ESD + Sustainability Skillsets

= Jobs for the New Economy!

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Colleges and Universities and the Innovation Economy

Regional Development
- Convening of business, public, education and non-profit sectors
- Access to networks of key regional partners
- Regional analysis
- Strategic alignment of regional assets
- Coordination of talent development pipelines
- Coordination of technology development programs
- Coordination of firm development programs
- Coordination of cluster development activities

Industrial Cluster Development
- Forums for interaction
- Networks
- Institutes of collaboration
- Incubators and accelerators
- Science and innovation parks
- Talent and technology hubs
- Place-based competitive research
- Distributed research
- Cluster-focused technical assistance
- Cluster-focused branding
- Business and management services
- EDA University Centers

Firm Development
- EWD Technical assistance
- Business and management education
- Capital access
- Mentoring
- Networking
- Management support
- Entrepreneurial support
- Workforce development
- Corporate training
- Custom or continuing education
- Incubators and accelerators
- NIST MEP programs

Talent Development
- Access to degrees
- Innovations in format
- Innovations in delivery
- Professional continuing education
- Educational enrichment and training programs
- STEM enrichment
- Entrepreneur development
- Lifelong learning
- Graduate education

Quality, Connected Place Development
- Economic development support
- Architecture, planning and redevelopment support
- Faculty and staff know-how
- Service learning
- K-20 pipelines and reform
- Facilities for community activities
- Special purpose facilities
- International students and programs
- Locus of cultural activities
- Outreach activities and events
- Employment for community members
- Civic skills
- Expertise
- Diversity growth and support (global, racial, ethnic)
- Community capacity building (i.e., not for profits)
- Telecommunications infrastructure support

Institutional leadership to catalyze university potential
“New Economy” Competency and Skillset Requirements

Source: www.careeronestop.org; www.bls.gov/green/
New Economy Competency and Skill Set Models

1. Personal Skills (Individual)
   - Integrity
   - Professionalism
   - Accountability
   - Responsibility
   - Reliability
   - Willingness to learn

2. Academic Skills (Knowledge)
   - Environmental
     - Natural Resource Management
     - Tourism and Hospitality
     - Environmental Studies
   - Economic
     - Sustainable Business
     - Social Entrepreneurship
   - Social
     - Public and Non-Profit Administration
     - Social Work
     - ESD
### New Economy Competency and Skill Set Models

#### 3. Workplace (Basic)
- Communications
- Strong work ethic
- Teamwork
- Initiative
- Analytical
- Computer
- Flexibility and adaptability
- Interpersonal
- Problem solving
- Technical

#### 4. Industry (Technical)
- Sustainable Supply Chain Management
- Green chemistry
- Design for the Environment (DfE)
- Environmental impact analysis
- Sustainability assessment and reporting
- Life Cycle Analysis (LCA)
- Energy and water management
- Value creation & collective impact
- Sustainability certifications and standards
- Resiliency and emergency preparedness

Source: National Association of Colleges and Employers
New Economy Competency and Skill Set Models

5. Occupation (Applied)
- Green cleaning
- Energy audits
- Green office procedures
- Sustainable procurement
- Eco-tourism
- Sustainable supply chain efficiencies
- Green and sustainability training and education
- Urban and neighborhood revitalization
- CSR reporting

6. Management (Leadership)
- Clarifying
- “Immersive Learning”
- Transparency
- Mob organizing
- Dilemma Flipping
- Constructive Depolarizing
- Entrepreneurial
- Life Cycle thinking
- Common creating
- Design thinking

Desired “Green Jobs” in the United States

- 3.1MM Green Goods and Service (GGS) jobs
- Major segments: Renewable energy; energy efficiency; pollution prevention; GHG reduction; recycling; natural resources; environmental compliance; education; training
- GGS jobs accounted for 2.4% GDP
- Private sector accounted for 2.3MM GGS jobs and the public sector 860,000 GGS jobs
- Annual GGS survey includes ~120,000 business and government establishments within 333 industries.

Source: www.bls.gov/green/
West Michigan Employer Interest in Sustainability Skillsets

- **Interest in sustainability**
  - Yes: ~36%; Somewhat: ~57%; No: ~7%
  - ~59% already employ one or more with expertise in sustainability

- **Desired sustainability skill sets:**
  - Environmental Impact and Assessment: ~80%
  - Economic Impact Assessment: ~59%
  - Alternative and Renewable Energy: ~54%
  - Environmental Law and Policy: ~49%
  - Social Impact and Assessment: ~46%
  - Neighborhood and Community Sustainability and Revitalization: ~44%
  - Climate Change Mitigation: ~39%
  - Sustainable Food Systems and Urban Agriculture: ~21%

Source: GVSU Survey of 70 West MI Companies and Organizations
Key “Management” Skillsets for Interdisciplinary Sustainability Graduates

- **Communications (~46%)**
  - Writing; Presentations; Media literacy
- **Organizational (~39%)**
- **Planning (~33%)**
  - Project Planning and Development; Budgeting
- **Leadership (~29%)**
  - Project Management; Supervisory; Ethical Behavior; Diversity and Inclusion
- **Research (~37%)**
  - Data Analysis; Detail Oriented; Data Reporting
- **Computer (~22%)**
  - Microsoft Excel; Microsoft Office; Microsoft PowerPoint; Microsoft Word
- **Problem Solving (~17%)**
  - Analytical, Critical, and holistic systems thinking; Strategic implications; Reflective; Consensus Decision Making
- **Relationship Building (~14%)**
- **Creativity and Innovation (~10%)**

Source: Ball State University Study
Entry Level Sustainability Job Positions

Examples

• **“Specialist”**
  – Environmental; Safety; Sales; Environmental and Health and Safety (EHS); Healthcare Sustainability; Corporate Social Responsibility (CSR)

• **“Analyst”**
  – Energy; Financial; Business; Policy; Environmental Sustainability

• **“Coordinator”**
  – Safety; Sustainability

• **“Planning”**
  – Environmental

• **“Manager”**
  – EHS; Account; Assistant; Security; Training; Safety; Facilities; Production; Plant; Project; Program; Environmental and Sustainability

• **“Engineers”**
  – Sustainability

• Other

Source: Adapted Ball State University Study
Thank you

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