Executive Board Meeting

May 9, 2013
Engineering Admin Building
Room 101
Welcome!

Dr. Martin Lipinski
Director Emeritus
Herff College of Engineering Update

Dr. Eugene Eckstein
Interim Dean
Strategic Plan

Dr. Martin Lipinski
Director Emeritus
IFTI Vision

The vision is that IFTI will be a nationally recognized leader in linking people to solutions in freight and logistics through research, education and technology transfer activities.
Research Objectives

- Perform cutting-edge freight transportation research of regional and national significance
- Establish cooperative research programs with other leading universities
- Concentrate transportation and transportation related research to policy, modeling, simulation and sustainability
- Support private sector research initiatives
## Research MOS*: 2013 Update

<table>
<thead>
<tr>
<th>Topic</th>
<th>2012</th>
<th>2013</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funded Faculty Researchers</td>
<td>6</td>
<td>10</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Research Projects</td>
<td>7</td>
<td>9</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Research Funds</td>
<td>$1 M</td>
<td>$1.8 M</td>
<td>$1.5 M</td>
<td>$2.5 M</td>
</tr>
<tr>
<td>Publications/Presentations</td>
<td>12</td>
<td>12</td>
<td>20</td>
<td>30</td>
</tr>
</tbody>
</table>

* MOS = Metrics of Success
Education Objective

- Foster the educational and professional development of K-12 learners; university undergraduate and graduate students and practicing transportation professionals
- Provide a focus on educational pathways to satisfy industry needs
# Education MOS: 2013 Update

<table>
<thead>
<tr>
<th>Topic</th>
<th>2012</th>
<th>2013</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New Funded Faculty</strong></td>
<td>1 part-time Business</td>
<td>1 Full-Time Engineering Faculty</td>
<td>1 new faculty Business line item</td>
<td>Full time Business &amp; Engineering Associate Directors</td>
</tr>
<tr>
<td></td>
<td>1 part-time Engineering</td>
<td></td>
<td>1 new faculty Engineering line item</td>
<td>New faculty in business and engineering</td>
</tr>
<tr>
<td><strong>Funded Students</strong></td>
<td>6 Masters 5 PhD</td>
<td>8 Masters 5 PhD</td>
<td>12 Masters 7 PhD</td>
<td>14 Masters 10 PhD</td>
</tr>
<tr>
<td><strong>Student Recruitment Plan</strong></td>
<td>Regional</td>
<td>No Formal Plan</td>
<td>National</td>
<td>International</td>
</tr>
<tr>
<td><strong>New Graduate Level Courses</strong></td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Transportation Masters Program</strong></td>
<td>Determine program functionality between Engineering/Business</td>
<td>Started discussion, but limited by time</td>
<td>Offer interdisciplinary transportation masters program</td>
<td>Assign staff member to manage administrative demands</td>
</tr>
<tr>
<td><strong>Transportation Undergraduate Program</strong></td>
<td>Explore interdisciplinary undergrad degree with U College</td>
<td>Talked to U College</td>
<td>Begin offering undergrad degree through U College</td>
<td>U College &amp; Masters Program in Transportation</td>
</tr>
<tr>
<td><strong>K-12 Outreach</strong></td>
<td>Expand scope of GEE/TREC to reach rural communities</td>
<td>In Process</td>
<td>Increase racial/cultural diversity in GEE/TREC</td>
<td>Continue ongoing efforts with K-12 programs</td>
</tr>
</tbody>
</table>
Outreach/Tech Transfer Objective

- Educate and engage constituents through significant technology transfer activities and transportation workforce development activities
- Use technology transfer activities to enhance career pathways
## Outreach MOS: 2013 Update

<table>
<thead>
<tr>
<th>Topic</th>
<th>2012</th>
<th>2013</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academy: Offerings</td>
<td>2</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
</tr>
<tr>
<td>Academy: Participants</td>
<td>40</td>
<td>24</td>
<td>70</td>
<td>75</td>
</tr>
<tr>
<td>Academy: Revenue</td>
<td>$250 K</td>
<td>$100 K</td>
<td>$350 K</td>
<td>$500 K</td>
</tr>
<tr>
<td>Professional Development Courses: Offered</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>PDC: Revenue</td>
<td>$10 K</td>
<td>$0</td>
<td>$20 K</td>
<td>$25 K</td>
</tr>
<tr>
<td>Conferences to Engage Community</td>
<td>6</td>
<td>11</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Seminars/ Symposums/ Presentations</td>
<td>12</td>
<td>29</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>Community Touch Points: # on mailing list</td>
<td>600</td>
<td>750</td>
<td>1000</td>
<td>1500</td>
</tr>
<tr>
<td>CTP: News Articles</td>
<td>6</td>
<td>14</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>CTP: Total Individual Contacts</td>
<td>16</td>
<td>12 +</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>
Research Review
Intermodal Freight Transportation Institute: Research

Mihalis Golias
Assistant Prof., Department of Civil Eng.
University of Memphis
05/9/13
In House Expertize

- Logistics/Supply Chain Management
- Intermodal Freight Terminals & Networks
- Transport Engineering & Planning
- Mathematical Models
- Approximation Algorithms
- Simulation
Affiliates

• Civil Engineering
• Mechanical Engineering
• Business & Economics
• Management Information Systems
• Marketing and Supply Chain Management
• Industry (CN, VTG, FedEx, Consultants)
Modeling Capabilities

- Traffic simulation: Macro, Meso, Micro - VISTA (on-line tool), Paramics, VISUM/VISSIM, TransCAD, Synchro
- GIS
- Mathematical Modeling (desktop): GAMS, Matlab, VBA, Custom
- Simulation: Arena, FlexSim, Matlab

Source: http://www.english.ptv.de
Project Highlights

- GPS Truck Data For Intermodal Facilities
- Hours of Service Effects
- Rail Crossing Safety Upgrades
- Effects of Panama Canal Expansion
- Lamar Corridor Improvements
- Enhancing Rail Connectivity to Underserved Rural Communities
National Proposal Highlights

- National Transportation Center on Using Multimodal Freight Systems To Increase Economic Competitiveness (3 million) - IFTI Lead of Southern Hub, Sponsor RITA

- Regional Transportation Center on Comprehensive Transportation Safety (2.75 million) - IFTI Co-PI, Sponsor RITA

- TIER Transportation Center on Promoting economic competitiveness and equity through innovative intermodal freight facility planning and management (1.5 million) - IFTI Lead Multiple Universities, Sponsor RITA

- Discovering vulnerable physical routes in a network - ($355,000) - IFTI Lead Single, Sponsor CIA
State Proposal Highlights

- Journey to School in a Freight-Centric Community: $40,000
- A performance-based guidebook for freight transportation planning: Addressing the goals of MAP 21: $150,000
- Occurrence of Primary and Secondary Crashes: Identification, Visualization and Prediction: $150,000
- Freight Corridor - State of the Art: $40,000
- Truck Parking: $80,000
Workforce Development

1. Annie Wise, MSc Student
2. Kelsey Ford, MSc Student
3. Jared O’Dell, MSc Student
4. Zach Johnson, MSc Student
5. Andrew Lutz, MSc Student
6. Anteneh Yohannes, MSc Student
7. Max Dulebenets, PhD Student
8. Alireza Naimi, PhD Student
9. Kwabena Anafi, PhD Student

- 5-6 New Students Joining this Fall
Publications (Rate of 10 per year)

- Transportation Research Part A, C & E
- International Journal of Advanced Manufacturing and Technology
- International Journal of Information Systems and Supply Chain Management
- Transportation Research Record
- International Journal of Information Technology Project Management
- Journal of Maritime Economics and Logistics
- Contributions to Books
- TRB, IIE, METRANS, TRF, WCTR among others
National Committees

• Ports and Channels
• Marine Environment
• Intermodal Freight Transportation
• Transportation Economics
• Freight Transportation Economics and Regulation
• ITE, FHWA
Workforce Development Research

• GEE / TREC & FTLA Continue to show great success
• GEE/TREC expands to Wooddale HS
• Workforce Summit as part of our Student Symposium
Vanderbilt University
Dr. Jimmy Dobbins
Associate Director VECTOR
Consortium Update
Dr. Martin Lipinski
Director Emeritus
C FIRE

UNIVERSITY OF WISCONSIN - MADISON
University of Wisconsin - Superior
University of Wisconsin - Milwaukee
University of Toledo
University of Illinois - Chicago
Michigan Technological University

UNIVERSITY OF MEMPHIS
Vanderbilt University
University of Alabama - Huntsville
University of Southern Mississippi
National Center

- National Center for Freight & Infrastructure, Research & Education
- Consortium Members:
  - Southern Hub Vanderbilt, Southern Mississippi and Alabama – Huntsville
- Total from US DOT - $3,000,000
- Southern Hub Portion - $1,100,000
- U of M portion - $480,000
Tier 1 Center

- Center for Intermodal Freight Transportation Studies (CIFTS)
- Consortium Members: Vanderbilt, Southern Mississippi, Alabama – Huntsville, Washington and Old Dominion
- Total from US DOT - $1,500,000
- U of M portion - $682,226
Regional Center

STRIDE – Southeastern Transportation Research Innovation, Development and Education Center

Consortium Members: Florida, Auburn, NC-Chapel Hill, Georgia Tech, Mississippi State, NC State, UAB and FIU

Total from US DOT – $2,750,000

U of M portion - $100,000
Education & Outreach Review
Garrett A. Morgan Grant

- Partnership with Memphis City Schools
- Focus on Wooddale High School
- IFTI has facilitated technical tours and professional speakers
- Co-Hosted Barrington Irving as a motivational speaker
2013 Intermodal Conference

- Date: September 24, 2013
- Location: FedEx Institute of Technology
- Speakers:
  - Commissioner Schroer
  - Congressman Cohen
  - TN Senator Norris
US Secretaries’ Visits

Secretary Donovan
HUD

Secretary LaHood
Transportation
Legislative Aides Workshop

• Attended "The Aerotropolis University" 
• Experienced mini-FTLA 
• Toured IDEXX Laboratories, the CN Hump Yard, FedEx Night sort and the BSNF Intermodal Yard 
• Uniquely able to host this type of event as a University
Freight Week

- Combined Student Freight Symposium & Workforce Development Summit
- 30 students from 14 Universities on campus talking about freight transportation research
- Industry professionals discussed growing workforce challenges facing our industry.
- Toured FedEx Night Sort, CN Hump Yard & BNSF
High School Summer Outreach

GEE

TREC
Women & Transportation

- Dr. Stephanie Ivey invited to White House
- Women & Transportation Society
Financial Report

Sean Ellis
Associate Director
CIFTS – UTC Program

• Total Award from US DOT = $2,220,000
• Match is 1 to 1
• Grant extended to June 30, 2013
• Match provided by:
  - CN
  - TDOT
  - Project based
CAIT – Earmark

- Total award from US DOT $4,600,000
- Match is 80 federal to 20 non-federal
- Grant ended June 30, 2012
- Match provided by:
  - CN
  - Ingram Barge
  - DeHart Gift
  - University Match
  - Project based
NEW CAIT – Extension

• Amount extended $623,927
• Match is 80 federal to 20 non-federal
• Grant ended Oct 14, 2017
• There is a chance that there is additional funds available from this earmark. We are working with TDOT and the MPO to determine if additional funds are available.
CFIRE – New UTC

- Two years of funding award that began Jan 1, 2012
- Four years of spending, ending Jan 31, 2016
- Total Award of $6,897,600 for the whole program
- U of M serves has Southern Hub with $2,650,000 designated for the Southern Partners
- All funds must be matched 1 to 1 by receiving institution
- Match provided by:
  - TDOT - $300,000
  - CN
  - Academy
  - Expanded supporting network
Other Funding Sources

- Garret Morgan Grant - $32,000
- Freight Advance Traveler Information System (FRATIS) - $25,000
- Herff College of Engineering (Kimberly Grantham) - $12,000
- West TN Stem (Kimberly Grantham) - $15,000
- Freight Transportation Leadership Academy (after expenses) - $25,000
Associate Researcher

Ioannis Psarros
Doctoral Candidates

Kwabena Anafi  Max Dulebenets  Hisham Gnedy  Ali Naimi  Keith Story
Graduate Students

Kelsey Ford  Annie Wise  Stephen Edwards  Zach Johnson  Jared O’Dell

Not pictured: Andrew Lutz, Anteneh Yohannes, Mohammad Farshchin
Executive Board
Business
Dan Pallme
Interim Director
Bylaws

- Executive Board Membership (pg. 1-2)
- Executive Board Roles (pg. 3)
Upcoming Events
Dr. Martin Lipinski
Director Emeritus
Summer 2013

• Council of University Transportation Centers (June 10 – 13)
• GEE/TREC Summer Workshops (July)
• Freight Transportation Leadership Academy Cohort 13-B (August)
• US Department of Commerce visit (August)
Fall 2013

- Intermodal Freight Conference (Sept. 24)
- Fight for the Freight Cup (Oct. 3)
- Executive In Residence (November)
Open Discussion

Dr. Martin Lipinski
Director Emeritus