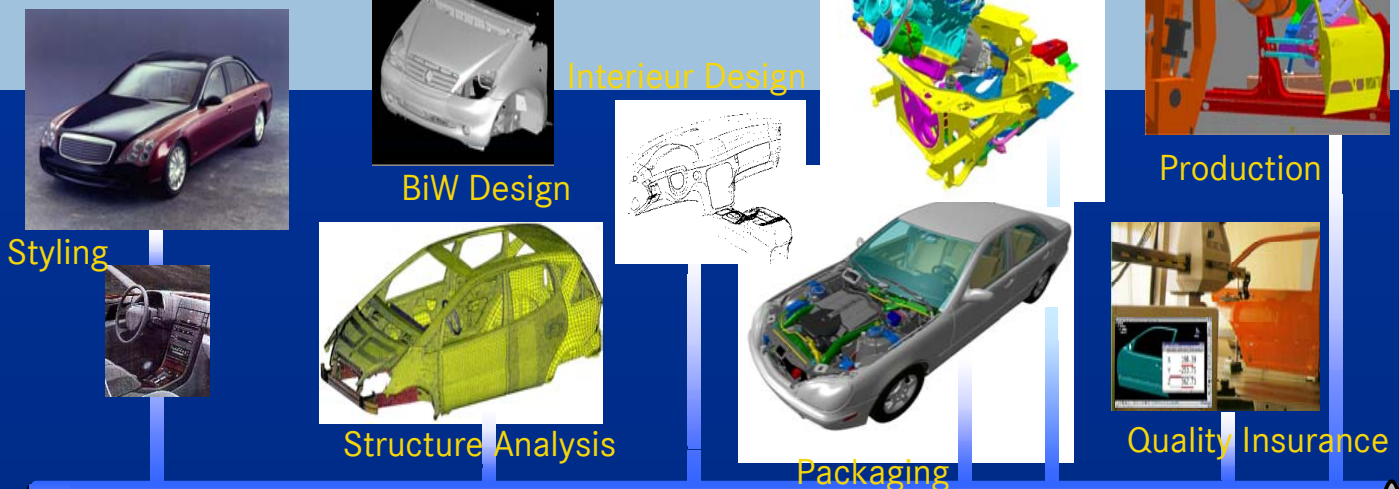
- Mitsubishi Motors Corporation
- Hyundai Motor Corporation

# The EDM System Smaragd

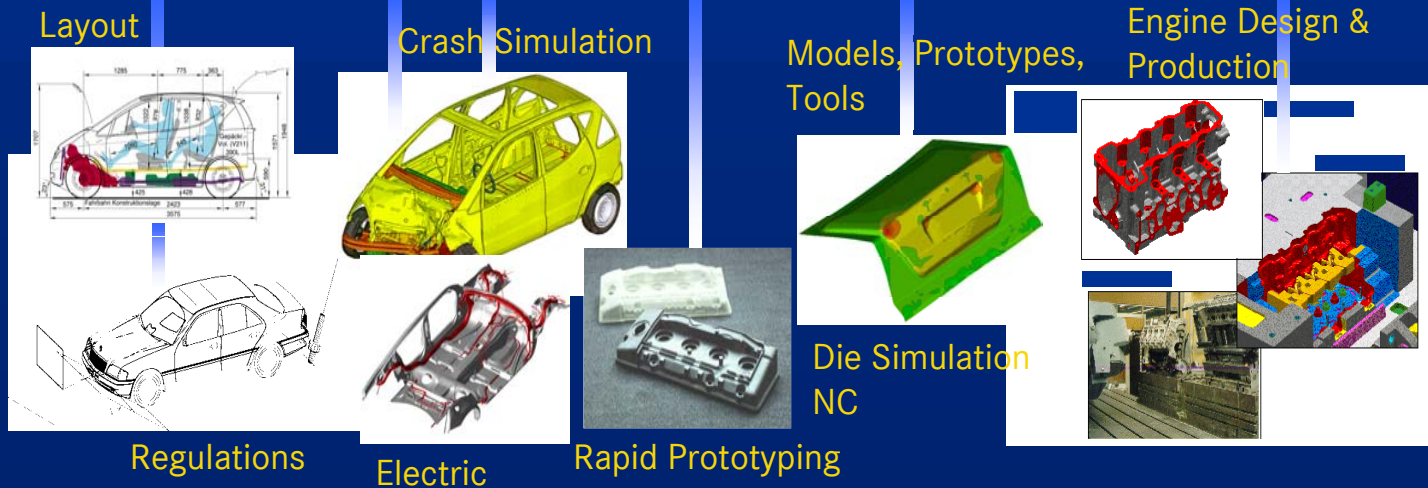
- is the process-integrated EDM system of DaimlerChrysler based on Metaphase
- integrates 3D geometry, product-structure and BoM
- is rolled out in Mercedes Car Group and in Commercial Vehicle Group
- is the central “marketplace” for information exchange within distributed teams



# The CATIA Pipeline



**CATIA® pipeline: integrated CATIA-format for all process-participants**



## CAD and EDM Users at Mercedes Car Group and Commercial Vehicles Group

- 5900 Smaragd seats at the Mercedes Car Group and the Commercial Vehicle Group  
- 3000 parallel users
- 2100 CATIA V4 seats in the Mercedes Car Group / Development
- 200 CATIA V5 seats planned in 2003 in the Mercedes Car Group / Development
- All Smaragd users are currently connected via CMI to CATIA V4
- Goal: No radical change in process and tool for connecting CATIA V5 to Smaragd

## The principle of CATIA V5 archiving

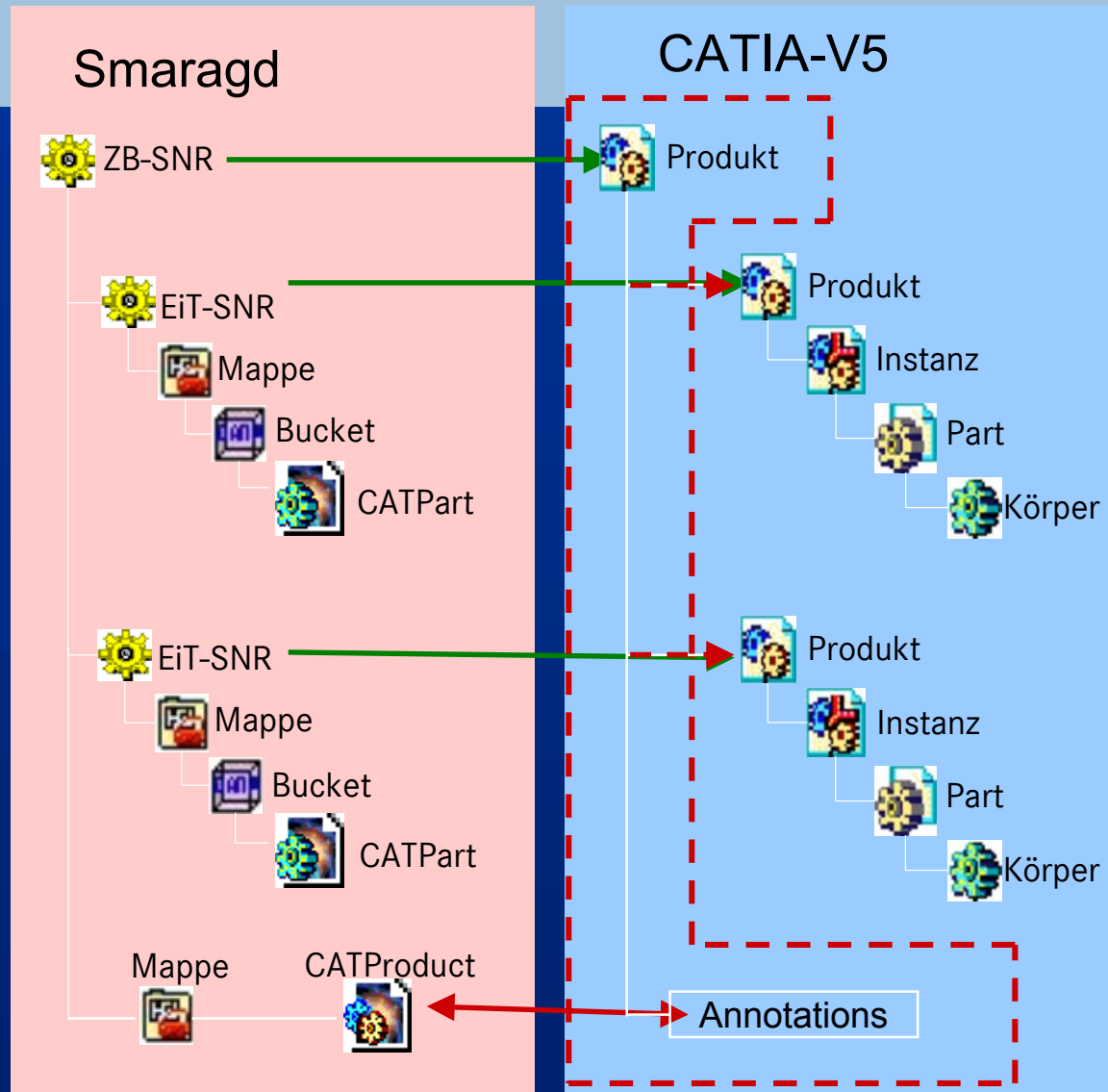
- The product information described in CATIA V5 has to be archived in Smaragd - CATParts, CatDrawings, CATProducts....
- Smaragd stores the master data - especially if information is redundant in Smaragd and CATIA V5 (product structure, positioning, ....)
- The CATIA Data is archived in the original format (V4 or V5) - no automatic conversion in one CATIA format
- Document centric archiving of V5 data - no explicit multi model links in Smaragd - MML are stored in CATProducts

# Mapping the CATIA V5 structure into the Smaragd product structure

**Product-structure, Position, CATParts (3D), CATProducts and CATDrawing (2D) are stored in Smaragd**

**In CATProducts Constraints and Technological Information** (like positioning constraints, fittings, tolerances, kinematics...) are stored

**Challenge:** To manage redundant structure information in Smaragd and CATProducts





# The CMI functions for CATIA V4 and V5

