LSSU—An Economic Piston for the EUP and Beyond

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Where is LSSU?
Campus Setting

• Located in Sault Sainte Marie, MI
• Borders Sault Sainte Marie, Ontario
  – Combined population of ~100,000
• 2,200 Students – Small class sizes
• Easy to navigate
• Diversity
• Formerly Fort Brady
Lake Superior State University
Mission Statement

• ...help students develop their full potential. We launch students on paths to rewarding careers and productive, satisfying lives. We serve the regional, state, national and global communities by contributing to the growth, dissemination, and application of knowledge.
At the LSSU Lukenda School of Business…

We aim to play a vital, comprehensive role in shaping the economic regeneration of our region and state through innovative teaching and learning.
Typical University (LSSU of old)

Who?

- Students/Faculty
  - Skills: Analyst, Management, etc.
  - Skills: Design, Development, Testing, etc.

GAP

- Business Education
- Engineering Education
Actually, we have a continuum…

- **Engineering**
  - Complex Analysis, Complex Design, Development

- **Industrial Engineering/Operations Management**

- **Engineering Economics/Quantitative Analysis**

- **Business**
  - Finance, Accounting, Management, Marketing
College of Business and Engineering

- School of Business
- School of Engineering & Tech (Robotics Lab)
- Product Dev Center/Business Dev Center
- Strongly linked to SmartZone (SSMart)
ENTREPRENEURSHIP at Lake Superior State University

Vertical Integration

EDCs
- Launch and Support growth of companies in the twin Saults—Michigan and No. Ontario

Tech Park(s) x 2
- SSM Incubator

SMART Zone (LSSU/City linkage)
- Business Accelerator (Brooder Building)

Horizontal
Horizontal Integration

LSSU College of Business & Engineering

School of Business

School of Engineering

Center for Entrepreneurship & Innovation

Product Development Center (PDC)

Business Development Center

Software Development Center
EXPERIENTIAL LEARNING -
LSSU faculty and student Team NVHM – Noise, Vibration and Harshness Management – partners with Essar engineers to measure and mitigate the community noise footprint of the steel manufacturer
A NEW PARTNERSHIP – Moran Iron Works of Onaway, MI enters into an agreement that opens an exchange of academic and industrial projects and educates workers, management, LSSU faculty and students.
University teams up with Michigan Works! for workforce retraining
Product Development Center
Product Development Center

- First in the State!
- Launched November 2007
- MEDC 21st Century Jobs Fund Grant
- Over 450 Clients / Over 300 Project Codes
- Grant-funded Expansion to Include Business
- Instrumental in SmartZone Creation
- EPIC - Electronic Products Innovation Center
Key Elements

- CAD
- Engineering Manager/Mentors
- Industrial Experience
- Client/Project Tracking Software
- Equipment, Equipment, Equipment!
Key Elements

- Equipment-Mechanical
  - CNC Mills
  - CNC Lathe
  - CNC Plasma Cutter
  - CNC LASER
  - Drill Presses
  - Finishing: Bead Blasters, Buffers, Sanders
  - Metal Casting
  - Hand Tools
Key Elements

- Equipment - Plastics
  - Injection Molder
  - Rotational Molder
  - Thermoformer
  - 3D Scanner
  - 3D Printers
    - FDM Consumer grade
    - FDM Professional Production 0.01” Layers
    - UV Photopolymer ~20micron Layers
Key Elements

- Equipment - Testing
  - Flame
  - Rockwell Hardness
  - Crush/Pull to 400,000 lbs
  - Materials Analysis Lab
  - Environmental Analysis Lab collaboration
Electronic Products Innovation Center

- Circuit Design from Concept
- Schematic & Artwork Design
- Surface Mount Automated Assembly
  - Up to 4800 Components/Hour
- Embedded Micros and Programming
- Parts Down to 0.040” x 0.020”
- Special Services
  - Lot Tracking
  - Testing
MEDC Gatekeeper Grant

- Two year grant
- Michigan Strategic Fund
- Supports Business Incubator Programs
- Company and Job Creation
- Includes LSSU and LSSU Remote Sites
  - Escanaba
  - Petoskey
  - Gaylord
Technology Business Accelerator - City/LSSU partnership
ROOM TO GROW AND SHOW – the new SmartZone building promotes collaborations between universities, industry, research orgs, government, and other institutions to establish technology-based businesses and jobs

SENATOR LEVIN PAYS A VISIT – Aug. 2013
ECONOMIC ENGINE –
LSSU’s economic impact to Chippewa County is estimated to be over $113M USD per year, making it responsible for almost 1400 jobs or 9% of employment in the region.

Each student brings over $45,000 USD per year in economic activity, corresponding to one-half a job for area residents.
Investments in a Strong and Growing LSSU
South Hall Renovation Project
Center for Entrepreneurship and Innovation

- Provide business assistance and services to client companies
- Provide students and faculty real-world exposure and opportunities
- Provide very early-stage venture capital
- Plant in Business Accelerator (new in 2013)
- Be incubating 6 to 8 companies by ???
Clean Energy Venture Challenge Champs – LSSU student working group pulled together expertise in fisheries management, engineering, and marketing to float a business plan to develop ultra efficient, micro-operation fish farms in Michigan.

LSSU Investment Club places 2nd in Global Asset Management Education II Forum in NYC

Enactus (SIFE) Team wins U.S. Regional Competition
Other Examples of Success

- Marble Arms assembly automation
- Orthopedic Design Innovations tools
- Superior Fabrication
- Continental Automotive design project
- P & P Power
- Skate Fenders
- [www.lssu.edu/eupexports/home.php](http://www.lssu.edu/eupexports/home.php)
LSSU is a strong community partner

Twin Saults
U.P.
Michigan
Thank You!