Strategic Plan

• Approved by Board of Control on July 16, 2009

✓ Major Goals Remain Same
  ➢ People
  ➢ Distinctive Education
  ➢ Research/Scholarship/Creativity

• http://www.mtu.edu/stratplan/
Strategic Plan Review Timeline, 2012

Preliminary

• Executive Team – January, 2011
• Senate Executive Committee – February 9, 2011
• VPAdmin Direct Reports – February 16, 2011
• VPR Direct Reports – February 21, 2011
• Academic Deans Council – February 25, 2011
• USG/GSG – March 3, 2011
• VPSA, CFO, and VPGR Direct Reports – March 3, 2011
• Senate Review of Existing Plan - March 3, 2011
• Staff Council – May 18, 2011

Review

• Executive Team Retreat – June 20, 2011
• Public Comment Period – September, 2011
• Deans Retreat to Review/Revise – September 2011
• Exec Team Retreat to Review/Revise Dean’s Revision – October, 2011
• Initial Meeting with Chairs and Deans to Review Deans/ET Draft – October, 2011
• Informal Review with BOC – December, 2011
• Campus Comment Period – January-February, 2012
  o Posting of Deans/ET Draft
  o Chairs/Deans Review with Units
  o Meeting with Senate
  o Meeting with Staff Council
  o President’s Campus Forum
• Other Stakeholder Comment Period - January-February, 2012
• Consolidation of Comments - February, 2012
• ET/Deans Evaluation of Comments – March, 2012
• BOC Review – March, 2012
• Final BOC Approval – May, 2012
Vision for 2035:

World Class Research University
Portrayal of Michigan Tech
2035
Strong Partner in Change for Michigan, the US, and the World

1. World Class faculty – 40% in endowed positions
2. Student body of 8750
   – 5750 Undergraduates
   – 3000 Graduate
   - 40-50% Female Enrollment
3. Global literacy and communication skills in a variety of media will be a prominent part of education
4. High tech/high touch, residential based transformational education
5. Recognized nationally and internationally as a catalyst for research development and innovation at all levels of learning
6. Sustainable financial model with less reliance on state funding
7. University culture is entrepreneurial not bureaucratic with high quality services that are efficient, responsive and sustainable
8. Year-round calendar
Number of PhDs Awarded

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>2006-07</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhDs Awarded</td>
<td>65</td>
<td>54</td>
<td>57</td>
<td>56</td>
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</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>PhDs Awarded</th>
</tr>
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<tbody>
<tr>
<td>2011</td>
<td>62</td>
</tr>
<tr>
<td>2012</td>
<td>64</td>
</tr>
<tr>
<td>2013</td>
<td>66</td>
</tr>
<tr>
<td>2014</td>
<td>68</td>
</tr>
</tbody>
</table>
FINANCES
# CURRENT FUND BALANCES

*(in Thousands)*

<table>
<thead>
<tr>
<th></th>
<th>Balance 06/30/09</th>
<th>Balance 06/30/10</th>
<th>Balance 06/30/11</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL CURRENT FUND BALANCE</td>
<td>$15,635</td>
<td>$15,313</td>
<td>$16,080</td>
</tr>
<tr>
<td>LEGALLY RESTRICTED FUNDS</td>
<td>(2,822)</td>
<td>(2,692)</td>
<td>(2,809)</td>
</tr>
<tr>
<td>UNRESTRICTED CURRENT FUND BALANCE</td>
<td>$12,813</td>
<td>$12,621</td>
<td>$13,271</td>
</tr>
<tr>
<td></td>
<td>General Fund</td>
<td>Current Fund</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>$ 157,911</td>
<td>$ 249,161</td>
<td></td>
</tr>
<tr>
<td>Expense</td>
<td>$ (157,650)</td>
<td>$ (248,394)</td>
<td></td>
</tr>
<tr>
<td>Net Income</td>
<td>$ 261</td>
<td>$ 767</td>
<td></td>
</tr>
<tr>
<td>Fund Balances</td>
<td>$ (10,999)</td>
<td>$ 16,080</td>
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</tr>
</tbody>
</table>

Note: Current Fund includes General Fund, Designated Fund, Auxiliaries, Retirement and Insurance, and the Expendable Restricted Funds.
## CURRENT FUND FY11

*(in Thousands)*

<table>
<thead>
<tr>
<th></th>
<th>Original Projection</th>
<th>Current Fund</th>
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<tbody>
<tr>
<td>Revenue</td>
<td>$ 245,429</td>
<td>$ 249,161</td>
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<tr>
<td>Expense</td>
<td>$(245,218)</td>
<td>$(248,394)</td>
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<tr>
<td><strong>Net Income</strong></td>
<td>$ 211</td>
<td>$ 767</td>
</tr>
<tr>
<td><strong>Current Fund Balance</strong></td>
<td>$ 15,524</td>
<td>$ 16,080</td>
</tr>
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</table>

Note: Current Fund includes General Fund, Designated Fund, Auxiliaries, Retirement and Insurance, and the Expendable Restricted Funds.
CASH FLOW
Calendar Years
2010 & 2011 YTD
(dollars in millions)
ATTACHMENT 5
University General Fund Revenue History

NOTE: FY 2011 and 2012 amounts are estimates.
ENROLLMENT
Female Enrollment

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Female Enrollment</th>
<th>Percent Female Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>1653</td>
<td>23.4%</td>
</tr>
<tr>
<td>2003</td>
<td>1638</td>
<td>27.1%</td>
</tr>
<tr>
<td>2004</td>
<td>1557</td>
<td>20.0%</td>
</tr>
<tr>
<td>2005</td>
<td>1523</td>
<td>22.0%</td>
</tr>
<tr>
<td>2006</td>
<td>1576</td>
<td>24.0%</td>
</tr>
<tr>
<td>2007</td>
<td>1658</td>
<td>26.0%</td>
</tr>
<tr>
<td>2008</td>
<td>1719</td>
<td>28.0%</td>
</tr>
<tr>
<td>2009</td>
<td>1771</td>
<td>30.0%</td>
</tr>
<tr>
<td>2010</td>
<td>1800</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>1837</td>
<td>26.1%</td>
</tr>
</tbody>
</table>
Domestic and International Diversity 2002-2011

- Pacific Islander
- African American Non-Hispanic
- Hispanic American
- Asian American
- American Indian
- Multiracial
- International

Total diversity percentage
Chinese enrollment vs. Yuan to USD exchange rate

<table>
<thead>
<tr>
<th>Year</th>
<th>PRC enrollment</th>
<th>Yuan to USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>137</td>
<td>8.09</td>
</tr>
<tr>
<td>2006</td>
<td>128</td>
<td>8.00</td>
</tr>
<tr>
<td>2007</td>
<td>159</td>
<td>7.54</td>
</tr>
<tr>
<td>2008</td>
<td>274</td>
<td>6.84</td>
</tr>
<tr>
<td>2009</td>
<td>382</td>
<td>6.83</td>
</tr>
<tr>
<td>2010</td>
<td>488</td>
<td>6.80</td>
</tr>
<tr>
<td>2011</td>
<td>493</td>
<td>6.39</td>
</tr>
</tbody>
</table>
Indian enrollment vs. Rupee to USD exchange rate

<table>
<thead>
<tr>
<th>Year</th>
<th>INDIAN enrollment</th>
<th>Rupee to USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>162</td>
<td>43.91</td>
</tr>
<tr>
<td>2006</td>
<td>156</td>
<td>46.49</td>
</tr>
<tr>
<td>2007</td>
<td>148</td>
<td>40.62</td>
</tr>
<tr>
<td>2008</td>
<td>152</td>
<td>43.85</td>
</tr>
<tr>
<td>2009</td>
<td>189</td>
<td>48.75</td>
</tr>
<tr>
<td>2010</td>
<td>219</td>
<td>46.46</td>
</tr>
<tr>
<td>2011</td>
<td>227</td>
<td>46.04</td>
</tr>
</tbody>
</table>

- **Michigan Tech ACT Math**: Blue line
- **Michigan Tech ACT Composite**: Red line
- **Michigan Tech ACT English**: Green line
- **National ACT Math**: Blue line
- **National ACT Composite**: Red line
- **National ACT English**: Green line
Michigan Technological University
Enrollment Projections
2002-03 to 2014-15

Note: Enrollments for 2010-11 through 2014-15 are projected
U.S. News Best Colleges Ranking
(Undergraduate)

• Ranked 115th among 280 national universities

• Ranked 57th among 172 public national universities.

• Engineering ranked 66th in the nation; moving up from 74th.
Princeton Review of Michigan Tech’s Life

2001
- Houghton, 2 miles; End of the World, 4 miles.
- About the only thing to do in God’s country is go four-wheeling and then fix your truck.
- Six months long and damn cold.
- Predominately male, white, and both socially and politically conservative.
- Students seem too caught up in their technical selves.
- Students are either really gregarious, or lock themselves in their rooms; very little in between.
Princeton Review of Michigan Tech’s Life

2006

- Is separated from the rest of the country.
- Lots of Greek parties (the Greek scene is not exclusive, which is cool) [and] sporting events, like the very successful football and basketball programs.
- When it’s warm, we fish, hike, bike, rock-climb, and play the school golf course.
- There is a biopolar distribution with a lot of smart engineers that party little and study hard. There are also a lot of students that drink heavily and just barely get by in their classes.
- People think it is so easy to be a girl at Tech, but after a while you are just viewed as one of the guys, and then it is hard to get a date.
Princeton Review of Michigan Tech’s Life

2011

- Is in a small town in the middle of the deep North woods which makes the sense of community remarkable.
- Students say that campus is “incredibly safe,” the atmosphere is very friendly.
- There are a lot of opportunities to get involved.
- Strong student community are over 200 clubs and a variety of winter activities to be a part of.
- Student is smart and a little more introspective than average but still great at balancing school and hanging out.
- Down-to-earth friendly people who work hard during the week and look forward to relaxing and having fun on the weekends.
- You have to be a little bit of a nerd to fit in.
- Winters are long and cold up here; students take advantage of the plentiful snow by hiking, biking, four-wheeling, skiing, [and] snowmobiling.
- Moderate drinking/merrymaking [to] warm up the cold winters.
FACULTY
137 New Tenured/Tenure Track Faculty Hires Since 2007

- Fall 2011 – 40% of the faculty are new hires
Strategic Faculty Hiring Initiative

• Sustainability (6) + (3) Robbins Chairs
• Computational Design & Innovation (6)
• Energy (4) (2 searches still in progress)
• Health (7)
• Water
• Transportation
SFHI – Water and Transportation

www.mtu.edu/sfhi

Water Chair:
Alex Mayer – CEE

Committee:
Nancy Auer – Biology
Jennifer Becker – CEE
Will Cantrill – Physics
Rod Chimner – SFRES
Sarah Green – Chemistry
Charlie Kerfoot – Biology
Carol MacLennan – SS
Daya Muralidharan – SBE
Bob Shuchman – MTRI

Transportation Co-Chairs:
Tess Ahlborn – CEE
Paul Ward – CLS

Committee:
Louise Dyble – SS
Greg Graman – SBE
John Hill – MEEM
Bill Sproule – CEE
Larry Sutter – MTTI
Dave Watkins – CEE

SFHI Assistant: Carol Asiala

Source: Tess Ahlborn
SFHI – Water

• Freshwater and marine ecology and ecosystems
• Water-related health sciences
• Physical oceanography, limnology, and hydrodynamic modeling
• Environmental ethics, history, and policy
• Environmental sociology, anthropology, economics, and psychology
• Atmospheric sciences and climate studies
• Watershed, forest, wetland, groundwater hydrology
• Water quality modeling, measurement, and improvement
• Engineered water systems, including the water-energy nexus
• Remote sensing and advanced instrumentation for hydrologic applications

Source: Tess Ahlborn
SFHI – Transportation

• Asset Management
• Human Factors
• Policy and Planning
• Rail Transportation Systems
• Systems Modeling
• Transportation Materials

Source: Tess Ahlborn
AQIP
# Summary of Action Projects

<table>
<thead>
<tr>
<th>Title</th>
<th>Michigan Tech</th>
<th>Title AQIP</th>
<th>Kickoff Date</th>
<th>Expected Completion Date</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Advising Enhancement</td>
<td>Academic Advising Enhancement</td>
<td>Academic Advising Enhancement</td>
<td>April 3, 2009</td>
<td>June 2011</td>
<td>Completed</td>
</tr>
<tr>
<td>International Experience</td>
<td>Improving the Processes Associated with International Experience</td>
<td>Improving the Processes Associated with International Experience</td>
<td>April 6, 2009</td>
<td>June 2011</td>
<td>Completed</td>
</tr>
<tr>
<td>Gender Diversity</td>
<td>Increase Gender Diversity of Faculty &amp; Students</td>
<td>Increase Gender Diversity of Faculty &amp; Students</td>
<td>Sept 20, 2010</td>
<td>Sept 20, 2012</td>
<td>Active</td>
</tr>
</tbody>
</table>
AQIP Project: Increasing Gender Diversity of Faculty & Students

The goal of this project is to develop processes and practices that will increase the gender diversity of faculty and students in order to

- “prepare students to create the future” (mission) and
- “attract, retain, and support a world-class and diverse faculty, staff, and student population” (goal).

It will improve processes for students and faculty, and communicate the value of gender diversity to our stakeholders.
LEAN
Continuous Improvement Using Lean Principles

$55,006 received from the Federal Mediation and Conciliation Service Labor-Management Cooperation Grant Program

- 10-15 new on-campus Lean facilitators recruited and trained (50% unionized staff)
- Outreach and training for managers/supervisors
- Results: Lean model as a method to improve working relationships between labor and management. Increase staff involvement in enhancing their work environments.
- Labor-management committee will carry out project
## Labor-Management Committee for Continuous Improvement

<table>
<thead>
<tr>
<th>Name</th>
<th>Union</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derrick Butkovich</td>
<td>AFSCME</td>
<td>Facilities Operations</td>
</tr>
<tr>
<td>Jim Hill</td>
<td>AFSCME</td>
<td>Facilities Operations</td>
</tr>
<tr>
<td>Amanda Cadwell</td>
<td>UAW</td>
<td>Civil &amp; Environmental Engineering</td>
</tr>
<tr>
<td>Barb Ruotsala</td>
<td>UAW</td>
<td>Auxiliary Services</td>
</tr>
<tr>
<td>Donna Beels</td>
<td>POA</td>
<td>Public Safety &amp; Police Services</td>
</tr>
<tr>
<td>Wendy Davis</td>
<td></td>
<td>Vice President for Administration</td>
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<tr>
<td>Bonnie Roth</td>
<td></td>
<td>Human Resources</td>
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<tr>
<td>Kerri Sleeman</td>
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<td>Facilities Operations</td>
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<tr>
<td>Theresa Colman-Kaiser</td>
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<td>Auxiliary Services</td>
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<tr>
<td>Rachel Wussow</td>
<td></td>
<td>Student Activities</td>
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<tr>
<td>Ann Kitalong-Will</td>
<td></td>
<td>Human Resources</td>
</tr>
</tbody>
</table>
Campus Transportation & Parking Plan

COMPILED DRAFT

http://www.sas.it.mtu.edu/usenate/

SUBMITTED BY:
Carl Walker, Inc.
5136 Lovers Lane, Suite 200
Kalamazoo, MI 49002

August 22, 2011
Overall Transportation Study Findings

Personal Observations –

- Current parking is not equitable
- We need to improve management processes
- We won’t solve local transportation issues on our own
RESEARCH
FY 2011 Sponsored Program Award Update

Total: $54.1M
Total - Gifts: $44.7M
Federal: $44.7M
Federal - ARRA: $54.1M

Values: 0, 10,000,000, 20,000,000, 30,000,000, 40,000,000, 50,000,000, 60,000,000, 70,000,000
FY2011 Sponsored Program Award Update

- Awards for FY11 totaled $54.1 million, a decrease of 8% from FY10.
- Federal awards decreased 7% to $44.7 million from $48.2 million in FY10. We received $1.7 million of ARRA funding in FY09, $10.3 million in FY10 and $1.2 million in FY11. Without ARRA, federal awards increased over 14% in FY11.
FY2011 Sponsored Program Awards by Funding Source

- Federal Agency Total: 83%
- State of Michigan: 2%
- Industrial: 7%
- Foreign: 1%
- All Other Sponsors: 3%
- Gifts: 4%

Total: $54,144,801
FY2011 Update
Research Expenditures

$70.1M
FY2011 Research Expenditures

• Research expenditures for FY11 increased to $ 70.1 million, an increase of 10% over those of FY10.

• ARRA expenditures were $ 1.9 million and total $3.2 million over FY10 and FY11; there are approximately $10.1 million in ARRA funds are remaining to be spent.
CAPITAL CAMPAIGN
MICHIGAN TECHNOLOGICAL UNIVERSITY
Generations of Discovery
Campaign Progress Summary
as of September 26, 2011

Alumni & Friends $101,630,950
Corporations 42,989,525
Private Foundations 2,568,602
Gifts-in-Kind 5,055,192
Grand Total $152,244,269
Michigan Technological University
Generations of Discovery
Campaign Breakdown

• Facilities $7.2M
• Scholarships/Fellowships 19.6M
• Chairs & Professorships 28.8M
• Depts. Program Support/Ops. 55.4M
• Research 41.0M

TOTAL $152.0M
CAPITAL PROJECTS
The LSGI Trading Lab in the School of Business and Economics provides APMP members access to specific investment tools.

Construction will be wrapping up this week.
Power of Philanthropy

Fifth Floor
EERC
Power of Philanthropy

Tom Shaffner Hall
A.E. Seaman Mineral Museum
Power of Philanthropy

Career Center
Physics Lab
Meese Center
HB 5000
POSSIBLE FORMULA FUNDING

• Educated Citizenry

• Accessibility

• Efficient Use of Funds

• Research Commercialization (Doctoral/Research only)
POSSIBLE METRICS OF PERFORMANCE

• First Year Retention
• Numbers of Undergraduate Degrees
• Numbers of STEM Degrees
• Underrepresented Populations (Non-Doctoral/Research)
• Institutional Financial Aid
• Graduation Rates
• Increases in Research Funds, Patent Applications, U.S. Patents Issued, Invention Disclosures Submitted, Licenses & Options Executed, Gross License Income Received, and Start-up Companies Formed. (Doctoral/Research)
QUESTIONS