CENTERS OF EXCELLENCE PANEL

- Mary Kaye Bredeson, Executive Director, Center of Excellence for Aerospace and Advanced Materials Manufacturing
- Shana Peschek, Director, Construction Center of Excellence
- Linda Crerar, Director, Center of Excellence for Homeland Security-Emergency Management
A center of excellence refers to a team, a shared facility or an entity that provides leadership, best practices, research, support and/or training for a focus area.
CENTERS OF EXCELLENCE:

LIAISON BETWEEN PARTNERS AND THE STATE’S EDUCATION SYSTEM

- Economic drivers for sector strategies
- Create a highly trained skilled workforce
- Provide consistent & open curriculum
- Recognize and meet emerging trends
- Provide state-wide coordination
- Expertise and skills, training
  - Best practices, examples
  - Standards, templates
  - Process, governance, reporting
VISION

RECOGNIZED AS A NATIONAL MODEL TO DEVELOP PARTNERSHIPS BETWEEN:

- Business
- Industry
- Education
- Organized Labor
- Workforce System
- Economic Development

MISSION

LIAISON BETWEEN PARTNERS AND THE STATE’S EDUCATION SYSTEM TO:

- Economic drivers for sector strategies
- Create a highly trained skilled workforce
- Provide consistent & open curriculum
- Recognize and meet emerging trends
- Provide state-wide coordination
<table>
<thead>
<tr>
<th>BUSINESS</th>
<th>EDUCATION</th>
<th>STUDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to skilled and trained workforce</td>
<td>Connections to Industry</td>
<td>Pathways for careers</td>
</tr>
<tr>
<td>Direct input on what is being taught</td>
<td>Curriculum development</td>
<td>Dual Credit opportunities</td>
</tr>
<tr>
<td>Access to training for current employees to stay competitive</td>
<td>Resources for industry emerging trends and technologies</td>
<td>Stackable certificates</td>
</tr>
<tr>
<td></td>
<td>Externships</td>
<td>Job posting</td>
</tr>
<tr>
<td></td>
<td>Outreach and marketing</td>
<td></td>
</tr>
</tbody>
</table>
RETURN ON INVESTMENT

- Aerospace/Adv. Mfg.  $22,208,000
- Agriculture        $2,318,938
- Allied Health      $2,344,648
- Clean Energy       $30,710,980
- Construction       $8,528,884
- Global Trade & Supply $398,295
- Homeland Sec and EM  $3,045,000
- Information & Tech $2,265,000
- Marine Mfg. & Tech $134,000

Total - $71,953,745
## EXAMPLES OF EXTERNAL FUNDING SOURCES

<table>
<thead>
<tr>
<th>Source</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Dept. of Agriculture</td>
<td>Workforce Training Board</td>
</tr>
<tr>
<td>US Dept. of Commerce</td>
<td>Hospital Employee ED HEET</td>
</tr>
<tr>
<td>US Dept. of Energy</td>
<td>HEET</td>
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<tr>
<td>US Dept. of Homeland Security</td>
<td>Microsoft</td>
</tr>
<tr>
<td>US Dept. of Labor</td>
<td>Verizon</td>
</tr>
<tr>
<td>Natl Science Foundation</td>
<td>CERB</td>
</tr>
<tr>
<td>NIST</td>
<td>WA Dept. of Commerce</td>
</tr>
</tbody>
</table>
### Sector Specific Workforce Development

**Construction Sector**

<table>
<thead>
<tr>
<th>Industry Skills Gaps:</th>
<th>Role of COE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Technology</td>
<td>Facilitate Industry Forums</td>
</tr>
<tr>
<td>Leadership</td>
<td>Identify Knowledge Skills and Ability needed by industry</td>
</tr>
<tr>
<td></td>
<td>Present framework to Education partners</td>
</tr>
<tr>
<td></td>
<td>Courses and Certificates are created, curriculum is developed and continues to be vetted with industry and labor partners</td>
</tr>
</tbody>
</table>
CONSTRUCTION IT SKILLS

Mechatronics: For Construction: Building Operators/Engineers need skills to keep Energy Efficient buildings running correctly. Systems are continually becoming more sophisticated, greater troubleshooting, understanding of security etc.

Virtual Design + Construction: Building begins before drawings complete, requires all trades to work with sharepoint/similar sharing, access work via tablets, access information in data points, work collaboratively with teams of various trades in a coordinated fashion

Technology is requiring people work in a different way: For training and hiring the best candidate is now someone that understands the need to continually up skill, work in a collaborative environment, understand technology
EDUCATION PARTNERS

What Now: Many faculty are unaware of how to use technology let alone teach it,
Curriculum needs developed,
Certificates Created
Classes outlined
...and Professional Development for Faculty! COE coordinates externships, offers workshops/training, developing webinars

Coordinated Efforts with Partners = Developing a Highly Skilled Workforce = Meet needs of Industry
AEROSPACE & ADVANCED MANUFACTURING RESOURCES

Thank You for Ordering the
Career Pathways Guidebook
A School-to-Career Guide for Parents, Students, and Counselors

Guiding students into the world of careers can be tough. With different interests, academic levels, financial situations, and family backgrounds, each student comes with his or her own set of requirements.

The Career Pathways Guidebook lays out options for any student scenario, helping you guide each student toward the career path best suited to their needs.

How to use the Career Pathways Guidebook for your office
- Present career and educational options
- Talk with teachers
- Guide & recommend programs to students
- Share with parents
- Share with CTE groups

The traditional, four-year college method of formal job training is a wise decision for some students. However, this is not the only option. For many students, there can be clearer, faster, even more economical pathways to a fulfilling career.

This guidebook is being produced for students throughout Washington State by the Center of Excellence for Aerospace and Advanced Materials Manufacturing and the Office of Superintendent of Public Instruction (OSPI).

Our goal is to provide you with a resource to show parents and students the diverse pathways and opportunities that can lead to careers in our state’s current job markets. Please note, the community and technical college courses listed in this guidebook are short term certificates only; a more comprehensive list can be found on our website at a2m2.net.

Thank you for ordering the Career Pathways Guidebook. Be sure to order copies for your office, school, and parents for the benefit of your students.

Regards,

Sue Bradshaw
Program Manager
425-388-9196 phone
425-239-8298 fax

Career Pathways Guidebook features include:
- Location Map of Washington State Community Colleges
- Career and Salary chart for students interested in aerospace & advanced manufacturing opportunities

Order more FREE copies today!
Call us at (425) 388-9196 or visit us online at www.a2m2.net
Program Alignment

★ Continue Program Alignment work with key business/industry/labor to:

• Identify value-added exit point in postsecondary programs
• Support student attainment of national recognized credentials
• Identify common courses across all Community & Technical Colleges colleges (bridges for articulation)
• Decrease variability in program length and quality
OUTCOMES FROM FUNDING SOURCES

- Expanded capacity
- Professional Development
- Outreach
- Equipment purchases
- Point of Contact for industry donations
- Curriculum Development
- Open Source Curriculum
- Leveraged resources

- Dual Credit
- Open and honest collaborations
- Trusted partnerships
- Stronger Grant proposals
- Common Course numbering
- Shared equipment
- Efficiencies
SECTOR SPECIFIC WORKFORCE DEVELOPMENT
HOMELAND SECURITY-EMERGENCY MANAGEMENT

Strength & effectiveness lies in:

- Rapid deployment of educational programs and HSEM initiatives throughout CTC system.
- Convenes, problem solves and disseminates industry-specific solutions w/other agencies, organizations and groups.
- Expands and leverages collaboration w/government, industry, labor and communities.
- Supports and promotes rigorous and relevant workforce education and training.
- Delivers best practices to prepare, respond and recover from emergencies and disasters.
- Able to interface with other Centers, local, state, tribal, federal government, private business and nonprofits organizations and all our education partners K-12 to higher ed.
Jay Inslee, Governor, June 16, 2015

Washington State is the only state in the nation to codify Centers of Excellence into state statute under the State Board for Community and Technical Colleges (SBCTC). Our state’s 10 Centers of Excellence develop partnerships among public and private businesses and industry, education, labor and the workforce system with a goal of building a competitive workforce and ensuring continued economic vitality and resilience in the state and the region.

Centers of Excellence 10th Anniversary

Helping state’s CTC college prepare a skilled workforce to:

- Maintain our national security.
- Ensure effective response to all-hazard events.
- Build community disaster resilience.

Homeland Security-Emergency Management:

- Continues to be a high growth industry.
- Ever increased demand for skilled workers (22% project over 5 years).
- Expertise to plan, prepare, respond & recover from complex man-made, natural & technological disasters.
- Industry’s academic programs must remain “cutting edge”.

A DECADE OF CONTRIBUTIONS
THANK YOU!