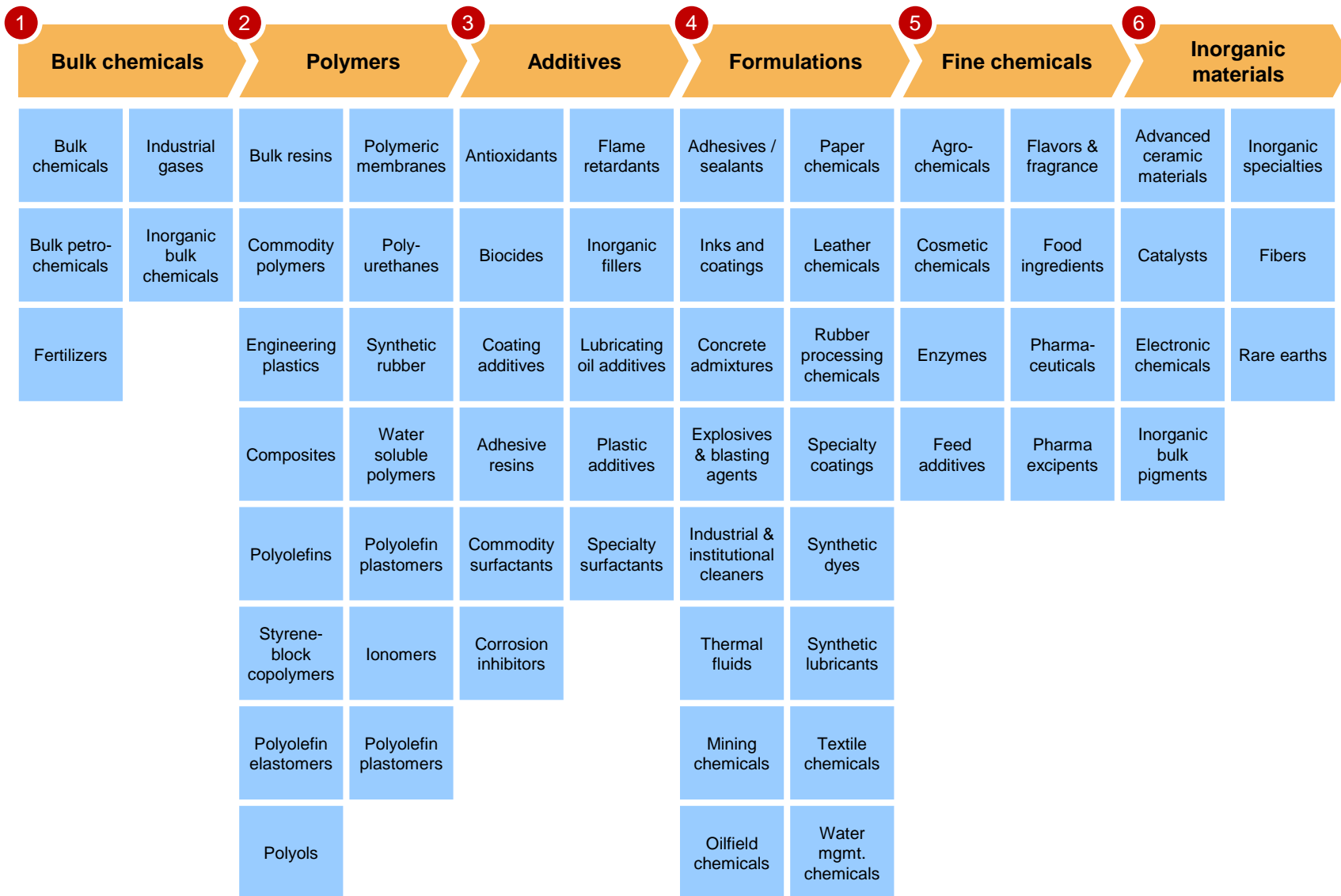




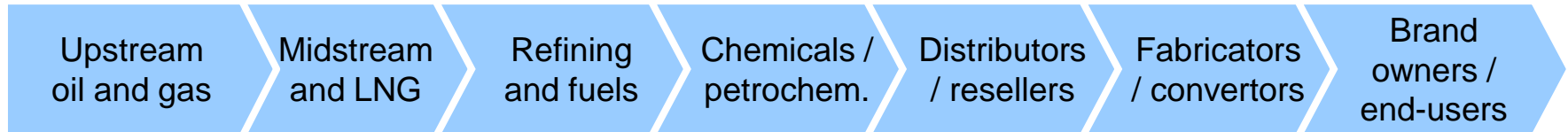
CHEMICAL  
MARKET  
RESOURCES  
An ADI Business



# CMR is a management consulting firm specializing across the commodity and specialty chemical value chains



# ADI's acquisition of CMR brings clients expertise, experience, and an integrated view of the hydrocarbon value chain



CHEMICAL  
MARKET  
RESOURCES  
An ADI Business

ADI is a management consulting firm specializing in oil and gas, power, chemicals, and industrials. It has completed 300+ projects for 100+ clients since 2009.

[www.ADI-Analytics.com](http://www.ADI-Analytics.com)

ADI acquired key assets of Chemical Market Resources (CMR) in 2017. Since 1990, CMR has provided market research and management consulting services through 500+ projects for 200+ clients in petrochemicals, chemicals, plastics, and polymers.

[www.CMRHouTex.com](http://www.CMRHouTex.com)

# Our proven value proposition spans rich experience, deep industry expertise, and an integrated view of hydrocarbons



Serving **chemical and polymer** markets since 1990



Lead with **deep industry and consulting** expertise



Integrated view of **hydrocarbon value chain**



Completed **500+ projects** for **200+ clients**

# Fortune 500 and mid-sized companies, start-ups, investors, and governments have hired us to shape decisions globally

# CMR and ADI services help clients assess markets, address uncertainty, improve capabilities, and support workflows

Build strategy	Drive sales and marketing	Navigate markets
<ul style="list-style-type: none"> <li>▪ Research and analyze trends, markets, industry, and players</li> <li>▪ Identify and validate strategic options and M&amp;A opportunities</li> <li>▪ Define and test investment / M&amp;A moves with scenarios</li> <li>▪ Profile competitive, regulatory, and other external risks</li> <li>▪ Support implementation plans</li> </ul>	<ul style="list-style-type: none"> <li>▪ Size and analyze markets and market shares for players</li> <li>▪ Identify and profile for best segment / customer mix</li> <li>▪ Develop optimal go-to-market and channel strategies</li> <li>▪ Seek voice of customer to refine offerings</li> <li>▪ Optimize pricing and profit</li> </ul>	<ul style="list-style-type: none"> <li>▪ Track industry and business trends to provide on-going intelligence</li> <li>▪ Identify key opportunities and threats from external landscape</li> <li>▪ Develop appropriate strategies to address opportunities and threats</li> <li>▪ Develop models- and analytics-based forecasts and projections</li> <li>▪ Support needs on a critical timeline</li> </ul>
Analyze financial issues	Optimize procurement	Accelerate innovation
<ul style="list-style-type: none"> <li>▪ Benchmark financial / investment performance with competitors</li> <li>▪ Build valuation models to analyze capital / business investments</li> <li>▪ Develop robust business performance forecasts</li> <li>▪ Analyze financials to identify portfolio initiatives / opportunities</li> <li>▪ Build financial tracking dashboards</li> </ul>	<ul style="list-style-type: none"> <li>▪ Build accurate picture of procurement activities and spend</li> <li>▪ Benchmark to best-in-class procurement players / strategies</li> <li>▪ Identify category management and strategic sourcing opportunities</li> <li>▪ Define procurement spend optimization needs / opportunities</li> <li>▪ Develop procurement KPI analytics</li> </ul>	<ul style="list-style-type: none"> <li>▪ Assess current and new processes and technologies for fit and impact</li> <li>▪ Estimate capital and operating costs for process technologies</li> <li>▪ Identify process opportunities, needs, costs, and benefits</li> <li>▪ Analyze R&amp;D / innovation portfolio using market-backed metrics</li> <li>▪ Plan R&amp;D / innovation strategies</li> </ul>

# Since 1990, we've served 200+ clients through 500+ projects in chemicals, petrochemicals, polymers, and plastics

## MARKET RESEARCH

- ▶ Assessed global metallocene polypropylene markets
- ▶ Profiled the global market characteristics of HMS PP
- ▶ Analyzed mHDPE and mLDPE markets in Middle East
- ▶ Sized the US polystyrene markets with end-user analysis
- ▶ Assessed C3-4 olefins from FCC streams in North America
- ▶ Studied feasibility for new cracker in Mexico, Peru, and Brazil
- ▶ Studied characteristics of the global extrusion coating markets
- ▶ Researched markets for levulinic acid and levulinic acid esters
- ▶ Researched SBS and SEBS based adhesive and sealant markets
- ▶ Global analysis of specialty zeolite markets in refinery applications
- ▶ Analyzed global polyurethane markets for producers and utilization
- ▶ Sized acrylic acid and butyl acrylate markets for Saudi Arabia plant

## OPPORTUNITY ANALYSIS

- ▶ Analyzed opportunities for the use of Ziegler-Natta catalyst in the manufacture of high impact polypropylene
- ▶ Global opportunity analysis of polylactic acid (PLA) to assess the quality of products and the competition in that market
- ▶ Investigated opportunities and competitive approaches for high butadiene resin in medical and specialty tubing applications
- ▶ Developed a JV strategy for a multinational petrochemical company for identifying partners in HDPE, LLDPE and PP producing technologies
- ▶ Examined opportunities for bio-PG, bio-PDO, and glycerin in household/personal care, food, coatings, laminates and pharmaceuticals sectors

## TECHNOLOGY ASSESSMENT

- ▶ Analyzed glyoxylic acid and glycolic acid process technologies
- ▶ Evaluated various plasticizers including non-phthalate plasticizers
- ▶ Proposed characteristics of PP and formaldehyde based catalysts
- ▶ Conducted technical assessments of PE and PP foams and fibers
- ▶ Investigated the impact of shale gas developments on PP markets
- ▶ Assessed the use of s-SBR in high performance tires for many clients

## STRATEGIC PLANNING

- ▶ Led strategic planning for EO/EG product development
- ▶ Developed strategies for isopropanol based investments
- ▶ Conducted feasibility analysis for triethylaluminum catalysts
- ▶ Proposed EU strategy for m-C2-4 plastomers and elastomers
- ▶ Proposed strategies for involving gamma butyrolactone (GBL)
- ▶ Investigated metallocene polypropylene random copolymer resins

## COMPETITIVE INTELLIGENCE

- ▶ Examined leader grades for m-LLDPE
- ▶ Analyzed competition in glycol products
- ▶ Assessed competition in synthetic papers
- ▶ Analyzed competitor SBC product portfolio
- ▶ End-user competitive study for MEK polymer
- ▶ Tie layer resin market study in Latin America

## COST AND ECONOMICS

- ▶ Investigated prices of polyurethane latex
- ▶ Led feasibility studies for new IPA plants
- ▶ Assessed cash costs of polyolefin resins
- ▶ Forecasted pricing for bio-based ethanol
- ▶ Analyzed production cost of DCPD resins
- ▶ Feasibility of EVA plant in southeast Asia

## M&A SUPPORT

- ▶ Identified players in the PUR markets
- ▶ Assisted in merger of polyolefin assets
- ▶ Led risk assessments for asset mergers
- ▶ Conducted due diligence on PE/PP plants
- ▶ Assisted acquisition of plasticizer business
- ▶ Acquired customer insights on PS products

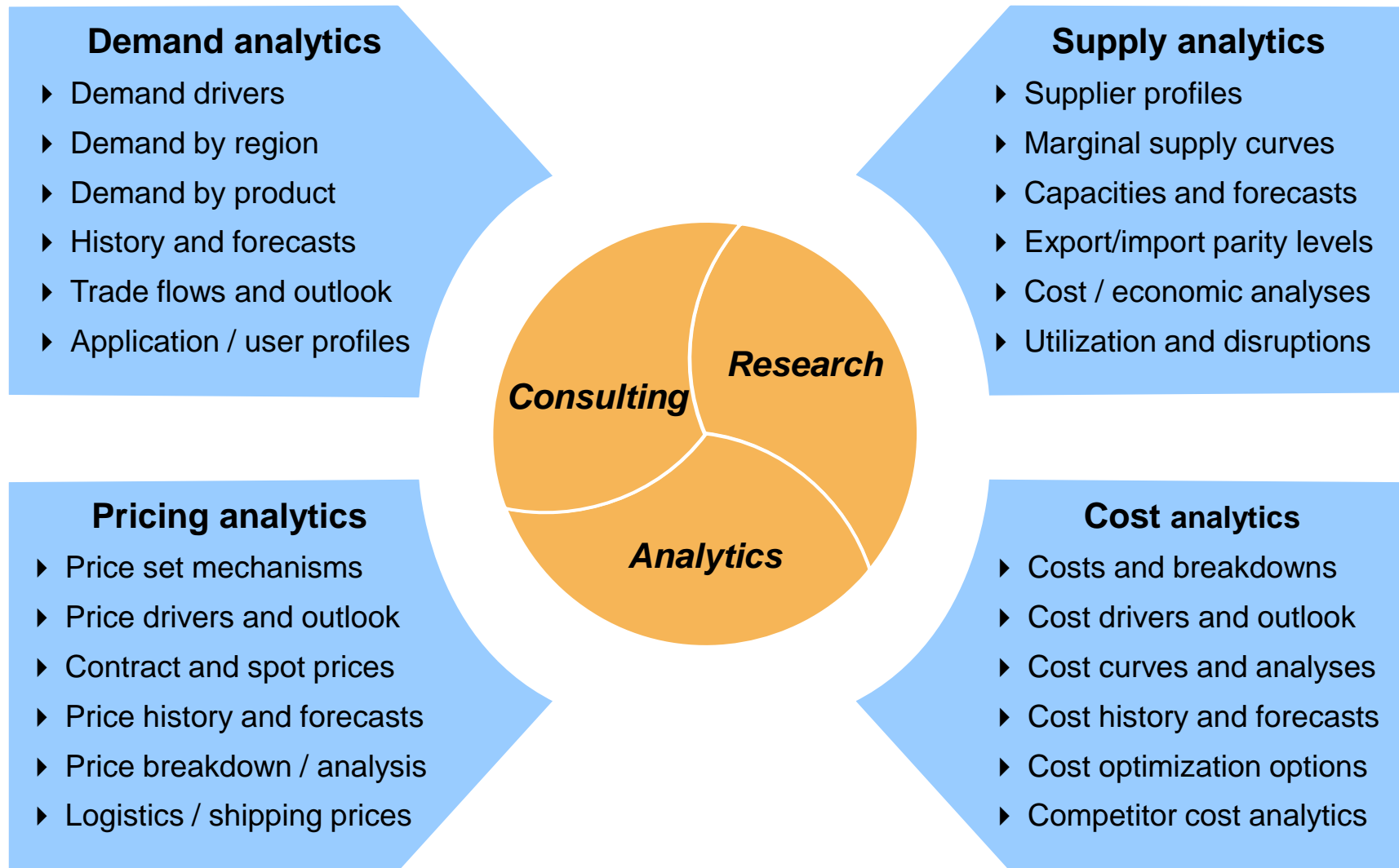


# ADI has completed 100+ projects since 2009 helping chemical companies address a wide range of strategic issues












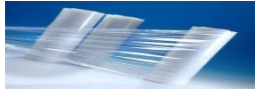










	Strategic Projects	Tactical Projects
1 Strategic planning	Sourcing strategies for acrylates, ionomers, and acid copolymers for a <b><u>leading plastics producer</u></b>	Options-based market entry strategy for levulinic acid <b><u>technology start-up</u></b> in plasticizers, coatings, and adhesives
2 M&A support	Growth strategy with acquisition target and joint venture partner identification and profiling for <b><u>oxo-alcohols player</u></b>	Led market- and customer- focused due diligence on pipeline chemicals firm for chemicals-focused <b><u>private equity firm</u></b>
3 Costs and economics	Ethane sourcing strategy with cost, economic, and logistical feasibility for <b><u>Asian petchem major</u></b>	Technology, cost, and economic feasibility of on-purpose C3-4 olefins for <b><u>U.S. chemical major</u></b>
4 Market research	Ethylene derivatives market sizing and growth assessment opportunities for <b><u>large private equity firm</u></b>	U.S. NGL supply scenarios with cost models and pipeline logistics from shale plays for <b><u>Canadian plastics producer</u></b>
5 Technology strategy	Innovation strategy, R&D performance benchmarking, and organization design for <b><u>Asian chemical major</u></b>	Technology application and growth opportunities in oilfield chemicals for <b><u>polyol / polyurethane player</u></b>
6 Competitive intelligence	Improved competitiveness of <b><u>specialty chemicals firm</u></b> by analyzing peers and refining customer engagement	Peer adoption use-cases and analysis of digital solutions and Industrial Internet of Things (IIoT) for <b><u>chemical major</u></b>



# Our consulting services are supported by a wide range of proprietary, on-demand analytics and databases



# In addition, CMR has published more than 55 multi-client studies covering a wide range of polymers and plastics

	SBS and SEBS based adhesives and sealants (2018)		Global linear alpha olefins (C <sub>4</sub> , C <sub>6</sub> , C <sub>8</sub> ) study (2017)
	Global tie layer resins study (2017)		Worldwide polyethylene catalyst market study (2016)
	Global polyolefins in automotive industry (2016)		Global high melt strength polypropylene study (2015)
	Global styrene block copolymers market study (2015)		China ethylene and polyethylene analysis (2014)
	Global elastomeric polyolefins review (2014)		Global polyolefin foams market study (2014)
	Global polypropylene fibers Study (2014)		Global polypropylene films study (2014)
	Global polyolefin catalysts study (2012)		Global metallocene elastomers and plastomers study (2011)
	Global acid copolymers and ionomers study (2011)		Global high-EVA copolymers study (2011)
	Global HDPE and MDPE market analysis (2010)		Global LDPE and high EVAs study (2009)
	Vinyl acetate monomer derivatives (2008)		Global MMA and PMMA study (2006)
	Worldwide polyacetal market analysis (2006)		Worldwide high-pressure LDPE market review (2006)

# Finally, CMR is widely recognized for its long tradition of thought leadership in chemicals and petrochemicals



## Events

*CMR's FlexPO conference is a leading polymer and plastics event now in its 25<sup>th</sup> year*



## Recognition

*CMR has won awards and recognition for its work on materials*



## Newsletters

*Our biweekly PO&E newsletter offers unique insights into polyolefin and elastomer markets*



## Multiclient reports

*CMR has published 55+ multi-client reports on a broad range of polymer and chemical markets*



## Training

*CMR offers custom training programs on chemicals and polymers*



CHEMICAL  
MARKET  
RESOURCES  
An ADI Business

440 Cobia Drive  
Suite 1704  
Houston, Texas 77494

+1.832.768.8806  
info@CMRHouTex.com  
www.CMRHouTex.com