



# Gasification Technologies Council

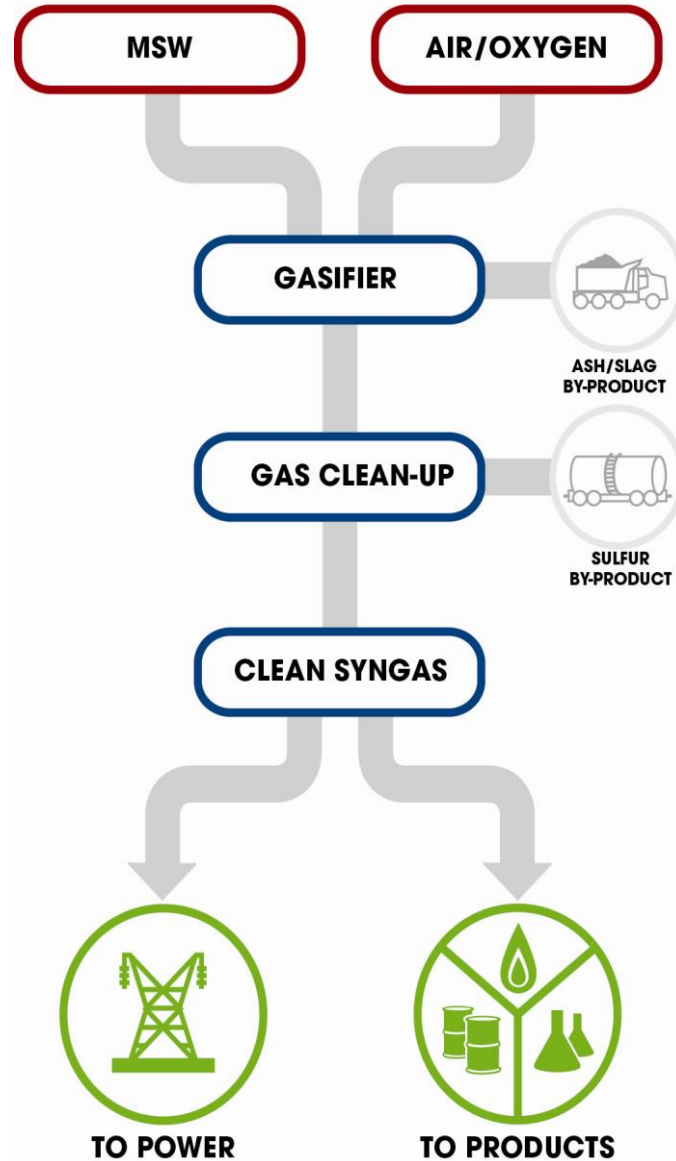
Gasification:  
A Problem Solving Technology

# GTC's Mission

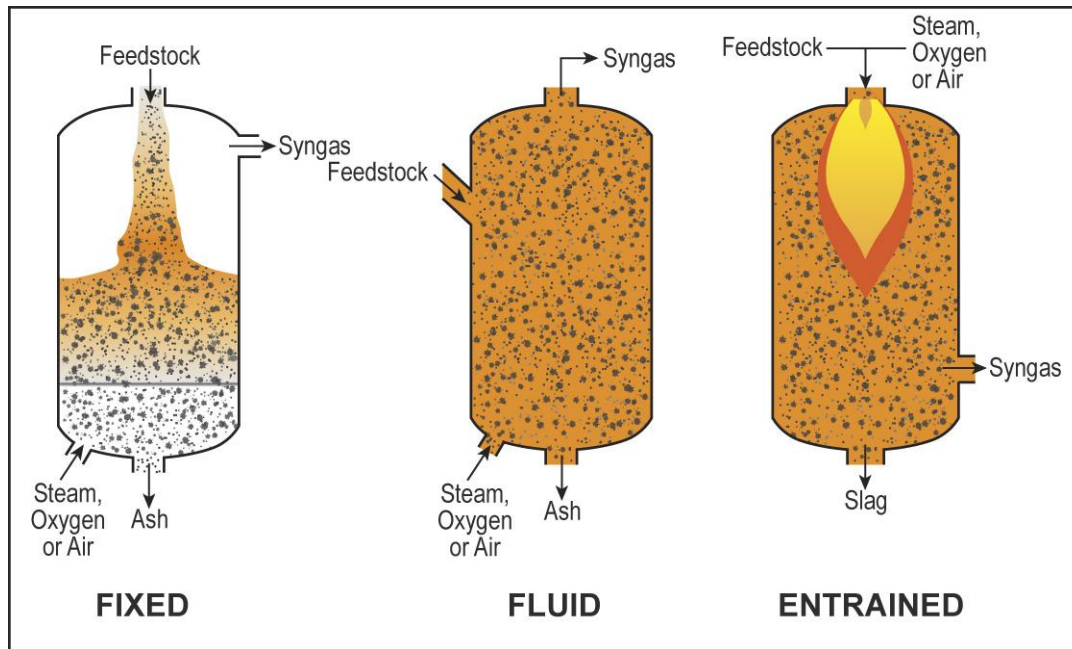


- To educate the public and government about the economic and environmental benefits of gasification
  - Brochures
  - Videos
  - Workshops for regulators and policy makers
  - Annual conference
  - Website
  - Gasification database
  - Reciprocal memberships

# THE GASIFICATION PROCESS



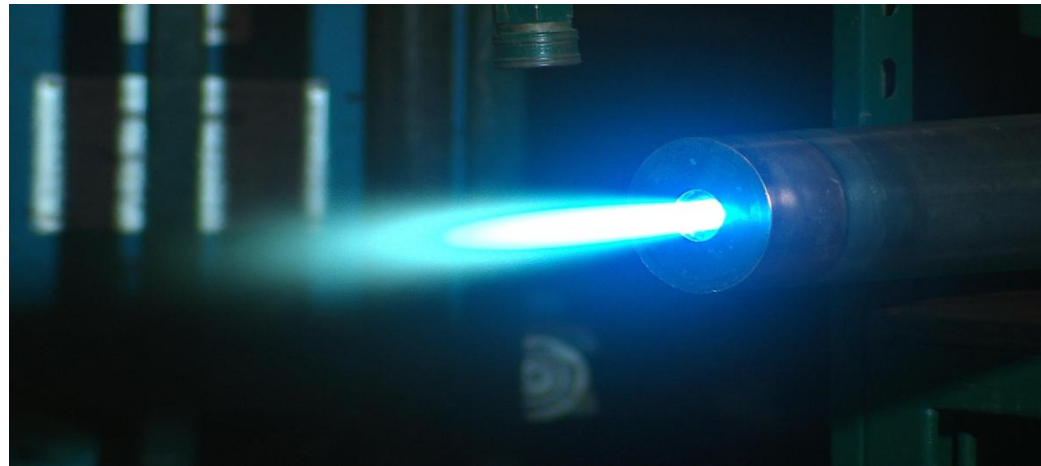
# Major Types of Above-Ground Gasifiers



# Plasma Gasification



- Ionized gas formed when an electrical discharge passes through the gas
- Plasma torches and arcs convert electricity into intense thermal energy- temperatures above 10,000 degrees
- Used in gasification to initiate and supplement gasification reactions
- Handles hazardous, commercial and MSW



# Air Products/Alter NRG: Tees Valley



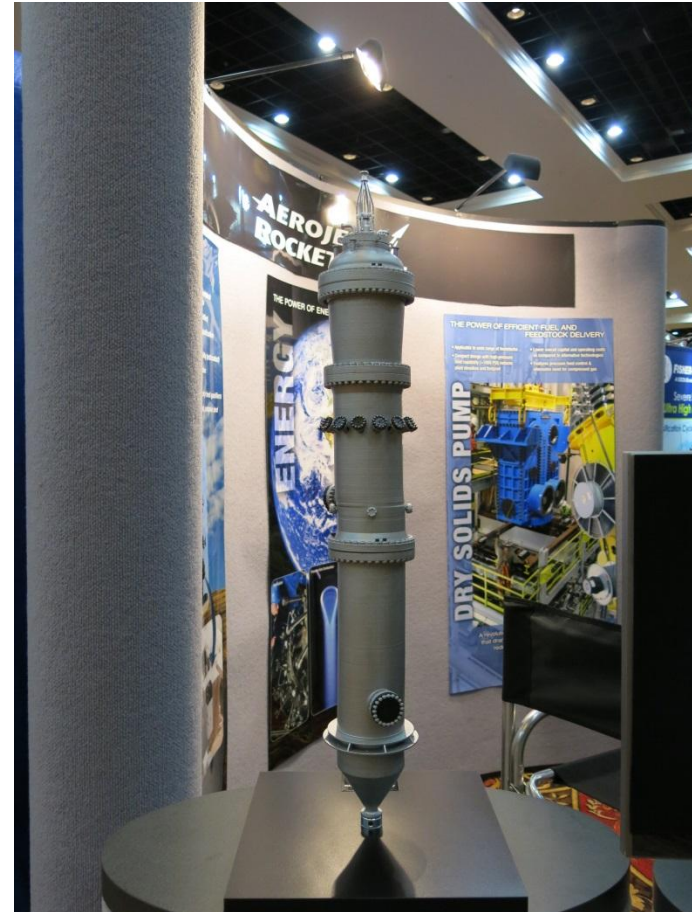
- Will be largest advanced gasification plant in the world-online 2014
- Feedstock: 350,000 tons municipal, industrial and commercial waste to produce 50MW of power



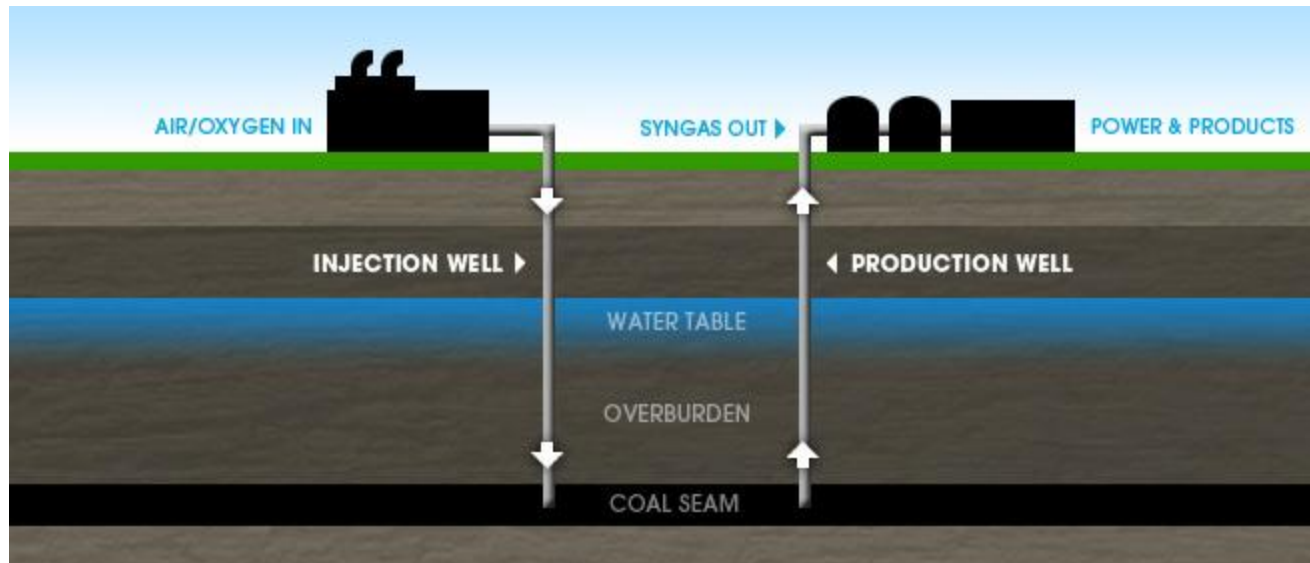
# Compact Gasifiers



- Waste and biomass gasification
  - Cities, DOD
  - Villages off the grid
- Compact, modular gasifiers
- Non-plasma



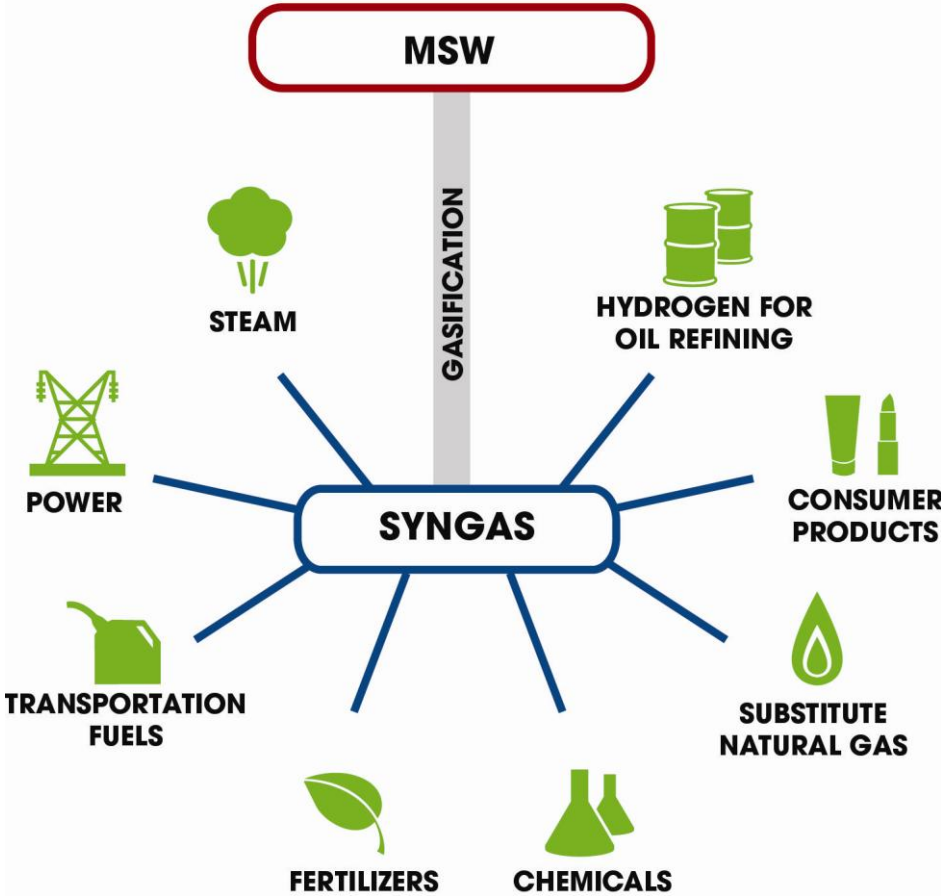
# Underground Coal Gasification





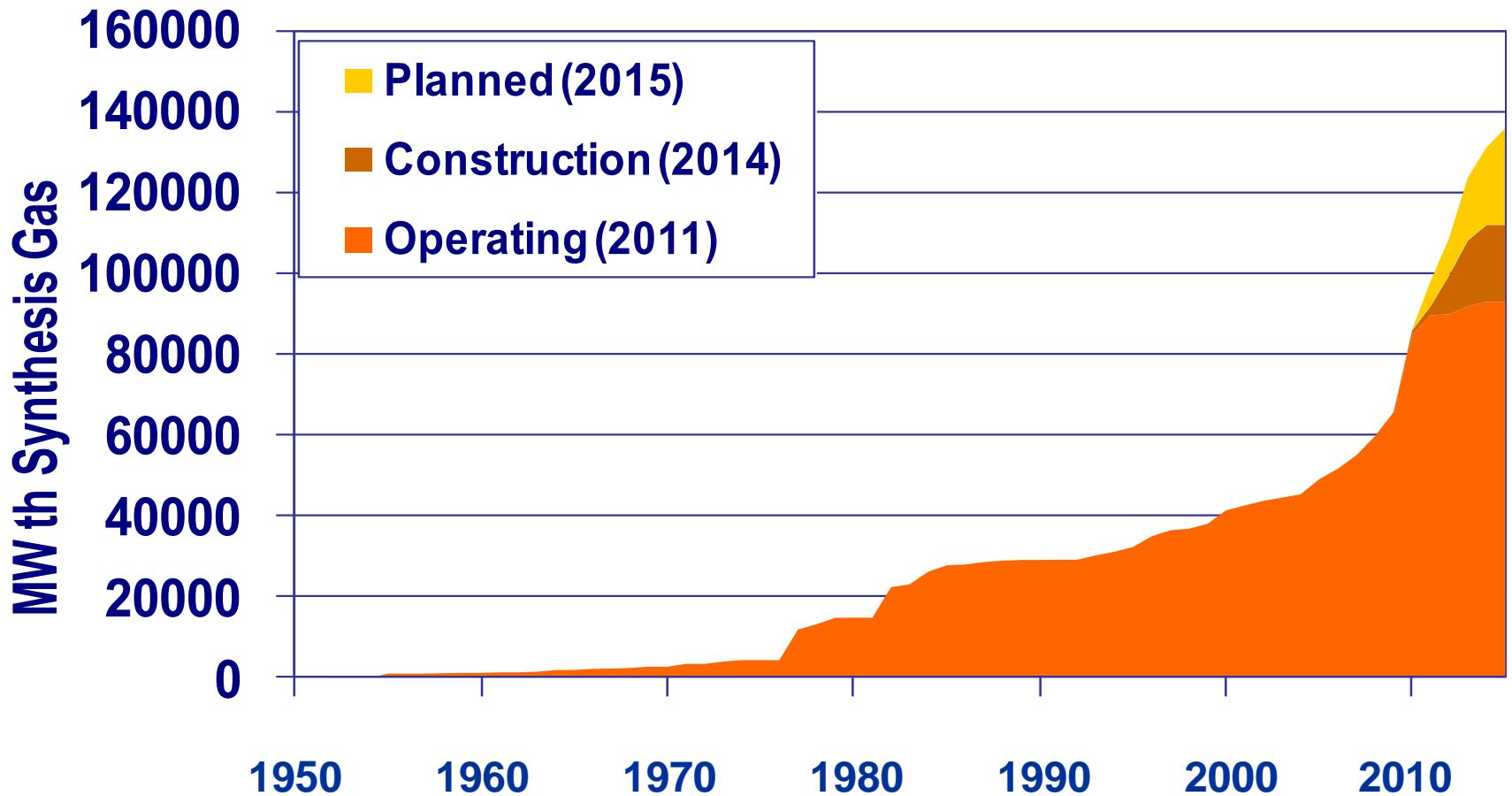


# GASIFICATION PRODUCTS

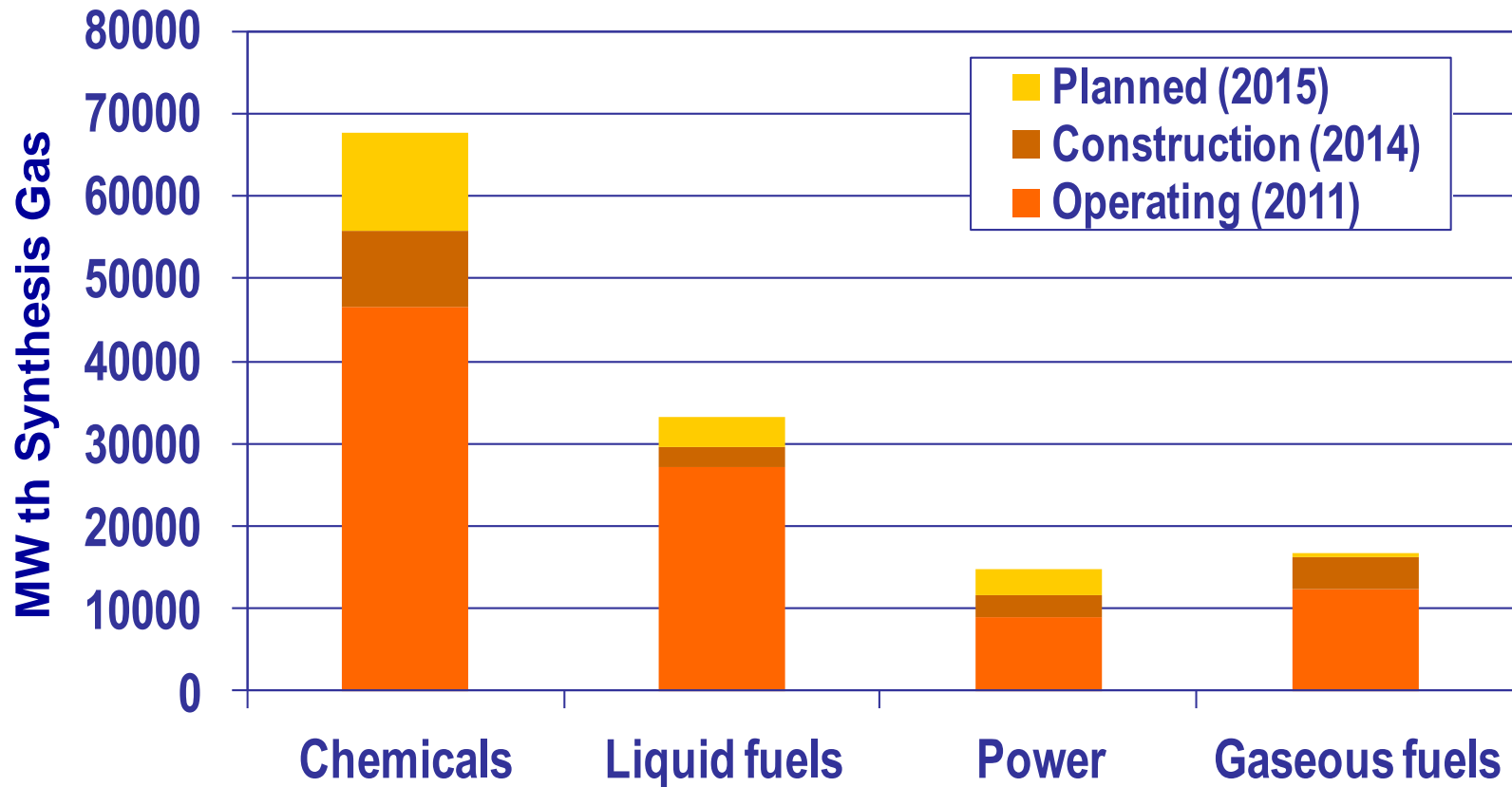




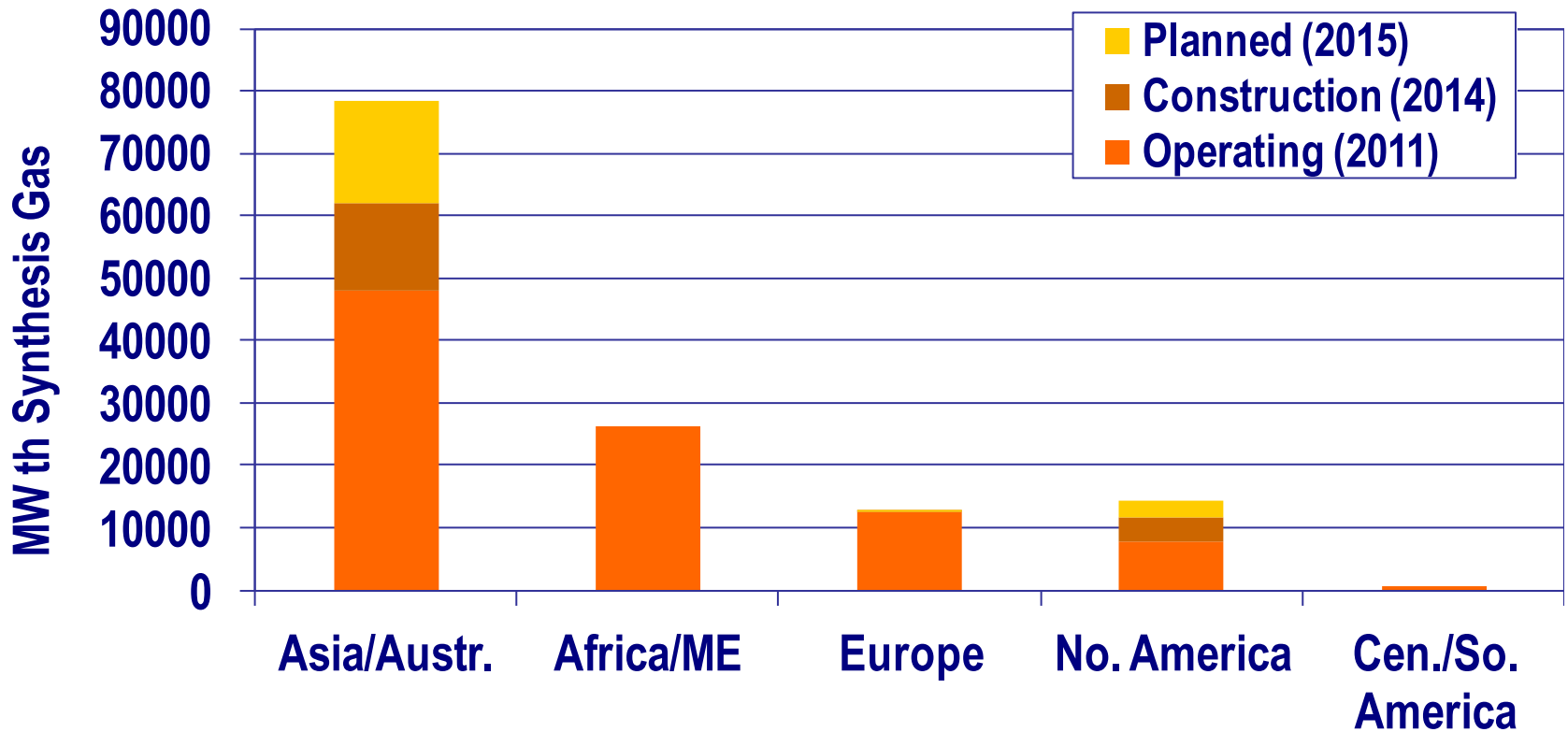
# Cumulative Worldwide Gasification Capacity



# End Use Applications of Syngas



# Gasification by Region



# Challenges



- U.S.
  - Abundant natural gas and low prices
  - Anti-coal campaign
  - No CO2 regulatory scheme
  - Electricity demand is down
  - Confused with incineration
- Asia
  - Coal supply
  - Lack of intellectual property protection
  - Project development time
  - Government bureaucracy

# Conclusion



- Technology providers and developers working to overcome challenges
- Problem-solving technology
- Provides optionality
  - Scale
  - Feedstock
  - Products

# Contact Information



Alison Kerester  
Executive Director  
Gasification Technologies Council  
[akerester@gasification.org](mailto:akerester@gasification.org)  
[www.gasification.org](http://www.gasification.org)