“BCTIM membership is a high-return investment in supply chain innovation, technology-enabled process reengineering, institutional cooperation and the success of your organization.”

Panos Kouvelis
Director of The Boeing Center for Technology, Information & Manufacturing; Emerson Distinguished Professor of Operations & Manufacturing Management; Senior Associate Dean and Director of Executive Programs, Olin Business School
The Boeing Center for Technology, Information & Manufacturing (BCTIM) creates value through collaborative research on technology, information and supply chain management, focusing on the proprietary challenges member companies face. Together, we advance supply chain management paradigms and practices with a shared goal of optimizing firms’ global enterprise processes. Better integration, flexibility and risk management enhance operational efficiency. Reduce inventory. Improve customer service. And increase competitive advantage.

As a BCTIM member, you engage with a select team of Olin Business School students on a custom project that addresses your specific company challenges; participate in roundtable discussions with our professors and with peers from a broad spectrum of industries; generate topics for pioneering studies and white papers; attend conferences, seminars and Executive Education programs on cutting-edge issues; and preview prospective hires who understand supply chain-related functions, such as logistics, sourcing, procurement and conversion, via sponsored student internships and recruiting events.

We look forward to discussing BCTIM benefits with you. Please contact me or Gina Kisner, the manager of the center, to find out more.

Panos Kouvelis
Director of The Boeing Center for Technology, Information & Manufacturing;
Emerson Distinguished Professor of Operations & Manufacturing Management;
Senior Associate Dean and Director of Executive Programs,
Olin Business School
Creating Competitive Advantages for Business

How We Create Value
A generous contribution from the McDonnell Douglas Foundation established The Boeing Center for Technology, Information and Manufacturing in 1997. The Boeing Company acquired McDonnell Douglas Corp. that same year and continues to support the center.

One of Olin Business School’s four research centers, BCTIM serves as a catalyst for supply chain innovation and global enterprise optimization. Our mission is to foster mutually beneficial interactions between industry and academia. We help your organization build competitive advantage through strategic supply chain management and technology-based process reengineering. And you deepen our understanding of effective business operations – and the specific needs of your company – through shared projects, research and best practices.

BCTIM provides practical tools that enhance your supply chain agility, efficiency and sustainability. We also sponsor seminars, conferences and other programs that address critical issues and bring you the latest thinking in the information, technology and supply chain fields.

How We Partner With Members
An uncertain economy. Rising costs. Increasing volatility. Accelerated technology and product life cycles. Disruptive business models. And the challenge of global sustainability. All of these issues affect your firm’s operational efficiency, growth opportunities, competitiveness and bottom line. As a result, an increasing number of organizations are turning to Olin for technology, process, risk and supply chain management expertise and guidance.

Custom Project
You collaborate with a specially formed team of Olin students, led by an Olin faculty adviser, on a project that tackles your organization’s supply chain challenges. We acquire a deeper understanding of your goals and objectives. Our students gain work experience, confidence and skills. And you receive cost-effective management expertise and an in-depth introduction to prospective talent. Deliverables can include a consulting report, research or white paper; presentations to your senior managers and executives; the development of assessment tools; and software support for your business models and applications.

Roundtable Discussions
Discuss operational challenges, compare processes and share strategies during faculty-led roundtables with executives from other industries. The exchanges are an excellent way to observe new business models, benchmark your activities against best practices and network with leaders from successful organizations. Roundtable topics drive future BCTIM research and initiatives.

Health Care Roundtables
A special group of health care-related corporate members takes advantage of our projects, conferences and roundtables. Our health care roundtables focus on industry-specific issues, such as cost pressures, regulatory changes, medical informatics, drug competition, and other factors that affect quality of care, delivery and operational efficiency. We discuss lean and technology-based process transformation best practices on health care procurement, operations and supply chain methods.

World-Class Institution
Internationally recognized Washington University in St. Louis is home to several top-ranked schools, including Olin Business School. Founded in 1917, Olin is a world leader in management education and applied research – with degree and nondegree programs that emphasize critical thinking, creativity and innovation, global perspective, and leadership development. Institutions from around the globe partner with us, including Fudan University in Shanghai, China; the Cass Business School in London; Fundação Dom Cabral in Nova Lima, Brazil; and the Indian Institute of Management in Ahmedabad, India. We also manage Brookings Executive Education through a partnership between the University and The Brookings Institution, an independent, nonpartisan think tank based in Washington, D.C.

Next Generation of Supply Chain Leaders
Preparing professionals for key supply chain positions is a BCTIM priority. Our corporate partners provide input for the following graduate and Executive Education programs:

Olin’s Master of Science in Supply Chain Management (MS/SCM)
During this 12-month program, students learn the fundamental concepts of logistics, innovation, supply chain, integrated risk and change management. All MS/SCM students work on BCTIM member projects, which enable them to gain valuable hands-on experience. Graduates possess the knowledge and skills to operate world-class supply chains that help their organizations compete more effectively.
**Applied Research**
You can commission research that directly addresses your management problems. Our professors conduct research, identify strengths and opportunities, present their results and recommendations, and help implement new strategies. In addition, BCTIM members have access to – and generate ideas for – faculty white papers, working papers and publication articles.

“Boeing has been extremely impressed with BCTIM faculty and students, who are passionate about helping us create superior value chains. Their research is thought-provoking and game-changing.”

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**Operational Excellence Association**
The Operational Excellence Association (OEA) serves business by helping enhance the competitive position of member companies and, in turn, the St. Louis region. The group equips individual members and their companies with the expertise, best practices and networks needed for operational strength in all aspects of their businesses. Open to all business leaders and decision-makers throughout the St. Louis region, OEA offers members access to scholars, consultants, applied research, case studies, peers from a wide range of industries, and prospective talent.

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**Olin’s Certificate in Supply Chain Management**
With this program, members of your organization develop skills that drive operational excellence and competitive advantage. Delivered in five two-day modules over a period of five to six months, this flexible program incorporates company-specific projects and team-learning.

**Olin’s MBA Platform in Operations & Supply Chain Management**
One of four MBA program career sequences, the Operations & Supply Chain Management platform teaches students how to optimize organizations’ global enterprise processes. Courses cover logistics, sourcing, procurement, production, inventory control, risk management and channel partnerships. Center members also act as student mentors, serve as guest lecturers, participate in Olin recruiting and networking events, and work with teams of students on for-credit Practicum and other applied-learning projects – all great ways to preview prospective talent.

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**BCTIM ADVISORY BOARD MEMBERS**
We invite all members to sit on our Advisory Board Steering Committee, which helps set the center’s current and future direction.

- Roger Bloemen, Solutia
- Dr. Clay Dunagan, BJC HealthCare
- Susan Lang, Express Scripts
- Chris Marti, Metals Service Center Institute
- Brad Morgan, Monsanto
- Everett Neville, Express Scripts
- Ken Poczekaj, Emerson
- Shaker Sadasivam, MEMC
- Bill Schnettgoecke, The Boeing Company
- Bill Villalon, APL Logistics
- Tim Williams, Vi-Jon

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**HEALTH CARE ADVISORY BOARD MEMBERS**
Health care leaders help us identify and examine industry-specific issues, best practices and innovative supply chain methods.

- David Butler, Olin Business School
- Shelly DeVore, BJC HealthCare
- Dr. Clay Dunagan, BJC HealthCare
- Paula Friedman, SSM Health Care – St. Louis
- Jan Hess, St. Luke’s Hospital
- David Hevel, Hannibal Regional Hospital
- Nalin Kulasekara, SSM Health Care – St. Louis
- Peggy Kurusz, Ascension Health
- Dr. Glenn Mitchell, Sisters of Mercy Health System
- Vance Moore, An Operating Division of the Sisters of Mercy Health System
- Kathryn Nelson, St. John’s Mercy Medical Center
- Robert Porter, SSM Health Care – St. Louis
- Ken Rosemann, Amerinet
- Kent Rubach, Barnes-Jewish Hospital
“Center membership creates real value for the company, enabling us to streamline operational processes, rationalize our supplier management and reduce inventory. In return, we offer students work-world experience and networking opportunities through collaborative projects, internships and our participation in BCTIM events.”

Ken Poczekaj
Vice President – Global Supply Chain, Emerson

Our Research Projects Deliver Solutions

We tackle critical technology, information and supply chain issues. And we work with you to find innovative solutions to your operational and management challenges. Examples of our research and custom projects include:

Emerson | Estimating the impact of inflationary conditions in sourced materials and aggregate (across divisions) total material cost

APL Logistics | Managing the New Uncertainty – Day-Definite Ocean Shipments and Their Value in Handling Lead-Time Uncertainty

Express Scripts | Global supply chain analysis and industry trends

MEMC | Process analysis, throughput and cycle-time performance of global facilities and global supply chain

The Boeing Company | Development of supplier certification program

Covidien | Development of Key Performance Indicators (KPIs) for a pharmaceuticals distribution company

Monsanto | Agricultural chemistry supply chain risk management

Emerson | Assessment of Emerson's key supplier capabilities

Renesas Electronics | Capacity expansion and contract design in semiconductor industry

Monsanto | Development of supply chain assessment tool

Metals Service Center Institute | Product cost standardization and its implications for the Metals Service Center Institute organizations

Paric/Ben Hur Construction Co. | Health care construction solutions and market validation

Emerson | Developing robust sales and operational planning processes at Emerson

Renesas Electronics | Forecasting and planning in semiconductor decentralized supply chain

Solutia | Product-line complexity analysis

Express Scripts | Market comparison of two rebate approaches in procurement and distribution of pharmaceuticals

BJC HealthCare | Inventory Management and Pharmacy Supply Chain Project: Best Practices and Benchmarking

ACADEMIC & INDUSTRY SPEAKERS

Wallace Hopp, University of Michigan
“Toward a Science of Innovation Operations”

Serguei Netessine, INSEAD
“Impact of Performance-Based Contracting on Product Reliability: An Empirical Analysis”

Christopher Tang, University of California–Los Angeles
“Managing Time-Based Contracts With Delayed Payments”

Assaf Zeevi, Columbia University
“Revenue Management Without Knowing the Demand Curve”

Everett Neville, Express Scripts
“Express Scripts: How We View Supply Chain”

Ken Poczekaj, Emerson
“Emerson Supply Chain Process”

BCTIM MEMBER INSTITUTIONS

APL Logistics
BJC HealthCare
The Boeing Company
Covidien
Emerson
Express Scripts
MEMC
Metals Service Center Institute
Monsanto
Renesas Electronics
Solutia
Vi-Jun
Logistics and supply chain managers need to make their Asia-originated supply chains more cost-effective and, at the same time, ensure product deliveries and customer-service levels continue to improve. Product innovations in the ocean transport sector provide shippers with new options for achieving their cost and service objectives, especially for less-than-container load (LCL) shipments. Shippers seek extensions of these innovations for their full-container-load (FCL) shipments, which comprise the majority of product flows in intercontinental supply chains. The paper quantifies the economic case for a day-definite FCL service.

Pressure for product proliferation has forced numerous manufacturing companies – like Solutia – to reengineer their production processes to a mass-customization model. Managers have implemented various flexible manufacturing machines and systems to switch production from one product type to another within the same production line. But in many factories, product changeovers still are costly and time-consuming. In addition, increasing product variety compounds the scheduling problem and produces system burdens, such as higher-capacity utilization or more waste. The paper analyzes Solutia’s complexity costs – loosely defined as increased costs from the new variety of products added to the production mix – at the operational and planning levels.

Integrated device manufacturers (IDMs), such as Renesas Electronics, design and manufacture semiconductors. Foundries, on the other hand, concentrate solely on manufacturing these devices and get their orders from fabless companies (firms without fabrication capability) or from IDMs hungry for extra capacity. As a result, foundries usually have an advantage in total capacity and production cost because of their specialization and economies of scale. If an IDM outsources part or all of the demand to a foundry, the type of contract the companies employ is an important decision. The paper examines two types of contracts — fixed commitment and capacity reservation — and recommends the most reasonable solutions.
Creating and Sharing Knowledge

Conferences, Seminars & Events

Each year, BCTIM hosts events that enable you to learn about emerging trends in supply chain management research and practice – and to listen to and interact with academic and industry experts.

Meir J. Rosenblatt Seminar Series
Established in 2003, the annual seminar is named for Meir J. Rosenblatt, Olin’s former Myron Northrop Professor of Operations & Manufacturing Management. Keynote speakers are prominent thinkers – and practitioners – in the fields of technology, information and manufacturing.

Christopher S. Tang, Edward W. Carter Professor of Business Administration, University of California–Los Angeles, “Emerging-Market Business Models With Micro-Entrepreneurs as Supply Chain Partners”

Marshall L. Fisher, Professor of Operations & Information Management, University of Pennsylvania, “Retail Assortment Optimization”

Paul R. Kleindorfer, Paul Dubrule Professor of Sustainable Development, INSEAD, and Anheuser-Busch Professor of Management Science (Emeritus), University of Pennsylvania, “Risk & Global Supply Chain Management”

Boaz Golany, Professor in Industrial Engineering & Management department, Technion–Israel Institute of Technology, “Evaluation, Selection & Control of Multiple R&D Projects”

Steven Nahmias, Professor of Operations & Management Information Systems, Santa Clara University, “The USGA Golf Handicapping System: Is It Fair?”

Warren H. Hausman, Professor of Management Science & Engineering, Stanford University, “RFID: Challenges & Opportunities in Supply Chain Management”

Morris A. Cohen, Panasonic Professor of Manufacturing & Logistics, University of Pennsylvania, “Trends & Developments of Emerging, Performance-Based Supply Chain Management”


Annual Conference on Integrated Risk Management in Operations & Global Supply Chains
The Conference on Integrated Risk Management in Operations & Global Supply Chains facilitates and stimulates interactions and knowledge-sharing among academic researchers, with selective industry speaker presence to discuss the interfaces and gaps between

Leading-Edge Faculty & Research

Some of the most respected minds in business, Olin’s faculty members are known for their academic excellence, research productivity and innovative solutions to complex business problems. Our professors serve on editorial boards of influential journals in the technology, operations, innovation and supply chain management fields, such as Management Science, Operations Research, Manufacturing & Service Operations Management, and Production and Operations Management. Members of our faculty also have extensive expertise in operations and manufacturing management and in supply chain strategies and practices.

Olin Operations & Manufacturing Management Faculty

Yossi Aviv
Dan Broda Professor of Operations & Manufacturing Management

Sergio Chayet
Senior Lecturer in Operations & Manufacturing Management

Lingxiu Dong
Associate Professor of Operations & Manufacturing Management

Panos Kouvelis
Emerson Distinguished Professor of Operations & Manufacturing Management

Danko Turcic
Assistant Professor of Operations Management

Nan Yang
Assistant Professor of Operations & Manufacturing Management

Fuqiang Zhang
Associate Professor of Operations & Manufacturing Management

BCTIM-Affiliated Olin Faculty

David Butler
Adjunct Professor of Quality Management

Mahendra Gupta
Dean and Geraldine J. & Robert L. Virgil Professor of Accounting & Management

Hong Liu
Associate Professor of Finance

Judi McLean Parks
Reuben C. & Anne Carpenter Taylor Professor of Organizational Behavior

Jackson Nickerson
Frahm Family Professor of Organization & Strategy

Eli Snir
Lecturer in Management

Mark Soczek
Director of the Center for Experiential Learning and Senior Lecturer in Accounting
academic and industry on the important issue of risk management within supply chain management. Now in its second decade, the conference goes beyond stimulating research presentations to constructively challenge current practices and research paradigms; it offers the opportunity for productive interactions among speakers and conference participants.

**BCTIM Industry Conferences**

BCTIM hosts one-day conferences to foster further interactions between industry and academia. The events, attended by members and academic experts, promote the exchange of knowledge and information, allowing both groups to explore topics and research relevant to members and their organizations. Recent topics have included “Supply Chain Challenges and Strategies in the Midst of Economic Turbulence” and “Managing Complexity in Supply Chains: The New Imperative.”

**Talent Acquisition**

BCTIM provides members the unique opportunity to meet and engage with dozens of Olin’s most promising supply chain students through networking events, student internship recommendations and customized recruiting plans. Over the years, we have had a successful track record of placing standout students in challenging and fulfilling supply chain roles.

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**BCTIM is your partner in supply chain innovation and optimization.** Membership offers you practical solutions to your operational challenges, along with access to cutting-edge applied research, best practices and new talent trained in the complexities of the field.”

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Mahendra Gupta
Dean and Geraldine J. & Robert L. Virgil Professor of Accounting & Management, Olin Business School

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**BCTIM Research Fellows**

Qing Ding, PhD  
Singapore Management University  
Jian Li, PhD  
Northeastern Illinois University  
Rong Li, PhD  
Singapore Management University  
Betul Lus, PhD  
Empire State College  
Julie Niederhoff, PhD  
Syracuse University  
Hirofumi Matsuo, PhD  
Kobe University  
Sammi Tang, PhD  
University of Miami  
Zhongjun Tian, PhD  
Shanghai University of Finance & Economics  
Dennis Yu, PhD  
Clarkson University  
Wenhui Zhao, PhD  
Shanghai Jiao Tong University

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**Doctoral Students**

Ehsan Bolandifar  
Xingxing Chen  
Xiaomeng Guo  
Junghie Lee  
Zhili Tian  
Mingcheng Wei  
Xiaole (Sherri) Wu  
Guang Xiao  
Yixuan Xiao  
Yueshan Yu
BCTIM-Sponsored Publications


BCTIM-Affiliated-Faculty Publications


“BCTIM membership opens a window to the supply chain world. Managers gain valuable insights to address critical issues and challenges, and are exposed to novel problem-solving strategies – real advantages in a competitive marketplace.”

Susan Lang  
Senior Vice President and Chief Supply Chain Officer,  
Express Scripts

“BJC HealthCare’s relationship with BCTIM is a strategic and tactical partnership that infuses well-educated, fresh and diverse thinking into our problem-solving methods. We have already benefited from the program’s high-caliber resources and are enthusiastic about future work with BCTIM.”

W. Claiborne Dunagan, MD  
Vice President, BJC HealthCare,  
Professor of Medicine,  
Washington University School of Medicine
Olin Business School at Washington University in St. Louis is an institution of leaders: distinguished research faculty; brilliant students; and successful, energized alumni. Our rigorous degree and nondegree programs emphasize critical thinking, applied learning, global competence, and communication and collaboration skills – advancing business in a constantly changing world.