

Siemens to Acquire LMS International NV

Becoming the first PLM software company to provide a closed-loop, systems-driven product development solution with integrated test management



LMS International

A worldwide leader in engineering innovation

SIEMENS



- The leading partner in test and mechatronic simulation in the automotive, aerospace and other advanced manufacturing industries, helping customers get better products to market faster
- #1 for Global Auto & Aero manufacturers
- Servicing more than 100,000 R&D engineers... **in 5,000 manufacturing companies**
- Top talent in 45+ offices Worldwide... **more than 1,200 professionals**



Headquarters: Leuven, Belgium
www.lmsintl.com

LMS International

Strategically complementing Siemens PLM Software



LMS International

Strategic Fit

Technological fit:

Adding simulating and testing technologies for mechatronic systems to Siemens PLM portfolio.

Business scope:
50 % Simulation
50 % Testing

Solid profitable growth track record:

3 year average growth rate of 20%+ per year.

Revenue growth:
FY 2010-2012; CAGR 25%

Geographic breakdown:

Business represented in 15 industrial and emerging countries.

Breakdown:
Europe 40%
Asia 37%
US 23%

Vertical coverage:

Serving approx 5,000 companies in leading high-growth vertical markets like automotive, aerospace, energy, electronics, etc.

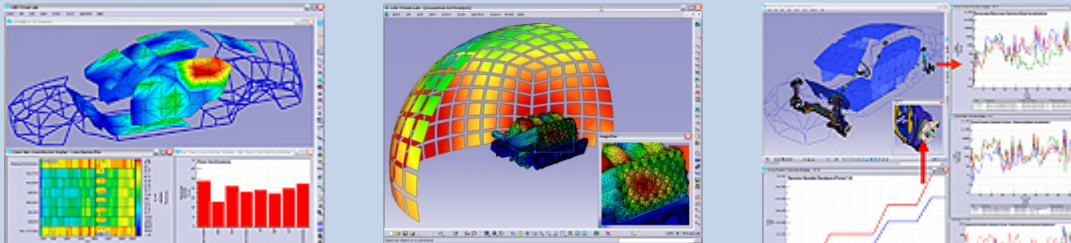
Endmarkets:
55 %Automotive
25%Aerospace
20% Energy and others

Solution Overview

Enabling the next generation platform for product development



3D Simulation



**3D Performance Simulation
3D Structural Analysis**



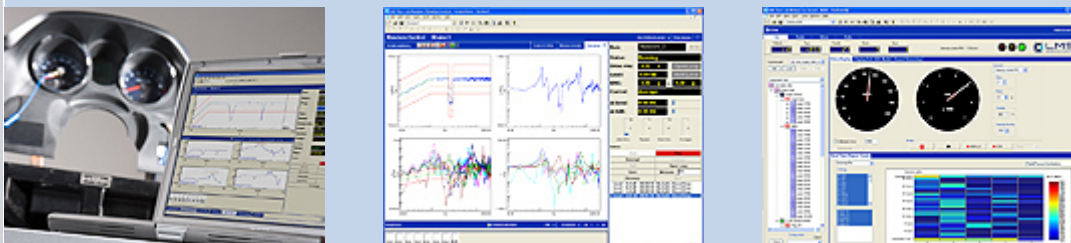
Mechatronic System Simulation



**System Synthesis
Multi-physics Modeling**



Testing



**Laboratory Testing
Mobile Testing**

Customers

Some of the 5,000 References



Automotive



Aerospace



Other discrete

BMW	Bosch
Daimler	Delphi
Fiat	Denso
Ford	Michelin
GM	Rieter
Harley-Davidson	TRW
Honda	Visteon
Renault	Volvo
Toyota	John Deere
Volkswagen	

Airbus	NASA
Boeing	Northrop
Cessna	Pratt &
EADS	Whitney
Hughes	Rolls Royce
Lockheed	SNECMA
Martin	ESA
Thales	JAXA
TRW	

Apple	ABB
Braun	AT&T
HP	Eaton
Hitachi	Ericsson
Husqvarna	Exxon
IBM	Sanyo
JVC	Siemens
Miele	Westinghouse
Motorola	
Nokia	
Sony	

Developing Successful Products Has Never Been More Complex...

SIEMENS

**Multi-Disciplinary
Products**

**Digital Data
Explosion**

Globalization

**Less Margin
for Error**

BUSINESS

Cost

Quality

Price

Style

CUSTOMERS

Timing

Function

Availability

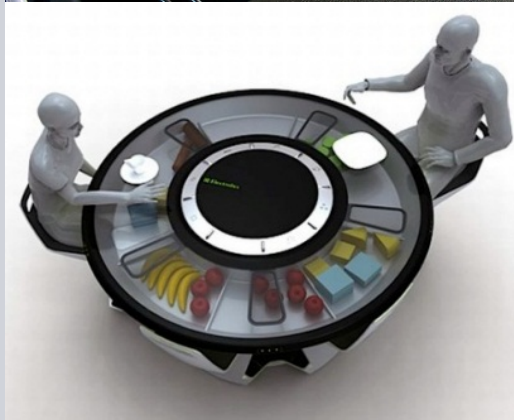
Sustainability

Changing Requirements for Product Development

- Developing a next generation platform for product development to meet the complexities of tomorrow's products



Eco-Friendly Operations



Meeting the Challenge of Next Generation Product Development



Development Challenge

Environment to simulate complex interaction of mechanical, electrical and software

Accuracy of complex product virtual models to simulate real-life behavior

Multi-domain data and process integration

Greater confidence and reliance on simulation models in final launch decision-making

Next Generation Requirements

Multi-physics system simulation in combination with controls/ mechatronics simulation

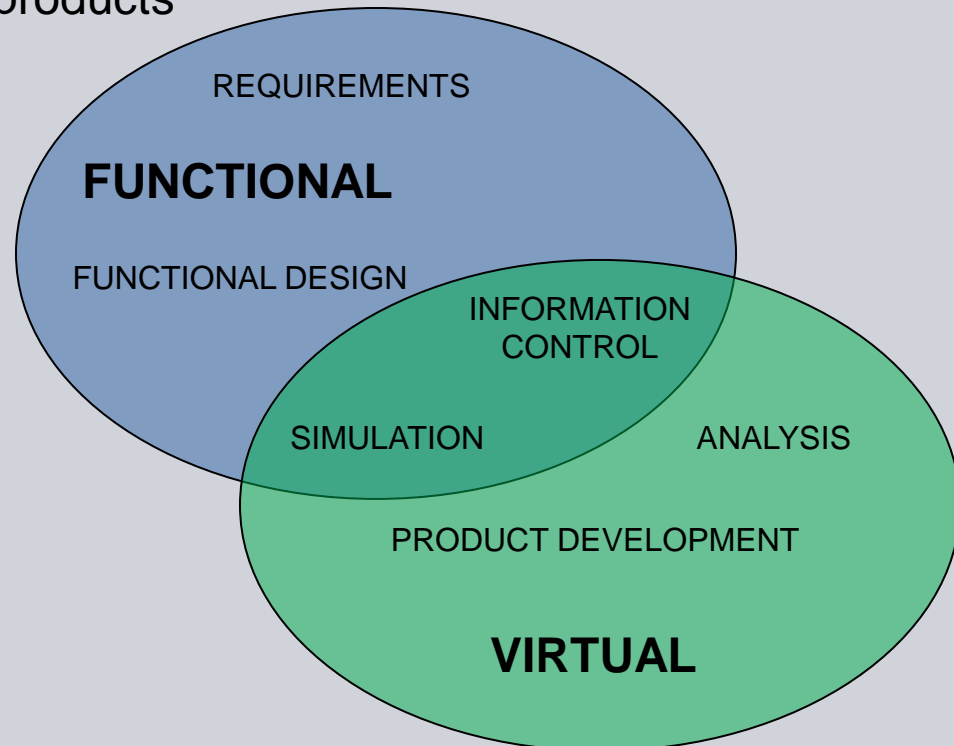
Integrated testing with simulation making simulation accurate, efficient and realistic

A platform which exposes a data and workflow continuum between virtual and real domains

An accurate model-based product development environment including data from virtual and physical domains

Creating New Levels of Customer Value

- Developing a next generation platform for product development to meet the complexities of tomorrow's products

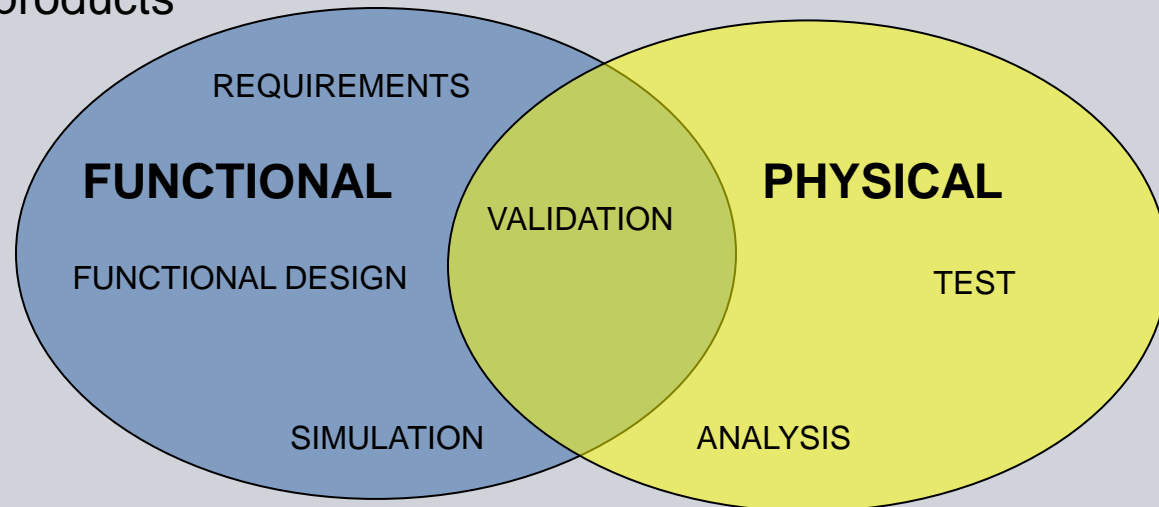


Siemens PLM Software

- Integrated systems driven product development

Creating New Levels of Customer Value

- Developing a next generation platform for product development to meet the complexities of tomorrow's products

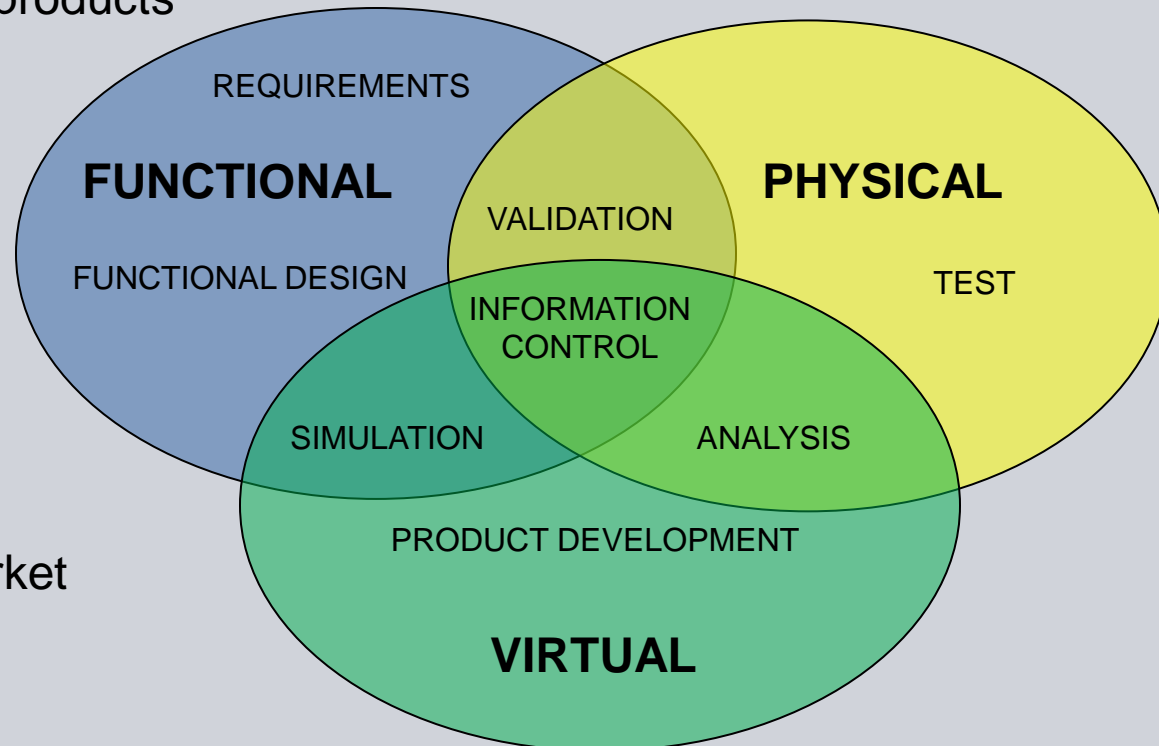


LMS International

- Model-based systems engineering

Creating New Levels of Customer Value

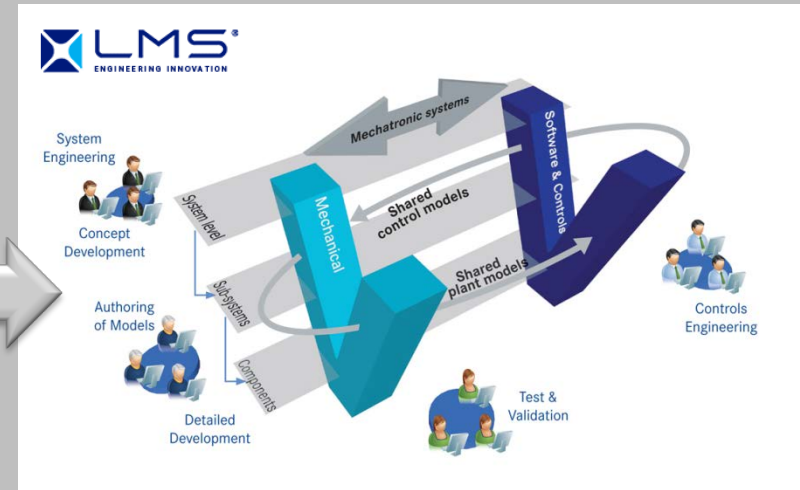
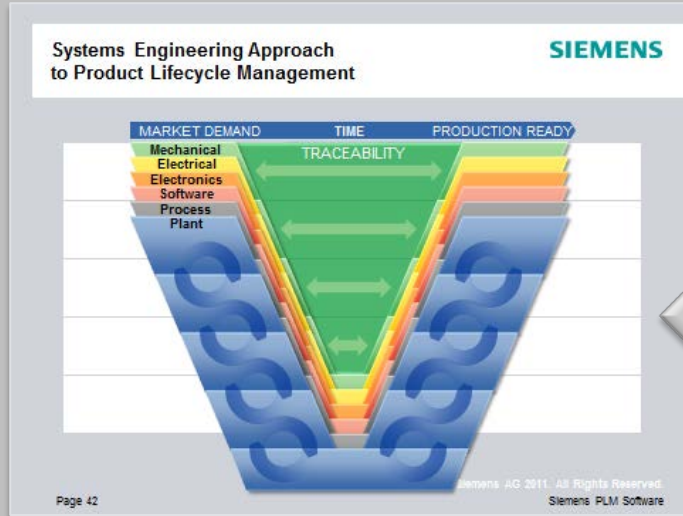
- Developing a next generation platform for product development to meet the complexities of tomorrow's products
- An immersive decision-making environment
 - Significantly faster to market
 - Right, first time
 - Far fewer prototypes
 - Right quality
 - Meet customer and market expectations



Functional, virtual design, simulation and physical performance testing

Siemens and LMS Common Vision

Systems Engineering



Virtual to Real



The Best Possible Strategic Partner
... Siemens PLM

To become #1
Global PLM Leader

Strategic Fit & Ambition

- 

❑ **Winning momentum in PLM,**
with “Teamcenter” the industry leading solution for
integrating the entire Product Development Process
- ❑ **The Siemens’ overarching strategy is,**
to combine the Virtual & Real Worlds (cfr. LMS)
- ❑ **Committed to own “Best in Class – Systems Engineering”,**
to drive PLM & to invent Industry Solutions,
Designed-Right-First-Time (cfr. LMS)

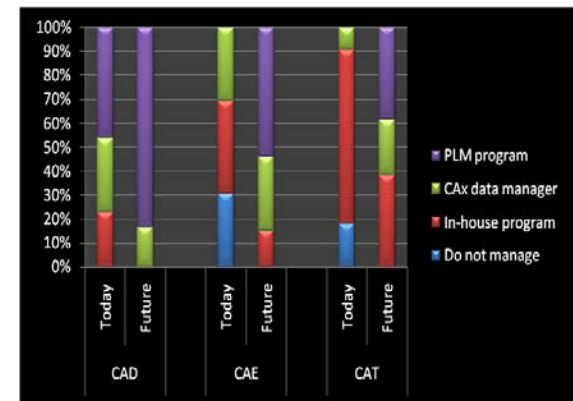
TOP-CORPORATE-DAL - Copyright LMS International - 2012

Historical Relationship

Siemens PLM and LMS have a history in simulation

- **Product alignment:**
 - Seamless connection between LMS Virtual.Lab and NX Nastran solver to analyze and visualize model performance
- **Common customers include:**
 - Daimler, GM, Ford, Fiat, Nissan, General Electric, Voith, United Aircraft, Canon...
- **The future need to collaborate:**
 - In the future PLM places an increasingly important role in managing simulation and test data along with other critical product data

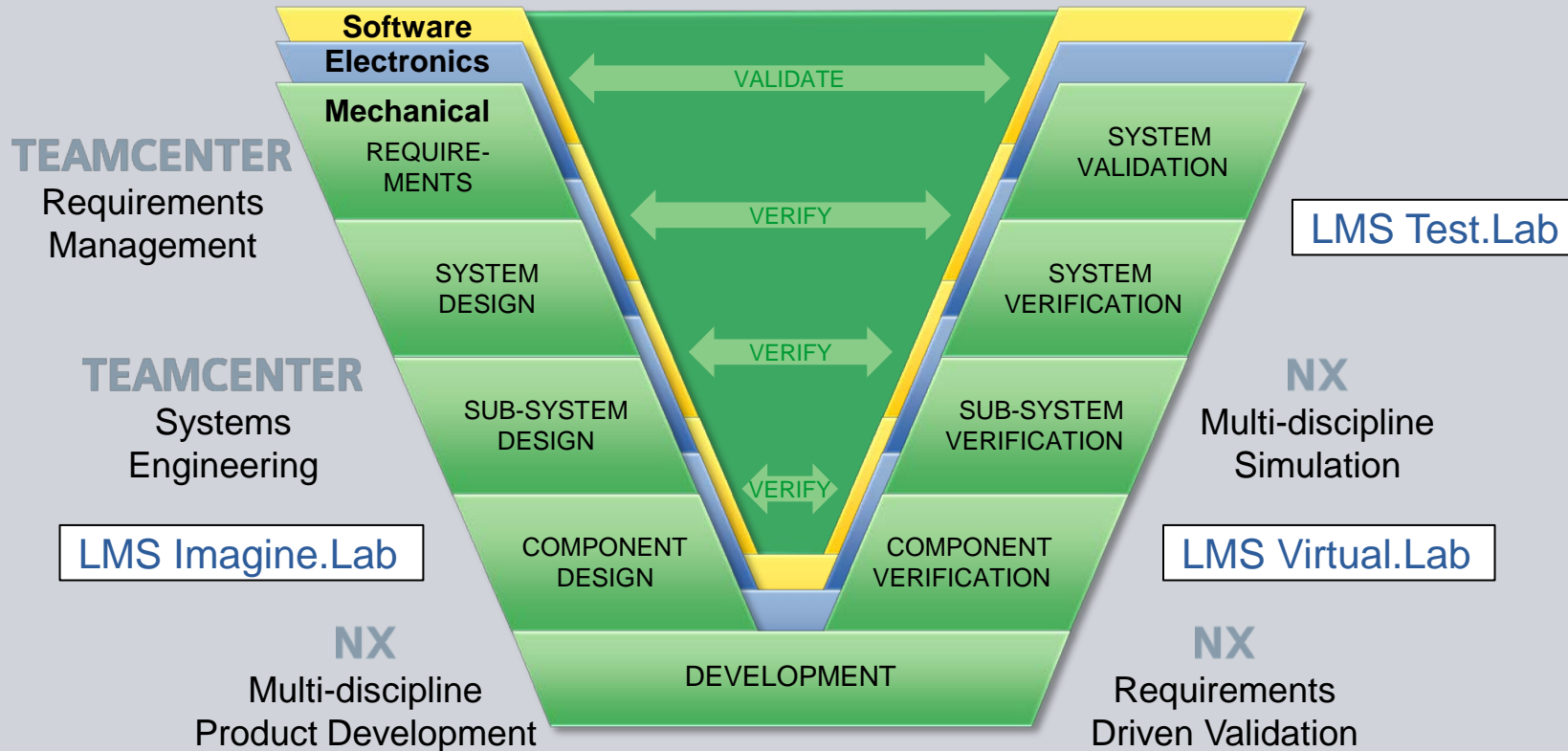
LMS Virtual.Lab **NX** Multi-discipline Simulation



Survey of Auto and Aero OEMs:
“Where do you expect to manage your CAx data?”

Portfolio Alignment

A next generation platform for product development

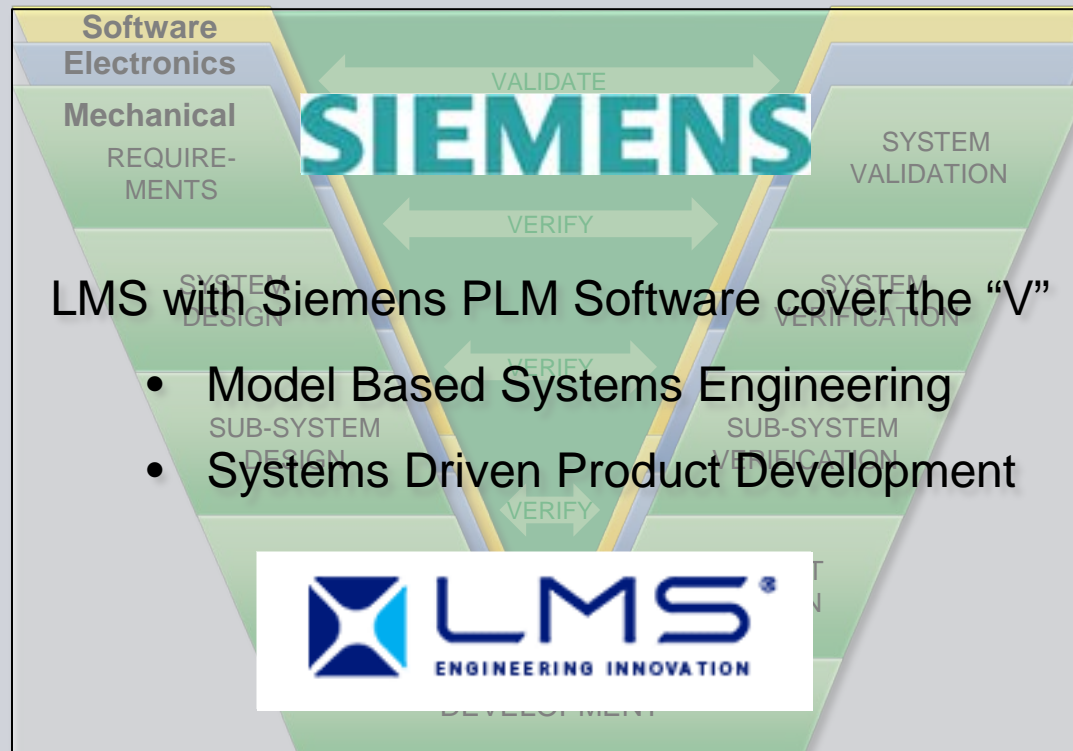


Complete coverage from customer requirements to test and validation

Portfolio Alignment

A next generation platform for product development

SIEMENS



Complete coverage from customer requirements to test and validation

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Siemens PLM Software

LMS – Engineering Heritage and Track Record of Success



LMS, a Track Record of delivering Transformational Solutions

Transforming is ... Addressing the future problems of our SOCIETY

Transforming is ... Addressing the future problems of our CUSTOMERS

FUTURE

Systems Engineering to drive PLM & to invent Transformational Industry Solutions

Horizon 2010 2030

LMS 2012

Leading Partner in Test and Mechatronic Simulation
1200 people

2010 2020

LMS 2010

Hybrid TEST/CAE Partner
1.000 people

1995 2010

LMS the Roots

TEST-NVH Partner
200 people

1980 1995

Engineering the passion

Leading Partner in Test & Mechatronic Simulation

LMS
ENGINEERING INNOVATION

LMS - Commitment to Openness

Open Products

- Support for MATLAB/Simulink for co-simulation of dynamic systems
- Support the Modelica standard for multi-physics system modeling
- Support for industry standard FE solvers like NASTRAN, ABAQUS, LS-DYNA, RADIOSS and MADYMO for linear, non-linear, crash and safety analysis
- Support for ISO test standards

Open Communities

- Lead participant in “MODRIO” – Model Driven Physical Systems Operation seeks solutions to support adoption of model-based systems
 - A three-year European ITEA2 research project to extend the state-of-the-art in modeling and simulation based on open standards
 - In cooperation with leading European companies including EDF (project coordinator), ABB, Siemens, EADS, Dassault Aviation and SCANIA

LMS and Siemens Differentiated Value

Siemens is the leader in next generation product development merging the virtual and physical domains immersing our customer in a full virtual to physical environment

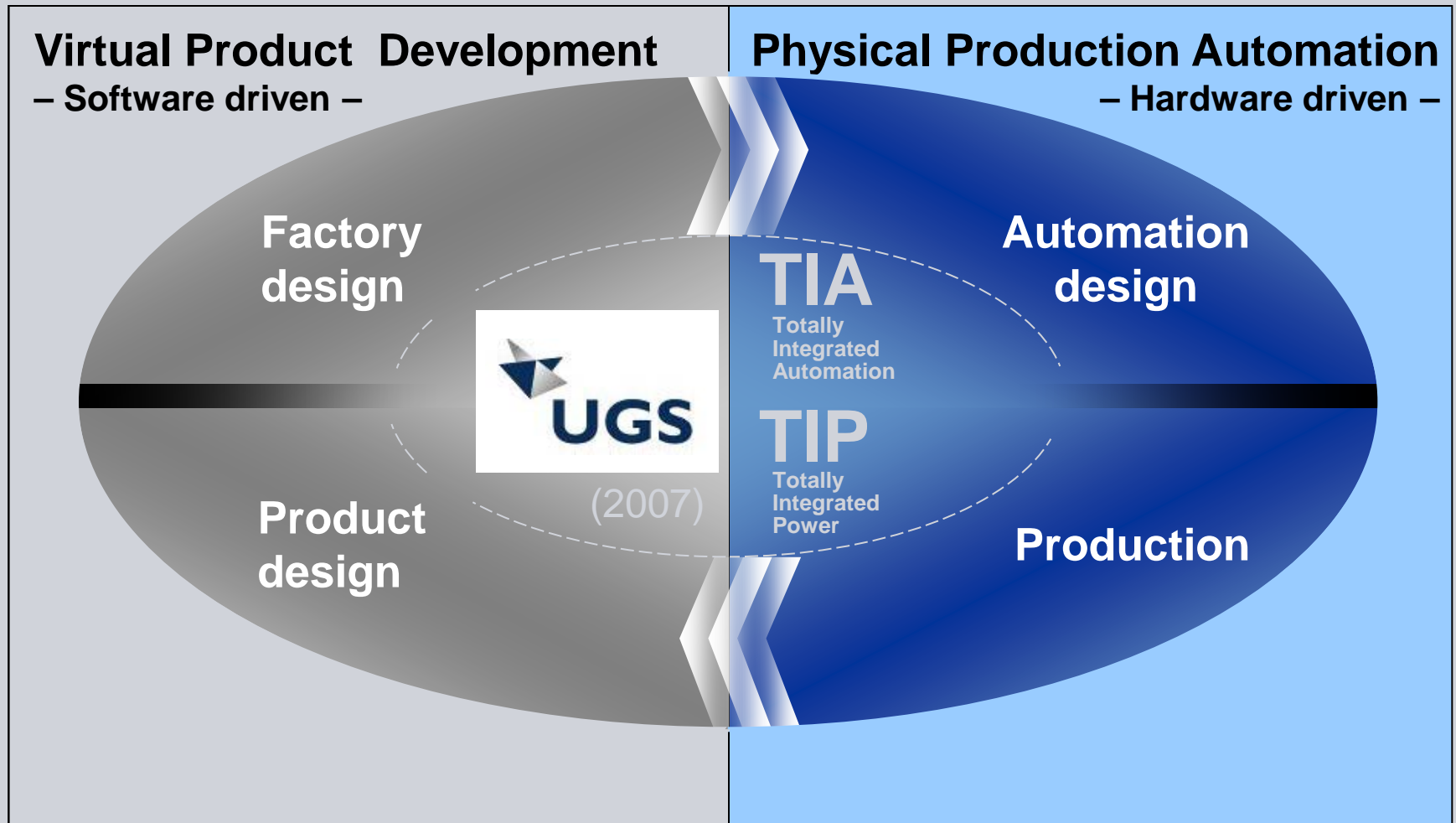
- Leadership in CAE, simulation and test tied to PLM
- Leadership in data and process management across the virtual and physical domains
- Leadership in providing the depth, breadth and scale in core PLM for developing tomorrow's next generation products



Improving the accuracy of simulations is the only way to make high definition decisions early in the process before massive cost is committed

Since the Acquisition of UGS Corp., Siemens is Merging Virtual and Physical Manufacturing Worlds

SIEMENS

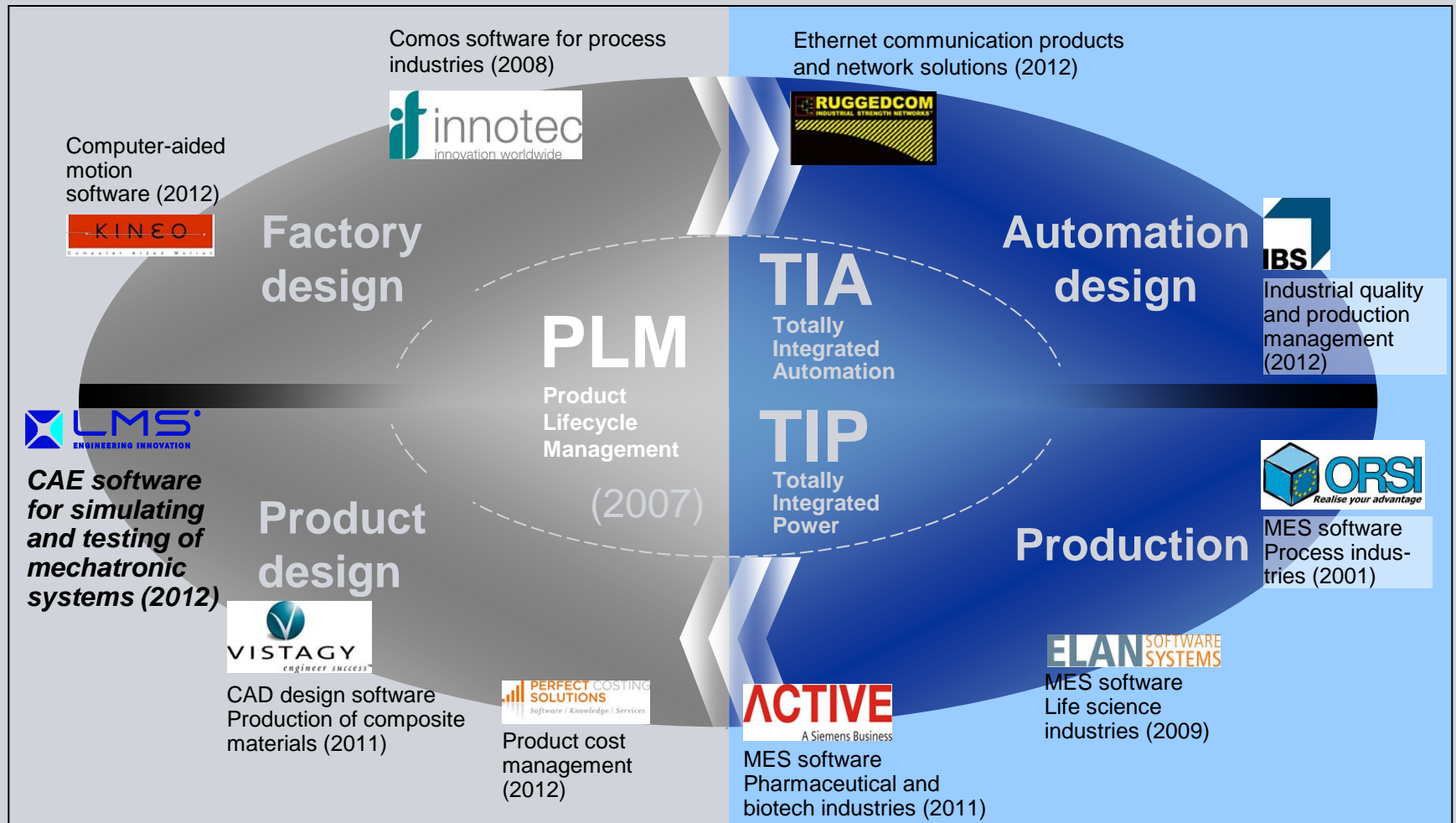


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Prof. Siegfried Russwurm / Anton S. Huber
Siemens PLM Software

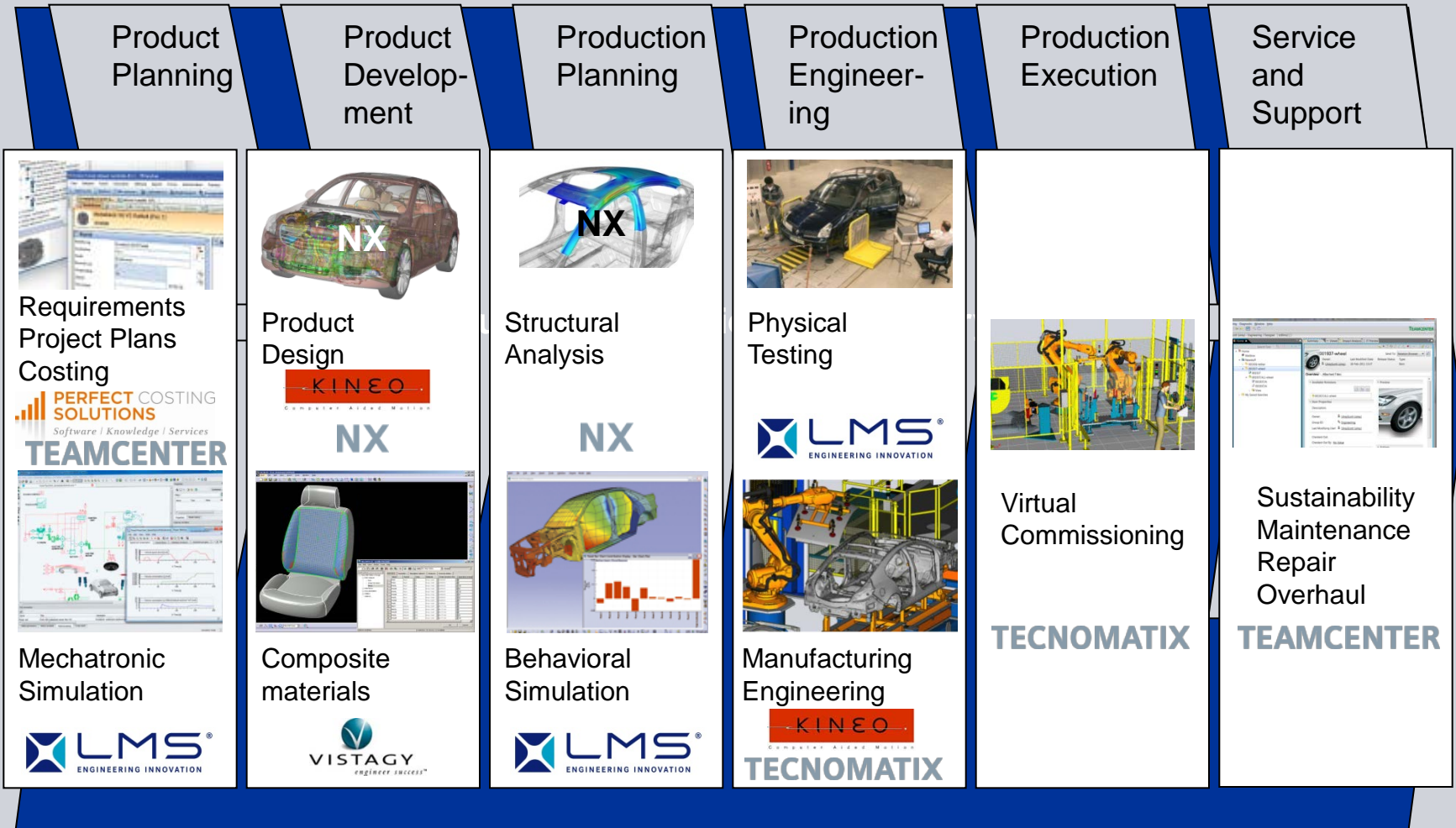
Completing the Landscape with Acquisitions in Industrial IT and Software

More than 4.7 bn EUR invest since 2007 *



* excluding LMS International

LMS acquisition closes gaps in mechatronic and behavioral simulation and in physical testing



Summary

Bringing together LMS with Siemens PLM makes Siemens the leader in next generation product development



- Merging the worlds of simulation and test to improve the fidelity of models to make better product development decisions and create new levels of customer value
- The common vision and portfolio alignment ensure success in virtual to real product development with advanced simulation and integrated testing
- Establish the platform and domain expertise to advance systems driven product development with integrated model based systems engineering to design products right, first time