Product Lifecycle Management.
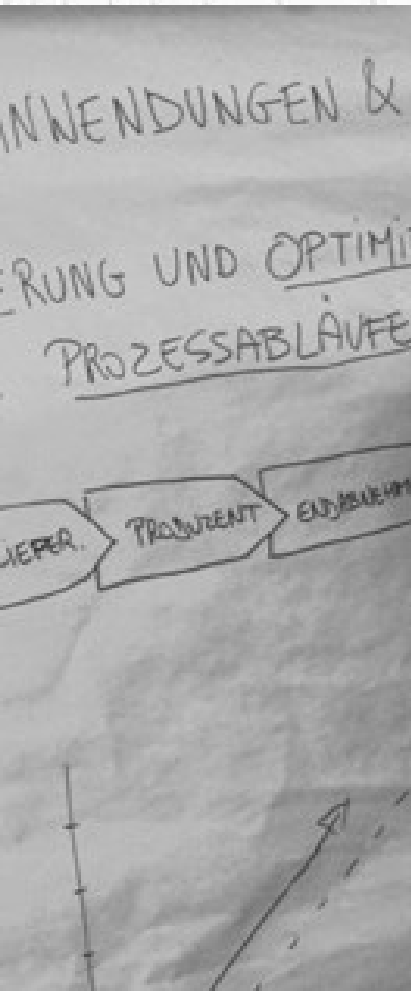
Managing product information throughout the entire product lifecycle across extended enterprises.

T··Systems·

Manufacturing Industries.
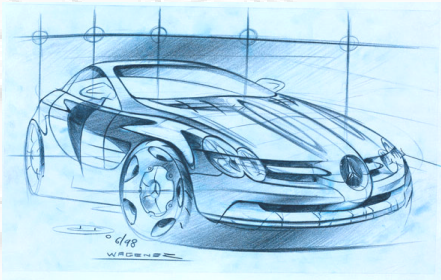## A Segment facing extreme Challenges.

- Shorter engineering-to-market **times** while improving product **quality,** reducing **costs** and handling **innovations**

- Increasing **product complexity**

- New requirements on **global engineering** and integration of business partners caused by mergers

- Need to improve efficiency in product **service processes**

- No appropriate solutions for **Car-IT**

- Need for overall **lifecycle integration** and **consolidation** of business processes and IT systems

- Focus on digital process coverage

PLM is a major concern for leading, design-driven manufacturers

· · · · · · · · T · · Systems ·

The Role of PLM in the Product Lifecycle.
Managing Product Information.

Engineering | **Manufacturing** | **Usage**
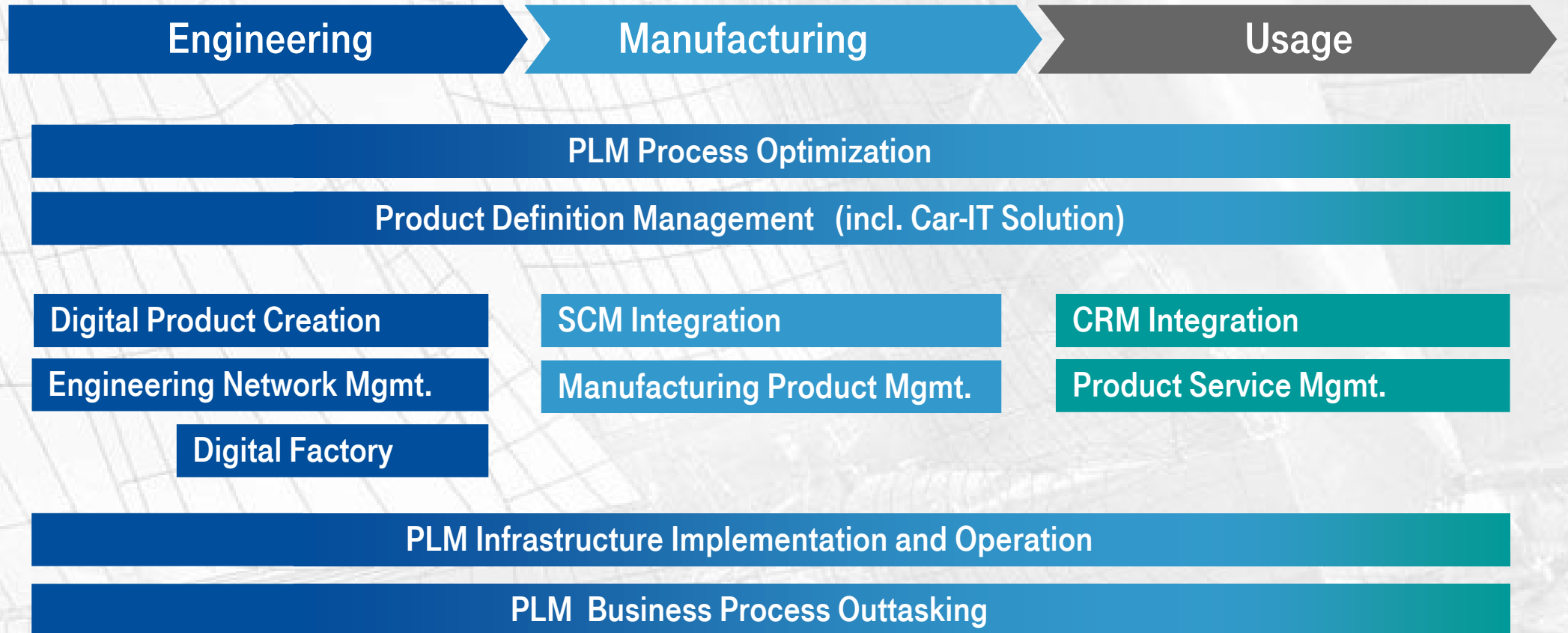

Product Lifecycle Management (PLM)

Engineering Network | Supplier Network | Service Network

T··Systems·

T-Systems Product Lifecycle Management.
Solution Elements.

Engineering	Manufacturing	Usage

PLM Process Optimization

Product Definition Management   (incl. Car-IT Solution)

Digital Product Creation	SCM Integration	CRM Integration
Engineering Network Mgmt.	Manufacturing Product Mgmt.	Product Service Mgmt.
Digital Factory		

PLM Infrastructure Implementation and Operation

PLM Business Process Outtasking

··· ··· ·· T· ··Systems·

Product Lifecycle Management Solutions.
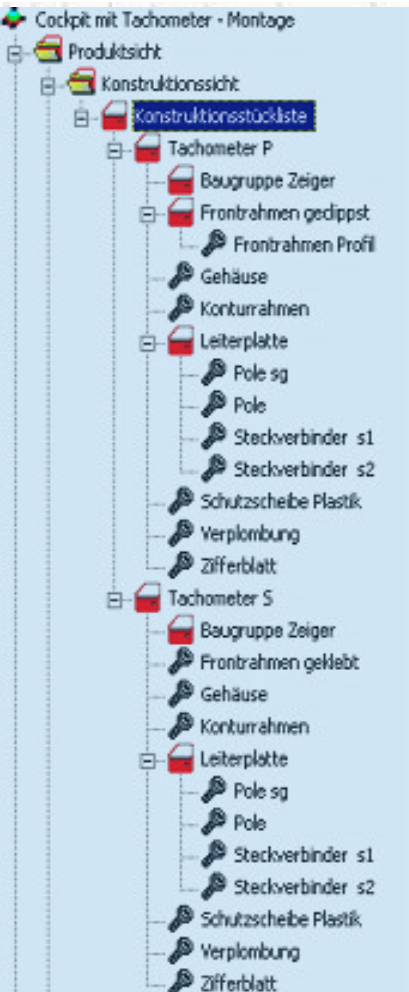## PLM Process Optimization.

Present markets and products are in a constant change. The key entrepreneurial responsibility is to assure a sustainable business success. We support our customers in the reorganization of their processes and services for the markets of tomorrow:

- Complete process analysis of companies and their collaboration networks
- Detailed analysis of the process chains product development, production and distribution, after sales and services
- Development and implementation of ICT solutions in order to optimize the value chain

Product Lifecycle Management Solutions.
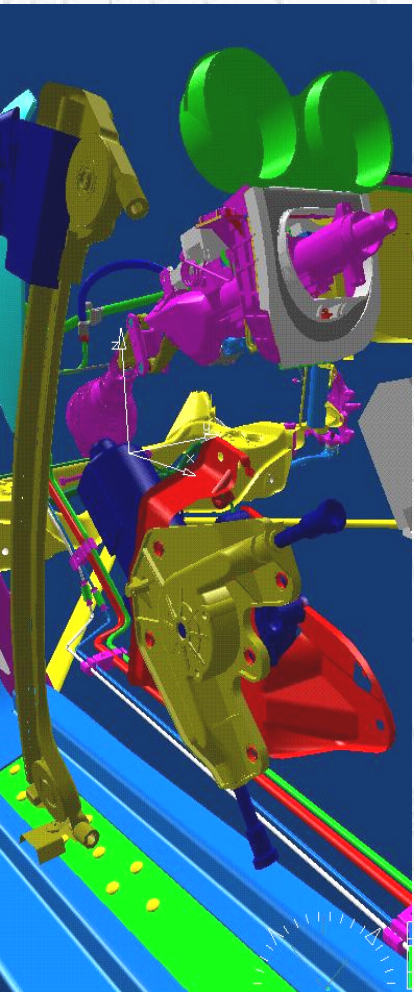## Product Definition Management.

The key element for the collaboration across all processes
of an extended enterprise is the continuous availability
of product information in each step of the lifecycle:

Solutions and services:
- Team data management solutions
- Technical document management
- Imaging and scanning solutions
- Classification and standard parts management
- Bill of material management solutions
- Configuration management solutions
- Change and workflow management solutions
- Measure and test data management
- Supplier integration solutions

Product Lifecycle Management Solutions.
Digital Product Creation.

The goal is a complete, digital description of products in order to assure product and process specifications, to decrease time for development, and to provide product information for succeeding processes in time.

Solutions and services:

- Planning and support of engineering processes
- Methods and tools for mechanical engineering,
  E/E development and software development
- Integration of CAx tools in product data management
- Solutions for collaborative engineering
- Digital/virtual product design to evaluate product specifications

Product Lifecycle Management Solutions.
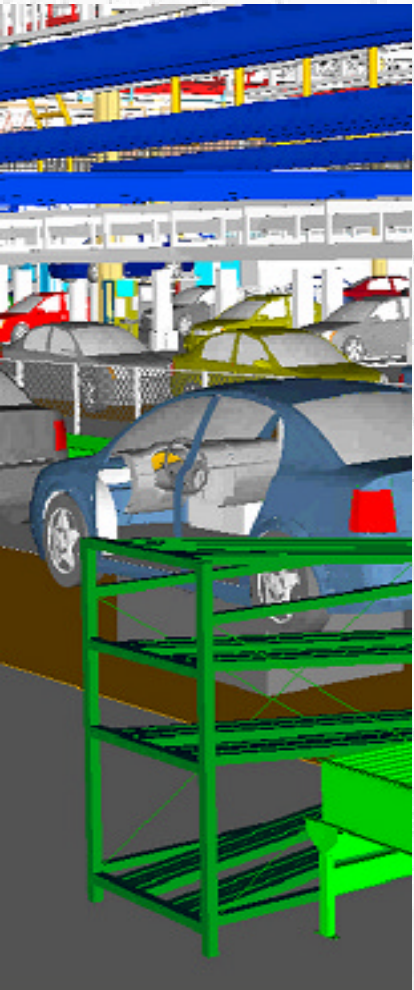## Engineering Network Management.

Operating in engineering networks is the key requirement
to companies in the future because of the globalization of markets
and the innovation pressure for new products.

Solutions and services:
- Manage collaboration and information exchange within engineering networks (project services, problem and change management, data logistics/conversion and quality control of data)
- Data exchange and data conversion tools
- Collaboration portals
- Global secure telecommunication networks

·· ·· ····· **T**···Systems·

Product Lifecycle Management Solutions.
Digital Factory.

Goal of a digital factory is to ensure the producibility of products by simulation of manufacturing and assembly processes during the product development process.

Solutions and services:

- Integration of process data between development and production
- Conception, realization and rollout of eFactory systems on the basis of standard software and individual programming
- Process consulting, selection of IT systems, training and coaching
- Manufacturing process planning and simulation of material flow
- Simulation of industrial facilities

Product Lifecycle Management Solutions.
Manufacturing Product Management.

Management of product information in manufacturing planning, execution and monitoring processes.
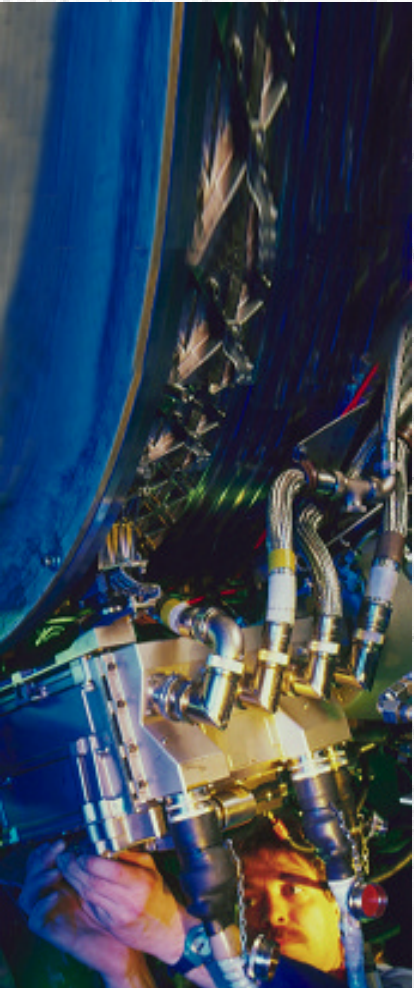
Solutions and services:
- Bill of material explosion for production planning
- Tracking and tracing of parts and products
- Fulfillment of legal requirements for archiving
- Manufacturing quality management support
- Interfaces to SCM and ERP systems
- Initiation and monitoring of recall actions

· · · · · · · · T · ·Systems·

Product Lifecycle Management Solutions.
Product Service Management.

Solutions for product service processes of durable, complex products like cars, airplanes or facilities from service planning to quality management. Goal is to ensure consistency and high availability of the complete product configuration and service information in all steps of a product's lifetime.

Solutions and services:
- Service information and documentation systems
- Spare parts management
- Advanced diagnostics and telematics systems
- Warranty execution management
- Parts recirculation
- Backwards integration of service information

·T··Systems·

Product Lifecycle Management Solutions.
PLM Infrastructure Implementation and Operation.

Implementation and operation of PLM solutions to get control over costs and provide required service levels:

Solutions and services:
- Design of infrastructure and operating concept
- Infrastructure consolidation and cost optimization
- Global operating and monitoring of product data management and service information systems
- Operating and outsourcing of engineering desktops and
- service clients as well as applications management
- 1st/2nd level user help desk with engineering and service process know-how

Product Lifecycle Management Solutions.
PLM Business Process Outtasking.

Support of specific PLM business processes up to complete business process outtasking to optimize costs and get defined service levels:

Solutions and services:
- Engineering process services for digital mock-up creation and controlling of data quality
- Engineering network management
- Homologation process services
- Preparation, distribution and usage of service documentation
- Project office and project management support
- Test and integration factory for Car-IT solutions

T··Systems·

Product Lifecycle Management Solutions.
Car-IT.

Services, consulting and solutions for automotive electronics:

Architecture:
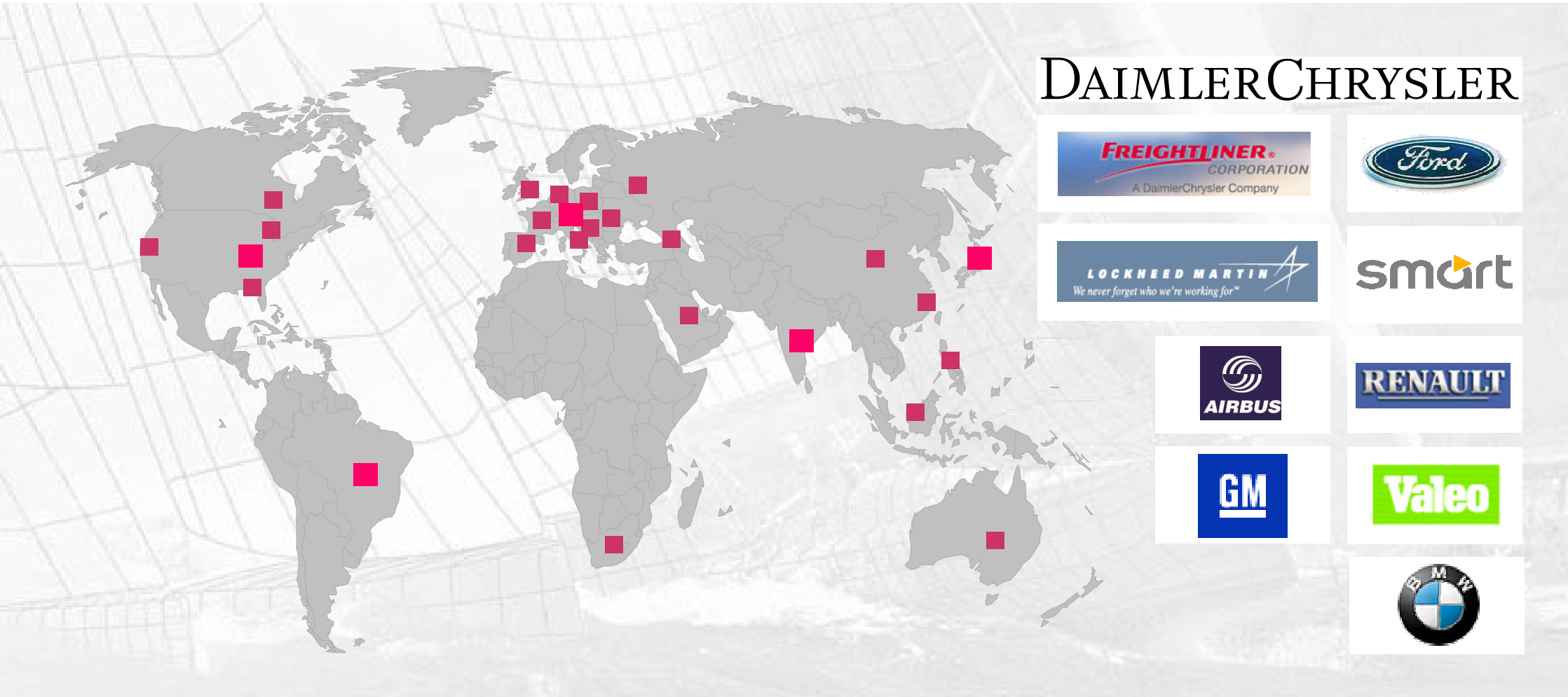- Automotive architectural solutions and concepts

Processes:
- Automotive electronics software engineering platform
- E/E mechanics process and engineering data integration
- PLM ECU software solutions, configuration management, standards, software logistics

Lifecycle perspectives:
- Flexible tele-diagnostics
- In-vehicle consumer electronics integration

· · · · · · · T · · Systems·

Product Lifecycle Management Solutions.
International T-Systems PLM Network -
our Customers.

DAIMLERCHRYSLER

FREIGHTLINER® CORPORATION
A DaimlerChrysler Company

Ford

LOCKHEED MARTIN
We never forget who we're working for™

smart

AIRBUS

RENAULT

GM

Valeo

BMW

T··Systems·

Product Lifecycle Management Solutions.
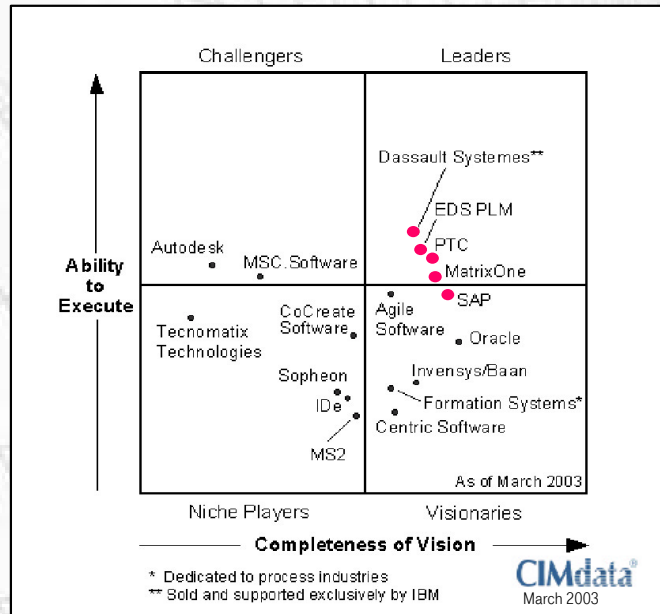## PLM vendor partnerships.

Access to PLM Technology

Providing Vendor neutral System Consulting.

Restricted Reselling.

PLAN,
BUILD,
RUN

PLM Solutions

DS Service Partnership, Delmia Partnership, CAA and CATIA Education-Partner Strategic, IBM Advance Business Partner

TeamCenter Enterprise Service Partner; CMI V4 Reseller

Premier Enterprise Consulting Partner , ASP Partner

Service Partnership

Special Expertise Partner Automotive & Public Sector