



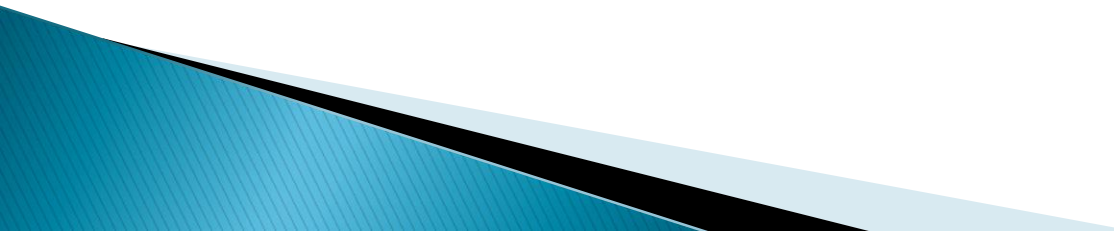
CAMPS

CENTER for
ADVANCED MANUFACTURING
PUGET SOUND

***MTAG Career Connections
National Resource Center for Materials Technology Education
Edmonds Community College
December 6, 2016***

“Helping manufacturers succeed through innovation, supply chain positioning and business development”

What is CAMPS?

- ***Membership organization of carefully selected and approved companies***
 - ***We want the “Best of the Best”***
 - ***Referrals are the most common source of members***
 - ***Industry driven partnerships***
 - ***Connecting point – where to go to find solutions, resources, or new directions***
 - ***Primary SMM (Small and Medium Manufacturers)***
 - ***Currently about 180 members, across all classes of membership***
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CAMPS Launch 2008


Non-Profit Membership Organization – Based on a Feasibility Study

- ***Manufacturing Member – products and processes***
- ***Supply Chain Member - support operations, freight, distribution,***
- ***Associate Membership – Professional Services***
- ***Affiliate Membership – Government, Education, and other non-profits (strategic partners)***

Mission

- ***Helping Washington State manufacturers succeed through innovation, supply chain positioning, and business development.***

Collaborative model - Bring together

- ***Vision***
 - ***Talent***
 - ***Energy and Spirit***
 - ***Resources – Cost Sharing***
 - ***Solutions and Programs are INDUSTRY DRIVEN***
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Support for Key Economic Drivers

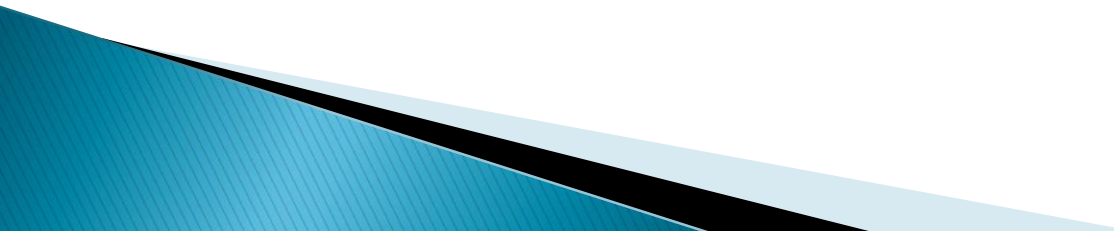
Public/Private Partnerships

Key role

- ***Strong “network or ecosystem” of key stakeholders***
- ***The stakeholders must work inter-dependently (Collaboration)***
- ***Stakeholders are:***
 - ***Manufacturers – products and processes***
 - ***Supply Chain – freight, distribution,***
 - ***Associates – Professional service providers - expertise***
 - ***Affiliates – Education, Government, and Non-Profits***
- ***Knock down traditional “silos” and engage all stakeholders***
- ***Get into the issues and drive for solutions through strategic partnerships and cross sector involvement.***
- ***Hands-on vs. Theoretical***

CAMPS Vision

CAMPS role is to support all stakeholders

- ***Primary catalyst for small and medium size manufacturers (SMM)***
 - ***Form strategic alliances with supply chain experts, professional support services, and public resources (government, education, and non-profits).***
 - ***Supports Washington State manufacturers as global leaders in the pursuit of advanced manufacturing and innovation opportunities.***
 - ***Pursuit is focused on market driven products, leading edge processes, and a highly trained and efficient workforce”.***
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Eight Industry Tracks

Aerospace

Defense

Marine

Energy

Transportation

Life Sciences & Medical

Food Processing

General sectors

All segments are represented by CAMPS members



Five Pillars

What we do and provide:

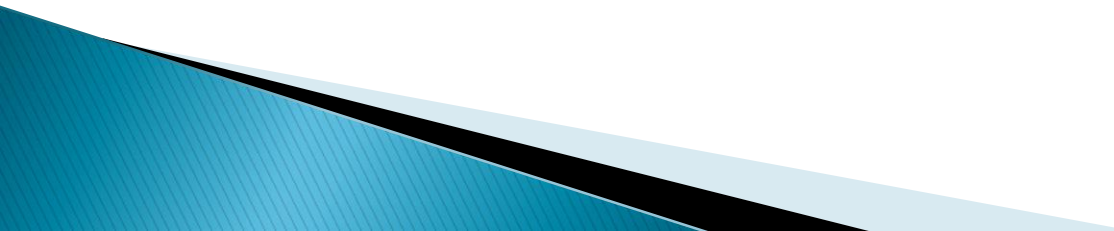
- *Access to Innovation – emerging industries, products, processes, technologies, and market opportunities*
 - *Supply Chain Development – Supply Chain Mapping, certifications, capabilities database*
 - *Pre-qualified Service Providers – Experts in the support system services*
 - *Workforce Development – On-going needs assessment, partnership with industry, education, and government resources and needs*
 - *Access Funding Resources – Work as an industry to secure grant funding to address industry common opportunities and challenges*
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Innovation

Driving Factor for the Future

A new Idea, device, or methods (processes)

***Involves change, alteration, transformation, modernization,
creativity, ingenuity, originality, inspiration***



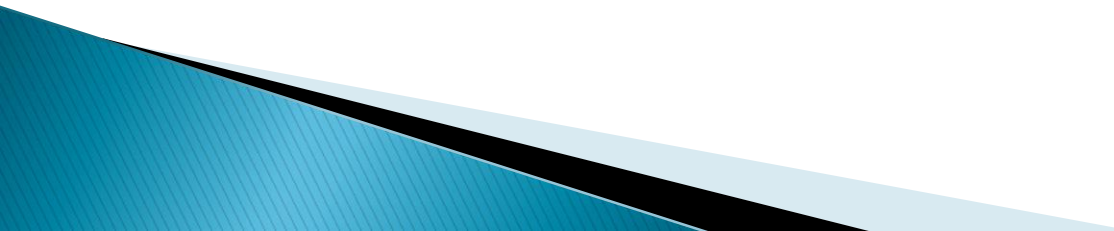
Understanding Clusters

Washington State Clusters

Aerospace

- ***\$76 Billion impacts on the full supply chain***
- ***1,350 companies (650 are manufacturers)***
- ***132,500 jobs***


Innovation

- ***Composites***
 - ***Technologies***
 - ***Design***
 - ***Manufacturing Equipment***
 - ***Lean Processes***
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Understanding Clusters

Washington State Clusters

Maritime

- ***\$30 Billion direct and indirect impacts***
 - ***2,100 companies***
 - ***57,700 jobs***
 - ***Six key subsectors***
 - ***Ship and Boat Building, Maintenance and Repair***
 - ***Maritime Logistics and Shipping***
 - ***Passenger Water Transportation***
 - ***Fishing and Seafood Processing***
 - ***Maritime Support Services***
 - ***Military Operations***
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Understanding Clusters

Washington State Clusters

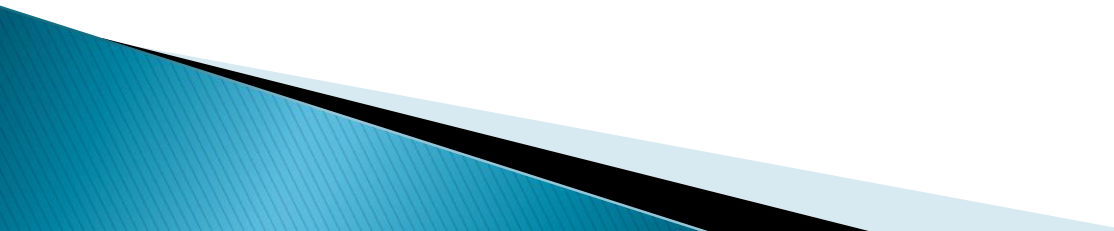
- ***Life Sciences – Emerging - 5th largest and fastest growing in the United States***
 - ***\$12.5 Billion in economic Impacts***
 - ***294 companies***
 - ***34,000 jobs***

Three categories

- ***Pharmaceuticals - medications***
 - ***Medical Devices***
 - ***Digital***
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Workforce is Key to Success Greatest Need!

CAMPS views the available workforce in four categories

- ***K-12 – Students entering the workforce for the first time***
 - ***Low Income – Individuals who normally have low level skills, in low paying jobs, or experience continuous transition***
 - ***Military backgrounds – Veterans, transitioning out, reserves, national guard, and military spouses***
 - ***New Americans – English as a Second Language***
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Washington State Demographics

Manufacturing Jobs

➤ ***290,000***

❖ ***25% are Baby Boomers***

❖ ***Estimated 72,500 to exit by 2022***

❖ ***Aerospace – 130,000***

❖ ***Other Industries 160,000***

❖ ***Some of the most skilled employees***

CAMPS Programs Multiple Approaches

➤ Youth

- ❖ Awareness**

- ❖ Image of Manufacturing Careers**

- ❖ Tours – National Manufacturing Day**

- ❖ Company visits to schools**

- ❖ FIRST Robotics**

CAMPS Programs

➤ *Military – M2M*

- ❖ *Youth and Career***

- ❖ *Skills Translation***

- ❖ *Image of Manufacturing Careers***

- ❖ *Tours***

- ❖ *Interviews and hiring steps***

- ❖ *Over 300 confirmed placements***

CAMPS Programs

➤ *Low Income, Immigrants & Refugees*

- ❖ *Assessment***

- ❖ *Pre Hire training***

- ❖ *Barriers***

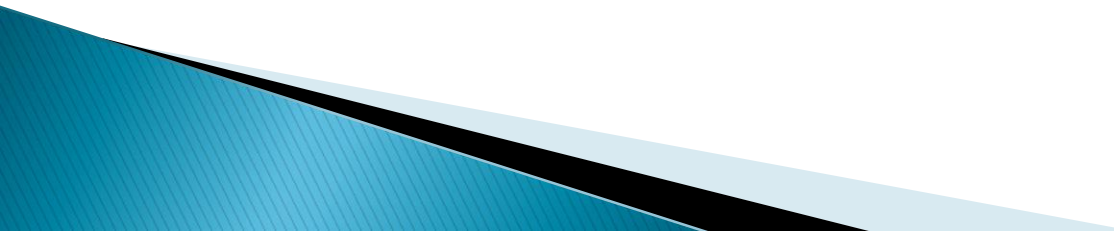
 - ❖ *Transportation***

 - ❖ *Child Care***

 - ❖ *Language***

Focus areas

➤ *Career Pathways – Long term*

- ❖ *Don't need a degree to enter employment***
 - ❖ *Companies will provide training and most provide college training reimbursement funds for employees***
 - ❖ *SOJT (Structured On-the-Job Training) is a great way to determine interests and aptitude***
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Focus areas

- ***Career Pathways – Long term***
 - ❖ ***Once employed, get the training that involves Certificates and Degrees***
 - ❖ ***Many jobs are not on the shop floor, but it is where many begin***

Focus areas

➤ *Career Pathways – Long term*

- ❖ *Shop math***

- ❖ *Use of hand tools***

- ❖ *Basic computer skills***

- ❖ *Ability to read manuals***

- ❖ *Safety practices***

- ❖ *Mechanical terminology and applications***

- ❖ *Quality control understanding***



Focus areas

➤ Life Skills

- ❖ Punctuality***

- ❖ Cell phone use***

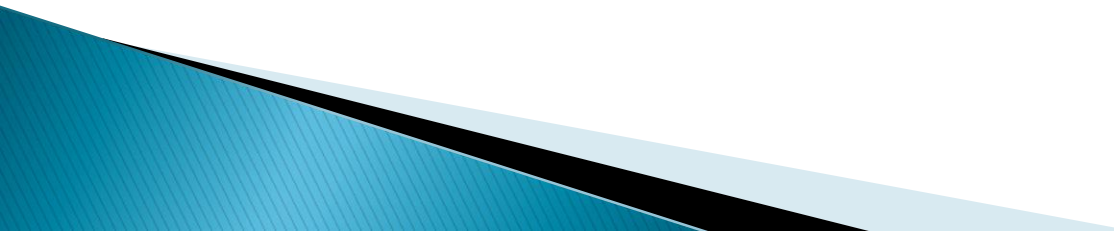
- ❖ Team work***

- ❖ Critical thinking – problem solving***


- ❖ Listening***

- ❖ ATTITUDE – show motivation***

Technology and Future Nuggets

- **Additive Manufacturing / 3D Printing**
 - **Advanced Materials**
 - **Cloud Computing**
 - **Internet of Things (IoT)**
 - **Nanotechnology**
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Challenges

- *Not all students are college bound*
 - *Some students need Job Ready Skills and the opportunity to discover their directions*
 - *Companies need to and are increasingly seeing the value to reach into the schools*
 - *Since experienced candidates are in short supply or non-existent, the focus needs to be on capabilities and capacities of the individuals.*
 - *Funding models in Washington State*
 - *K-12 and Community/Technical Schools need to work closer.*
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Thank you

CAMPS

Center for Advanced Manufacturing Puget Sound

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