



Program



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ram 2015
Manufacturers'
Trade Conference & Expo

Sponsors:



Regional Advanced Manufacturing Partnership

Trade Conference and EXPO

Knoxville Airport Hilton, Alcoa, TN

Agenda At-a-Glance

Monday, October 5, 2015

4:30 PM	Registration Opens
5:00 – 7:00 PM	Opening Reception
5:30 PM	Welcome, Kevin Kragebrink, Tech 2020
	Remarks, Senator Doug Overbey

Tuesday, October 6, 2015

7:30 AM	Registration Opens
7:45 AM	Continental Breakfast

7:45 AM – 4:30 PM	Exhibit Hall Open
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Session Schedule

8:00 AM	Welcome, Dr. Lee Martin, University of Tennessee
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8:30 – 9:30 AM	Morning Sessions
9:30 – 9:45 AM	Morning Break
9:45 – 11:15 AM	Morning Sessions

11:15 – 1:00 PM	Keynote Luncheon Building the Regional Manufacturing Cluster in East Tennessee A candid conversation with Dr. McIntyre & Dr. Murray with real world perspective added by top regional manufacturers Jeff Bohanan, Protomet Corporation; Adam Kuhn, ProNova Solutions; and Bret Maser, Sea Ray Boats
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1:00 – 2:30 PM	Afternoon Sessions
2:30 – 2:45 PM	Afternoon Break
2:45 – 4:45 PM	Afternoon Sessions

Keynote Luncheon Speakers

Dr. Michael McIntyre is the director of UT's Executive MBA for Strategic Leadership, and an expert in leadership and culture. He works with numerous national and international companies in a variety of industries including healthcare, national defense, automotive, packaging, financial services, and media. In addition to dozens of academic presentations and publications, Dr. McIntyre has appeared on Fox News, The Early Show, and National Public Radio, and been featured in USA Today, The Wall Street Journal, and The New York Times. Dr. McIntyre received his BS in Public Policy from Cornell University and his PhD in Industrial-Organizational Psychology from The University of Tennessee.

Dr. Matthew N. Murray serves as Director of the Howard H. Baker Center for Public Policy and Associate Director of the Center for Business and Economic Research (CBER) at the University of Tennessee. He also holds the title of Ball Corporation Professor of Business in the College of Business. Dr. Murray is a former Head of the Economics Department and former Chair of the University Graduate Council. He currently directs the program in Public Administration in the Economics Department. His research generally explores the intersection between public policy and the private sector. His academic research has focused heavily on state tax policy, tax administration and tax compliance. At the Baker Center, Dr. Murray is actively engaged in enriching student engagement initiatives and cultivating research in the areas of energy policy, environmental policy and global security. In CBER, Dr. Murray's research has focused on economic development incentives, tax policy, economic impact analysis, transportation policy, analysis of education and welfare reform, along with a host of other topics. He also maintains the Tennessee Econometric Model, which provides a short-term and long-term forecast for the state economy and provides economic forecasting services for the Tennessee Valley Authority. Dr. Murray received his BA from the University of Northern Iowa and his MA and PhD from the Maxwell School of Citizenship at Syracuse University.

Mr. Jeff Bohanan, Founder and President, of Protomet Corporation, a high precision production manufacturing facility located in Oak Ridge, TN. Protomet Corporation was founded in 1997 and has become a world-class provider of engineering and manufacturing services. Protomet serves a wide range of industries including medical, automotive, boating, homeland security, architectural, general industrial hardware, and energy and power. Protomet's niche is working with customers to optimize designs for manufacturability, design manufacturing processes, manufacture pre-production prototype components, and manufacture production components using lean and cost-effective manufacturing processes. Jeff has a BS and MS in mechanical engineering from the University of Tennessee.

Keynote Luncheon Speakers

Mr. Adam Kuhn is Vice President of Operations for ProNova Solutions, LLC and has 20 years' experience in design, manufacturing, and process optimization. Most recently, Mr. Kuhn founded e3i Group, LLC, a systems engineering and business optimization consulting practice. At e3i Group, Mr. Kuhn led projects that identified corporate structure misalignments and operational workflow inefficiencies and delivered solutions through redesigned structures, systems and processes. From 2007 to 2011 Mr. Kuhn was the Director of Planning and Optimization for PETNET Solutions, Inc. where he supported, expanded and optimized operations across more than 50 radiopharmaceutical production facilities in Europe, Asia and the Americas. Mr. Kuhn was responsible for Supply Chain Management, Project Management, Capital Planning, Process Optimization and Strategic Planning. From 2007 to 2001, Mr. Kuhn served as Director of Cyclotron Manufacturing Operations for Siemens Medical Solutions. Mr. Kuhn was part of the CTI Molecular Imaging team lead by Mr. Matteo and eventually acquired by Siemens Medical. During his time with Cyclotron Manufacturing, Mr. Kuhn lead all aspects of cyclotron and chemistry module production and test, material planning, manufacturing engineering, site planning, customer applications training, installation and commissioning. Mr. Kuhn also led efforts to implement various quality initiatives and management tools. Prior to CTI and Siemens, Mr. Kuhn was a project consultant for Dell Computers driving improved supplier quality and resource utilization. Mr. Kuhn earned his BS in Mechanical Engineering from Texas A&M University, his MS in Industrial Engineering, and a MBA, both from the University of Tennessee.

Mr. Bret Maser is the Vice President of Finance for Recreational Boat Group, a division of Brunswick Corporation. He has worked at Sea Ray Corporate, Sea Ray Palm Coast and Sea Ray Merritt Island since 2003 in many financial positions including Director of Financial Planning & Analysis, Production Manager, Plant Controller, Accounting Supervisor, and Plant Accountant. Among his many responsibilities, he performs forecast vs. actual reporting for Sea Ray, Meridian, and Baja brands and manages forecasting and budgeting processes for three brands and 20 legal entities (three of which are international). In addition, he manages boat and option pricing process, from start to finish, for three brands (Sea Ray, Baja, and Meridian), which encompass more than 40 models and nearly 2,000 options done in multiple currencies. He previously worked at Airborne Express as a hazardous materials shipping expert. He has a BA in Finance from the University of New Hampshire and a MBA from the University of Central Florida.

Chilhowee Room

Opportunities in Additive Manufacturing

8:30 AM

Moderator: Dr. Craig Blue, Institute for Advanced Composites Manufacturing Innovation (IACMI)

Panelists: Lucy Beard, Feetz – The Digital Cobbler; Rick Spears, TruDesign; Bill Sumner, Bell Helicopter, Inc.

Business leaders in the Additive Manufacturing industry will discuss where we are in this technology and where it is going. What are the new challenges? How should a company invest in the technology? How does this new type of manufacturing change the way that we do business? Attendees can gain perspectives into this technology in terms of making metal parts and how the continued evolution of technology and pricing structure affect high-mix, low-volume manufacturers as well as reducing the cost of complex part production for metal manufacturers.

Navigating Apprenticeships through the U.S. Department of Labor

9:45 AM

Moderator: Adina Chumley, TN Department of Labor and Workforce Development

Panelists: Michael Stumpff, U.S. Department of Labor; April Counts, Gestamp, Chattanooga

This presentation will provide a “how-to” on getting your apprenticeship registered with the U.S. Department of Labor.

Pulling Technology from the Labs to Solve Your Innovation Challenges

1:00 PM

Moderator: Jeff Cornett, ORNL

Panelists: Jeremy Benton, CNS Y-12; Jennifer Caldwell, ORNL; Maha Krishnamurthy, UTRF

East Tennessee is at the heart of research and development for cutting edge technologies in the southeast region of the country. The Oak Ridge National Laboratory, the University of Tennessee, and the Y-12 National Security Complex develop technologies of interest to Advanced Manufacturing. Many of these technologies are patented and are available for license in the broad categories of Materials, Energy, Additive Manufacturing, and Sensors. Representatives of each institution will present examples of their technology portfolios that are available for license and commercial development, discuss the process of engaging his or her institution in licensing discussions, and present programs to assist in business development.

Supply Chain Brains

2:45 PM

Moderator: Brad Greene, Gridwell

Panelists: Rick Elder, APICS; Patrick Smith, Pro Nova Solutions; Ted Stank, University of Tennessee

Hear and learn from top-notch speakers, network with their peers, analyze, evaluate, and develop the crucial role of supply chain within business. Don't miss the opportunity to hear the top executives of some of the region's leaders discuss the role that an East Tennessee company operating globally can and should play in managing cost and flexibility of a global supply chain environment. Explore the challenges and opportunities for East Tennessee of various aspects of supply chain, including procurement, manufacturing, distribution/logistics, demand/supply planning and customer operations.

Tremont Room

Using Discrete Event Simulation to Help Design and Operate Production Lines

8:45 AM

Speaker: Robin Clark, QMT Group

Discrete Event Simulation is a tool that can study how random variation from both processing times and product and process failures effect the capacity of the system. This session will show how ExtendSim, a discrete event simulation tool, can be used to help design a system, so that variation will have minimal impact. This same tool also can be used at the plant level to show the impact of scheduling decisions.

Grow Your Business Through Lean + the Theory of Constraints

9:45 AM

Speaker: Ken Gilbert, University of Tennessee

This talk will describe the University of Tennessee model for integrating Lean and the Theory of Constraints as a business growth strategy. This strategy creates the capacity for growth by the elimination of waste. It creates market growth by providing customer value that the competition cannot match. This strategy is an organizational transformation that addresses policies, performance measures and cultural barriers to improvement. It also empowers and challenges the work force to become active participants in growing the business. The talk will describe an example of this strategy at the Delta Airlines Engine Overhaul Facility.

The Role of Additive Manufacturing & 3D Printing in Industrial Production

10:30 AM

Speaker: William Sames, Additerra

3D printing is just one example of industrial automation. What is the future of 3D printing in the industrial supply chain? Come see the complexities of 3D printing of industrial parts (polymer and metal), and the place of 3D printing in the industrial supply chain.

DOE Better Plants Program: New Ways of Finding Energy Savings and Delivering Value to Industry

1:00 PM

Speaker: Tom Wenning, ORNL

The U.S. Department of Energy's (DOE) Advanced Manufacturing Office launched the Better Plants program in December 2009. This initiative, part of the President's Better Buildings Initiative, is a corporate energy efficiency leadership initiative through which manufacturers partner with DOE to set and achieve energy saving goals. In return, manufacturers receive in-person technical assistance and national recognition from DOE. In addition, these partner organizations receive priority access to an array of DOE-developed resources such as trainings, analytical tools and CHP screenings. Since 2009, more than 160 manufacturing companies and industrial organizations have joined the program and have achieved cumulative energy and energy cost savings of approximately 320 Trillion Btus and \$1.7 billion. In addition, attendees also will learn about the DOE Advanced Manufacturing Office's other Industrial Technical Assistance programs. Participants will leave knowing how to get involved and take advantage of these national resources for industry.

Plant Energy Efficiency – Time of Use Electric Rates

1:45 PM

Speaker: Jack Hopkins, Applied Engineering

The speaker will discuss the new "Time of Use" electric rates required of industrial customers and methods to manage energy to avoid the peak rates. The discussion will include HVAC management, including methods like ice storage. You will learn how to manage your plant utility budget by understanding new electric rates and manage your facility to reduce demand during peak rates.

Chestnut Room

Education as a Retention Incentive Tool

8:45 AM

Speaker: Samantha Lane, King University

In the state of Tennessee we hear certain things more frequently than others. Football aside, workforce needs and education are topics of heavy discussion in our state. This session will touch on how to utilize higher education as a retention tool that both appeases employees of differing generations and addresses the skills gaps emerging in your companies.

Collaboration with a Local Carbon Fiber Manufacturer

9:45 AM

Speaker: Rob Klawonn, Toho Tenax America, Inc.

Learn about the capabilities and interests of Toho Tenax America, to repurpose the Rockwood, TN facility for advanced manufacturing with carbon fiber materials, and discover collaborative and partnering opportunities in the advancement of carbon fiber material applications.

Controls and Connectivity in World Class Manufacturing

10:30 AM

Speaker: Mike Wehrenberg, Kendall Electric

This presentation will feature trends in manufacturing to use a single control architecture that is both scalable and multidiscipline as well as deployed with every control device connected on a converged industrial Ethernet network.

See why manufacturers need to decide on a common control architecture for their facility, properly deploy an Ethernet infrastructure to connect all the control devices on the plant floor, and use both of these architectures to gain real-time visibility of the plant floor operation to make better and quicker production decisions.

Road Map to Reliability

1:00 PM

Speaker: Buddy Lee, Mobius Institute

Improving plant reliability has never been more important. A reliable plant is a safer plant with higher levels of availability and lower maintenance, energy and production costs. Whether you are trying to master all of the strategies and technologies associated with reliability improvement, or you wish to change the reliability culture of the plant and educate everyone on how to improve work practices and operating procedures, and perform essential condition monitoring tasks, you need a Roadmap to Reliability.

3D Laser Scanning: Mapping Facilities at the Speed of Light

1:45 PM

Speaker: David Headrick

3-D Laser Scanning uses light to measure existing facilities, making millions of measurements in a single second. With this technology, even the most complicated facilities can be rapidly mapped with unprecedented precision. This detailed as built information can be used for renovations, maintenance, and configuration management. This relatively new technology gives manufacturers an unprecedented ability to map their facilities.

Workforce and Economic Development Solutions in the Region

2:45 PM

Speakers: Teri Brahams, PSCC; Teresa Duncan, RSCC; Gary Human, State of Tennessee, ECD

Come be a part of the conversation about workforce needs and education in the region, and how it stirs economic development. In this informal session Q & A is invited as we discuss higher education as a retention tool and a stronger workforce leads to a stronger economy.

Time	Grand Ballroom	Chilhowee	Tremont	Chestnut
8:00AM	Welcome & Opening Remarks			
8:30AM	Exhibit Hall Open	Opportunities in Additive Manufacturing Moderator: Dr. Craig Blue, IACMI Additive Manufacturing Panelists: Lucy Beard, Feetz - The Digital Cobbler Rick Spears, TruDesign Bill Sumner, Bell Helicopter Textron, Inc.	Using Discrete Event Simulation to Help Design and Operate Production Lines Robin Clark, QMT Group	Education as a Retention Incentive Tool Samantha Lane, King University
8:45AM				
9:00AM				
9:30AM	Networking Break			
9:45AM	Exhibit Hall Open	Navigating Apprenticeships through the US DOL A how-to on getting your apprenticeship registered with the US Dept. of Labor. Moderator: Adina Chumley, TN Department of Labor & Workforce Development Panelists: Michael Stumpff, US DOL; April Counts, Gestamp, Chattanooga	Grow Your Business Through Lean + the Theory of Constraints Dr. Ken Gilbert, University of Tennessee	Collaboration with a local Carbon Fiber Manufacturer Rob Klawonn, Toho Tenax America, Inc.
10:30AM			The Role of Additive Manufacturing & 3D Printing in Industrial Production William Sames, Additerra	Controls and Connectivity in World Class Manufacturing Mike Wehrenberg, Kendall Electric
11:15AM	Building the Manufacturing Cluster in East Tennessee Dr. Matthew Murray, Center for Business & Economic Research, University of Tennessee Dr. Michael McIntyre, University of Tennessee, College of Business Panelists: Jeff Bohanan, Protomet Corporation Adam Kuhn, ProNova Solutions Bret Maser, Sea Ray Boats	Lunch	Lunch	Lunch
1:00PM	Exhibit Hall Open	Pulling Technology from the Labs to Solve Your Innovation Challenges Moderator: Jeff Cornett, ORNL Panelists: Jeremy Benton, CNS Y-12 Jennifer Caldwell, ORNL Maha Krishnamurthy, UTRF	DOE Better Plants Program: New Ways of Finding Energy Savings and Delivering Value to Industry Tom Wenning, ORNL	Road Map to Reliability Buddy Lee, Mobius Institute
1:45PM			Plant Energy Efficiency - Time of Use Electric Rates Jack Hopkins, Applied Engineering	3D laser Scanning: Mapping Facilities at the Speed of Light David Headrick, LandAir Surveying
2:30PM	Networking Break			
2:45PM	Exhibit Hall Open	Supply Chain Brains Moderator: Brad Greene, Gridwell Rick Elder, APICS Patrick Smith, Pro Nova Solutions Ted Stank, University of Tennessee		Workforce and Economic Development Solutions in the Region Speakers: Teri Brahams, PSSC Teresa Duncan, RSCC Gary Human, State of Tennessee, ECD
3:45PM	Networking Break			
4:00PM	Conference Concludes			

Regional Advanced Manufacturing Partnership

2015 Exhibiting Companies

- 1 Eagle Bend Manufacturing
- 2 Pellissippi State Community College / Roane State Community College
- 3 Gridwell
- 4 Industrial Electronics Services, Inc.
- 5 MillenniTEK, LLC
- 6 ProNova Solutions
- 7 UT - Center for Industrial Services
- 8 King University
- 9 Oak Ridge National Laboratory
- 10 NovaCopy
- 11 Additerra
- 12 FFD
- 13 University of Tennessee, Haslam College of Business
- 14 Innovate Manufacturing, Inc.
- 15 Focus Environmental
- 16 CNS Y-12
- 17 Bank of America
- 18 Nanomechanics, Inc.
- 19 Syncro Corporation
- 20 ModernTech, A TriMech Company
- 21 Tech 2020

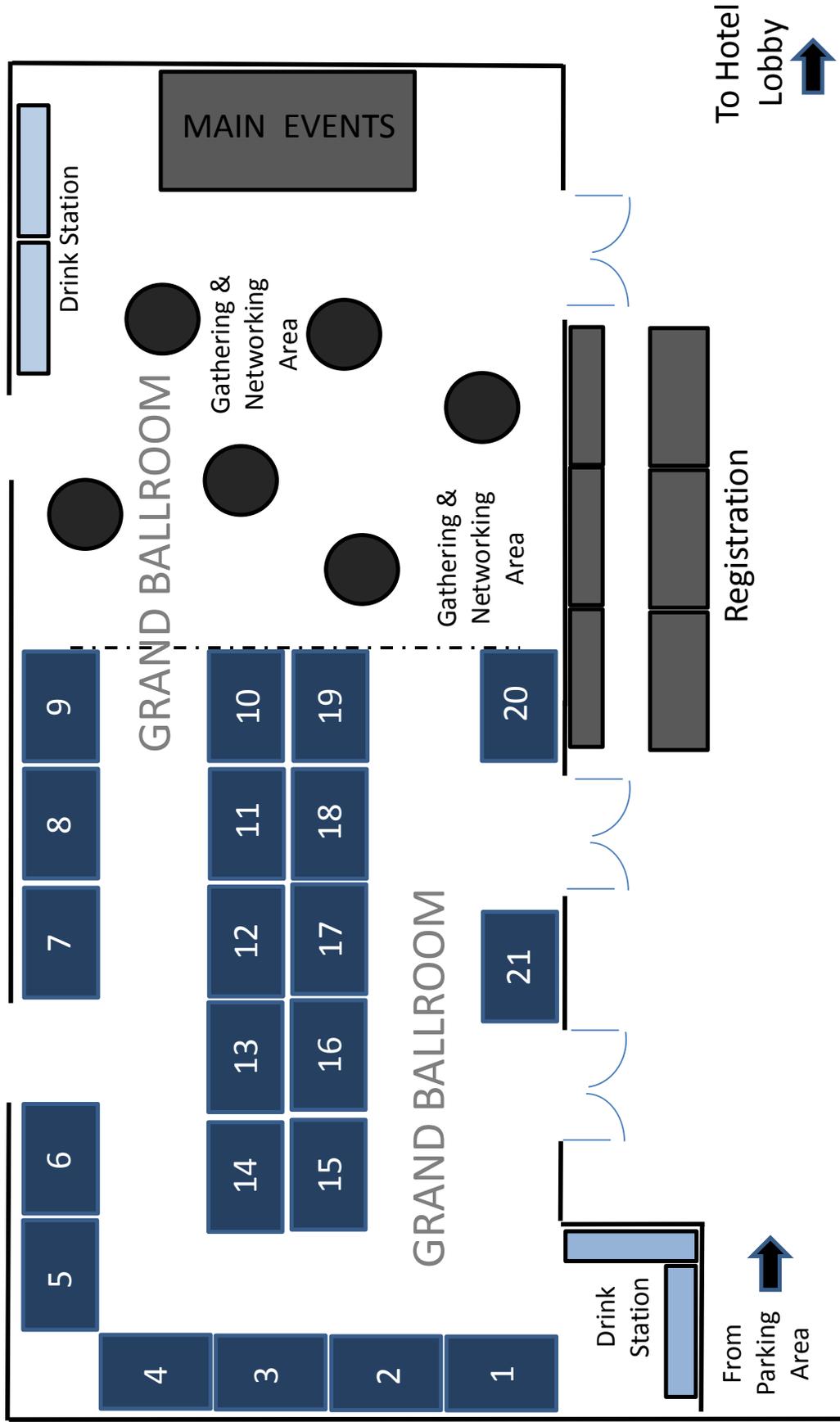


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Regional Advanced Manufacturing Partnership 2015 Manufacturers' Conference & Expo



Note: not to scale

Regional Advanced Manufacturing Partnership

Mission

RAMP is a collaborative consortium of large and small manufacturers in East Tennessee. Our focus is connecting manufacturers' needs with manufacturing resources to support a strong and globally competitive regional manufacturing cluster. Led by our manufacturing members, our goal is to work together to face the challenges that impact all types of manufacturing in the East Tennessee region.

Our efforts are supported by strong program partners: Oak Ridge National Laboratory, Pellissippi State Community College, University of Tennessee-Center for Industrial Sciences, and Tech 2020.

RAMP Mission Statement Elements

RAMP will provide value to its members, associate members, and to the regional community by:

- Building a membership driven consortium of manufacturers that speaks with one voice on mutual interests
- Assisting manufacturing growth through workforce training, retention, needs assessments, and support initiatives
- Promoting and enhancing regional manufacturing competitiveness
- Supporting the growth of advanced manufacturing practices and technologies through member collaboration and advancement of supply chain capabilities
- Providing organizational infrastructure, enabling resources, and valuable connections
- Working synergistically with our members and associate members
- Building strength-to-strength relationships and opportunities for our members and associate members

RAMP Members

Manufacturing Members

Additerra
Advanced Catalyst Systems
ARMEC
CB&I Environmental Services
CNS Y-12
Dienamic Tooling
Eagle Bend Manufacturing
MAG USA
Millennitek, LLC
Namomechanics, Inc.
NetShape Rockwood, Inc.
ProNova Solutions
Protomet Corporation
Radio Systems/Petsafe
Steel Plate Fabricators
Wakeland Manufacturing, LLC

Associate Members

Ackermann Public Relations & Marketing
Aerostar SES, LLC
Bank of America
D1 Technologies, LLC
Focus Environmental, Inc.
Global Testing Laboratory
Gridwell
Info-Graphics
Innovative Design, Inc.
King University
ModernTech
New York Life
NovaCopy
Peak Technical Institute, LLC
Phillips & Jordan, Inc.
PMG Benefits
Roane State Community College
SmartBank
Tennessee Valley Authority
United Community Bank
Waste Connections
William Blount & Associates

Tech 2020 presents
C-Suite Intensive:
2-Day Interactive Work Session
for Business Owners, Entrepreneurs, and Executives

October 29 & 30th
Tech 2020 headquarters
1020 Commerce Park Drive, Oak Ridge, TN 37830

Who Should Attend?

If you are an owner, president, CEO or other high-ranking executive with 10 or more employees and/or \$1-50 million in annual gross revenue, don't pass up this opportunity to transform the way you think about business and success.

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