



Workforce and Talent Development Board (WTDB)

Artificial Intelligence Taskforce

Members:

KS Venkatraman, Co-Chair

Mark Mitsui, Co-Chair

Matt Abrams

Bridget Dazey

Bryan Guiney

Nick Insalata

Mark McPherson

Nagi Naganathan

Soundharya Nagasubramanian

Sabrina Parsons

Jim Piro

Fred Pool

Rhonda Rhodes

Myronda Schiding

Xubo Song

Laurie Cremona Wagner

Staff:

Todd Nell, Director WTDB

Sydney King

Clay Martin

July 30, 2020

1:30p-3:00p

Virtual Meeting

Call in: 877-810-9415 Access Code 9550046

Persons wishing to testify during public comment period should sign up at meeting. Times approximate and order of agenda items may vary.

AGENDA

1:30p	1.0	Introductions and Opening Remarks	KS Venkatraman Mark Mitsui
1:35p	2.0	Public Comment <i>Each individual/group will have a time limit of three minutes</i>	
1:40p	3.0	Consent Agenda ACTION ITEM: Approve 6/24/20 AI Taskforce Minutes	
	4.0	Guest Speakers	
1:45p	4.1	Outcomes Based Funding	Duncan Wyse, OBC Brian Fox, OIT
2:10p	4.2	Agriculture and AI	Shawn Irvine, City of Independence
2:35p	4.3	AI in Manufacturing	Aaron Fox, OMEP
2:55p	5.0	Discussion and Next Steps	
3:00p		Adjourn	



All meetings of the Workforce and Talent Development Board are open to the public and will conform to Oregon public meetings laws. A request for an interpreter for the hearing impaired or for accommodations for people with disabilities should be made to Sydney King at (503) 947-2416 or by email at HECC_WTDB@oregon.gov. Requests for accommodation should be made at least 72 hours in advance. Staff respectfully requests that you submit 25 collated copies of written materials at the time of your testimony. Persons making presentations including the use of video, DVD, PowerPoint or overhead projection equipment are asked to contact WTDB staff 24 hours prior to the meeting.



Workforce and Talent Development Board (WTDB)

MEETING MINUTES

Artificial Intelligence Taskforce

June 2, 2020

2:30PM-4:00PM

Virtual Meeting

Call in: 877-810-9415; Access Code 9550046

Members Present: KS Venkatraman (Co-chair), Bridget Dazey, Bryan Guiney, Nick Insalata, Jim Piro, Rhonda Rhodes, Myronda Schiding

Standing Business

1:00	1.0	Preliminary and Organizational Business
	1.1	Meeting was called to order at 2:36PM by Co-Chair Venkat.
1:03	2.0	Public Comment
		None
1:04	3.0	Consent Agenda
		Venkat moved to approve the 5/5/20 AI Taskforce Minutes with the adaption of adding a comment regarding the importance of difference between users and identifiers. Jim Piro seconded. No further discussion. Motion passed.
1:05	4.0	Strategic Leadership
	4.1	Venkat went over the progress of the Draft Report, and asked for feedback and assistance for the various sectors. More input is needed from the healthcare sector. The federal and state level needs more work. He discussed the AI Leadership call, where Amy from OED will be writing about how COVID-19 has affected the economy. Nick's AI Education subcommittee will be procuring the meat of the report. Nick agreed to have report done within the next few days in time for WTDB June meeting to present to full board.
	4.2	Nick Insalata spoke about the AI Education Subcommittee. <ul style="list-style-type: none">• There is a project for undergrad students to take a computer science track.• OSU has introduced a new graduate program.• Jason G is exploring computer science for high school level course descriptions.• There has been a lot of discussion around the current state of AI education and the goals of the future. Discussion on this subject ensued. STEM Hubs may be a good fit for aligning this work. A suggestion was put forth to leverage existing funds (Student Success Act) since due to COVID-19, funding will presumably be difficult to come by.
	4.3	Todd Nell gave an update on the Sector work of the draft report. He reviewed connections and statuses of when information will be sent in,

Members:

KS VENKATRAMAN (CO-CHAIR)

MARK MITSUI (CO-CHAIR)

MATT ABRAMS

BRIDGET DAZEY

BRYAN GUINEY

NICK INSALATA

MARK MACPHERSON

NAGI NAGANATHAN

SOUNDHARYA NAGASUBRAMANIAN

SABRINA PARSONS

RHONDA RHODES

MYRONDA SCHIDING

XUBO SONG

LAURIE CREMONA-WAGNER

Staff:

SYDNEY KING

TODD NELL

and information that has been submitted already. The two sectors struggling to find information are healthcare and sportswear.

- 2:30** **5.0** **Discussion and Next Steps**
Members agreed to have pieces of draft report submitted to Venkat by end of week, so he can piece together over the weekend and submit to be presented at full board meeting on June 12.
- 2:55** **6.0** **Adjourn**
Meeting adjourned at 3:32.

ARTIFICIAL INTELLIGENCE TASKFORCE | 7.30.2020



Engineering Technology Sustaining Funds: History & Distribution

Duncan Wyse | President, Oregon Business Council

Brian Fox | VP Finance & Administration, Oregon Tech

Overview



1. Engineering Technology Industry Council (ETIC) Founding
2. ETIC Results
3. ETIC Funding and Restructuring
4. Engineering Technology Sustaining Funds
5. Thoughts and Discussion

Engineering Technology Industry Council (ETIC)



- 1997 – Created (SB 504) to invest in engineering and computer science cluster, particularly in the Portland-Metro area.
- Housed under the Chancellor’s Office
- Focused investments:
 1. Build faculty capacity in high technology areas
 2. Enhance program capacity in collaboration with OGI
 3. Strengthen skilled technician training
 4. Expand growing engineering programs offered Oregon Tech

ETIC Results:



- Tripled engineering graduates in the state
- More than tripled research expenditures in Oregon in engineering and technology areas
- Strengthening of OSU College of Engineering, PSU College of Engineering and Oregon Tech's College of Engineering, Technology and Management
- Increased faculty and student diversity and gender balance
- Supported over 70 key faculty hires, supported grants, graduate work, start-up packages and lab build-outs

ETIC Funding & Restructuring



- ETIC Funding transitioned from actively managed grants and supports for particular programs to ongoing support for faculty and educational/R&D capacity
- During the transition from the Oregon University System to independent universities and the founding of the Higher Education Coordinating Commission (HECC) in 2013 the ETIC Council determined it was best to restructure its funding approach
- Restructured under the HECC the Council’s funding was transitioned upon its recommendation to a “Renewable Fund” and “Sustaining Fund”

ETIC Funding & Restructuring II



- The Renewing Fund would allow for grant based activity and scaling up of new initiatives and encompassed roughly 1/4 to 1/3 of the overall funding pool.
- The Sustaining Fund would support the infrastructure which had developed across the seven universities, but be allocated based on ongoing performance – not existing costs.
- During the 2015 session the Renewable Funds were not renewed by the legislature and the ETIC Council disbanded. The Sustaining Funds persisted under the HECC but were restructured to be clearly outcomes driven in-line with ETIC’s recommendations

Engineering Technology Sustaining Fund (ETSF)



- During 2017 and 2018 a cross-university group was convened by the HECC to establish the ETSF funding methodology.
- The new formula drives the allocation of an approximately \$27M biennial allocation and includes:
- Limited base funding for all universities to support some STEM based curricula
- Outcomes funding directly linked degrees, research and development, and employment of graduates in Oregon

ETSF Outcomes



- Degrees to Oregon Residents:
 - Allocates funds based on the number of undergraduate and graduate degrees in targeted areas at both the graduate and undergraduate levels
- Research and Development:
 - Funds based on Doctoral degree production in targeted areas (60%) and proportion of total R&D in targeted areas (40%)
- Wages and Employment in Oregon
 - Tracks graduates in targeted areas who remain in Oregon and work in the state of Oregon based on a wage adjusted basis (i.e. the higher the wages of graduates the higher the more funding for a university) based on Oregon Employment Department data.
- Targeted programs are: Computer Science, Engineering, Mathematics and Computer Science, Engineering Technology and at the U of O, MS in Biology, Chemistry, Physics and Material Sciences.



Thoughts and Discussion



Oregon Manufacturers' Source for Growth & Prosperity

Who Is OMEP?

- **Non Profit Managing Consulting Firm – Public/Private Partnership** funded by federal, state, and client company dollars.
- **23 staff based around Oregon** - over 500 years combined manufacturing experience
- **Member of the NIST MEP National Network** – able to draw on nationwide expertise



Mission

OMEPA works side by side with
Oregon manufacturers to help build
successful businesses



SIDE BY SIDE



**SUCCESSFUL
BUSINESSES**

OMEP HAS WORKED WITH OVER 1,000 SMALL AND MID-SIZED MANUFACTURERS TO GENERATE OVER \$2.1B IN ECONOMIC IMPACT.

OVER **12,000**
JOBS CREATED
AND RETAINED

OVER **\$175 M**
COST SAVINGS

OVER **\$1.6 B**
NEW & RETAINED
SALES

OVER **\$2.1 B**
IN ECONOMIC
IMPACT



Common Client Challenges

BUSINESS FINANCIALS AND STRATEGY	MANUFACTURING OPERATIONS	WORKFORCE SOLUTIONS
I want to grow my business but don't know where to start	My manufacturing costs are too high	I can't find or keep "good people"
I don't know how to use my financial statements to make good business decisions	We are barely keeping up with orders	It takes me forever to train my employees
I need to improve sales and cash flow	We are cramped and need help with layout or a new facility	I spend too much time fighting fires
I want to retire some day and need help with the transition	I want to integrate new technologies but don't know where to start	My people don't know what to do when I am away

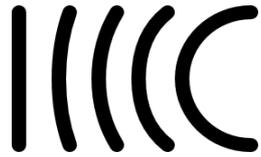
Areas We Help

BUSINESS FINANCIALS AND STRATEGY	MANUFACTURING OPERATIONS	WORKFORCE SOLUTIONS
Financial Understanding	Lean Manufacturing / Process improvement	Organizational Structure and Alignment
Growth Services	Manufacturing Engineering	Leadership and Employee Development
Strategy	Technology Solutions	Recruiting, On-boarding, and Training

TRANSFORM YOUR BUSINESS TRAJECTORY



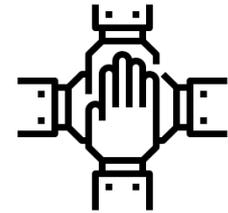
The OMEP Way



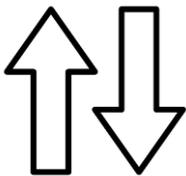
BEND SOLUTIONS
AROUND CLIENT DEMAND



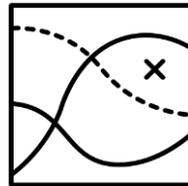
DRIP IRRIGATION
CONSULTING



SHOULDER TO SHOULDER
APPROACH



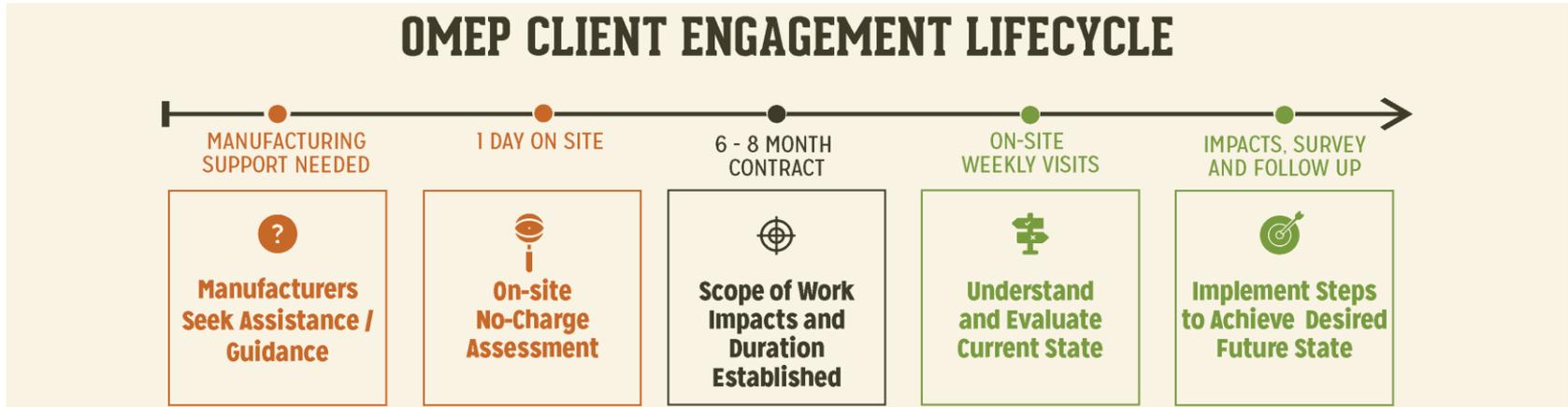
TOP DOWN / BOTTOM UP
METHODOLOGY



ECONOMIC CENTRIC
AND MISSION DRIVEN



Transformational, Not Transactional



A TYPICAL ENGAGEMENT

- Weekly Implementation on site
- Average contract is 7 months
- Additional funding support occasionally available in certain geographic regions

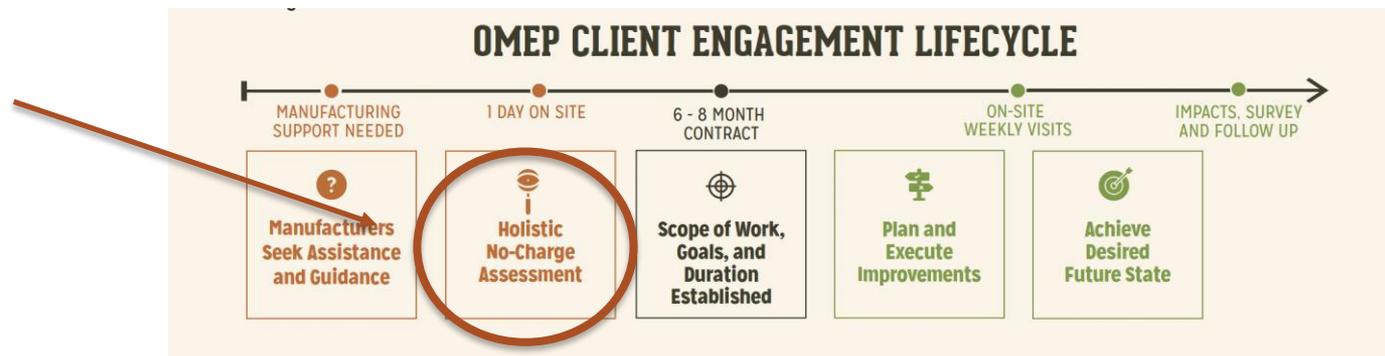
ON-SITE NO-CHARGE ASSESSMENT

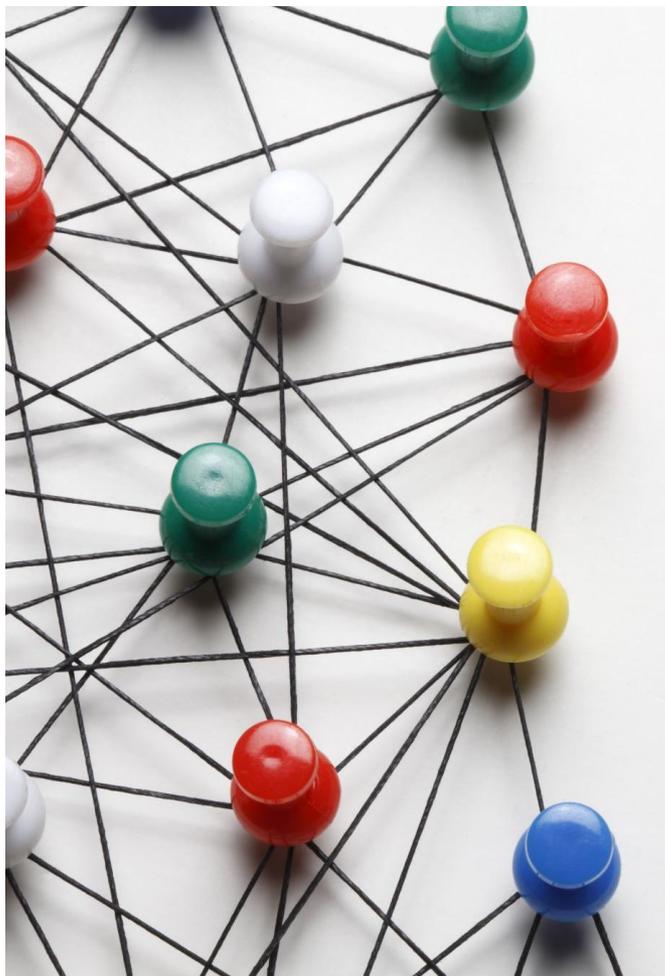
IDENTIFY AREAS TO GROW THE BUSINESS AND MAXIMIZE PRODUCTIVITY



WHAT WE DO	WHAT THEY GET
Conduct a custom on-site visit to assess situation and gain an understanding of the business.	Unbiased feedback to understand improvement opportunities.
Provide a scope of work that defines a customized, actionable plan for growth and improvement.	Receive a roadmap for success.
Provide company performance data that can be used for benchmarking and goal setting.	Understand what is financially and operationally possible for the business.

- \$10,000 Value
- No Pressure

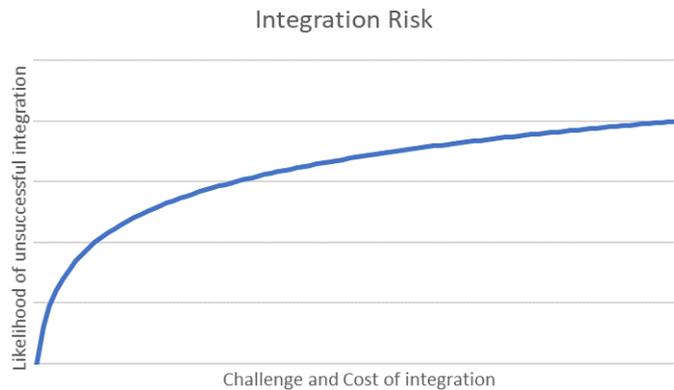




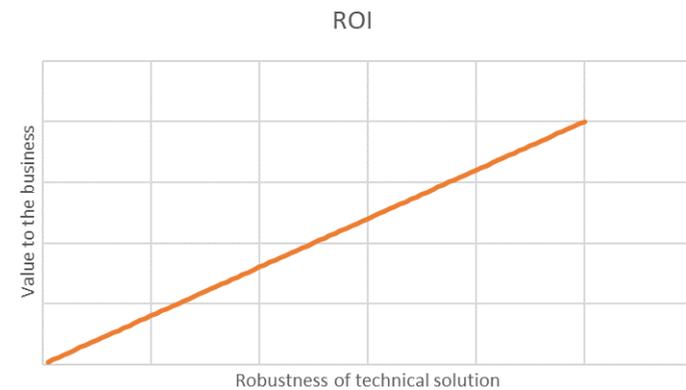
AI for small and
medium
sized manufactures

Background: What we've seen

As technical sophistication of an integration increases, generally the likelihood of having an unsuccessful integration also increases.



As robustness of a solution increases, generally the value it delivers to the small and medium sized manufacturer also increases



Market gap: I4.0 and AI for SMMs

Robotics and Automation

Additive Manufacturing

AI / Cloud Computing / Simulation / Data

AR / VR / Mixed Reality

IoT

Cyber security

De-risked AI Solutions for SMMs

Operations – equipment failures, TPM, AI for generative design

Education and Employee Engagement – gamifying work, AI integrated into training platforms

Sales and Marketing – customer lists, demographic targeting

Other shifts effecting AI adoption

Demographic trends – Aging manufacturing workforce

Mobile 5G – the hope and promise of ultra fast internet driving down cost of data transfer

Shifting global trade patterns – reshoring of supply chains

Thank You



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