

BILL GRIECO

CEO

RAPID MANUFACTURING INSTITUTE

WILLG@AICHE.ORG; 321-759-5002

RAPID MANUFACTURING INSTITUTE

- \$150 M, 5-YEAR PUBLIC-PRIVATE PARTNERSHIP BETWEEN DOE ADVANCED MANUFACTURING OFFICE AND THE AMERICAN INSTITUTE OF CHEMICAL ENGINEERS (AIChE)
- FOCUSED ON PROCESS INTENSIFICATION AND MODULAR PROCESSING
- 75 MEMBER INSTITUTIONS (34 UNIVERSITIES, 31 COMPANIES, 10 NATIONAL LABS & NON-PROFITS)
- WHAT DOES RAPID DO?
 - COMMUNITY – BUILD A NETWORK OF ORGANIZATIONS INTERESTED IN MODULAR CHEMICAL PROCESS INTENSIFICATION (MCPI)
 - THOUGHT LEADERSHIP – ALIGN MEMBER INTEREST AROUND KEY CHALLENGES THAT HAVE BROAD BENEFIT AND CAN BE ADDRESS BY MCPI
 - PROJECTS – LEAD THE DEVELOPMENT OF R&D PARTNERSHIPS AND PROJECTS TO ADDRESS KEY TECHNICAL CHALLENGES
 - EDUCATION – PROVIDE EDUCATION TO GROW AND DEVELOP THE PROCESS INDUSTRY WORKFORCE

RAPID PROJECTS

- 32 RESEARCH PROJECT SPANNING SIX FOCUS AREAS
 - SEVERAL FOCUS ON ADSORPTION, MEMBRANES FOR GAS SEPARATION, CHEMICAL LOOPING
- \$36.6M FEDERAL SHARE, \$73.6 COST SHARE ALLOCATED TO CURRENT PROJECTS
- PROJECT SUMMARIES CAN BE FOUND AT WWW.AICHE.ORG/RAPID/PROJECTS/LIST
- WEBINARS, ELEARNING COURSES, INTERNSHIP PROGRAM FOR WORKFORCE DEVELOPMENT



SEED IDEAS

- MCPI APPROACHES FOR COAL-TO-PRODUCTS
 - MODULAR SYSTEMS FOR DISTRIBUTED LOW QUALITY COAL UPGRADING OR COAL GASIFICATION/PYROLYSIS AND CONVERSION TO HIGH VALUE END PRODUCTS
- PI APPROACHES TO OVERCOME THERMODYNAMIC BARRIERS IN CO₂ SEPARATION/CAPTURE AND CO₂ REDUCTION
 - SELECTIVE MEMBRANE SEPARATION, COMBINED WITH REACTION WHERE APPROPRIATE
- MODULAR SYSTEMS FOR DISTRIBUTED CO₂ CAPTURE AND USE
 - HIGH VOLUME, LOW COST MODULAR SYSTEMS TO DEMOCRATIZE DISTRIBUTED AIR CAPTURE
 - MODULAR SYSTEMS FOR ON DEMAND CO₂ CAPTURE/PURIFICATION FOR LOW VOLUME APPLICATIONS

