

SUPPLY CHAIN OPPORTUNITIES CONFERENCE

MAY 23, 2017 | BEND, OREGON





THANK YOU TO OUR PARTNERS & PRESENTERS



ANNA RYMILL
MEMBERSHIP & MARKETING MANAGER
PACIFIC NORTHWEST DEFENSE COALITION

The Pacific Northwest Defense Coalition is the association of over 250 Northwest defense and security businesses.

PNDC focuses on strengthening our members' business growth, our region's economy, and our nation's security through training, one-on-one counseling, business-to-business networking, and advocacy.







NETWORKING

- Monthly Receptions @ Member Businesses
- VIP Summer Bash
- Annual Dinner
- Shooting Range Day
- Year End Celebration
- & MORE!





TRAINING

- Regular Procurement Webinars & Seminars
- Quarterly ITAR & EAR Trainings
- Aerospace Defense & Homeland Security Symposia
- SBIR/STTR
- FARS & DFARS
- Cybersecurity & Data Security
- & MORE!





ADVOCACY

PNDC convenes regular Congressional Roundtable discussions to bring our members face-to-face with U.S. Representatives & Senators to ensure that Congress and federal agencies address the unique needs of Northwest defense and security businesses.

Join PNDC on Friday, June 2 for a roundtable with
Congressman Earl Blumenauer
FREE for PNDC Members!





COUNSELING

Our full-time Procurement Counselor assists companies with navigating FARS/DFARS, certifications, and registrations including DUNS, System for Award Management, Dynamic Small Business Search, and Federal Business Opportunities.

Plus, we offer a FREE bid match service for our Oregon and Washington Members!





CONNECTING

NWB2B is an online sourcing platform that connects manufacturers with suppliers of products and services in the Pacific Northwest. This easy-to-use tool streamlines supplier discovery, and is a fast, efficient way to build buyer-supplier relationships with local companies.



Superior Connections for NW Buyers and Suppliers

“Other tools in this category are very specific to certain industries and extremely expensive. Here, search criteria can be as specific as you wish or as broad as you wish, making it very user friendly.”

– Lori Luchak, Miles Fiberglass and Composites

Join for FREE at nwb2b.com!



UPCOMING EVENTS

MILITARY EMPLOYER SUMMIT #1 | Wednesday, May 31 | Tacoma, WA

MILITARY EMPLOYER SUMMIT #2 | Friday, June 2 | Clackamas, OR

U.S. CONGRESSMAN EARL BLUMENAUER ROUNDTABLE | Friday, June 2 | Clackamas, OR

HOMELAND SECURITY SYMPOSIUM | Thursday, June 8 | Portland, OR

SUPPLY CHAIN CONFERENCE @ INSITU | Tuesday, June 27 | Bingen, WA

NETWORKING LUNCH @ OUT OF THE BOX MANUFACTURING | July 11 | Renton, WA

NETWORKING LUNCH @ FLIR | Thursday, July 13 | Wilsonville, OR

ANNUAL SHOOTING RANGE DAY | Thursday, July 27 | Tacoma, WA

ANNUAL VIP SUMMER BASH | Saturday, August 12 | West Linn, OR

NETWORKING LUNCH @ PECO ASTRONICS | Tuesday, Sept. 19 | Clackamas, OR

MARITIME DEFENSE LUNCHEON | Wednesday, Sept. 27 | Bremerton, WA

PNDC STAFF

George Cargill, Puget Sound Outreach

Carley Dirks, Procurement Counselor & Program Manager

Leslie Everson, CPA/Bookkeeper

Bailey Simpson, Program Coordinator

Dave Hunt, President & CEO

Emily Houg, Puget Sound Event Coordinator

Kate Kanapeaux, Program & Events Director

Anna Rymill, Membership & Marketing Manager

888-701-PNDC | www.pndc.us



ROUNDTABLE ONE BUSINESS-TO-BUSINESS DISCUSSIONS





ROUNDTABLE QUESTIONS

- What are you buying from outside of the region and why?
- What percentage of your products or services does your firm purchase from outside of the region?
- How do you find new customers?
- How are you marketing your product(s)? Would you like assistance marketing your product(s)?
- What can we do to help manufacturers buy and sell more in this region?
- How can we help you sell market more of your capabilities or products?
- Describe any of your supply chain challenges (transportation, aging infrastructure, technology advances)

Chris Hankland

Director of Supply Chain





Columbia Helicopters

Far Beyond Flight

PNDC Supply Chain Conference
Bend, OR – 23 May, 2017



Topics

- **Company Overview and History**
- **Supply Chain Characteristics**
- **Supplier Relationships**
- **Supplier Certification Requirements**



Company Overview

- **Privately held for 60 years**
- **~800 Team Members Worldwide**
- **Heavy Helicopter Operations:**
 - 11 Columbia 107-II's
 - 6 Columbia Model 234's
 - 3 Restricted TC CH-47Ds
 - Over 850K hours flown
- **Maintenance Services:**
 - All fleet aircraft/components
 - Commercial & Military Maintenance
- **Key Certifications**
 - FAA Part 135 Air Carrier/DOD CARB/FAA Part 145 MRO
 - US Army Qualification for CH-47 Drivetrain Depot Level Maintenance
 - Holder of three FAA Aircraft Type Certificates (1H16, H9EA & R00051SE)
 - Holder of FAA Production Certificate (727NW, parts only for 1H16 & H9EA)



Company History

- Founded in 1957 by Wes Lematta with one Hiller 12B light helicopter



Company History (cont.)

- Seeking aircraft applications that would differentiate his company, Wes utilized the helicopter a number of ways...



Company History (cont.)

- In 1958, Wes rescued 15 sailors one at a time – the notoriety, along with his innovations created the foundation of CHI



Company History (cont.)

- 1969 CHI began operating the BV/KV-107 and remains the world's largest and only commercial operator of both Model 234 & 107-II

1969



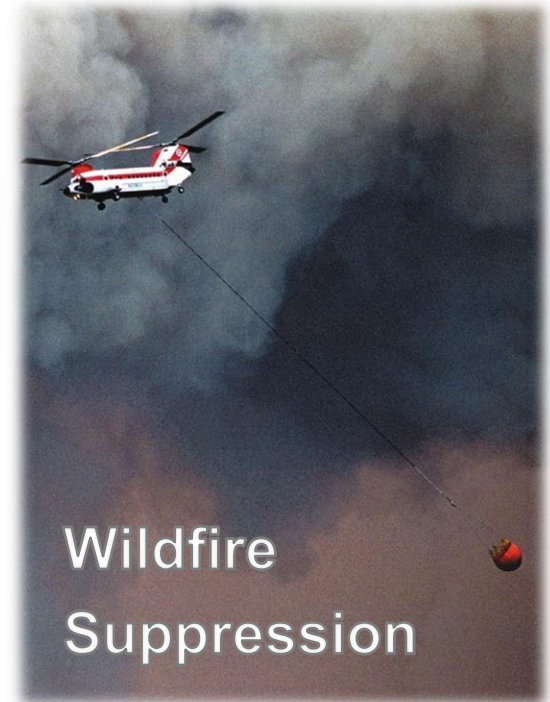
1984



Services (cont.)



Onshore Oil
Exploration



Wildfire
Suppression



Construction



Services (cont.)



Services (cont.)

- In 2014 CHI gained FAA “Restricted” type certification of the CH-47D Chinook previously operated by the U.S. Army



Services (cont.)

Aircraft and Component Maintenance

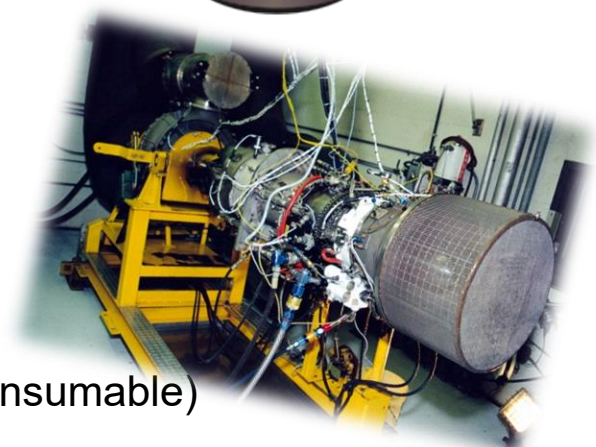


Past and Current Operations



Supply Chain Characteristics

- **Company Value Proposition:**
 - Customer responsiveness
 - Innovative solutions
 - Industry leading mission availability rates and turn times
- **Key SC Success Factors**
 - Agile global logistics/field site warehousing
 - Close alignment of supply/demand
 - High safety stock for sole-sourced/flight critical parts
 - Advanced data analytics for Repair BOM capability
 - Strategic supplier relationships/business continuity
- **Scope**
 - 3 Turboshaft Engine Types
 - 3 Aircraft Types
 - 24,000 P/N's with velocity
 - 7,000 aircraft unique P/N's requiring FAA approved manufacturing process
 - 900 maintained “components” (vs. expendable or consumable)



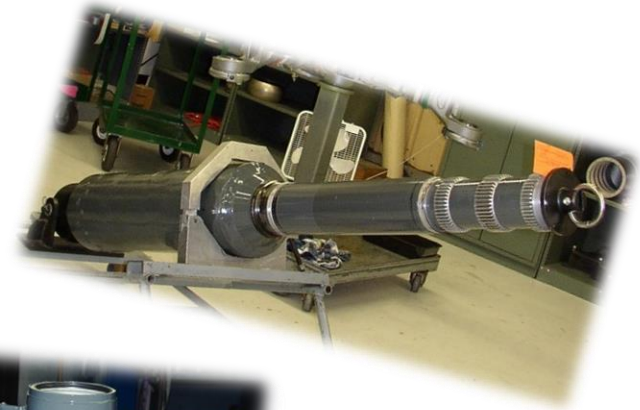
Supplier Partnerships

- **Outsourcing**

- Special processing/repairs
- Fracture-critical drivetrain manufacture
- Aircraft structure
- Flight/rotor control manufacture and repair
- Avionics/instrument repair
- FAA Engineering (DER)/Parts Manufacturer Approval (PMA)/Material Analysis
- 3PL

- **Ideal Suppliers**

- Located in Western US
- Collaborative/innovative
- Long-term focus
- Vertically integrated (special processing)
- Aerospace industry specialization
- Familiarity with FAA manufacturing requirements
- Familiarity with DOD contracting requirements



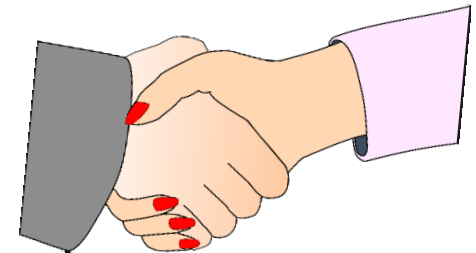
- **Most challenging scenarios**

- Achieving mutually agreeable economies of scale
- Availability of manufacturing engineering resources to support CHI unique manufacturing requirements
- Paperwork confusion that can occur in companies servicing both aerospace and industrial segments
- High use of 3rd party special process suppliers leading to missed deliveries
- Insurance minimum requirements exceeding thresholds of otherwise capable suppliers



- **Most favorable scenarios**

- Flexible manufacturing capability—low volume
- Willingness to collaborate on manufacturability improvements for legacy data
- Familiarity with large OEM aerospace specifications
- Alignment of corporate value propositions
- Strong team dynamics across companies
- Performance against commitment (PAC) accountability process



Required Certifications

- **AS9100** (manufacture)
- **AS9110** (non-FAA repair)
- **ISO9001/AS9120** (distributor)
- **FAA/EASA 145** (commercial repairs)
- **NADCAP** (special processing)
- **Government/Customer Qualification** (as required)



Questions?



RESOURCES FOR MANUFACTURERS

Katy Brooks
President





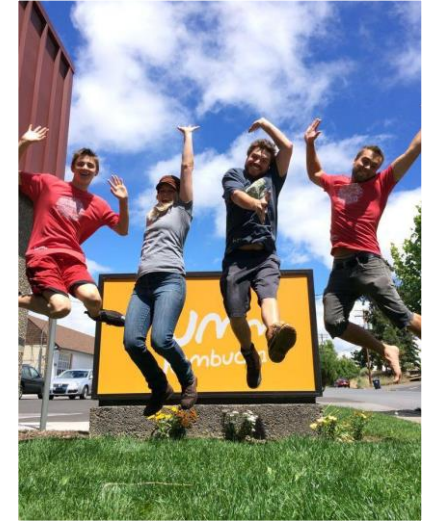
BEND *Chamber*

BEND Chamber



WHO ARE WE?

BEND Chamber



1 - REPRESENT BEND'S DIVERSE BUSINESSES

WE ARE ENGAGED, VISIBLE, COMMUNITY-MINDED AND FORWARD-THINKING

2- PROVIDE RESOURCES & INFORMATION TO HELP BUSINESS SUCCEED

- Information
- Connections
- Events with Purpose





3 -CHAMPION ADVOCACY

Represent Business & Support Partner Organizations

- City Council Policies
- Transportation Infrastructure
- Water/Sewer Infrastructure
- Legislation



KEY INITIATIVES

- SUPPORT A COMMUNITY-MINDED BUSINESS ECOSYSTEM
- CREATE NEW OPPORTUNITIES FOR BEND BUSINESSES TO NETWORK, LEARN AND GROW
- ACTIVELY PARTICIPATE IN WORKFORCE PIPELINE, HOUSING AND INFRASTRUCTURE ISSUES



WHAT ARE THE TOP ISSUES FOR BEND BUSINESS

- WORKFORCE
- OFFICE/COMMERCIAL/INDUSTRIAL EXPANSION
- HOUSING
- REGULATIONS, POLICIES AND PLANNING
- SUPPORTING EMERGING BUSINESS

BEND *Chamber*

A stylized mountain range logo consisting of three peaks. The peaks are outlined in a dark brown color with a lighter brown fill. The logo is positioned behind the main text.

BEND *Chamber*

Thank you!



ROUNDTABLE TWO

BUSINESS-TO-BUSINESS DISCUSSIONS





ROUNDTABLE QUESTIONS

- What are you buying from outside of the region and why?
- What percentage of your products or services does your firm purchase from outside of the region?
- How do you find new customers?
- How are you marketing your product(s)? Would you like assistance marketing your product(s)?
- What can we do to help manufacturers buy and sell more in this region?
- How can we help you sell market more of your capabilities or products?
- Describe any of your supply chain challenges (transportation, aging infrastructure, technology advances)

RESOURCES FOR MANUFACTURERS

Tom Rowley
Bend Manager



Networking Break

What percentage of energy is saved by manufacturing plastic from recycled materials rather than manufacturing virgin plastic from fossil fuels?

A.30%

B.50%

C.70%

D.90%



Networking Break

What percentage of energy is saved by manufacturing plastic from recycled materials rather than manufacturing virgin plastic from fossil fuels?

~~A.30%~~

~~B.50%~~

C.70%

~~D.90%~~



Stephanie Quinn

Program Manager & Marketing Director



DESIGNED TO
PROTECT



Becklin Holdings, Inc.

ECSCASE
protect

About ECS

- ECS is a 3rd generation family owned business founded in 1954
- SBA Certified HubZone Small Business
- Military composite shipping cases were introduced in 1961
- Invented military rackmount cases in 1969
- 2 manufacturing plants in Southern Oregon
- Approx. 125 Employees
- Four distinct product lines:
 - Fiberglass Reinforced Polyester (FRP)
 - Thermo Stamped Composite (TSC)
 - Rotomolded Linear Low Density Polyethylene (RTM)
 - Vacuum Infusion Process (VIP)



TSC Product Line

Thermo-Stamped Composite (TSC) is a 40% long strand glass reinforcement in a polypropylene base.

- Transit Cases
- Rackmount Cases



Rotomold Product Line

Rotomolded cases are rotationally molded into a form and are made from Linear Low Density Polyethylene (LLDP)

- Transit Cases
- Weapons Cases
- Footlockers
- Inverted Cases



FRP Product Line

Fiberglass Reinforced Polyester (FRP) is made up of 65% long strand glass fibers in an isophthalic resin.

- Propellers
- Engines
- Weapons
- Large Rackmount
- Medical Equipment



VIP Product Line

VIP containers are made utilizing a vacuum bag resin infusion process.

- Unmanned Vehicles
- Fuel Pods
- Propellers
- Weapon



Outsources Items

- ❖ Rotomolded Products
- ❖ VIP Shells & Tooling
- ❖ Screws, Nuts & Bolts
- ❖ Weldments
- ❖ Latches & Handles
- ❖ Casters
- ❖ Hoist Rings
- ❖ Pouches
- ❖ Cushions
- ❖ Clamps
- ❖ Housings
- ❖ Epoxy's, Glues, Sealants
- ❖ Office Supplies



Ideal Suppliers

- Regional Proximity
- Certified Welders
- CNC Capabilities
- Fabrication and Assembly
- Flexibility
- Creativity
- Familiarity with DoD Work
- Familiarity with Aerospace Work & Tolerances
- MILSTD's
- FAR & TINA Compliant Proposals

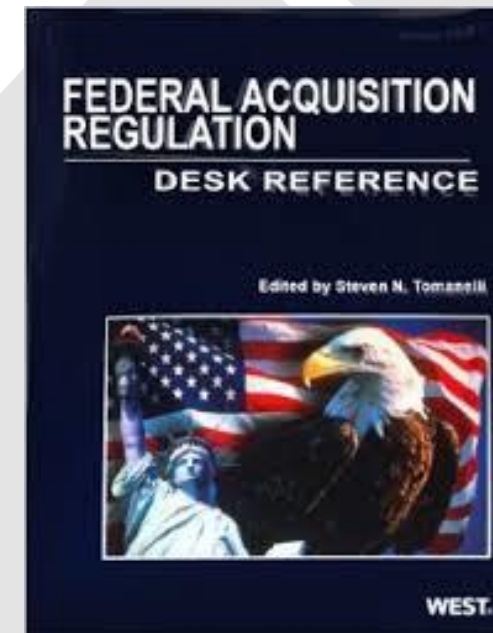


Standards and Certifications

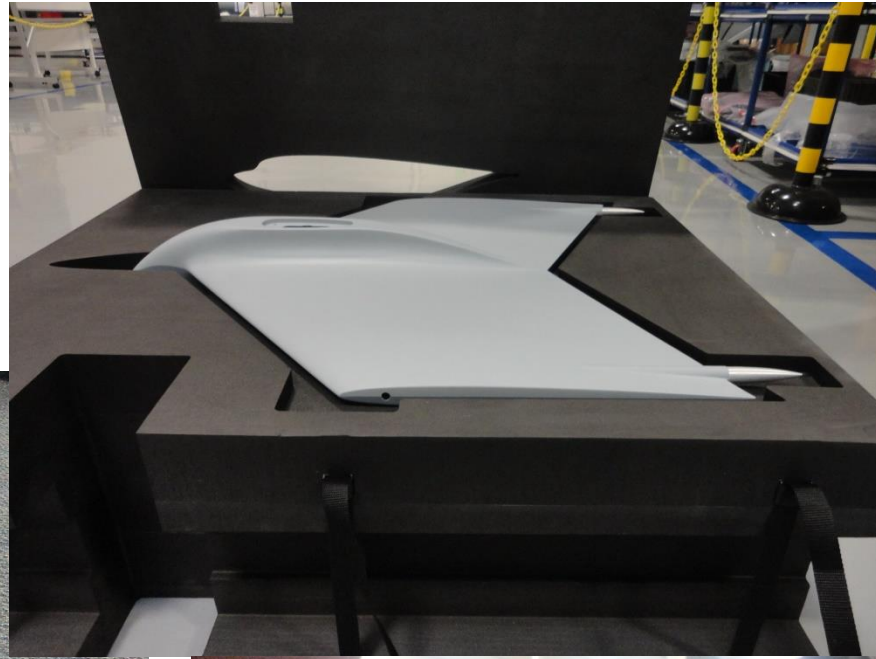
- ✓ ISO 9000
- ✓ AS9001
- ✓ AWS D1.2
- ✓ FAR Contracting



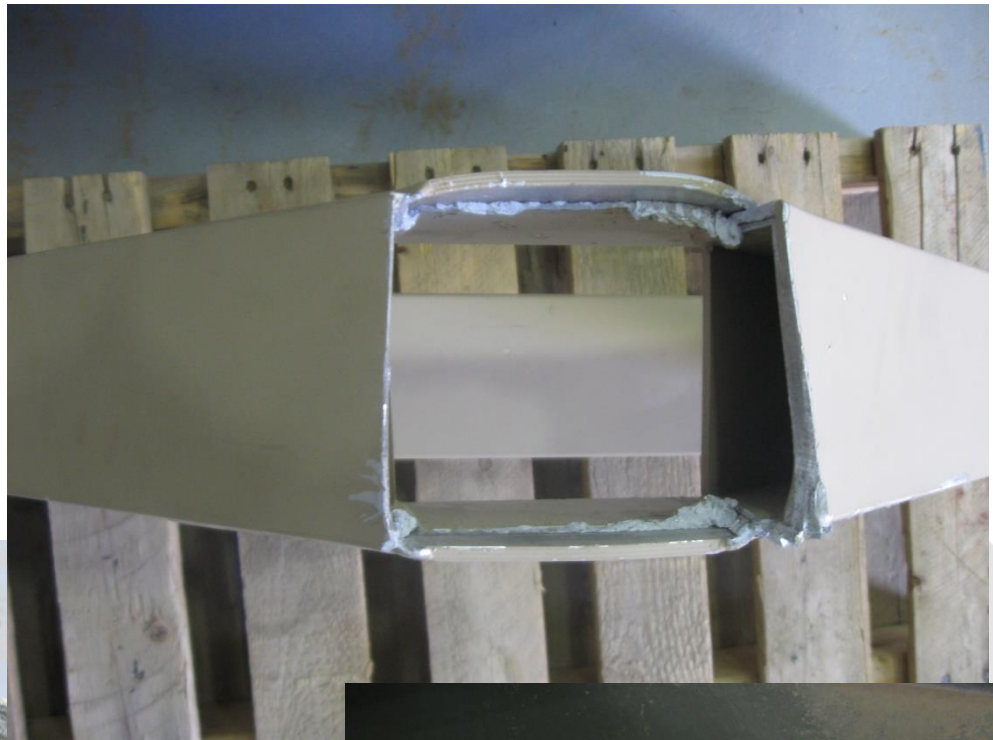
American Welding Society



The Good...



The Bad...



The Ugly



RESOURCES FOR MANUFACTURERS

Kleve Kee

Manufacturing Consultant





We Help
Oregon
Manufacturers
Thrive



Who Is OMEP?

- Not-for-profit agency established on 1996
- We exist to help Oregon manufacturers respond to the challenges of competing in an increasingly global economy.
- Private-Public partnership funded by federal, state, and client company funds.
- 19 total staff. 13 consulting professionals.



Mission:
RESULTS

Clients Report Over **\$1 Billion** in Economic Impact

Strengthening Oregon One Manufacturer at a Time

Since 2003, our clients have seen...



15,005

Additional Jobs Created or Maintained



\$120 mm

Extra Cost Savings



\$950 mm

Increased or Retained Sales

What is the OMEP Way?

- Bend Solutions Around Client Demand
- Drip Irrigation Consulting
- Shoulder to Shoulder Approach
- Top Down/ Bottom Up Methodology
- Economic Centric and Mission Driven

OMEOP Practice Areas



Operations

- Operational Performance
- Engineering Services**
- Quality Systems*
- Supply Chain
- Maintenance TPM



Business Systems

- Strategic Planning
- Business Model Innovation**
- Business Transition
- Executive Coaching
- ERP Selection**



Sales and Marketing

- TDMI/Tech scouting**
- Sales System Development*
- Market Strategy*
- Product Management
- Marketing Services**



New Product Development

- Lean Product Development
- Design*
- Prototyping*
- Market Research*
- Sourcing & Qualification*



Workforce Training

- Leadership
- Job Skills Training (SMART Talent)
- Team Building
- Recruitment*

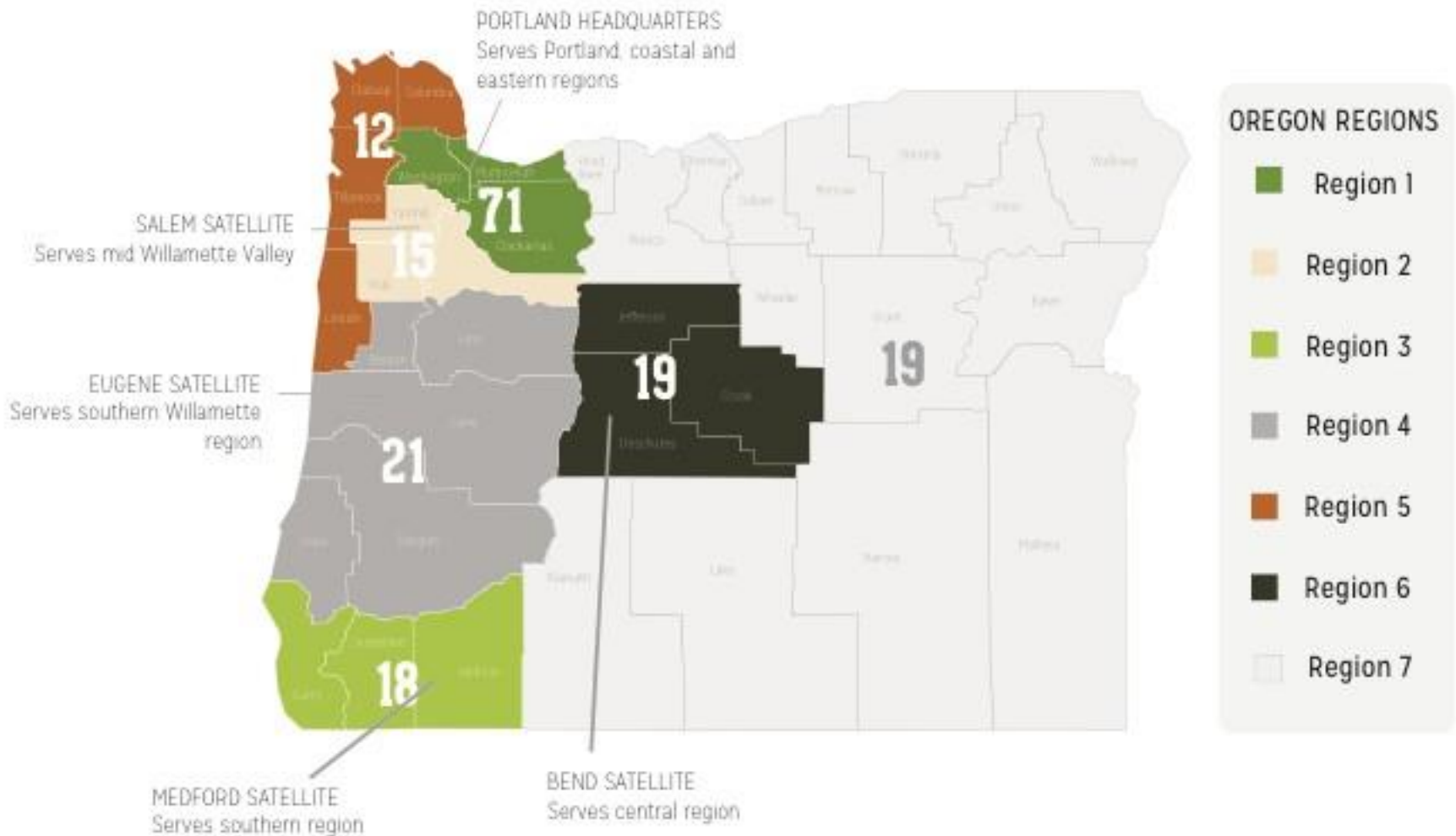
* = third party

** = OMEOP or Third Party



Clients Throughout Oregon

Clients Served By Region



Thank You



www.omep.org

7650 SW Beveland Street Ste. 170
Portland, OR 97223

503.406.3770

RESOURCES FOR MANUFACTURERS

Carley Dirks

Procurement Counselor & Program Manager

Pacific Northwest Defense Coalition



Superior Connections for NW Buyers and Suppliers

SUPPLY CHAIN OPPORTUNITIES FOR NW BUSINESSES



SUPERIOR CONNECTIONS FOR BUYERS AND SUPPLIERS

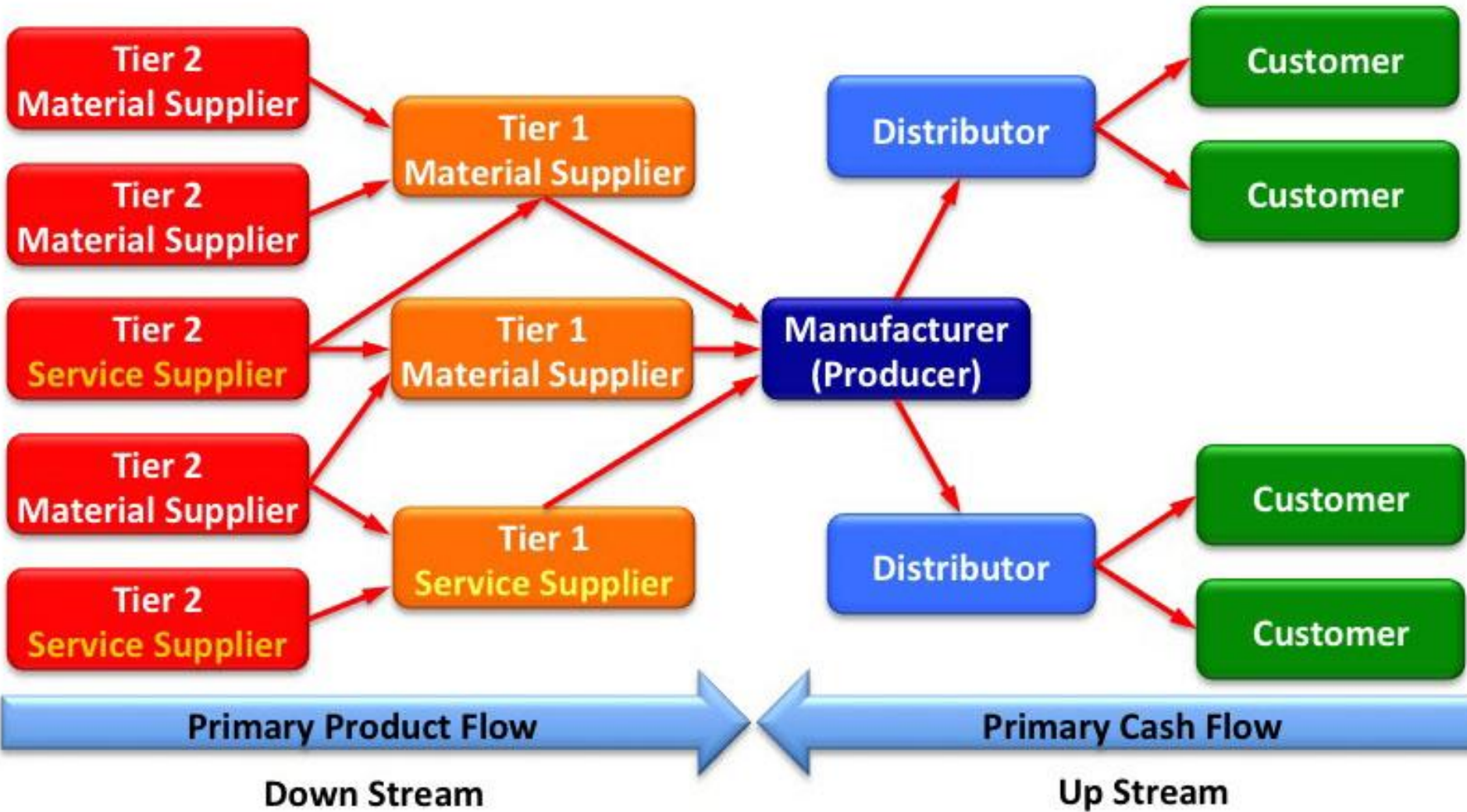


NWB2B

- Online buyer-supplier database for *Business-to-Business* interaction
- Locate detailed company information
 - *including specific capabilities, products, and services*
- Downloadable search results – connect to buyers and suppliers
- Useful for many industry clusters



www.NWB2B.com



Source: APICS, Supply Chain Management Fundamentals, Version 2.2, 2011 Ed. pg. I-6



Businesses that Benefit

- Any traded-sector business
- Cuts across all industry & technology clusters
 - *at every level of the supply chain*
- Not intended for retail or hospitality industries
- For Northwest businesses only



What Does it Cost?

It is FREE to:

- Have a profile
- Update your profile at any time
- Search for suppliers and customers
- Download search results
- Message other NWB2B users





Details Matter

Company Info

- *Location*
- *Personnel*
- *Annual Sales*
- *Year Founded*

Industry Codes

- *SIC*
- *NAICS*
- *NIGP*

Supplier

Approaches

- *Processes/Services*
- *Materials*
- *Equipment*

Capabilities

- *Unique Capabilities/Solutions*
- *Applied Technologies*
- *Special Materials*


Certifications

- *Government Contracting*
- *Quality/Industry*
- *Licenses*

Industry Sectors

- *Government Contracting*
- *Quality/Industry*
- *Licenses*





Join NWB2B *or* Update Your Profile Today

- Claim your profile
- Review and edit your NWB2B profile
- Search for suppliers and send RFQs
- Contact PNDC staff with any questions or difficulties:

888-701-7632 or info@nwb2b.com



Do more business with other
Northwest businesses!



ROUNDTABLE THREE

BUSINESS-TO-BUSINESS DISCUSSIONS





ROUNDTABLE QUESTIONS

- What are you buying from outside of the region and why?
- What percentage of your products or services does your firm purchase from outside of the region?
- How do you find new customers?
- How are you marketing your product(s)? Would you like assistance marketing your product(s)?
- What can we do to help manufacturers buy and sell more in this region?
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- Describe any of your supply chain challenges (transportation, aging infrastructure, technology advances)

RESOURCES FOR MANUFACTURERS

Carley Dirks

Procurement Counselor



Oregon's Procurement
Technical Assistance Center

An Introduction to GCAP



GCAP – Who we are?

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- ▶ Government Contract Assistance Program
 - ▶ WWW.GCAP.ORG
 - ▶ First Oregon Office – 1986
 - ▶ Coos Bay at the Port of Coos Bay
 - ▶ Over 30 years of service to Oregon businesses
 - ▶ Counselors across the state to assist you
 - ▶ Includes Sub Recipient – PNDC





GCAP is Oregon's Procurement Technical Assistance Center

The Government Contract Assistance Program (GCAP) is part of a nationwide network of Procurement Technical Assistance Centers (PTAC) working to help small businesses compete successfully in the government marketplace.

GCAP's mission is to assist Oregon small businesses to succeed in obtaining Government Contracts, which stimulate the growth of Oregon's economy. For over 25 years GCAP has assisted Oregon small businesses in creating jobs, fostering economic diversity, and becoming successful government contractors.

GCAP services include:

- [Center for Verification and Evaluation \(CVE\) certified counseling](#)
- [One-on-One Counseling](#)
- [Registration Assistance \(Duns, SAM, DSBS, FBO\)](#)
- [Bid-matching Services](#)
- [GSA Schedules](#)
- [Assistance with SBA Certifications](#)
- [Training & Conferences](#)
- [Interpreting Solicitations](#)
- [Proposal Review](#)
- [Subcontracting Assistance](#)
- [Product and Procurement Histories](#)

How to get started

Step One: [Become a GCAP client](#)

GCAP provides technical assistance at no cost.

Step Two: Once you're a GCAP client we will contact you for your initial client assessment, usually within 24 hours of your submission.

Si necesita asistencia en Español, por favor de hacer una cita con nuestro oficina a 541-736-1088 OR 800-497-7551, Gracias.

Por favor, marque aquí para obtener nuestro folleto del GCAP.



Become a Client

GCAP provides government contracting technical assistance to Oregon small businesses

Annual Pacific Northwest Government Contracting Conference

February 16, 2017
Camp Withycombe, Clackamas, OR

Join us at the 12th annual Pacific Northwest Government Contracting Conference! Attendees will have a full day to network with seasoned government contracting professionals and receive training specifically tailored to businesses pursuing government contracts.

Please [click here](#) for more information.

SEARCH

Training

[Click Here to View Full-Size Calendar](#)

February						
2017						
S	M	T	W	T	F	S
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	1	2	3	4

Success Stories

[Letter of Commendation for a Job Well Done](#)

[Subcontractor thanks GCAP](#)

[Thanks GCAP for assisting JLC Avionics to receive an award](#)

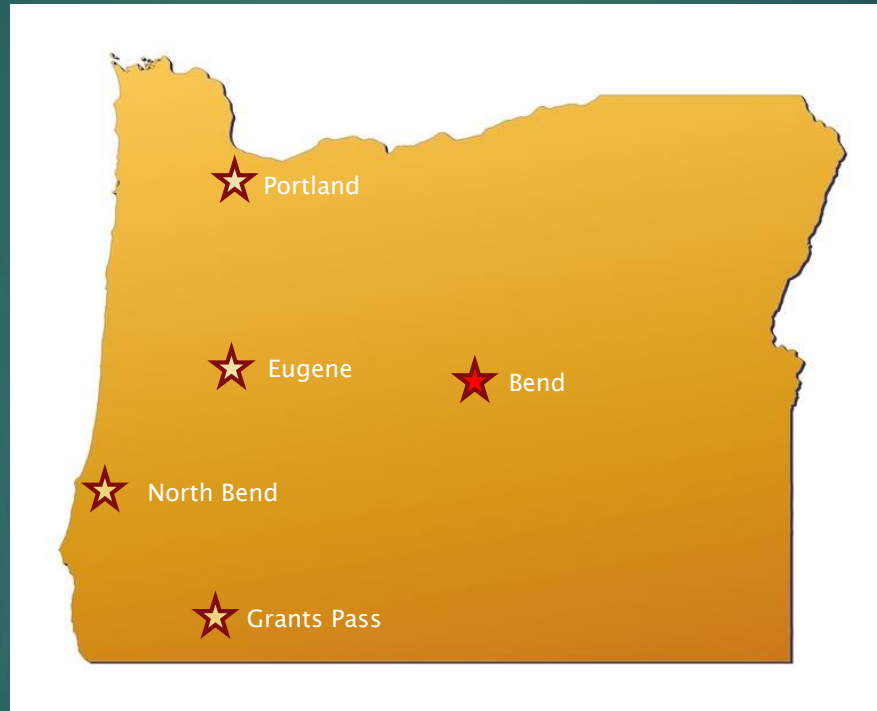
[Read more >>](#)

Sign up to receive our Newsletter

Email Address

GO

GCAP Offices – Where we are?



GCAP – What we are...PTAC

- ▶ ***Want to sell to the government?***
- ▶ **Congress created the Procurement Technical Assistance Program (PTAP)** to help businesses seeking to compete successfully in federal, state and local government contracting

PTAC

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- ▶ Funded through a cooperative cost sharing agreement
 - DOD's Defense Logistics Agency – DLA
 - Business Oregon
- ▶ Nation-wide network of assistance centers
 - <http://www.aptac-us.org>
 - <http://www.dla.mil/db/procurem.htm>
 - *“GCAP, which serves as a Procurement Technical assistance Center (PTAC), is funded in part through a cooperative agreement from the Department of Defense (DOD) through a program that is administered by the Defense Logistics Agency (DLA). The content of any written materials or verbal communications of the PTAC does not necessarily reflect the official views of our imply endorsement by DOD or DLA”*



GCAP - What we do

Technical Assistance

- ▶ Government Database Registrations
 - ▶ Duns & Bradstreet (DUNS Number)
 - ▶ System for Award Management (SAM)
 - ▶ Small Business Administration (SBA)
 - ▶ Dynamic Small Business Search
- ▶ Government Certifications
- ▶ Market Research
- ▶ Finding Contracting Opportunities
- ▶ Federal Acquisition Regulations (FAR)
- ▶ Solicitation Interpretation
- ▶ Proposal Guidance and Review
- ▶ Contract Administration & Invoicing

Training and Additional Resources

- ▶ Workshops, seminars, webinars, and individual business training
- ▶ Newsletters with local and regional events
- ▶ GCOM - bid match service

GCAP Bid Match

Government Contract Opportunities Match (GCOM)

- ▶ Daily Computer matching
- ▶ www.fedbizopps.gov
- ▶ Simplified Acquisitions – under \$100,000
- ▶ International leads
- ▶ State and local/whole U.S.
- ▶ Prime contractor leads
- ▶ \$60/year



Training

88



- ▶ Workshops, seminars, and individual business training
 - ▶ Selling to the Government
 - ▶ State and Federal Basics
 - ▶ Market Assessment
 - ▶ Marketing
 - ▶ Bid Preparation
 - ▶ GSA Multiple Award Schedule
 - ▶ And more!

We Can Answer Your Questions

- ▶ Am I missing out on leveraging competitive advantages?
- ▶ Which small business certifications does my company qualify for?
- ▶ Are state and federal agencies using my product?
- ▶ Am I positioning myself in the best way possible for primes and agencies?
- ▶ Who are my competitors selling their products to?
- ▶ How do I learn more about FAR flowdowns from primes?
- ▶ How much does it cost to register for federal contracting?
- ▶ Do I know where to look for prime and subcontracting opportunities? If I know, do I know how to search more efficiently?
- ▶ Where can I go to learn more about free and low cost small business resources?

Where to Start

- ▶ Contact Damian Kuolt – or – our Springfield office

Damian Kuolt

541.786.7272

dkuolt@gcap.org

Springfield Office

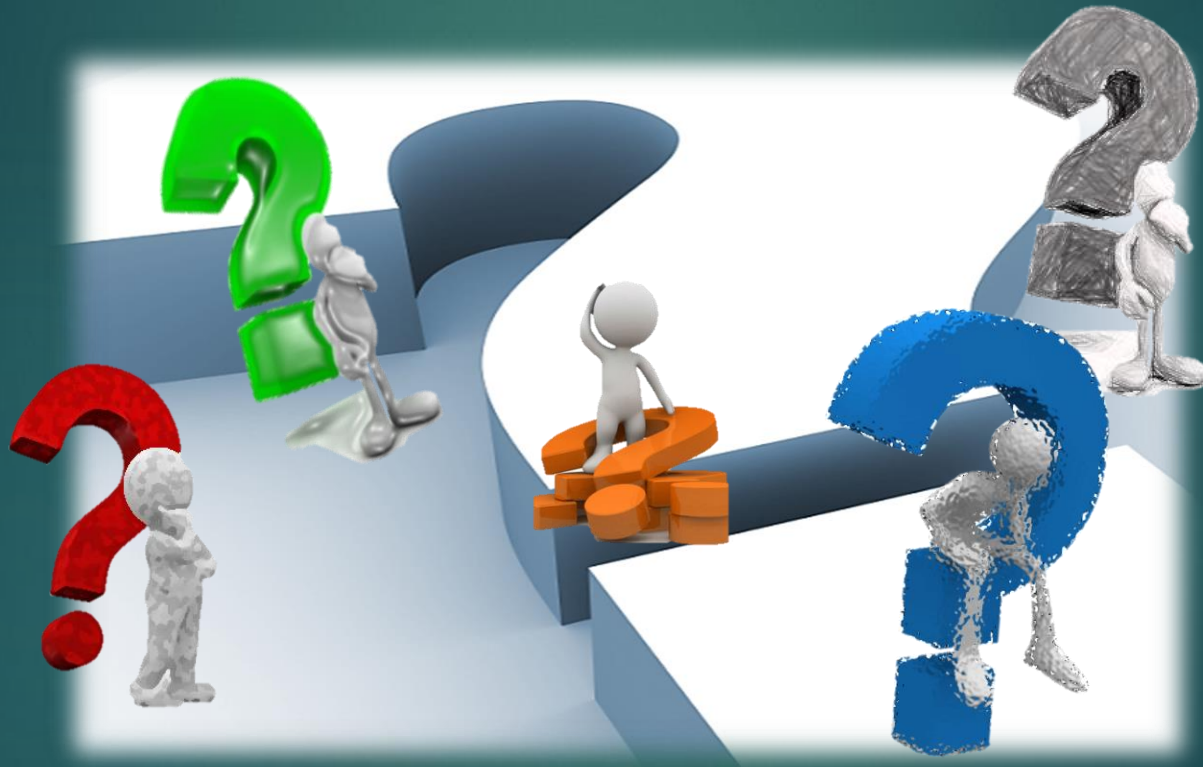
800.497.7551

visit www.gcap.org for more info.

You will be asked to fill out our client intake form which reiterates our services, what to expect from GCAP, and what we ask you to do in exchange for our services.

A counselor in your region will contact you to schedule a meeting.

Questions???



RESOURCES FOR MANUFACTURERS

Alexa Byers

Global Trade Specialist



Programs & Services for Oregon Supply-chain Manufacturers

PNDC Supply Chain Conference – Bend, OR
May 23, 2017

By Alexa G. Byers, CGBP
Global Trade Specialist
Business Oregon



Business Oregon — What we do

- Business Retention
- Expansion
- Recruitment



Business Oregon

Areas of expertise:

- 1) Provide Access to Capital;
- 2) Encourage Global Trade;
- 3) Finance Infrastructure projects;
- 4) Foster Innovation and Entrepreneurship; and
- 5) Build a stronger workforce.

Oregon Manufacturing Innovation Center (OMIC)– Scappoose, OR

Applied research areas:

- Additive Processes • Subtractive Processes • Hard Metal Manufacturing • Automation and Optimization • Advanced Joining (welding) • Material Efficiencies • Advanced Alloy Development • Next-Generation Machining Tools • Structural Testing • Large Integrated Structures
- Contact Bill Gerry: William.m.Gerry@boeing.com

Export Programs & Services

- Matching Funds Grants (Oregon lottery \$ and SBA \$) for Trade Shows and Trade Missions – up to \$10,000 per event – up to 4 x per year
- FREE Overseas Help in Japan & Saudi Arabia
- Export Financing – including supply chain
- Federal Partners include:
 - US Dept. of Commerce – finding distributors/importers/partners
 - Export Import Bank of USA – no defense



Upcoming Export Events

June 2017

- Paris Airshow – France – Aerospace, UAV

September 2017

Defense & Security Expo Int'l (DSEI) 2017 – London, UK

October 2017

- * AUSA Expo (w/PNDC) – Washington, DC – Army

February 2018

- *Singapore Airshow

May 2018

- * AUVSI - USA

June 2018

- * Eurosatory – Paris, France



Thank you!

Alexa G. Byers, CGBP

Global Trade Specialist

Advanced Manufacturing & Export Finance

Business Oregon

World Trade Center

Portland, OR

m. 503-475-1832

Alexa.Byers@Oregon.gov

www.oregon4biz.com

WWW.OREGON4BIZ.COM

William Gerry

Program Manager, Global Technology

Boeing Research & Technology





Building the Global Manufacturing Innovation Model

Imagine a place.....

Bill Gerry
Boeing Research and Technology
Global Technology

An Engineering, Operations & Technology Group

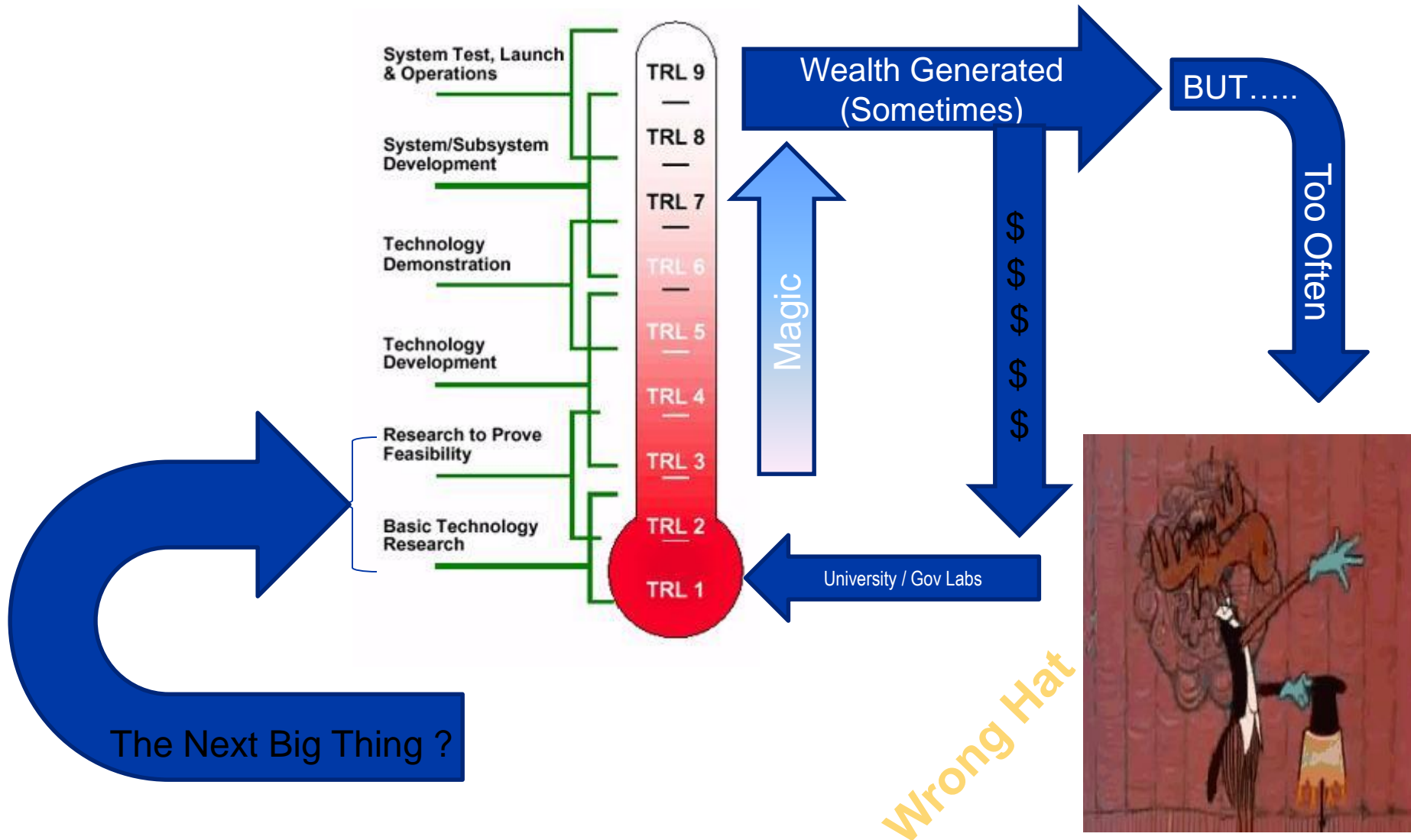
Laws of Technology

- The Next Big Thing:
 - By the time it has a name, **too late.**
- Base hits win baseball games.
 - Legislators want to see **Home runs.**
- Most (nearly all) technology Start-ups **fail.**
 - Net zero jobs.
 - **Home run companies (Apple – Microsoft) started with 4-6 TRL technology, not 1-3.**
- Most (nearly all) 1 -3 TRL technologies **fail** to get to 7 TRL
 - Valley of Death.
 - Negative economic return.

Objects in your rearview mirror may be more important than they appear.
You may be passed by what you thought was the past.

USA Model

Same Action/Same Result

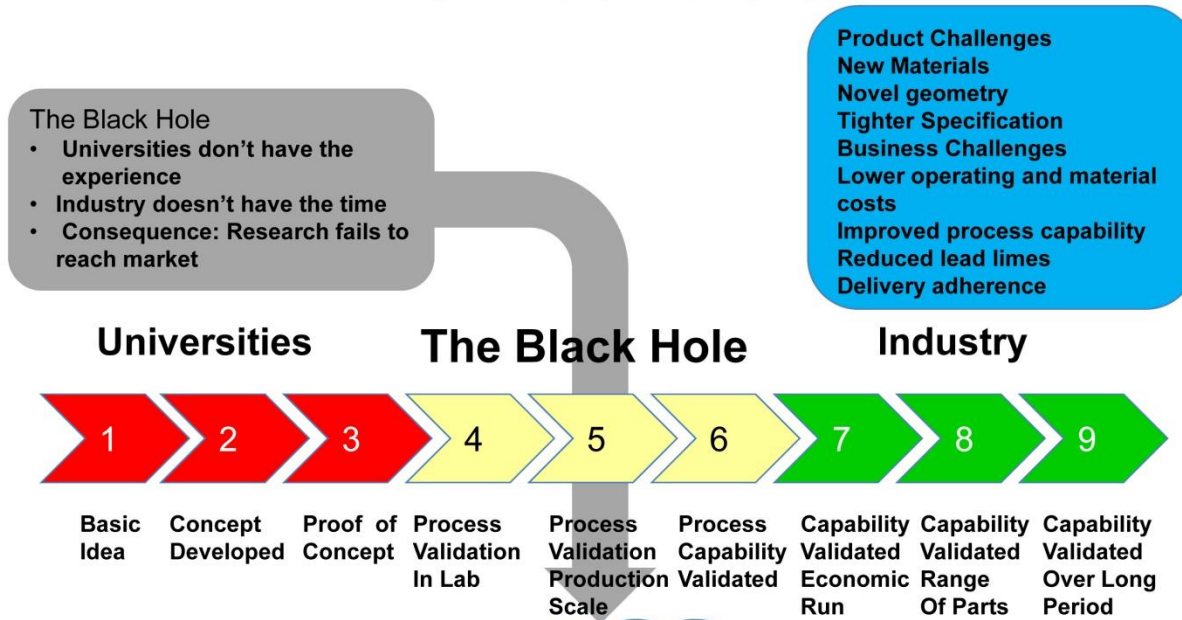


The Valley of Death

Where there is no Magic



Manufacturing Capability The Black Hole



Failure to Implement



Academic Institution and National Labs

Industry

A look at TRL 1 to 3.....

Four challenges Boeing faced working with Universities and National Laboratories:

1. Research too theoretical – focused on producing PhD's or challenges in the “National Interest”
2. Projects were small and ad hoc or GIGANTIC – professor / engineer driven not focused on delivering to the revenue stream
3. Productivity was low – schedule tied to the academic year or the Congressional budget cycle
4. Unreasonable Intellectual Property terms – You can't make up for missing the MP3 Player

So what's a Fella to do???

Focused industry driven technology agenda

Stuff Gets on an Airplane

Leverage of R&D investment

Cost of Developing Stuff is Leveraged (someone else helps pay)

Multi-year and substantial commitment

Always MORE Stuff Coming

Professional staff with no summer shutdown or continuing resolution

Folks Committed to Developing Our Stuff

BUT WAIT....Let's RECAP.....

What Does a Government Sponsor Desire?

Column Inches in the Newspaper Shouting About All the Good

THEY have Created

What Does a University Partner Desire?

Funding to Work on Hobbies

What Does an Industry Partner Desire?

Vulgar Profits... Jam today, Jam tomorrow and not pay for it!



The AMRC Model

Where Magic is Replaced by Successful Execution

Industry + Government + Academia = **WEALTH**

Technical Approach

- Customer and Industry needs drive the process
- Supply chain capabilities assessed
- Gap analysis performed
- Technology plans established
- R&D performed

Participants (Value Chain)

- Global OEMs
- Aerospace Supply chain
- Equipment suppliers
- Material suppliers
- Academia
- Government(s)

AMRC Model
Value and Wealth Creation Through
Collaboration

Targeted Results

- Industry needs addressed with Leveraged Funds
- Industry influences R&D focus
- Improved supplier cost & quality
- Two tier IP ownership
 - Generic R&D (joint)
 - Specific R&D
- Technology transition to OEMs and supply chain

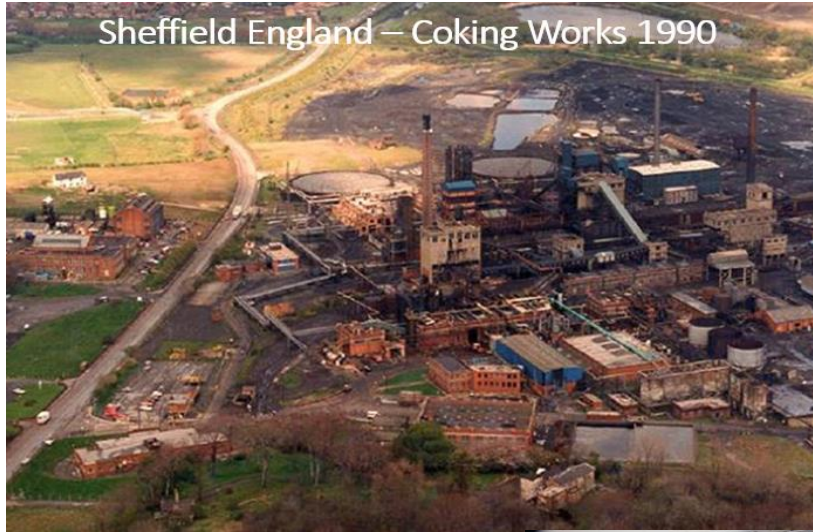
Financial Approach

- Fee based membership
- Shared financial burden
- Tiered membership (IP impact)
- Government \$ matching and investment

What does “Successful Execution” look like??

Advanced Manufacturing Research Center at University of Sheffield With Boeing

From THIS



In 12 years

- 650 Scientist, Engineers, and staff
- 2000 Well Paid Jobs on the Park
- Assisted over 500 Companies in Winning New Business
- \$1B Added to the National Economy
- 750 Young Apprentices in Training
- Over 40 Companies Co-located
- Over 70 Industry partners

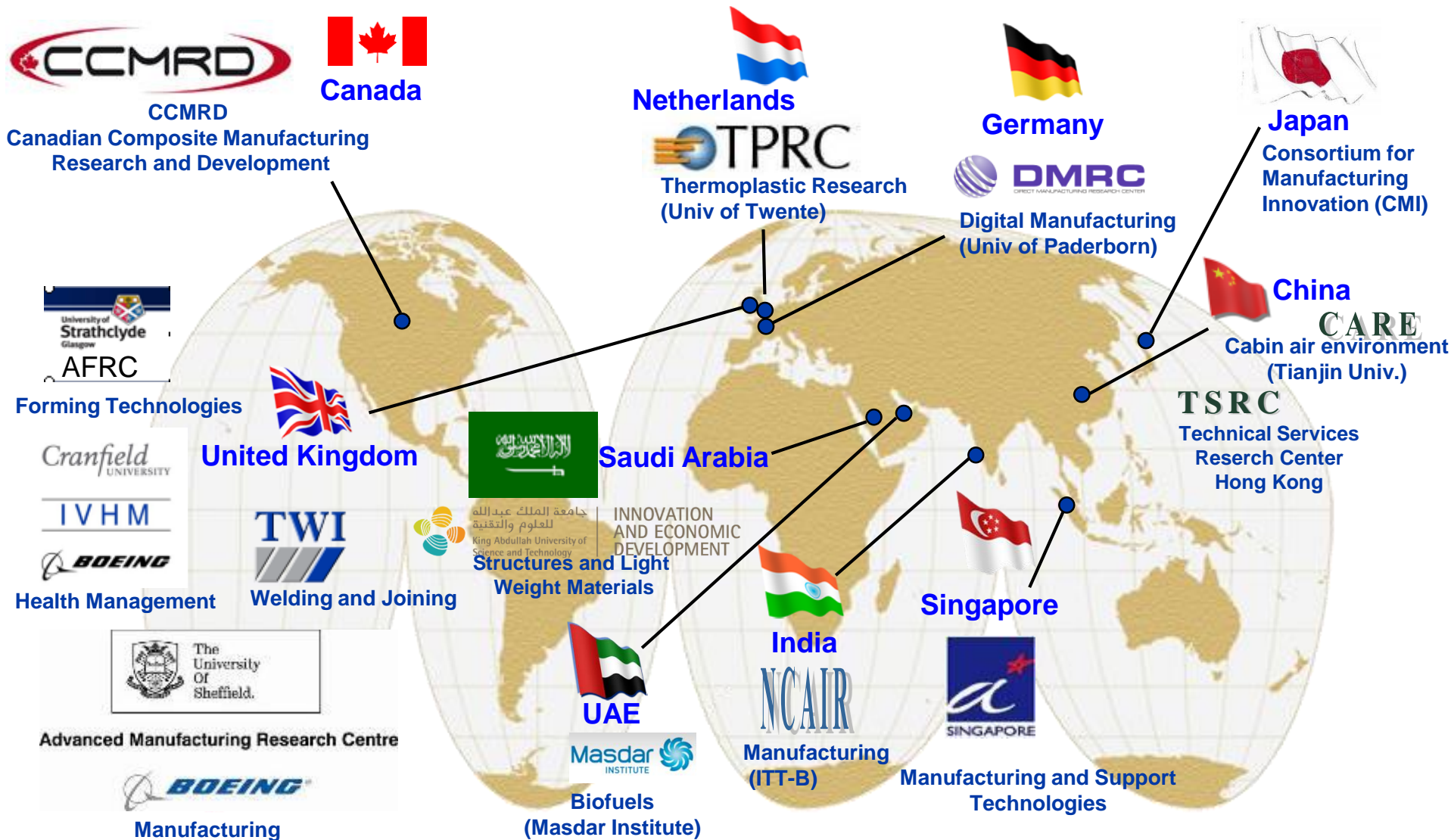
To THIS



The Experience Factor

14 Boeing Research and Technology Consortia

Delivering Advanced Technology in Collaboration with Industry, Academia, and Government Partners



Oregon manufacturing innovation center



travelportland.com

The Global Manufacturing
Innovation Model in.....
YUPScappoose Oregon!!!



Novel new ways of manufacturing large-scale
structures for advanced transport industries

Fly it... Float it... Freight it

Oregon Manufacturing Innovation Center R&D (OMIC R&D)

Ambitious

Sustainability

High value

Powerful

Regional Attractiveness

Collaborative

Retention

Talented/capable
Workforce

Work force of the future

World class Research and Development

Technology transition

Solutions to Real World Problems

The vision is a thriving community based on a cluster of high value manufacturing companies and their supply chains co-locating with research and training establishments that can meet their future innovation and training needs.

Best Partners



Best Equipment





Imagine a place....

.... “where **Government, Academia, and Industry** come together to deliver world class tools, techniques and technologies which create wealth across the economy, give young people hope, and provide a brighter future for everyone..... “

Oregon Manufacturing Innovation District



DOOR PRIZES!

PLEASE TURN IN YOUR EVALUATIONS





THANK YOU FOR ATTENDING THE SUPPLY CHAIN OPPORTUNITIES CONFERENCE BEND, OREGON

