

University of Texas at Arlington - TMAC

TEEA 2020 Winner: Pollution Prevention



The University of Texas at Arlington's TMAC (formerly the Texas Manufacturing Assistance Center) Manufacturing Extension Partnership (MEP) center has served as the leader in the state in delivering "Lean & Green" technical training and assistance, which combines lean manufacturing practices, energy reductions, and environmental best practices to help organizations better understand the value proposition of pollution prevention efforts. In the last 10 years, this integrated approach has been delivered to 112 organizations in Texas, training 1,418 individuals.

The team integrates environmental metrics into a traditional lean value-stream mapping process. "Lean & Green" modifies the traditional mapping process to include other metrics including energy, electricity, water, material usage, solid and hazardous waste, and air emissions. The addition of these new metrics has generated additional annual cost reductions and savings opportunities of 38%.

To date, the "Lean & Green" site assessments and trainings, conducted by TMAC in Texas, have identified reduction opportunities for 62,100,000 annual kWh, 36,000 metric tons of CO₂e, 19.5 million gallons of water, \$27.3 million in savings, and 16,500 tons of solid waste. Metrics are collected during on-site training and include the organization's labor costs, material costs and utilization, electrical and water use data, other utility bills, and total pounds of solid and hazardous waste disposed of, recycled, and/or reused. As a result, TMAC has identified \$27.3 million in savings for companies across Texas.