UNIVERSITY OF Miami

FACULTY SENATE

IN/OUT KL RH F C

MEMORANDUM

To: Donna E. Shalala, President

From: Jane E. Connolly
Chair, Faculty Senate

Date: 4 November 2002

Subject: Faculty Senate Legislation #2002-05(B) – Establishment of the Center for Advanced Supply Chain Management in the College of Engineering

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The Faculty Senate, at its 23 October 2002 meeting, voted to approve the name of a sponsored center, the Center for Advanced Supply Chain Management in the College of Engineering, for the period of time of continuous funding and any extensions thereafter, with the proviso that at least one of the positions on the Advisory Board be selected from the faculty of the School of Business at the recommendation of its Dean and that there be appropriate consultation with the cognate Departments in the School of Business. The proposal is included for your reference.

This legislation is now forwarded to you for your action.

JC/kl

cc: Luis Glaser, Executive Vice President and Provost
M. Lewis Temares, Dean, College of Engineering
Shihab Asfour, Chair, Industrial Engineering

Faculty Senate
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Coral Gables, Florida 33124
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CAPSULE: Faculty Senate Legislation #2002-05(B) – Establishment of the Center for Advanced Supply Chain Management in the College of Engineering

PRESIDENT'S RESPONSE

APPROVED: _____ DATE: 11-6-02
(President's Signature)

OFFICE OR INDIVIDUAL TO IMPLEMENT: Provost

EFFECTIVE DATE OF LEGISLATION: Immediately
(if other than June 1 next following)

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____

University of Miami/College of Engineering Center for Advanced Supply Chain Management

Department of Industrial Engineering
College of Engineering
University of Miami
Coral Gables, FL

Date: October 17, 2002

A. SUPPLY CHAIN MANAGEMENT AND ITS DYNAMICS

Supply Chain Management is primarily concerned with the efficient integration of suppliers, factories, and warehouses and stores so that merchandise is produced and distributed in the right quantities, to the right locations and at the right time, and so as to minimize total system cost subject to satisfying service requirements.

SCM spans all stages of the entire supply chain and involves inventory management, material handling, warehousing, distribution and transportation while interfacing closely with manufacturing and marketing. SCM is an issue of critical organizational objective in a plethora of governmental and corporate environments including among others, manufacturing and retail firms, food producers and distributors, cruise lines, transportation carriers, the military and service companies. SCM has been changing dramatically from a back office support function to a strategically important area and a source of competitive advantage within the global, electronic economy. Two factors that have contributed to this trend include:

- *Customer service.* In the new demanding market environments supply chains must deliver products promptly, consistently, and accurately while adjusting quickly in changing market patterns (especially, since in these markets the life cycles of products are constantly reduced and just in time, flexible production is essential for corporate success). Customers really demand to know "When am I going to get it?" rather than "Where in transit is it?"
- *Technology*. Dramatic recent advances in technology have affected significantly logistics operations (e.g., automated bar code tracking of equipment, computerized decision support systems, the Internet, XML). Furthermore, the proliferation of *e-commerce* impacts severely retail (international retail e-commerce) and business-to-business supply chains worldwide. Electronic commerce must be supported by a reliable and effective product delivery system in order to maintain its appeal and continue its phenomenal growth. Creating new

distribution environments catering to the needs of e-tailers is critical and challenging while it is not a case of one-size-fits-all.

All in all, productivity and cost saving gains of the current logistics and supply chain systems, as fueled by deregulation, technology and just-in-time manufacturing have been really cataclysmic. Since 1908, inventory costs as a percentage of economic activity have declined from 25 percent top 14 percent (**New York Times**, 5/27/2002).

In addition to all these market and technological changes a major driver for the increased attention that SCM has been receiving the last few years is the relationship between SCM and shareholder value. Indeed, intuitively, one once educated in SCM, can recognize the linkage between a company's supply chain performance and its shareholder value. Latest research has shown that indeed there is hard statistical evidence to support that intuition. According to this research "glitches" on the supply chain performance can have a devastating effect on stock price. Actually, the total damage can be as high as 18 percent (*Supply Chain Management Review*, January/February 2002, pp. 18-24).

The growing field of supply chain management is receiving considerable attention in higher education throughout the country. Centers for SCM have evolved at several outstanding institutions (such as, Stanford, MIT, Michigan, Rutgers), but inadequate attention has been given in the Southeast, thus presenting a unique opportunity for the University of Miami.

B. MISSION AND OBJECTIVES OF THE CENTER

The University of Miami's Center for Advanced Supply Chain Management (CASCM) is an industry /academia collaboration. The lead sponsor of the Center is Ryder System Inc. with a contribution of $500,000 spread over three years. In addition to the above contribution Ryder will support the Center in an on-going basis, by: contributing management time and knowledge capital; lecturing as appropriate; providing registration fees for employees and/or selected clients for seminar, and encouraging marketing business friends and associates to participate in the Center.

The Center is self-supported and no University monies will be spent for its operations. In section E we present a tentative budget for the first year of operation at a total of $114,000. These expenses will be covered solely from the "seed" money of $500,000 committed by Ryder System Inc. Moreover, by charging market-based fees for certain advanced seminars, we expect that the Center will earn revenues over time, eventually no only covering its costs of operations but also adding further to the "seed" money. These revenues will then be used to further enhance current UM educational programs, fund student internships, etc.

The second sponsor of the Center is IBM. IBM is committed to provide support in the educational programs and for various logistical services.

The goals of the Center are three fold:

(a) To provide training and seminars for top executives of various companies and give priority to international business, especially given Miami's role as a gateway to Latin America. The Center will operate from the state-of-the art Conference Center of the Americas located within south Florida's historic Biltmore Hotel complex.

(b) To provide internships for students (both undergraduate and undergraduate) at the companies who participate in the Center activities (either as Business Partners or as seminar participants).

(c) To promote customized research in Supply Chain Management as a direct consequence of our interaction with the participants of the seminars ("First we tell them **what to do**, and then we show them **how to do it**").

The Center's strategy and programs will be led by Dr. Eleftherios Iakovou, Associate Professor of the University of Miami's Department of Industrial Engineering and Director of the Perry Ellis International Logistics Research Institute and Ryder's Executive Vice President of Global Supply Chain Solutions, Gene R. Tyndall, a recognized Supply Chain Management expert who has authored several management books on supply chain management and logistics and has taught seminars globally. An advisory board comprising UM faculty, business leaders and industry experts will contribute to strategic development, refinement and expansion of the Center's curriculum. Additionally, the School of Business of the University of Miami will be called upon to contribute instructors and participate in interdisciplinary research as needed, once the Center is established. Special consideration will be given so that the educational content is commensurate with the ethical standards of the University of Miami.

Leading-edge content for the seminars will be derived from the University and Ryder's Supply Chain Solutions business, with contributions by IBM's Global Services business, and Advisory Board members. This broad and deep knowledge base will insure that the Center maintains leading edge programs while conforming to the high ethical standards of the University of Miami. Ethics will be specifically discussed in the seminars while relating to the societal impact of SCM.

Finally, the Center has the following mission statement:

"To provide quality executive education and training programs for executives and University of Miami undergraduate and graduate students, to conduct research in supply chain management, and promote life-long learning while meeting the current and emerging needs of the community and industry in the U.S., Latin America and the rest of the world".

C. GAPS FILLED BY THE CENTER

It is not surprising that often companies (and their executives) lack an understanding of all the rapidly evolving, complex and interwoven issues that affect SCM in a systemic framework At the same such firms are eager to (i) recruit graduates and/or support student internships providing that students can make a meaningful contribution to their

supply chains and logistics systems, and (ii) have access to solid academic resources that could conduct funded research. For example, this has been exactly the case for the last year that we have been working with Royal Caribbean and Celebrity Cruises.

It is in this context that executive supply chain management education is a value proposition. Such effective educational programs should go beyond the traditional course structure and instead embrace a holistic approach synthesizing state-of-the-art business processes, decision-making models, software, simulation-based experiential educational games and case studies, while utilizing instructors from both academia and industry. It is this approach that the Center aims to undertake. In addition, the Center aims to act as a Forum/Knowledge Base of Supply Chain Management for enhancing the learning experience of University of Miami students.

These needs are particularly important for the local area given the role of Miami as a strategic hub in the US-Latin America supply chains, and the strong presence of Third Party Logistics (3PL), transportation, information technology and cruise line companies. Despite the already established academic centers around the country there is a lack of any substantial effort in the Southeast, thus presenting a serious gap that the proposed Center intends to fill.

D. BUSINESS PARTNERS

For the necessary additional funds ($500,000) the Center will solicit additional business partners. The services provided by the Center to the business partners will be commensurate to the level of funding. More specifically, the Center will be seeking a limited number of $200,000 Leadership and $50,000 Founder Sponsorships. These sponsorship commitments would be spread over a three-year period and include a number of benefits and opportunities as outlined below:

<u>Leadership Level</u> – A three-year commitment totaling $200,000.

Benefits:

- One seat on the Center's Advisory Board
- Category Exclusivity (first come, first served) among Leadership Level Sponsors
- Name and Logo Signage on-site at the Conference Center of the Americas
- Name and Logo recognition in printed course offering and promotional materials
- 10 gratis seats (annually) for use by sponsor or sponsor's designee at any publicly offered course offered by the Center
- Four VIP invitations to the Center's annual sponsor-only event that provides a content-driven, high-level executive update and social/networking opportunities
- Executive teaching slots for approved, curriculum-centered topics. The credentials of any individual who will be teaching even in the executive seminars will be reviewed thoroughly by the Advisory Board before their participation is approved.

<u>Founder's Level</u> – A three-year commitment totaling $50,000.

Benefits:

- Name recognition in printed course offering and promotional materials
- 10 gratis seats (annually) for use by sponsor or sponsor's designee at any publicly offered course offered by the Center
- Two VIP invitations to the Center's annual sponsor-only event that provides a content-driven, high-level executive update and social/networking opportunities

D. PERSONNEL

Advisory Board:

- **Michael Allsup,** Vice President Supply Chain Management, Royal Caribbean Cruises Ltd**.**
- **Dr. Shihab Asfour**, Professor and Chairman, Department of Industrial Engineering, University of Miami
- **Paul Bender,** President, P S Bender & Company, LLC
- **Gary J. Cross**, Principal at Large, Buy and Supply Business Innovation Services, IBM Global Services
- **Dr. Eleftherios Iakovou,** Associate Professor, Department of Industrial Engineering (**ex officio**)
- **Reuben Slone**, Chief Operating Officer, Whirlpool Corporation
- **Dr. M. Lewis Temares,** Vice President of Information Technologies/ CIO Information Technology, University of Miami
- **Gene Tyndall**, Executive Vice President Global Supply Chain Solutions, Ryder System Inc.
- **Barbara Whittaker**, Executive Director of Machinery & Equipment and Indirect Purchasing, General Motors Worldwide Purchasing.
- **TBD**
- **TBD**
- **TBD**
- **TBD**

Additional UM faculty will be asked to participate in the Advisory Board, reflecting the multidisciplinary nature of supply chain management (e.g. Law School, Philosophy, and Business School).

Instructors:

The instructors for the various courses offered by the Center will be drawn from the following set of experts.

- **Dr. Ed Baker,** Professor, Department of Management Science, School of Business Administration
- **Paul Bender,** President, P S Bender & Company, LLC
- **Gary J. Cross,** Principal at Large, Buy and Supply Business Innovation Services, IBM Global Services
- **Brenda Baisden Enney,** Group Director Marketing and e-Business Development, Ryder System, Inc.

- **Dr. Murat Erkoc,** Assistant Professor, Department of Industrial Engineering
- **Dr. Terry Goodwin,** Visiting Professor**,** Department of Industrial Engineering
- **Dr. Eleftherios Iakovou,** Associate Professor, Department of Industrial Engineering
- **Dr. Vaidy Jayaraman**, Associate Professor, Department of Management, School of Business Administration
- **Dr. Anujh Merhotra**, Associate Professor, Chairman, Department of Management Science, School of Business Administration
- **Gene Tyndall,** Executive Vice President Global Supply Chain Solutions, Ryder System Inc.

***Biographical Sketches*:**

Director: Dr. Eleftherios Iakovou is an Associate Professor at the Department of Industrial Engineering and the Director the *Perry Ellis International Logistics Research Institute at the University of Miami*. He is also the Director of the Graduate Studies in the Department of Industrial Engineering and the Director of the Systems and Operations Research Laboratory founded in 1994. Dr. Iakovou has received his M.S. and Ph.D. degrees in Operations Research and Industrial Engineering from Cornell University. His research and teaching interests include supply chain management, logistics, inventory management, maritime transportation, yield management and process reengineering. He has published extensively research in inventory control, transportation, supply chain management, yield management, and emergency response management in top peer reviewed scientific journals such as *Transportation Science, IIE Transactions, European Journal of Operations Research, International Journal of Production Research, Maritime Policy and Management*. He is a member of the Editorial Board of the *International Journal of Emergency Management*. Dr. Iakovou has consulted extensively for governmental and corporate organizations such as the U.S. Department of Transportation, the U.S. Coast Guard, Ryder Dedicated Logistics, Sea Land, the U.S. Department of Veterans Affairs, the Department of Parking and Transportation Services and the Department of Auxiliary Services of the University of Miami.

Mike Allsup, Vice President of Supply Chain Management for Royal Caribbean, is responsible for overseeing the Company's worldwide procurement and logistics activities for Royal Caribbean International and Celebrity Cruises. Mike is also responsible for developing new initiatives to streamline the Company's Supply Chain working closely with all our suppliers, TGS and Marine Management in both brands.

Prior to joining Royal Caribbean, Mike was with Coca-Cola Company as Vice President Value Chain Logistics. During his career, he has also held senior management positions in Manufacturing Operations, Distribution, and Business Process Improvement with Sea-Land Service, Inc. and RJR Nabisco, Inc.

Mike earned a Bachelor of Science Degree from Northeastern University and has participated in Logistics Management Executive Development at Michigan State

University, Broad School of Management. He has also served as co-chair of the Conference Board's Performance Improvement Council and is presently on the Board of the Marine Hotel Association.

Dr. Shihab Asfour is a Professor of Industrial Engineering at the University of Miami. He has served as the Associate Chairman of that department for 11 years. Dr. Asfour has been the Chairman of that department since June 1st, 1999. In addition he holds the position of Professor in both the Neurological Surgery and Biomedical Engineering departments. He received his Ph.D. in Industrial Engineering from Texas Tech University, Lubbock, Texas. Dr. Asfour has served as a consultant to industrial, service, and educational organizations for over 28 years.

Dr. Asfour was inducted in the Academy of Industrial Engineering at Texas Tech University in 1999. This honor is bestowed by Texas Tech University on individuals who have a distinguished record of professional activities in Industrial Engineering. Dr. Asfour is also a Founding Member of the International Foundation for Industrial Ergonomics and Safety Research and served as its chairman in 1994. Dr. Asfour is a member of the Editorial Board of the International Journal of Industrial Ergonomics and was an associate editor of the Institute of Industrial Engineers Transactions.Dr. Asfour's research interests include Industrial Ergonomics, Work Physiology, Biomechanics, Rehabilitation Engineering, Safety Engineering, Work Measurement, Systems Design, and Quality Engineering.

Dr. Asfour's pioneering research in the application of Ergonomics to the rehabilitation of chronic back pain patients has enabled him to establish, in 1981 the "Ergonomics and Bioengineering Division" as an integral part of the University of Miami Comprehensive Pain and Rehabilitation Center. Dr. Asfour has served as the Associate Director of that division for 11 years. This was the first division of its kind to be established in a rehabilitation setting. This work has resulted in over 43 publications in highly prestigious journals.

Dr. Asfour also pioneered the application of Ergonomics and Biomechanics in the electric utility industry. He developed and implemented a large scale Ergonomics Program for the reduction of musculoskeletal injuries at Florida Power & Light Company (FPL), one of the largest utility companies in the world. This research effort started in 1988 and was funded by FPL for six years to the tune of $500,000. This work led to a major reduction of back injuries at FPL and contributed to FPL being the first US company to win the Deming Prize of quality. As a result of that work, Dr. Asfour was invited by Pacific Gas & Electric (PG&E) in California to lead a three-day workshop to assist PG&E in setting up a similar program.

Dr. Asfour is currently involved in research projects with the Sports Medicine Department at the University of Miami in the areas of gait analysis, finite element modeling of the shoulder complex and the spine and the biomechanics of baseball pitching. Dr. Asfour has published over 190 articles in national and international journals, proceedings and books. His publications appeared in the Ergonomics, Human Factors,

Spine, and IIE journals. He has also edited a two-volume book titled Trends in Ergonomics/Human Factors IV published by Elsevier Science Publishers in 1987, and the book titled Computer Aided Ergonomics, published by Taylor and Francis, 1990.

Dr. Ed Baker is a Professor of Management Science (and for a number of years until 2002, the Chairman of the Department). He holds a D.B.A. from University of Maryland. Professor Baker specializes in vehicle routing, transportation scheduling, logistics, integer programming and survey sampling. Dr. Baker is member of the Operations Research Society, the Council of Logistics Management, and the Propeller Club, Port of Miami.

Paul Bender is President of **P S Bender & Company, LLC** based in Miami, Florida, with worldwide operations. Is a Certified Management Consultant and a Founding Member of the Institute of Management Consultants. He has worked more than 30 years in management consulting and 8 years as a high level executive with International Paper Company, VF Corporation and ITT Corporation.

Mr. Bender focuses on the development and application of quantitative techniques and automation technology to the solution of management problems. He h as developed original methods and techniques using large-scale optimization, probabilistic and statistical analysis, risk management techniques, and complex adaptive systems. Mr. Bender specializes in supply chain and logistics management, with emphasis on the strategic and tactical aspects of integrated purchasing, production, distribution, sales, and customer service.

Paul Bender has completed more than 1,000 consulting projects for over 400 clients, worldwide. They include a wide variety of business and governmental organizations with annual revenues or budgets ranging from US$100 million to US$200 billion. He has lectured at major universities and professional organizations, including the Massachusetts Institute of Technology, Stanford University, Columbia University, Northwestern University, Georgia Institute of Technology, the U.S. Air Force Institute of Technology, the Japan Institute of Systems Research, the Chinese Mechanical Engineering Society, The People's Liberation Army of China's Institute for Logistics, the Imperial College of Science and Technology in London, the Polytechnic School in Paris, the Royal Institute of Technology in Stockholm, the Singapore Institute of Systems Science, The Conference Board, The U.S. National Academy of Sciences, the U.S. Departments of Defense, Commerce and Transportation.

Finally, Mr. Bender has authored three books and co-authored five other books. He is currently working on a new book: **"21st Century Management"**. The book will present state-of-the-art methods and techniques for the design and management of enterprises. It will focus on the use of informational and behavioral technologies and scientific management of risk and uncertainty, to serve worldwide customers while maximizing benefits.

Gary Cross, Buy and Supply Managing Principal, IBM Business Innovation Services brings extensive knowledge and experience in large-scale organizational change, supply

chain management, transportation services, and information systems to the leadership of IBM's Buy and Supply Category. Mr. Cross' consulting clients include Fortune 500 manufacturers and transportation providers for engagements ranging from merger integration to business process redesign to electronic commerce and I/T strategy. Prior to joining IBM in 1995, Mr. Cross was president and CEO of CSC Cleveland Consulting, an operations consulting firm based in Cleveland, Ohio. During his tenure there he held positions as transportation practice leader, office managing partner, and president.

Mr. Cross joined CSC after ten years with Leaseway Transportation where he had been president of Leaseway Technology Corp., a consulting, software, and computer services subsidiary of the parent.

A graduate of The Ohio State University, Mr. Cross has been a frequent speaker at industry forums and has published numerous white papers and articles in trade journals. Many recent appearances and articles have focused on the impact of e-Business on the supply chain and transportation industry. He is a member of the Business Advisory Council of the Northwestern University Transportation Center, and a member of the Council of Logistics Management.

Brenda B. Enney is Group Director, Marketing and eBusiness Development at Ryder System, Inc., a leader in logistics and transportation management solutions worldwide. In this position, she is responsible for developing, implementing and evaluating the Company's business strategy for e-Commerce initiatives including research and transportation management.

Ms. Enney joined Ryder from her logistics consulting business, which she started in 1997. As an independent consultant, she served major consulting firms, independent consulting firms, and end clients including KPMG Australia, IBM Australia, Ernst & Young, Inc., Riverspan, IFMC, Inc., The Austin Company and Duraflame, Inc.. Prior to that, she served as Asia Pacific Business Development Director for CAPS Logistics, a BAAN company specializing in logistics software. She also worked as a manufacturing engineer for Compaq Computers.

Fourteen years in the logistics industry has provided her with a wealth of experience, including: consulting, training, application development, computer system implementation, market strategy and business development. Her work with Fortune 500 clients has spanned many industries including: retail, high-tech manufacturing, transportation, industrial products, auto, logistics management, public utilities, wholesale foods/grocery and forestry.

Ms. Enney earned a bachelor of Industrial & Systems Engineering degree from Georgia Institute of Technology. She is currently pursuing her MBA from Monterey Institute of International Studies.

Dr. Murat Erkoc is an Assistant Professor of the Department of Industrial Engineering at University of Miami. He received a B.S. degree at Istanbul Technical University in 1994 and a M.S. degree at Bogazici (Bosphorus) University in 1997 both in Industrial

Engineering. He had his PhD degree in industrial engineering from Lehigh University in 2002. His research interests include supply chain management and coordination, game theory and decision making, multi-echelon inventory control, and production planning. He has consulted for major telecommunications companies such as Lucent Technologies and Agere Systems in the past. He has acted as a referee for top peer journals such as *Naval Research Logistics*, *IIE Transactions* and *International Journal of Production Research*. He is a member of Institute for Operations Research and Management Science (INFORMS), Manufacturing & Systems Operations Management Society (MSOM) and Institute of Industrial Engineers (IIE).

Dr. Terry Goodwin is a research visiting Professor of the Department of Industrial Engineering of the University of Miami. He is a results oriented leader who achieves results by clearly articulating a vision and the steps which are necessary to accomplish that vision. He has worked with logistics managers and executives in a wide variety of industries to solve many supply chain problems.

At Ryder Integrated Logistics [1992-1998] Terry developed a training program that was designed to drive the conversion of Ryder Dedicated Resources, a dedicated contract carrier into Ryder Integrated Logistics (RIL), a leading provider of third party logistics services. During Terry's tenure as Senior Manager of Logistics Training, RIL evolved from a $360 million dedicated carrier into a $1.5 billion logistics provider.

At Ryder System [1981-1992], Terry developed, and implemented logistics modeling tools in industries ranging from diapers to dairy to grocery to automotive assembly to furniture to caskets. The development of these tools allowed Ryder Truck Rental to evolve from a truck rental and leasing company to a provider of transportation services, and the establishment of Ryder Dedicated Resources as an independent subsidiary of Ryder System. He also served as Project Manager of Marketing Systems, and as a statistical consultant. In addition, he developed modeling tools which were used to improve the internal operations of Ryder's rental and leasing operations. Currently, Dr. Terry Goodwin is working with Dr. Iakovou on the development of the Supply Chain Management educational program for the Marine Hotel Association (MHA).

Dr. Anuj Mehrotra is an Associate Professor and Chair of Management Science. He received his Ph.D. degree from Georgia Institute of Technology In Operations Research in 1992. Prior to joining UM, he held positions at Carnegie Mellon University and IBM's T.J. Watson Research Center. Dr. Mehrotra specializes in management science models and applications, distribution logistics, integer programming, and combinatorial optimization. His research interests cover three areas, including (1) supply chain management resolution, (2) call canter staffing and scheduling, network design, political districting, clustering, and (3) development of models and solutions for large-scale optimization problems. He has also provided consultant services to Exxon, Goodyear Tire and Rubber Company, Cheetah Software Systems, Inc. Ryder Dedicated Logistics, A.T. Kearney, Cargill and the Virginia Department of Transportation.

Reuben Slone – Reuben is currently chief operating officer of the Whirlpool Corporation based in Benton Harbor, Michigan. He has held executive positions at other corporations, and has been a consulting partner at one of the top global firms. He is a recognized high-performing executive who understands, values, and leads supply chain excellence.

Dr. M. Lewis Temares is the Vice President for Information Resources and the Dean of the College of Engineering at the University of Miami. The first officially designated Chief Information Officer of a university, as Vice President he is responsible for computing, telecommunications, coordinating university planning, institutional research and the testing center. Dr. Temares led the completion of a $15.2 million information systems plan and a $31 million telecommunication plan on time and below budget. As Dean of the College of Engineering, Dr. Temares is responsible for leadership of the sixth largest academic unit of the University, with 1000 students and 63 faculty members. Selected as one of the Premiere 100 IT Leaders in the World, he is a senior member of IEEE, a fellow in the Academy of Marketing Science, a member of the Sierra/First Boston MIS Executive Council and has served as a consultant to governmental agencies, private corporations and international organizations. Dr. Temares has written numerous articles on the implementation and management of technology and is often cited in national publications. He has received degrees from the City College of New York, Baruch College, Columbia University and his Ph.D. from the City University of New York.

Gene R. Tyndall is Executive Vice President - Global Supply Chain Solutions of Ryder System, Inc., a $5.3 billion global supply chain and transportation management solutions company headquartered in Miami, Florida. In this position, he leads and is responsible for the Company's global customer solutions and global account management for target industry sectors including aerospace, automotive, electronics, high tech, industrial and telecommunications. He also leads the Company's global marketing and e-Business functions. Mr. Tyndall and his organization generate more than $1.5 billion in transportation, distribution and supply chain operating revenue, and control in excess of $2 billion in freight movement. Mr. Tyndall leads the development of supply chain business strategies, information technologies and process improvement methods

Prior to this appointment, Mr. Tyndall was Senior Vice President of Global Customer Solutions for Ryder. Before joining the Company in 1999, he was a Senior Partner and leader of the Ernst & Young (now Cap Gemini Ernst & Young) Global Supply Chain Management Consulting Practice. There, he spent 20 years solving customer logistics issues and developing its global supply chain consulting practice. He also led the sales, marketing and infrastructure development of the Ernst & Young practice, which is recognized globally as one of the top supply chain management consulting organizations. He also had substantial operational logistics and management experience with the U.S. Department of Transportation, Mercer Management Consulting and General Research Corporation. He also previously served as an officer in the U.S. Navy.

As an internationally recognized expert on supply chain management issues, Mr. Tyndall was named by InformationWeek magazine one of ten "Innovators and Influencers" who will drive business-technology trends in 2002. He is regularly quoted in leading general business publications and respected industry and trade journals. The author of more than 100 articles and co-author of five books, including Supercharging Supply Chains, he has directed supply chain strategies and improvement projects around the world for major corporations in the consumer products, high-tech, manufacturing and automotive industries. Mr. Tyndall is a frequent speaker at major global seminars and conferences on issues of world trade, information technology and supply chain management.

Mr. Tyndall is a graduate of the University of Maryland and has earned advanced degrees from George Washington University. He also graduated from the advanced global management program at the International Institute for Management (IMD) in Lausanne, Switzerland.

Barbara L. Whittaker is the Executive Director of Machinery & Equipment and Indirect Purchasing for General Motors Worldwide Purchasing. Ms. Whittaker began her career with General Motors in 1969 at Terex Division in Hudson, Ohio as a co-op student. She transferred to Chevrolet Motor Division in 1974 as a production control analyst. She held several positions at Chevrolet in production control and purchasing with increasing responsibility through 1984.

In 1985, Ms. Whittaker was promoted to director of production planning, and was responsible for Chevrolet-Pontiac and GM Canada Group production scheduling. She was assigned as a platform materials management manager of the sporty car segment in 1987. She transferred to the North American Operations purchasing staff in 1993 as director of business development for cars. Then in 1994, she became director of purchasing for GM Powertrain's Transmission Group.

In 1995, she was appointed commodity director of metallic for NAO Cars, and three years later, she was assigned to the position of regional purchasing and PC&L director of Delphi-Europe in France. Upon returning to the United States in 1999, she was appointed executive director of metallic GM Worldwide Purchasing. On January 1, 2002, Barbara was appointed Executive Director Machinery & Equipment and Indirect Purchasing.

Barbara L. Whittaker is the Executive Director of Machinery &Equipment and Indirect Purchasing for GM Worldwide Purchasing. Ms. Whittaker has a master's in Business Administration from Wayne State University, and a bachelor's degree in Industrial Administration from Kettering University (formerly General Motors Institute). She completed the Executive Development Program at the University of Michigan and the Advanced Management Program at Insead in Fountainbleu, France.

Her community activities include chairing a fundraiser for the Black Patriots War Memorial. For two consecutive years, she handled Co-chair fund raising activities for Barat Children Family Services. In addition, in 2001, she managed a successful tribute

to Mayor Dennis Archer that generated funds for the Dennis Archer Foundation for Children, a non-profit organization.

She has received numerous awards including Who's Who in American Colleges and Universities, Outstanding Young Women of America Recognition, Eta Phi Beta Hall of Fame Award for Excellence in Business, GM President's Council Honor, 2000 Women of the Year for African Americans on Wheels, Woman to Watch in Purchasing 2001 Purchasing Magazine and many other distinguished awards.

E. TENTATIVE BUDGET FOR FIRST YEAR OF OPERATION

The Center is self-supported; all expenses will be covered solely from the $500,000 seed money already committed from Ryder System Inc. without any additional funding from the University of Miami. Actually, based on market-based fees for participation, as is shown below the Center could even support its operations during the first without even tapping on the "seed" money. The following projected expenses and revenues are expected to be incurred during the first year:

- **PROJECTED EXPENSES:**
  - Director**:** $ 22,000 per year
  - One Research Assistant**:** $ 35,000 (tuition and stipend) per year
  - Instructor Costs**:** $ 27,000 ($1,500 per instructor per day, six instructors per seminar, three seminars per year)
  - Marketing Expenses**:** $ 5,000
  - Conference Facilities (Rental)**:** $ 15,000
  - Part-Time Staff**:** $ 4,000
  - **TOTAL EXPENSES: $ 108,000**

- **PROJECTED REVENUES:**
  - **TOTAL REVENUES**: **$ 108,000**
    ($ 1200 per participant, 30 participants per seminar, 3 seminars per year

MEMORANDUM

DATE: October 3, 2002

TO: Dr. Jane Connolly, Chair, Faculty Senate

FROM: Dr. M. Lewis Temares

RE: UM/CoE CASCM

The College of Engineering Faculty unanimously approved on Monday, September 30, 2002, the formation of the *University of Miami/College of Engineering Center for Advanced Supply Chain Management*, also approved by our College Council and the faculty of the Department of Industrial Engineering. The lead sponsor of this Center is Ryder Systems Inc., which has already committed a contribution of $500,000, spread over three years, to fund this Center.

Attached is a more detailed description of the UM/CoE CASCM.

I fully endorse this proposal and hope that the Faculty Senate will expedite its review and approval. Please let me know if you need any more information. Thank you for your cooperation.

MLT:fc
Attachment

cc: Dr. Shihab S. Asfour, Chair, Department of Industrial Engineering

MEMORANDUM

DATE: October 9, 2002

TO: Dr. Jane Connolly, Chair, Faculty Senate

FROM: Dr. M. Lewis Temares

RE: UM/CoE CASCM

I strongly endorse the budget for the *University of Miami/College of Engineering Center for Advanced Supply Chain Management.* This is in addition to my memo of October 3, 2002.

MLT:fc
Attachment

cc: Dr. Shihab S. Asfour, Chair, Department of Industrial Engineering