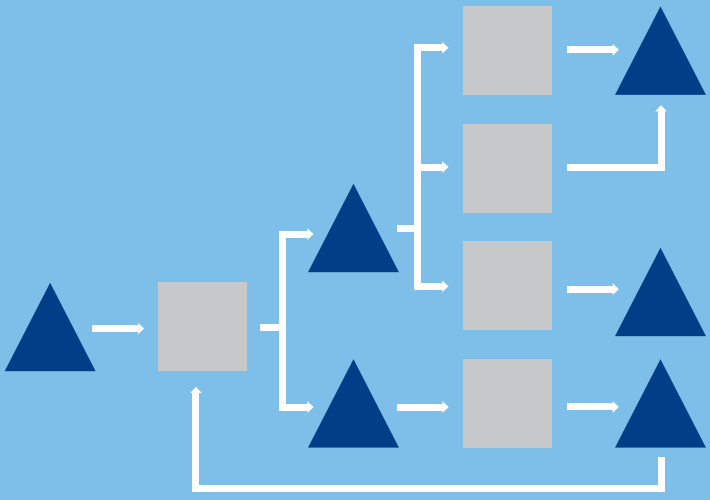
Program

8th International Heinz Nixdorf Symposium

Changing Paradigms: Advanced Manufacturing and Sustainable Logistics

April 21–22, 2010
Heinz Nixdorf MuseumsForum,
Paderborn, Germany

- Production Logistics
- Industrial Engineering
- Operations Research Techniques
- Simulation
- Humanitarian Logistics
- Supply Chain Management



The Heinz Nixdorf Symposium

The Heinz Nixdorf Symposium is an established biannual event of the Heinz Nixdorf Institute during which researchers and practitioners come together to present challenges from industry, discuss contributions from research institutions and develop novel solutions.

The Heinz Nixdorf Institute has been a research center within the University of Paderborn since 1987. Its research is aligned with the program “Dynamics, Mobility, Integration: En-route to the technical systems of tomorrow.” In training and education the Heinz Nixdorf Institute is involved in many programs of study at the University of Paderborn. Today seven professors and 200 researchers work at the Heinz Nixdorf Institute.

The 8th International Heinz Nixdorf Symposium will take place on April 21–22 in the Heinz Nixdorf MuseumsForum in Paderborn. On April 21, distinguished professors and senior executives from large manufacturing and logistics companies will deliver invited speeches. On April 22, contributions are invited from both researchers and practitioners in the fields of manufacturing, logistics and supply chain management.

Manufacturing and Logistics

The pervasive integration along the supply chain has contributed to a hitherto unknown transparency of global markets. Through collaboration and coordination, enterprises have been offered new opportunities to access external purchasing and business markets. The emerging global procurement strategy can also be understood as a chance to rethink traditional strategic decisions, e.g. relocations of existing production facilities to markets with low labour costs. Instead, various benefits in terms of level demand, mutual capacity planning or improved event handling can be reaped.

Many enterprises reduce their vertical integration by outsourcing sections of their value chain. These contracted services of production result in higher transport volumes, increased complexity of supply processes and new requirements on logistics networks.

Changing Paradigms

Manufacturing and logistics undergo changes incurred by the development and implementation of advanced information technologies. Network-wide cooperation is required in order to take advantage of these shifting paradigms. At present, existing potentials such as intra-company knowledge are not adequately tapped.

Corporate networks are strengthened by the application of best practices and by sharing their experience with supply chain partners for achieving integral improvements. Ecological awareness influences existing processes by the application of green principles to logistics and supply chain management.

International Program Committee

The following distinguished professors and renowned researchers participate in the international program committee:

Prof. Dr.-Ing. habil. W. Dangelmaier,
Heinz Nixdorf Institute, Germany
Prof. Mauro Dell'Amico,
University of Modena e Reggio Emilia, Italy
Prof. ir. Ben Immers,
Katholieke Universiteit Leuven, Belgium
Prof. Dr. Herbert Kotzab,
Copenhagen Business School, Denmark
Dr. Albrecht Köhler
Knorr-Bremse AG, Germany
Prof. László Monostori,
MTA SZTAKI, Hungary
Prof. Dr. Jorge Pinho de Sousa,
University of Porto, Portugal
Prof. Dr.-Ing. habil. Dr.-Ing. E.h. Michael Schenk,
Fraunhofer IFF, Germany
Prof. Dr. Wilfried Sihn,
Fraunhofer Austria / TU Vienna, Austria
Prof. Dr. Wolfgang Stölzle,
University of St. Gallen, Switzerland
Dr. József Váncza,
MTA SZTAKI, Hungary
Prof. Dr. h.c. mult. Dr.-Ing. Hans-Peter Wiendahl,
Leibniz University of Hannover, Germany

Invited Speakers

Renowned professors and senior executives from the field of production logistics and manufacturing:

Prof. Dr.-Ing. habil. Wilhelm Dangelmaier
Heinz Nixdorf Institute
Since 1991 Prof. Dangelmaier holds the chair for Business Computing, especially CIM of the Heinz Nixdorf Institute. In 1985 he received the Joseph-von-Fraunhofer prize and in 1988 the ring of honor of the society of German Engineers. Since 2008 he is a member of the German Academy of Science and Engineering (acatech).

Prof. Dr. Dr. h.c. Werner Delfmann
University of Cologne
Prof. Delfmann studied mathematics and business administration. Since 1988 he is Professor and Director of the Dept. for Business Policy & Logistics at the University of Cologne. Additionally since 2008, he is adjunct Professor at ITLS, University of Sydney and chairman of Scientific Counsel of the German Association of Logistics (BVL).

Prof. Dr.-Ing. Heinrich A. Flegel
Daimler AG
Prof. Flegel studied mechanical engineering. Since 1991 he holds lectures in computer science at the University of Stuttgart in Germany. Since 2003, he is member of the Supervisory Board of Daimler AG. Since the beginning of 2004 he is Chairman ManuFuture High Level Group. In 2007 he was elected for President of DVS.

Dr.-Ing. Ekkehard Gericke
Festo AG & Co. KG
Dr.-Ing. Gericke studied mechanical engineering. After his Ph.D. degree in production technology in 1980 he worked for BMW in production planning and assembly. In 2001 he joined Festo AG as a board member for Order Fulfilment. Since 2010 he is a senior consultant for Festo AG. In 2003 Festo won the German Logistics Award.

Dr. Götz Klink
A.T. Kearney GmbH
Dr. Klink obtained his diploma in business administration. He is partner at ATK and leads the Automotive and Aerospace & Defense Practice in German speaking countries. He has more than 15 years experience in consulting and he is head of the global initiative “powertrain of the future” which covers the development of different drives.

Dr. Albrecht Köhler
Knorr-Bremse AG
Dr. Köhler is member of the board of Knorr-Bremse Systems for Rail Vehicles, since July 2000 and is responsible for the Business Unit Mass Transit and operative topics such as Production and Quality Management. He is chairman of the Society for Production Management (Gf-PM) and engaged in IPA.

Prof. Dr.-Ing. habil. Dr.-Ing. E.h. Michael Schenk
Fraunhofer IFF
Prof. Schenk is Director of the Fraunhofer IFF in Magdeburg, he holds the Chair of Logistics Systems and is Director of the Institute of Logistics and Material Handling Systems (ILM) at Otto von Guericke University Magdeburg. He is member of the VDI Steering Committee and of the BVL Scientific Advisory Board.

Dr.-Ing. Stefan Schwinning
Miele & Cie. KG
Dr. Schwinning completed a degree in mechanical engineering and a doctorate at the Technical University of Dortmund. For 12 years he has been with Miele & Cie. KG in Gütersloh as Head of Distribution Logistics. He is member of the BDI and the brand association Berlin. He also heads the regional group in Ostwestfalen for the BVL.

Prof. Dr. Wilfried Sihn
Fraunhofer Austria / TU Vienna
Prof. Sihn is professor for Industrial and Systems Engineering at the Vienna University of Technology. Since 2009, he is head of this institute. He is also managing director of the Fraunhofer Austria Research GmbH. His areas of expertise include production management, factory planning, life-cycle management, maintenance.

Prof. Dr. Wolfgang Stölzle
University of St. Gallen
Prof. Stölzle directs the chair for logistics management at University of St. Gallen. His field of research contains operational logistics, supply chain management and transport management. He is an elected member of the advisory board for traffic at the Federal Ministry of Transport, Building and Urban Development, of the BVL and the BME.

Program
Wednesday April 21, 2010

12:00 p.m.	Lunch Snack
12:30 p.m.	A Concept for an Accurate and Closely Coordinated Production *Prof. Dr.-Ing. habil. W. Dangelmaier* *Heinz Nixdorf Institute*
12:55 p.m.	Challenges of Lean Supply Chain Management in a Small Series Production Environment *Dr. A. Köhler* *Knorr-Bremse AG*
01:20 p.m.	Coffee break
01:45 p.m.	Product and Process Innovations for Sustainable Mobility *Prof. Dr.-Ing. H. A. Flegel* *Daimler AG*
02:10 p.m.	Process Efficiency for Global Market Supply *Dr.-Ing. E. Gericke* *Festo AG & Co. KG*
02:35 p.m.	Coffee break
03:00 p.m.	Sustainable Logistic Processes at Miele to Supply International Markets – Processes and Factors of Success *Dr.-Ing. S. Schwinning* *Miele & Cie. KG*
03:25 p.m.	Deceleration, Decoupling, Consolidation – Key Elements for more Sustainability in Logistics *Prof. Dr. Dr. h.c. W. Delfmann* *University of Cologne*
03:50 p.m.	Coffee break
04:15 p.m.	Sustainable and Energy-Efficient Cross-Company Logistic Models – A Simulation Approach *Prof. Dr. W. Sihn* *Fraunhofer Austria / TU Vienna*
04:40 p.m.	A Mesoscopic Approach to the Simulation of Logistics Systems *Prof. Dr.-Ing. habil. Dr.-Ing. E.h. M. Schenk* *Fraunhofer IFF*
05:05 p.m.	Coffee break
05:30 p.m.	Evaluating Supply Chain-Initiatives – Solutions to a Dilemma? *Prof. Dr. W. Stölzle* *University of St. Gallen*
05:55 p.m.	The Influence of Structural Changes on the Automotive Supply Chain *Dr. G. Klink* *A.T. Kearney GmbH*
06:20 p.m.	End
	Bus transfer to the evening event
06:50 p.m.	1st bus transfer from the Heinz Nixdorf MuseumsForum
07:05 p.m.	2nd bus transfer from the Heinz Nixdorf MuseumsForum
07:20 p.m.	3rd bus transfer from the Heinz Nixdorf MuseumsForum
07:20 p.m.	Bus transfer from the Welcome Hotel

Evening Event

On the evening of the first day, we sincerely invite you to our evening event.

It will take place in the Artega assembly. In November 2008, Artega opened its state of the art manufacturing facility for production of the new German Artega GT sports car.

The new centre has been created on a 6,000 sq.m. site at the company's headquarters in Delbrueck, Westphalia. During the evening, you will get the opportunity to tour the Artega assembly hall.

The culinary treats of the evening will be served in the form of a delicious Italian flying buffet. There will also be a cocktail bar serving remarkable molecular cocktails for your indulgence.

From 10:00 p.m. onwards busses will stand by to take you back to Paderborn. Busses will run every 30 minutes until 1:00 a.m.

We are looking forward to spending an enjoyable, as well as interesting evening together with you.

Venue: Artega
Artegastraße 1
33129 Delbrück
http://www.artega.de

Program

Thursday April 22, 2010

08:30 a.m.	Opening
09:00 a.m.	A Conceptual Approach for Integrative Planning and Design of Logistics Structures and Production Plants in Competence-Cell-Based Networks *Prof. Dr.-Ing. E. Müller* *Chemnitz University of Technology*
09:20 a.m.	Confronting Production Logistics' Perennial Conflicts *Prof. Dr. D. Van Oudheusden* *KU Leuven*
09:40 a.m.	Challenges for the Provision of Process Data for the Virtual Factory *Prof. Dr.-Ing. G. Zülch* *Karlsruhe Institute of Technology*
10:00 a.m.	Application of Operations Research Techniques to the Redesign of the Logistic Systems *Prof. Dr. J. Zak* *Poznan University of Technology*
10:20 a.m.	Simulation in Production and Logistics: Trends, Solutions and Applications *Prof. Dr.-Ing. S. Wenzel* *University of Kassel*
10:40 a.m.	Logistics in the Context of Humanitarian Operations *Dr. A. Blecken* *Heinz Nixdorf Institute*
11:00 a.m.	Coffee break

Program

Thursday April 22, 2010

TRACK 1 | Supply Chain Management

11:30 a.m.	A Model for Quantifying Impacts of Supply Chain Cost and Working Capital on the Company Value *M. Brandenburg, S. Seuring*
12:00 p.m.	Assessing the Effects of Assortment Complexity in Consumer Goods Supply Chains *C. Danne, P. Häusler*
12:30 p.m.	Lunch break in the HNF bistro
02:00 p.m.	Dynamic Supply Loops – A Concept for flexible and faster Automotive Supply Network Management *A. Döring, J. Lentes, L. Siljemyr, W. Menzel, R. Ericsson*
02:30 p.m.	Development of a Lean Quality Management System – An Integrated Management System *A. Blecken, E. Maurantzas, A. Zobel*
03:00 p.m.	Integrated Design and Planning of Adaptive Supply Networks *D. Ivanov, J. Käschel, B. Sokolov*
03:30 p.m.	Coffee break
03:45 p.m.	Lean Intra-Corporate Supply Chain Management for Complex Organizations *A. Fellhauer, A. Strozek*
04:15 p.m.	Up-to-date Supply Chain Management: The Coordinated (S, R) Order-up-to *S. Cannella, E. Ciancimino*
04:45 p.m.	Sustainable process management – Status quo and perspectives *D. Kundisch*
05:15 p.m.	End

TRACK 2 | Production Logistics / Industrial Engineering

11:30 a.m.	Towards an Integrated Virtual Value Creation Chain in Sheet Metal Forming *T. Barth, M. Grauer, S. Karadgi, D. Metz, U. Müller, W. Schäfer*
12:00 p.m.	Using ISO 10303-224 Manufacturing Features for 3D Visualization and Stepwise Simulation of Manufacturing Processes *F. Jahn, D. Kretz, J. Militzer, T. Neumann, T. Teich*
12:30 p.m.	Lunch break in the HNF bistro
02:00 p.m.	Combined Working Time Model Generation and Personnel Scheduling *M. Guenther, V. Nissen*
02:30 p.m.	Knowledge Oriented Implementation of Collaborative Supply Chain Management *M. Hake, P. Heinze*
03:00 p.m.	Reference Modeling of an IT-based Logistics System *I. Hausladen*
03:30 p.m.	Coffee break
03:45 p.m.	An Autonomous Control Concept for Production Logistics *C. Zabel, B. Scholz-Reiter, H. Rekersbrink*
04:15 p.m.	Towards Agile Business Processes Based on the Internet of Things *M. Schief, B. Schmidt*
04:45 p.m.	Methods for the Calculation of CO2 in Logistics Activities *R. Schulz, H. Zadek*
05:15 p.m.	End

Program

Thursday April 22, 2010

TRACK 3 | Operations Research Techniques

11:30 a.m.	A p-Robust Capacitated Network Design Model with Facility Disruptions *A. Lim, Z. Liu, P. Peng, L. Snyder, G. Songshan*
12:00 p.m.	A Resource Based Mixed Integer Modelling Approach for Integrated Operational Logistics Planning *J. P. Kempkes, A. Koberstein, L. Suhl*
12:30 p.m.	Lunch break in the HNF bistro
02:00 p.m.	Job Shop Scheduling with Buffer Constraints and Jobs Consuming Variable Buffer Space *S. Voß, A. Witt*
02:30 p.m.	Maturity Progression Model for Sustainable Supply Chains *M. D. Ahmed, H. Reefke, D. Sundaram*
03:00 p.m.	Scenario Technique with Integer Programming for Sustainability in Manufacturing *A. Fügenschuh, P. Gausemeier, G. Seliger, S. Severengiz*
03:30 p.m.	Coffee break
03:45 p.m.	Modelling Post-Carriage Transport Costs in Groupage Networks *N. Boone,T. Quisbrock*
04:15 p.m.	Discrete Lot-Sizing and Scheduling including Deterioration and Perishability Constraints *J. Pahl, S. Voß*
04:45 p.m.	Coordinated Production and Distribution to a Common Customer by Multiple Suppliers *C. Böhle*
05:15 p.m.	End

TRACK 4 | Simulation / Humanitarian Logistics

11:30 a.m.	Developing and Maintaining Trust in Post-Disaster Hastily Formed Networks *G. Kovács, P. Tatham*
12:00 p.m.	Humanitarian Cluster Leads as Fourth-Party Logistics Providers *L.-M. Jensen*
12:30 p.m.	Lunch break in the HNF bistro
02:00 p.m.	An Efficient Heuristic Algorithm for the Traveling Salesman Problem *P. Azimi, P. Daneshvar Ghorbai*
02:30 p.m.	Control of Disassembly Systems based on the Division of Labour by Means of Dynamically Adapting Routing Plans *J. Hrdina, G. Zülch*
03:00 p.m.	Integrated Production Program and Human Resource Allocation Planning of Sequenced Production Lines with Simulated Assessment *S. Auer, L. März, W. Sihn, H. Tutsch*
03:30 p.m.	Coffee break
03:45 p.m.	Simulation of Container Traffic Flows at a Metropolitan Seaport *H. Reefke*
04:15 p.m.	Simulation of ITSM Processes as Training Tool Set *A. Schmidtmann*
04:45 p.m.	Controlled Simplification of Material Flow Simulation Models *D. Huber*
05:15 p.m.	End

Registration

For registration please use the conference management system on our website:

http://wwwhni.upb.de/symposium2010

Fees:

Regular registration fee:	375,00€
Early registration fee:	300,00€
Day Ticket:	210,00€
Reduced*:	135,00€
Students:	75,00€

* Further information about the reduced prices and the included services can be found on our website.

Hotel

We would be pleased to assist you in planning your stay in Paderborn during the symposium. We cooperate with the Welcome Hotel, which is located just a few walking minutes from the venue. Please do not hesitate to contact our organization team.

If you would like to plan your stay on your own, you will find hotel recommendations on the conference website.

Supporters

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BVL Bundesvereinigung Logistik

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Logistik Heute

Industrie Management

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ERP Management

Organization

Heinz Nixdorf Institute
Prof. Dr.-Ing. habil. Wilhelm Dangelmaier
Fuerstenallee 11
33102 Paderborn, Germany

Further information about the symposium can be found at:
http://wwwhni.upb.de/symposium2010

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Venue

Heinz Nixdorf MuseumsForum
Fuerstenallee 7
33102 Paderborn, Germany
http://en.hnf.de

Paderborn

The charming city of Paderborn is situated at the heart of Germany, midway between the Northern Lowlands and the mountainous central region. The city's wider community extends across eastern North-Rhine Westphalia and encompasses a catchment area of half a million people, the majority of whom live in the more rural outlying villages. With over 1200 years of history to its credit, it is steeped in historical tradition which has shaped the cityscape. The many parks and green spaces beginning right by the shopping precinct at Pader Springs are much appreciated by city dwellers and visitors alike. Paderborn's appeal thus lies in the combination of many different qualities. Ancient and modern, sacred and spiritual, economic and political are all combined, each contributing to the city's distinctive character.

How to find us

Heinz Nixdorf MuseumsForum

Travelling by car

From the A33 motorway take the exit Paderborn-Elsen. Turn onto main road B1 towards Bad Lippspringe/Detmold. After approx. 1.5 km leave B1 at the exit Paderborn/Schloß Neuhaus. Continue straight head at the traffic lights (Heinz-Nixdorf-Ring, Dubelohstraße) onto the Heinz-Nixdorf-Ring and turn left at the next set of lights (Heinz-Nixdorf-Ring, Fuerstenallee) onto Fuerstenallee. The MuseumsForum is approx. 700 m along this street on the right-hand side.

Travelling by air

From Paderborn/Lippstadt Airport take bus No. 400/460 towards Paderborn Hbf (main station). From the main station take the bus No. 11 towards Thuner Siedlung and get off at the MuseumsForum stop (total journey time approx. 50 min).

Travelling by train

From Paderborn Hbf (main station) take bus No. 11 towards Thuner Siedlung and get off at the MuseumsForum stop (total journey time approx. 10 minutes).