Our Transportation Center: Keeping the Momentum

Hani S. Mahmassani

Presentation to the BAC November 4, 2009
Where We Are Heading: Strategic Goals

• Pre-eminent think-tank and laboratory for cutting-edge transportation research “that matters” on a global scale

• Premier educational program in transportation systems

• Essential partner for novel, high-impact research

• Advance state of practice through mix of engaged application-driven research and fundamental advances
Expanded Transportation Research Activity at Northwestern

• Tripled value of sponsored research to over $2.75M in 09; additional contract programs $2.25M
• Funded 14 research projects
• Submitted more than $15.5 M worth of research proposals involving 20 faculty members
• Acquired Center for the Commercialization of Innovative Transportation Technology – a USDOT funded “University Transportation Center”
Research: NU Programs & Partners

- The Center for The Commercialization of Innovative Transportation Technology
  - DOT Tier II University Transportation Center (Bret Johnson, director)
  - Funded 7 projects to date
  - Part of TC since Summer 2009

- NU Research Collaborators
  - ISEN (M. Ratner and D. Dunand, co-directors)
  - Institute for Massive Change (Bruce Mau, director)
  - Infrastructure Technology Institute (Joseph Schofer, director)
  - Center for Operations and Supply Chain Management
  - Institute for Sustainable Practices (K. Gray & D. Dana, co-directors)
  - Center of Energy-Efficient Transportation
Research: Teaming Partnerships

- SAIC
- Delcan Corporation
- Volpe National Transportation Systems Center
- Argonne National Lab
  - Workshop under new ISEN initiative
  - Researcher seminars and visits
- Illinois Center for Transportation
  - Partnering in projects with IDOT
  - Closer strategic coordination
Research: Global Alliances in Development

• **Canada:** U of Montreal
• **Latin America:** Chile (U Chile, Catholic U), Panama
• **Europe:** TU-Delft (NL), INRETS (France), P. Catalunya (Barcelona, Spain), DLR (Germany), VTT (Finland), TOI (Norway), Volvo Research (Sweden), ETH-Zurich & EFTP-Lausanne (SW), Chalmers University of Technology (Sweden)
• **Middle East:** AUB (Lebanon), Saudi Higher Education Ministry, Technion (Israel)
• **Asia:** IIT-Madras (India), various universities in China, Taiwan, Hong Kong
BAC: Grow membership & meet needs
BAC: Emerging Collaborative Research Opportunities

• Sustainable Transportation
• Information Technologies to Benefit the User Experience
  – Freight and passenger
  – Business intelligence in support of marketing, operational efficiency
  – New focus on Design
• Policy and Economics
  – Pricing, public-private, collaborative platforms
• Humanitarian Logistics
  – Extreme events
  – Efficient operations in normal times
BAC: New Members

A.Y. (“Butch”) Bingham, CEO and Owner, Bulkmatic Transport

Dan Spellman, Vice President, Logistics Development & Supply Chain Services

Todd B. Carter, Vice President & General Manager Global Transportation Management

D. Stephen Menzies, Senior Vice President & Group President, Trinity Rail
Business Model: Increase Revenue Streams

- Support for core TC operations and programs exclusively from private sources: BAC membership dues, donations, alumni giving, and endowment income
- Support for student stipends and research largely through sponsored research projects and grants: government and corporate; deliverable-oriented, lacks flexibility
- Increase revenue through new executive programs and technical assistance contracts
- Collaborative industry-university initiatives in major challenge areas
- **Contributed funds for seed research and student fellowships**
### Summary of Revenue Potential

<table>
<thead>
<tr>
<th></th>
<th>FY 2010</th>
<th>FY 2011</th>
<th>FY 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exec Programs</td>
<td>$200,000</td>
<td>$220,000</td>
<td>$240,000</td>
</tr>
<tr>
<td>BAC Support</td>
<td>$250,000</td>
<td>$300,000</td>
<td>$300,000</td>
</tr>
<tr>
<td>Research</td>
<td>$2.5 M</td>
<td>$3.5 M</td>
<td>$5.0 M</td>
</tr>
<tr>
<td>Gifts, Income,</td>
<td>$60,000</td>
<td>$65,000</td>
<td>$70,000</td>
</tr>
<tr>
<td>Endowments</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Getting There: Corporate Support

• Add value to BAC involvement
  – Formulation of strategic research agenda; critical themes
  – Increased collaboration and research engagement
  – Meet the needs of the transportation community

• Goal
  – Minimum of $300,000/yr
Getting There: Executive Program

• Fall 2009: Transportation infrastructure Pricing
• AY10: 1 or 2 more courses expected (incl. “Coping with Carbon” in Spring ‘10)
• Custom courses for BAC members and others
• International Exec Ed opportunities similar to Saudi Arabia project; collaborate with other universities around the world
Executive Program Classes

• **New Course**: “Pricing Transportation Infrastructure” – November 16-18, 2009

• **Next Course** in development: “Coping with Carbon” – Winter or Spring 2010

• **Focus**: strategic issues; timeliness; high policy relevance; unique NUTC expertise
Getting There: Research Contracts

• USDOT funded projects
  – CCITT, Tier II UTC; through 2010
  – New University Transportation Center (UTC); led by TC; $5 million per year

• Sponsored Research
  – Active: $2.75 M (14 research projects) in FY 2009
  – Submitted: 35 proposals, ~$15.5 M, 20 faculty
STUDENTS: OUR CORE MISSION

• 9 new graduate students in Fall 09; top schools, excellent diversity, highly recruited--largest incoming class in past 10 yrs

• TC adds value to student experience through industry exposure, seminars by authorities in the field, travel funds for conferences, fellowship stipends—essential differentiator for recruiting top talent

• Many opportunities for undergraduates interested in Transportation; increasing engagement in research, internship placement with BAC companies

• Industry support is critical to our mission and to making a Northwestern Education in Transportation the unique experience it is.
Steps to Move Ahead

• Recruit Staff to Support Growth
  – Associate Director, Strategic Projects & Relations ✓
  – Marketing Communications Specialist
  – Business Manager

• Engage BAC and enhance membership strategy and value proposition

• Enhance Brand, Outreach & Influence
  – Web & print communications, conferences, executive education, research collaborations, faculty participation