

# Alabama Summit on Industrial Energy Efficiency

June 11, 2013



ISO 9001:2008

Make Things Better...In Your  
Business



# Alabama Technology Network

## Mission

ATN provides industry and business, particularly manufacturing, the tools, training, and resources to grow and excel.

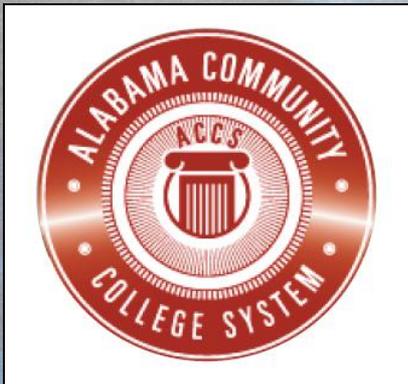
## Vision

ATN will be the driving force that makes existing Alabama companies the most profitable and productive in the world.

# Affiliations

*-Alabama Community College System*

*- NIST Manufacturing Extension Partnership*



# Where is ATN?



- Thomasville –**  
Alabama Southern Community College
- Jasper –**  
Bevill State Community College
- Alexander City –**  
Central Alabama Community College
- Gadsden –**  
Gadsden State Community College
- Montgomery/Selma –**  
George Corley Wallace Community College
- Brewton –**  
Jefferson Davis Community College  
(with a n office in Mobile)
- Birmingham –**  
Jefferson State Community College
- Birmingham –**  
Lawson State Community College
- Rainsville –**  
Northeast Alabama Community College
- Muscle Shoals –**  
Northwest-Shoals Community College
- Eufaula/Dothan –**  
Wallace Community College
- Hanceville –**  
Wallace State Community College

*Three University centers located at Auburn University, The University of Alabama, and The University of Alabama in Huntsville.*

# Alabama Technology Network

## What ATN Does

- Lean Manufacturing
- Quality Systems/Engineering
- Sustainability/AL E3
- Innovation Engineering
- Information Technology
- Workforce Development
- Engineering/Tech. Services
- Industrial Maintenance
- Organizational Dev./Leadership
- Environmental, Health & Safety





# E3: ECONOMY · ENERGY · ENVIRONMENT

SUPPORTING MANUFACTURING LEADERSHIP THROUGH SUSTAINABILITY

## Alabama E3

# Supporting Profitable and Sustainable Manufacturing in Alabama through Eliminating WASTES, Reducing Costs, Improving the Workforce and Driving Innovation



*Alabama Industrial Assessment Center*

### ADECA

Alabama Department of Economic and Community Affairs



# Alabama E3 : Mission and Goals

- Help make manufacturers more profitable and sustainable by improving efficiencies, eliminating energy and other wastes, reducing costs, and driving growth through innovation.
- Reduce environmental impact of companies.
- Improve regional economies by adding and retaining jobs.
- Enhance communities by attracting new manufacturers and other businesses

# Alabama E3 : Partners

- More than 25 partner organizations including Federal, State, Local and others
- MEP, DOE, EPA, DOL, SBA, USDA, ATN, ADECA-Energy, ACCS, AIAC, MA, BCA, AAMA, Alabama Power, TVA, Alagasco. ZF Industries, Electricfil, Economic Development Associations, local governments.

# Alabama E3 : Funding

- NIST MEP
- DOE through ADECA Energy Division
- DOL (SESP grant)
- Clients

# Alabama E3 : Services

- Energy/Lean/Environmental/Safety Assessments (ATN and AIAC) – 1-2 days
- Energy/Lean/Environmental/Safety Projects – 1 week
- Sustainability Training and Education (ATN and WRATT) – half day- 7 days
- IE services focused on increasing growth through sustainability (“green” products, “green” processes, “green” )

# Alabama E3 : Types of Companies Served

- Manufacturers with emphasis on small and medium size
- Some large manufacturers
- Initial focus on automotive but expanded to include automotive as well as 16 industrial sectors

# Alabama E3 : Examples of Projects Completed

- Compressed Air Leaks – Tag and Repair
- Metering usage (steam, compressed air, electricity)
- Lighting upgrades
- Reducing Forklift traffic
- “Learning to See” and Practical Energy education and training
- Plant layout for improved energy efficiency reduction in facility expansion costs
- Energy Hunts
- Shut down/start up of equipment protocols
- Process improvements to reduce energy use

# Alabama E3 : Impacts and Results

- 60 Energy assessments completed
- 60 Lean assessments completed
- 50 implementation projects completed
- Total Energy Savings Opportunities Identified:  
\$5,241,570
- Average Energy Savings Opportunities Identified:  
\$109,199\*
- Implementation Savings: \$ 1,598,583
- One company reported \$200 million in increased sales due to project results identified
- Over 1,400 people trained

# Alabama E3 : Lessons Learned

- Management Commitment is key to moving opportunities to real impacts
- Need employee(s) dedicated to completing the identified opportunities
- Production requirements often override recommended projects
- Costs of capital investments – need strategies to support projects outside of capital budgets.
- Important to engage all employees from management to production to maintenance to office
- Employee training/awareness/education on energy efficiency is important to sustaining projects

# Alabama Student Internship Pilot Project

- Result of Alabama NGA Policy Academy partnership opportunities
- Partners : ATN (MEP), E3, UA Productivity Center, AIAC, Alabama Power Company, JCI
- Purpose: a partnership to support companies' transformation to greater sustainability and growth through energy efficiency and waste reduction projects. Students are provided “real world” experience while also serving as “change agents” for the companies' growth. This is not just a summer job!
- Six companies and six students
- 12 weeks in companies and 1 week of orientation and training
- Each student is supported by company mentor, UA Productivity Center and AIAC faculty/staff, AL Power staff and ATN staff
- Impacts are critical and students will present results at E3 Sustainability Conference in August

# Alabama Student Internship Pilot Program: Some Project Examples

- Identifying and Repairing Compress Air Leaks
- Removing vending machine light bulbs
- Installing light sensors (restrooms, conference rooms, etc.)
- Assisting with metering projects (steam, compressed air, electricity)
- Developing shut down and start up of equipment protocols
- Improving efficiency of water coolers to reduce water usage
- Examining forklift traffic for increased energy efficiencies
- Installing hand dryers in restrooms to reduce paper towel use
- Developing and implementing Energy Efficiency Employee Awareness programs