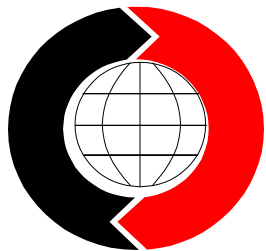

ISCM Planning Meeting Program Review

November 28 – 29, 2000

James B. Rice, Jr.

**Director - Integrated Supply Chain
Management Program**

Massachusetts Institute of Technology



Meeting Objectives

- Primary
 - Review ISCM Program activities 2000
 - Plan ISCM Program activities 2001
 - With ISCM sponsor input and consensus
 - Research Agenda 2001
 - Collaboration (event) Plans 2001
 - ISCM Structure, Recruiting additional sponsors
 - Enlist sponsor participation
 - Research project(s)
 - Event planning and hosting
- Secondary
 - Expose Key Contacts to new learnings
 - MIT Researchers
 - Guest speakers (Cisco, Jap, Auto-ID Center)



Today's Agenda

- Review & Assessment of ISCM 2000
 - **Financial, Research, Events, Issues**
 - **Researcher Briefs and Reviews**
 - Prof. David Simchi-Levi – MIT Engineering Systems Division (ESD)
 - Rob Laubacher – MIT Center for Coordination Science (CCS)
- Guest Presentations
 - Networking the Extended Enterprise for SC Success – Cisco Systems
 - Electronic Reverse Auctions: Efficiency vs. Alienation – Prof. Sandy Jap
- Adjourn @ 5:15 pm
- 6:30 pm Dinner at MIT Faculty Club with APIL



Tomorrow's Agenda

- **Planning ISCM 2001**
 - **Research Agenda 2001**
 - Options
 - Research Agenda Factors, Development and Alternatives
 - **Collaboration Planning 2001**
 - Event Planning Objective(s)
 - Factors, Theme
- **Guest Presentation (10:30 am, time permitting)**
 - The Internet of Things – Dr. David Brock, MIT Auto-ID Center
- Lunch @ 12:00 pm
 - Working Lunch, through 2:00 pm
- Adjourn 2:00 pm



Review & Assessment of ISCM 2000

- Financial
- Research
- Events
- Learnings
- Issues
- Vision/Mission/Value Exchange



Planning Implications – Finances

- Preliminary investment decision for now
 - Deployment of Director
 - Assess and develop research alternatives
- Assess funding sources
 - \$40K annual sponsor fee
 - Additional sponsors
 - Current sponsor role in recruiting



Review of 2000 ISCM Research



Review of 2000 ISCM Research Agenda

- 2000 Research Investments
 - \$100K eClockspeed: Prof. Charlie Fine
 - Apply Clockspeed to sponsor cases, develop new analytical tools & processes to assess the role of the Internet & the importance of information systems integration on SC design
 - \$50K Supply Chain Process Handbook: Prof. Tom Malone
 - Access to proprietary web-based knowledge repository & process redesign tool (Process Handbook – PH)
 - Access to new tools developed by application of PH (i.e. Matrix of Change)
 - \$80K Supply Chain Visualization: Multiple Researchers
 - Access to researchers and developments of tool to visualize supply chain performance through the use of a Tangible User Interface connected to a system dynamics model & process knowledge repository
- Projects will extend into 2001



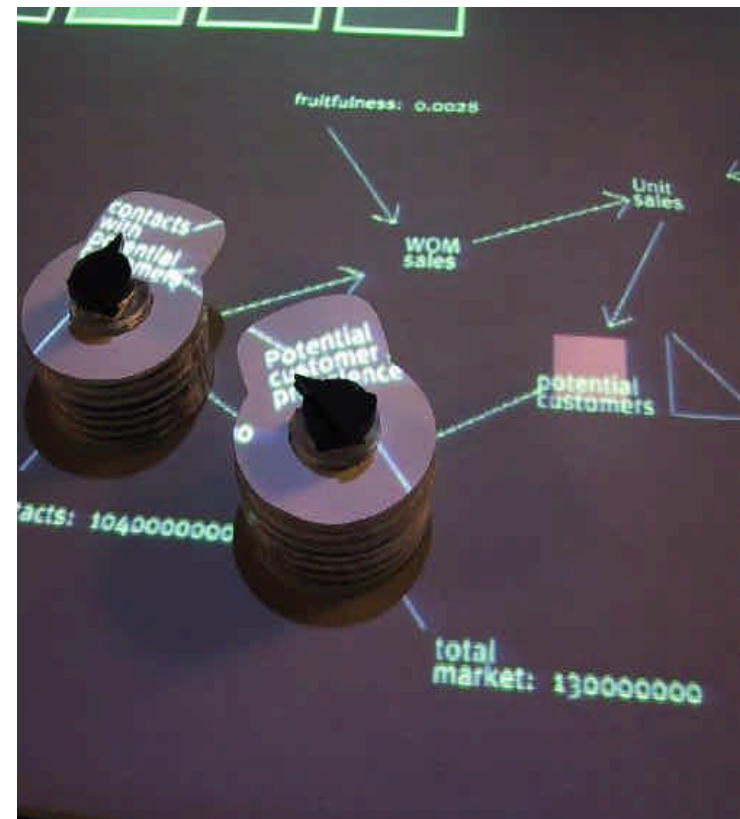
Summary of Project Learnings

- eClockspeed
 - Demonstrated application of Clockspeed analytical tools
 - Developed new tools
 - E-Business Models and Dynamics
 - SC Design Flow Process
- Process Handbook (PH)
 - Matrix of Change
 - Access to web-based PH database
- Supply Chain Visualization



TMG – Plans for End of 2000

- Hardware
 - Continue developing first prototype
- Software
 - Continue integration of system dynamics application
 - Improve the visualization of simulation results



System Dynamics Contribution

- Simulation engine
- Supply chain model
- Molecules
- SD orientation
- Automated model analysis



Consortia Research Current Best Practices

- High sponsor involvement produces exponential benefits
 - Participation in project development and field research (access, sponsor student, commitment of sponsor resource)
 - Benefits to sponsor and project results
 - 2000 ex. – Intel, P&G, Lucent
- Leverage research funds with ongoing research
 - Pool funds with other initiatives for greater impact
 - 2000 ex. – SC Visualization, Process Handbook, Fine
- Invest research funds considering the ‘author’
 - A la commissioning a book
 - 2000 ex. – 2000 planning & selection process, Fine, Malone
- Research entails a process of discovery
 - Research, not consulting - creating new knowledge
 - 2000 ex. – Matrix of Change (PH), eClockspeed ‘new business models,’ SC Visualization group learning



Planning Implications – Research

- Recognize context of our consortia
 - Multiple companies, different agendas, joined together for a common interest in SC
 - Current funding limits investments possible
 - From one to a few projects
 - Need some consensus among sponsors for research direction
 - Possible to seek additional funding from lead research project sponsor if benefit overly unbalanced
- Multiple options exist for research investment
 - Applied research project vs. concept development
 - Large single investment vs. portfolio of projects
 - Broad business issue vs. focused problem
 - Degree of sponsor participation on each project
 - Single company vs. multiple



Review of 2000 ISCM Events



Events – Evolution of process & purpose

- 1995-1997
 - Focused on learning about the sponsor supply chains (supply chain reviews at sponsor sites)
- 1998
 - Shifted to theme-based, topic-focused (plan, make, source, deliver) events targeted to non-supply chain groups
 - Focused on sharing learnings among sponsors, identifying best practices on several supply chain topics
- 1999
 - Shifted to topic-focused events on mixture of supply chain and business management topics, leverage events with other MIT consortia and research groups, open discussion sessions
 - No central theme identified, sponsor-driven event topics
- 2000
 - Events and audioconferences to balance travel & interactions
 - Heavier emphasis on research



2000 ISCM Event Schedule

- January 27-28 “Managing Change in the Supply Chain” and
Leaders For Manufacturing (LFM) Knowledge Review
- June 12-13 “Future of Supply Chain, E-Business and the Internet
ISCM Event Hosted by Intel, Chandler, Az.
(Fine - MIT, Lee - Stanford, Cohen - Wharton)
- Sept. 13-15 ISCM Research Review and Workshop
Research Colloquium with LFM
- Nov. 28-29 ISCM 2001 - Program Planning
Sponsor Key Contacts & MIT Researchers



2000 ISCM Support Activities Schedule

- February 15 ISCM AudioConference
 ‘eClockspeed’ Project Planning – Prof. Charlie Fine
- April 18 ISCM AudioConference
 “Smart Practice Knowledge Network” – Lucent Tech.
 “Fireball Initiative” – P&G
- June 1 Research Visit to P&G – Prof. Charlie Fine
- June 5 Research Visit to Lucent – Prof. Charlie Fine
- October 17 ISCM AudioConference
 Dr. Fred Hewitt – MIT CISR
 “Why Demand Pipelines are better than Supply Chains”



Review of 1999 ISCM Events

- March 29 - 31, 1999 Joint ISCM Collaboration - CTS Affiliates Symposia
“Planning Issues in the Supply Chain”
- June 23-25, 1999 Joint ISCM & Lean Aerospace Initiative Event
“Change Mgt & Partnerships in the Supply Chain”
- September 15-16, 1999 Best Practices Collaborative Meeting @ MIT
“Integrated Planning & Forecasting in Supply Chain”
- September 17, 1999 Joint ISCM-LFM Research Colloquium @ MIT
“Coordinating Flows Across the Supply Chain”
- November 15-16, 1999 Joint ISCM-APIL-ILP Exec. Forum - Paris, France
“The Frontiers of Global Supply Chain Management”
- Nov 30 - Dec 1, 1999 Key Contact Planning Meeting @ MIT



Review of 1998 ISCM Events

- April 22-23, 1998 Best Practices Collaborative Meeting @ MIT
“Sourcing Issues in the Supply Chain”
- April 30, 1998 “Globalizing Business Processes - The Role of ERP”
Workshop - with Center for Info Systems Research
- May 12, 1998 MIT Manufacturing & Engineering Conference
“Designing & Managing Technology Supply Chains”
- May 13, 1998 MIT ISCM Executive Seminar @ MIT
“Aligning Competitive SC in an Age of Temp Advtg”
- September 1-3, 1998 Joint ISCM Collaboration - CTS Affiliates Day Event
“Building a Global Future” - Caterpillar, Peoria, IL
- November 18-19, 1998 Best Practices Collaborative Meeting @ MIT
“Distribution Issues in the Supply Chain”



Review of 1997 ISCM Events

- | | |
|----------------------|---|
| January 29, 1997 | ISCM Research Update and Sponsor Meeting @ MIT |
| January 30-31, 1997 | ISCM Executive Seminar @ MIT
“Applying SC Design, Org & Tech for Comp Advtg” |
| April 3-4, 1997 | Best Practices Collaborative Meeting @ MIT
Information Technology and Forecasting |
| June 26-27, 1997 | Supply Chain Review and Collaboration Meeting
Caliber Logistics - Hudson, Ohio |
| September 8-10, 1997 | Supply Chain Review and Collaboration Meeting
Quelle AG & Co. - Leipzig, Germany
Siemens Corporation, Nürnberg, Germany |
| November 12-13, 1997 | Best Practices Collaborative Meeting @ MIT
Manufacturing Issues in the Supply Chain |



Consortia Events Current Best Practices

- Active sponsor involvement (in planning & participation)
 - Ensures event tied to sponsor interest, ‘real world’ and includes guest speakers (industry leaders) desired (sponsor ‘co-planner’)
 - Active involvement in discussion provides deeper insight, leads to involvement in other activities
- Event schedule, participation and size
 - 2 to 2.5 day optimal duration
 - 1 day maximum shared with other groups
 - 1.5-2+ hours unscheduled for open discussion
 - Maximum 30-35 participants for top benefit
 - Obviously, best if all sponsors attend
- Event planning
 - Balanced number of core ‘travel’ events plus other interactions
 - Advance plan best for all, with ‘theme’
 - Key contact planning sessions
 - Best limited to key contacts to participate



Planning Implications – Events

- Choices for 2001
 - Mix of ‘travel’ events and other interactions
 - Sponsor supply chain reviews?
 - European event?
 - Theme, or multiple ‘point’ topics
 - Co-sponsored events with other groups possible
- Sharing and collaboration potential
 - How much and what amount of this is desired?



Review of 2000 ISCM Value Exchange



Review of ISCM Mission & Value Exchange

- Two stated objectives
 - Accelerate implementation of SCM at sponsor companies
 - Advance the state-of-art of SCM
- ISCM delivers these through
 - ISCM-funded Research Projects
 - Quarterly Collaboration - Exchange Events
 - Annual Executive Seminar
- Learn from other research consortia
 - Smaller programs serve a focused agenda, sponsor input
 - Larger programs serve a broad agenda, sponsor input
 - Multi-year commitment
 - Focus is on the research



Reference Benchmark for Value Exchange

<u>Initiative</u>	<u>\$</u>	<u>Sponsors</u>	<u>Value Exchange</u>
ISCM	\$40K/yr	Ltd to 12, no SW, compet, consultants	ISCM-driven research agenda, 4-6 exchange events per year
E-Business@MIT	\$300K/yr, 3-yr commit	Open	Access to research output, Invites to misc. events, Input to Res. Direction
Leaders For Mfg	\$1M to join, \$125K/yr	Open (consultant?)	6-mo internship, multiple planning, intern rev mtgs
Media Lab	\$250K/yr, 3 yr commit	Open	Ltd license to intellectual property dev through ML consortium, ltd. # symposia
Process Handbook Consortium	\$50K/yr	Open	Copy of latest PH and upgrades, access to web-version, several PH-focused events each year



Summary Assessment of ISCM Value Exchange

- Potential for higher impact exists
 - Increased, more active participation in LT research agenda
- Sponsor benefits appear to be a function of...
 - Attendance at events (this may seem obvious.....)
 - Consuming research shared
 - Sharing around the company
 - Generating discussion with researcher to understand, apply learnings
 - Willingness to engage
 - Non-event visits to MIT to explore research interests
 - Commitment of resources to join research projects
 - Clarity of your company's interests and needs
 - Take advantage of our resources
 - Theses, Researchers, Ongoing projects
- ISCM is a High-touch Program



Review of 2000 ISCM Issues



ISCM Issue – Deployment of Director

- Choices for ISCM Director
 - Focus on event planning
 - Focus on research development, support and work
 - Focus on building sponsor pool
 - Role requires all three.....
 - Which is the priority focus?
 - Increased role for sponsor will help.
 - Building sponsor pool and working research agenda priority would look like....
 - 3+ ISCM events
 - Shared events: 1 day with other group, 1/2-1 day with ISCM-only
 - More research content in events, such as ISCM-LFM Research Colloquium in September
- Discussion



Planning 2001 ISCM Research



2001 Research Agenda

- Research Development Process, Factors
- Research Agenda
 - Alternatives
 - Various stages of development, readiness
 - Further refining dependent on ISCM choices



Research Alternatives

- 2000 research projects will continue into 2001
 - Engage!
- Multiple options in various stages of development
 - Prof. David Simchi-Levi
 - Solid ‘author’, Leverage existing work on dynamic pricing in SC or develop new project?
 - Rob Laubacher & Prof. Tom Malone
 - Proven record, Subject matter close enough?
- Others to consider if warranted by interest and if funding available
 - Prof. John Hauser’s performance measurement work
 - Collaboration with MIT-Auto-ID Center (P&G-Shaw’s)
 - Dr. Peter Weill – MIT CISR



Research Alternatives Discussion

- Going forward
 - Need additional funds to expand current research agenda
 - Additional sponsors
 - Delay new research investments
 - Increase funding levels
 - Need participation and direction for developing options
 - Need process for selecting
- Discussion



Planning 2001 ISCM Events



Planning 2001 ISCM Events

- Design of future event slate
 - Continue mix of ‘travel’ and other events?
 - Other – Audioconferences, research site visits
 - Continue shared events? (I.e. with LFM)
 - Supply chain review(s) at sponsor site(s)
 - Emphasis on collaboration or research?
 - Theme?
 - ‘Futures’ event
- Frequency, Timing, Locations
 - 3-4 events per year
 - Avoid quarter-end months?
 - January, April-May, September-October, Nov-Dec?
 - Non-sponsor, non-MIT location



Other

- ISCM
 - This is your program, make it what you want it to be
 - Exponential benefits for those who expend energy
- Visiting scholar initiative
 - On-campus researcher

