

# The Dow Chemical Company 2Q 2017 Earnings Conference Call

July 27, 2017

The Dow Chemical Company

# **SEC Disclosure Rules**

Some of our comments today include statements about our expectations for the future. Those expectations involve risks and uncertainties. Dow cannot guarantee the accuracy of any forecasts or estimates, and we do not plan to update any forward-looking statements if our expectations change. If you would like more information on the risks involved in forward-looking statements, please see our Annual Report and our SEC filings.

In addition, some of our comments reference non-GAAP financial measures. Where available, presentation of and reconciliation to the most directly comparable GAAP financial measures and other associated disclosures are provided on the Internet at www.dow.com/investors.



<sup>™</sup>Trademark of The Dow Chemical Company or an affiliated company of Dow.

Operating earnings per share is defined as earnings per share excluding the impact of "Certain Items." See Supplemental Information at the end of the earnings release for a description of these items, as well as a reconciliation of "Earnings per common share – diluted" to operating earnings per share.

<sup>&</sup>quot;EBITDA" is defined as earnings (i.e., "Net Income") before interest, income taxes, depreciation and amortization.

<sup>&</sup>quot;Operating EBITDA" is defined as EBITDA excluding the impact of Certain Items.

<sup>&</sup>quot;Operating EBITDA margin" is defined as "Operating EBITDA" as a percentage of reported net sales.

<sup>&</sup>quot;Sales ex. M&A" excludes prior period sales of recent divestitures and current period sales of recent acquisitions.

SQLY is defined as "Same Quarter Last Year"; PQ is defined as "Prior Quarter"; YoY is defined as "Year over Year"; TTM is defined as "Trailing Twelve Months."

<sup>&</sup>quot;Operating Return on Capital" is on a trailing twelve month basis and defined as Adjusted Net Operating Profit After Tax divided by Average Total Capital. "Adjusted Net Operating Profit After Tax" is defined as Adjusted Net Operating Profit After Tax divided by Average Total Capital. "Adjusted Net Operating Profit After Tax" is defined as Adjusted Net Income plus Preferred Stock Dividends plus Net Income Attributable to Noncontrolling Interests plus gross interest expense less tax on gross interest expense. "Adjusted Net Income" is defined as Net Income excluding the impact of "Certain Items." "Total Capital" is defined as Total Debt plus The Dow Chemical Company's Stockholders' Equity plus Redeemable Noncontrolling Interest plus Non-redeemable Noncontrolling Interests "EMEAI" is defined as Europe, Middle East, Africa and India. "LA" is defined as Latin America. "NA" is defined as North America. "EU" is defined as Europe. "APAC" is defined as Asia Pacific.

# 2Q17 Results – Unparalleled Track Record of Performance

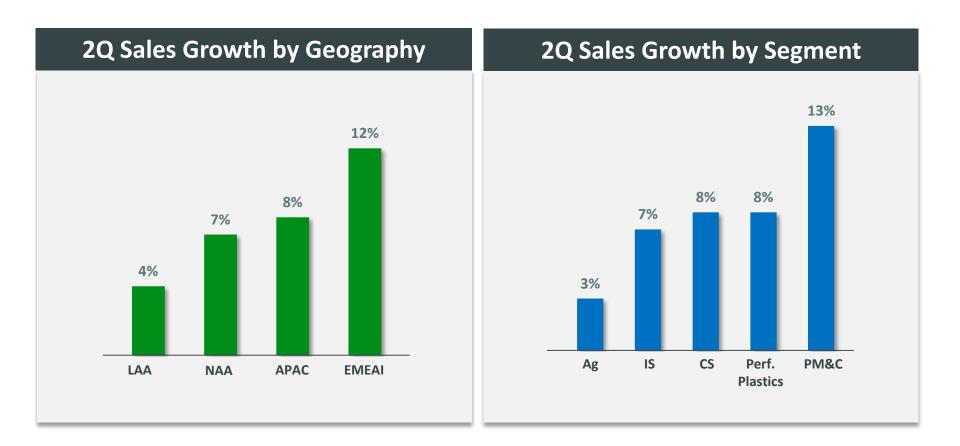
- 3<sup>rd</sup> consecutive quarter of all-time record Op. EBITDA
  - Up 12% YoY, reaching \$2.8B
- 19<sup>th</sup> consecutive quarter of YoY Op. EPS growth
  - Up 14%, rising to \$1.08; highest 2Q EPS since 2005
- 15<sup>th</sup> consecutive quarter of YoY volume growth, ex. M&A
  - Broad-based consumer-driven demand; gains in all segments and geographies
- Broad-based sales gains
  - Up 8% ex. M&A, with increases in all segments and geographies

### • Key milestones achieved in growth investments

- Sadara: 25 of 26 production units now in commercial operations
- USGC: ELITE<sup>™</sup> enhanced PE construction complete; startups for ELITE<sup>™</sup> and TX-9 both imminent
- Progressed pending merger with DuPont
  - Received key conditional regulatory approvals in nearly all jurisdictions
  - Named Board of Directors
  - Reaffirmed expected merger close in August



# **Broad-Based Top-Line Growth in All Segments and Geographies**



### **Portfolio Shift Continues to Enable Consumer-Driven Demand Capture**



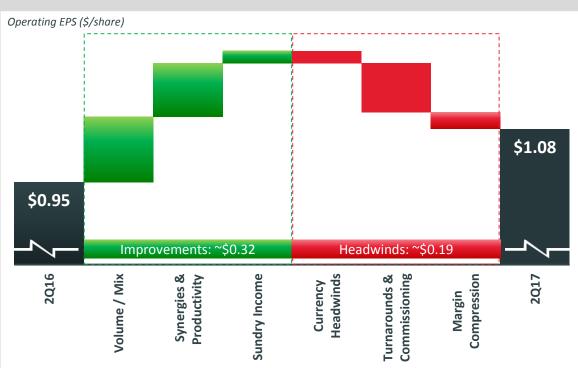
# Agenda

- 2Q Financial Highlights
- 2Q Business Highlights
- Dow's Strategic Value Drivers
- Business Model Delivers Sustainable Earnings



# 2Q17: Broad-Based Sales, Op. EBITDA and Op. EPS Growth

Financial Performance Snapshot	2Q16	2Q17	B/(W)	
Net Sales (\$MM)	\$11,952	\$13,834	+\$1,882	
Sales ex. Acquisitions (\$MM)	\$11,952	\$12,964	+\$1,012	Price: +5% Volume: +3%
Operating EBITDA (\$MM)	\$2,464	\$2,759	+\$295	Volume. 1370
Operating EPS (\$/share)	\$0.95	\$1.08	+\$0.13	



### Improved Volume/Mix, Synergies & Productivity Drive Record Op. EPS

### Improvements:

- Broad-based volume growth
- New product introductions
- Pricing momentum
- Synergies, cost controls & productivity

### Headwinds:

- Feedstock / raw material costs
- Commissioning / start-up costs and turnaround activity
- Forex headwinds

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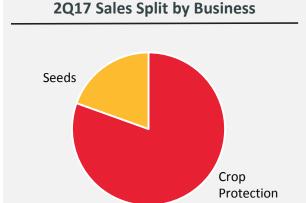


# Ag. Sciences: Differentiated Technology Drives Op. EBITDA Increase



#### **ENLIST™** Traits and Herbicide Technology: A Winning System for Farmers

The same	Product	Current Status	Acres*
Enlist Cotton	Cotton	2017 Full System Launch in US Sold-out with >500k acres	<10MM
Enlist Soybeans	Corn	Full System Launch in US/Canada in 2018	>40MM
	Duo	Launched in 2016 Expect >400k gallons sold in 2017	
<b>Conkesta</b> <sup>™</sup>	Soybeans	Awaiting China/EU Import Approval	>50MM



20%

15%

**Op. EBITDA** 

Margin

### **Consumer Solutions:** Sales and Op. EBITDA Growth in All Businesses

### Dow Automotive Systems: 10<sup>th</sup> Consecutive Qtr. of YoY Op. EBITDA Growth



- Highest quarterly sales in over five years driven by double-digit volume gains in Asia Pacific and Latin America
- Record 2Q Op. EBITDA on continued adoption of innovative solutions in the business's adhesives platform

#### Consumer Care: Broad-Based Volume Growth Drives Higher Op. EBITDA



- Volume gains in all geographic areas; double-digit volume growth in pharma and food market segments
- Op. EBITDA growth on new business wins and share gains

### Con. Solutions – Silicones: Robust Demand, Share Gains & Cost Synergies



- EMEAI and Asia Pacific lead volume increase; growth synergies accelerate globally
- Earnings growth driven by volume gains and sustained cost synergy realization

#### Dow Electronic Materials: 8<sup>th</sup> Consecutive Qtr. of YoY Op. EBITDA Growth



- Double-digit volume gains in most geographic areas led by semiconductor, printed circuit boards and OLED technologies
- Record Op. EBITDA driven by robust above-market growth, as well as new business wins across all technology platforms

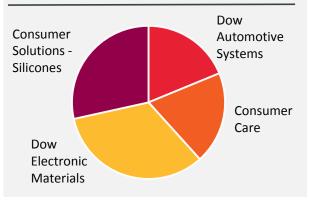


Op. EBITDA

Sales

Op. EBITDA Margin

### 2Q17 Sales Split by Business





### Infrastructure Solutions: Op. EBITDA Increases, Sales Grow in all Businesses

### Dow Bldg. & Construction: Volume Gains in Most Geographic Areas



- Demand growth in acrylics-based construction chemicals and methyl cellulosics
- Decline in Op. EBITDA from record 2Q16 as pricing initiatives lagged sharply higher raw material costs, particularly styrene

### Energy & Water Solutions: Volume Gains Led by RO & Energy Sector



- Demand growth for RO membranes more than offset lower volumes for ion exchange resins
- Modest Op. EBITDA decline on planned maintenance, price decline and higher raw material costs

#### Infra. Sol'ns – Silicones: Volume Growth in Downstream End-Markets



- Demand growth in EMEAI on building applications for innovative sealants and construction products offset by softness in NA
- Earnings growth driven by volume gains and sustained cost synergy realization

### Perf. Monomers: Price and Volume Gains on Tighter Industry Conditions Dow Coating Materials: Pricing Gains in Most Geos; Delay in Peak Season

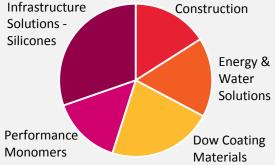


- Performance Monomers delivered robust volume growth on opportunistic merchant sales of acrylates and methacrylates
- Coatings price gains, modest volume decline on seasonal delay





2Q17 Sales Split by Business





# Perf. Materials & Chemicals: Double-digit Op. EBITDA Gains Led by PU

### Polyurethanes: Robust Demand for Systems; Tight MDI Fundamentals



- Strong demand for systems, particularly in consumer and infrastructure applications
- Higher opportunistic merchant MDI sales as supply/demand fundamentals remained tight
- Op. EBITDA rose on pricing gains and broad-based volume growth

#### Industrial Solutions: Price and Volume Growth; Improved Equity Earnings



- Sales gains in all geographic areas, led by Asia Pacific, and double-digit gains in electronics processing, crop defense and lubricants end-markets
- Op. EBITDA down slightly as increased costs were mostly offset by higher pricing initiatives

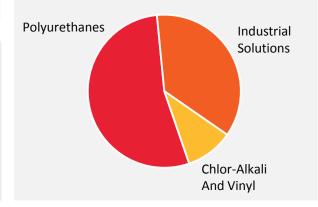
#### Chlor-Alkali and Vinyl: Op. EBITDA Rises on Tight Caustic Fundamentals



- Sales growth supported by higher operating rates in Europe
- Double-digit sales gains in EDC on higher demand and in caustic soda on tight industry fundamentals in EMEAI









# Performance Plastics: Price and Volume Growth Offset by Start-Up Costs

#### Dow Packaging and Specialty Plastics: Double-Digit Vol. Growth in EMEAI & APAC



- Demand growth led by strength in food and specialty packaging and industrial and consumer packaging end-markets
- Sadara JV volumes supplemented Dow production to meet demand growth in emerging geographies
- Op. EBITDA declined as price gains were more than offset by cost increases from USGC and Sadara commissioning and higher feedstocks

#### Dow Elastomers: Volume Growth Led by Double-Digit Increase in EMEAI



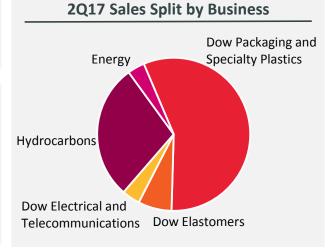
- EMEAI growth driven by automotive and infrastructure applications; hot melt adhesives demand rose in all geos
- Op. EBITDA declined on USGC commissioning costs and planned turnaround activity

#### Dow Electrical and Telecom: Price Increases More Than Offset By Reduced Volume



- Price increases across most geographic areas, largely kept pace with raw material cost inflation
- Op. EBITDA declined, primarily due to volume constraints as a result of turnaround activity







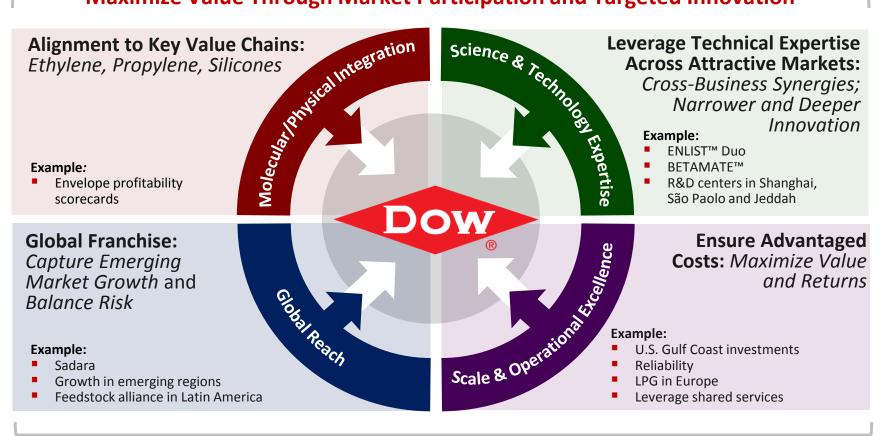
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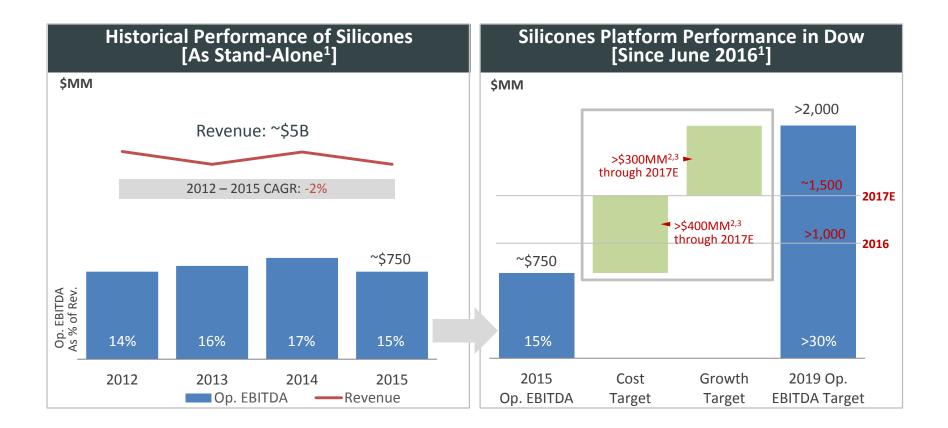
# **Dow's Strategic Value Drivers**

### Maximize Value Through Market Participation and Targeted Innovation





# Silicones – Step-Change Performance in Dow vs. Standalone



Dow Business Model Unlocks Value, Reinvigorates Earnings and Revenue Growth



(1) Excludes the impact of HSC; Based on internal management reporting

(2) Estimated P&L impact in FY17

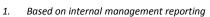
(3) Synergies across the enterprise

# **Silicones Integration**

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Hatural Resources

Metrics	Dow Corning <sup>1</sup> (2015)	Dow (2015)
COGS/Sales	70%	72%
SG&A/Sales	12% (pre-synergies) (2Q17 at ~5%)	6%
EBITDA/Sales	15%	20%
Sales/NAV <sup>2</sup>	71%	68%
EBITDA/NAV <sup>2</sup>	15%	13%



 Net Asset Value (NAV) defined as: Gross PP&E + Gross Goodwill & Intangibles + Operating Working Capital (Inventory, AR, AP) + Deferred Revenue +/- Other Net Assets (Liabilities). Estimated at \$7,966MM for Dow Corning and \$71,534MM for Dow.



# Dow Enables Faster-than-Market Expansion, Profitable Growth

New Solutions, Larger Scale, Enhanced Value Chain Participation

Leverage Strengths to **Expanded Market** Narrower & Deeper Focus Grow >2X GDP **Opportunity** Demand growth thru 2020 driven by: DOW CORNING Markets: Transportation, Personal Care, **Building & Construction and Packaging** Trends: Urbanization, Sustainability ✓ Deliver new-to-world solutions Value, differentiated, breadth ~7 ✓ Leverage scale Channel, capabilities ✓ Establish new & expanded applications ~22 ✓ Geographic outreach ~15 Addressable Market, \$B ✓ Increase in addressable market ✓ Seat at customers' design tables ✓ Multiple touch points in value chain 2015 2020

### **Operational Improvements Driven by Integration with Dow Business Model**

- Double-digit EBITDA growth versus 2015
- Exceeded original cost synergy run-rate only 10 months after closing; \$250MM additional savings identified
- Optimized inventory reduced by >20%
- Optimized capital spending reduced by 25%



# Sadara Advances 9 Additional Units into Operations

Sadara **Meeting Consumer-Driven Demand in Emerging Geographies** 26 integrated world-scale mfg plants >3MM mta of capacity

Strong Relationship With Partner Seeking Value-Add Growth

### **Status of Operations**

- 25 of 26 production units have advanced into commercial operations
- Progressed PO/PG, Polyols, Amines, Glycol Ethers and PDMI
- Approximately 0.5 billion pounds of product sold in 2Q
- Enabling customer growth, extending Dow's market presence throughout Asia, Middle East & Africa and Eastern Europe

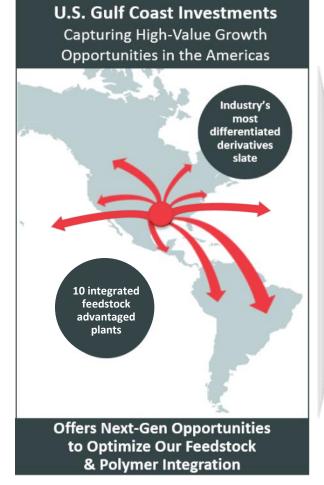
### **2017 Financial Performance vs. Guidance**

- \$1.5B of Sadara-related sales in 2017 on track
- Flat equity losses vs. 2016 on track
  - ✓ Performance Plastics headwind 1H17; tailwind 2H17
  - ✓ PM&C headwind FY17; tailwind 2018

### **Earnings Growth as Project Expense Headwinds Turn to Tailwinds**



# **Imminent Startup of Largest U.S. Gulf Coast Investments**



### **Near Completion of First Wave Growth Investments**

- SCO restart: Completed in 2012
- LA-3 debottleneck: Completed 4Q16; 2<sup>nd</sup> consecutive production record
- SEADRIFT: Gas-phase PE debottleneck completed 4Q16
- ELITE<sup>™</sup>: Startup imminent; earnings contributor in 4Q17
- TX-9 cracker: Startup imminent; will ramp to full rates through 3Q17
- LDPE: Startup expected in 4Q; earnings contributor in 1Q18
- 2018 startups: NORDEL<sup>™</sup>, bi-modal HDPE debottleneck, HMI elastomers

### Announced Next Wave Growth Projects – starting in 2020

- TX-9 expansion by 500 KTA; will be world's largest ethylene facility
- 600 KTA PE unit on U.S. Gulf Coast
- 350 KTA of additional PE thru incremental debottlenecks
- Production unit for key catalysts licensed by Univation
- Additional investments to benefit from shale gas economics, further enhancing feedstock flexibility and reducing volatility

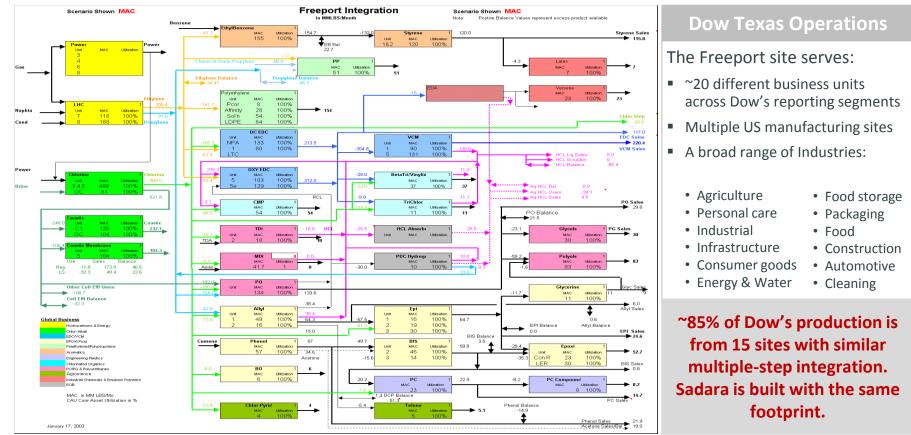
### Industry's Most Comprehensive and Differentiated Derivatives Slate



# Depth and Breadth of Integration Enables Competitive Advantage

### Texas Operations Integration

Texas Operations has 65 manufacturing units working together to produce more than 20% of the company's products sold globally (before TX-9)



### Intrinsic Value Creation Enabled Through Highly Integrated System



# **Competitive Advantages from Dow's Integrated & Leveraged Approach**



# Advantages enabled by integrated systems, capabilities and processes

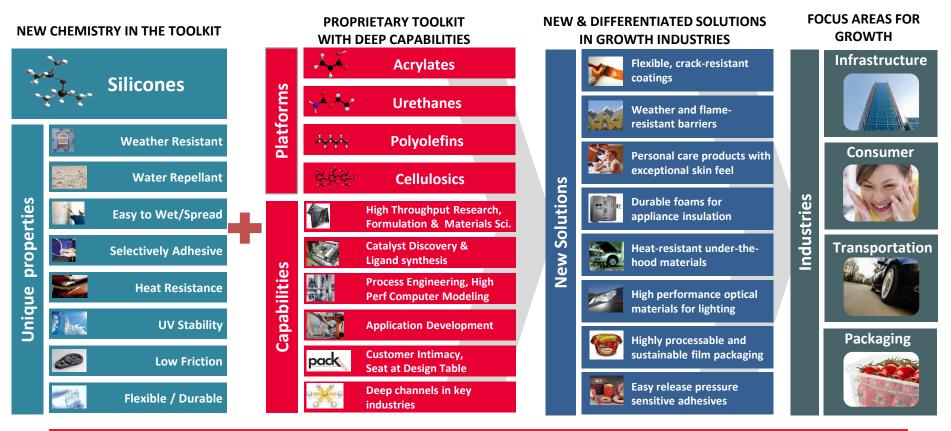
Procurement	~\$520 MM	Enhanced buying power and higher economies of scale		
H&E/Feedstocks	~\$500 MM	Advantage associated with hydrocarbons, energy and feedstock cost management		
Corp/Leveraged Services	~\$250 MM	Centralized key corporate functions and leveraged services		
Site / Operations	~\$190 MM	Leveraged Manufacturing and Engineering services		
Tax / Financing	~\$200 MM	Tax credits, lower financing costs and risk profile		
Innovation	~\$200 MM	Growth and margin premiums		
Total	~\$1.9B +/- 15%	Annual earnings from integrated operating model		

### Scale and Leverage Deliver Competitive Advantage & Substantial Value



# **Integration & Innovation to Serve Core Materials Science Markets**

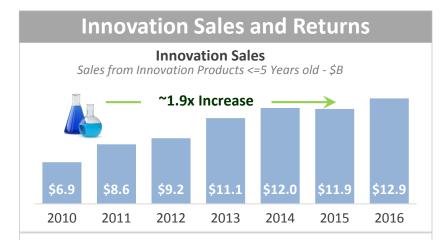
Silicones Adds New-to-World Solutions



- New solutions driven by world-class capabilities and customer intimacy in key markets
- Scale of industry-leading innovation engine enables faster commercialization

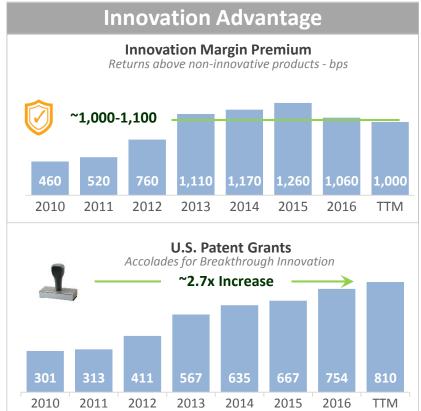


# **Upgraded Returns with Investments in Value-Add Innovation**



### **Continued traction in 1H17:**

- Innovation Sales up >5% vs 1H16
- New Innovation EBITDA represents >1/3 of total Dow EBITDA



### Dow Products & Solutions Have Received 21 R&D 100 Awards Since 2013

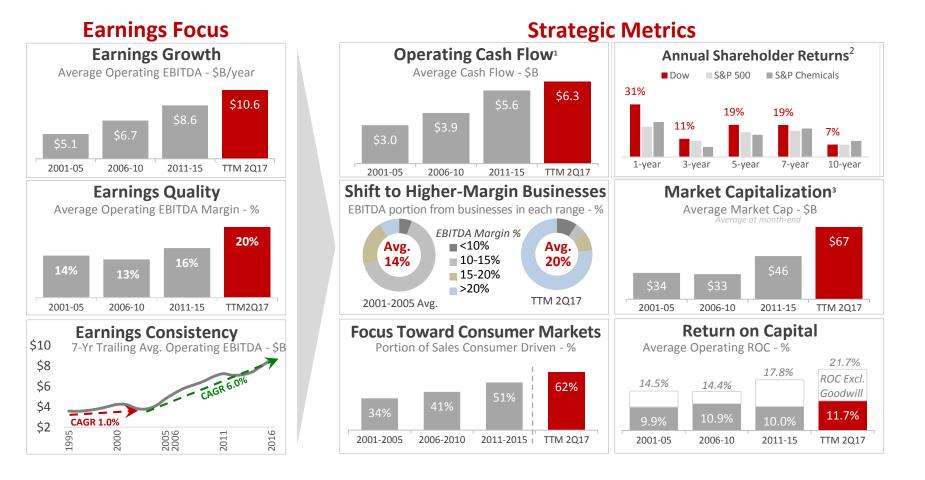


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# **Dow Business Model Delivers Sustainable Earnings**

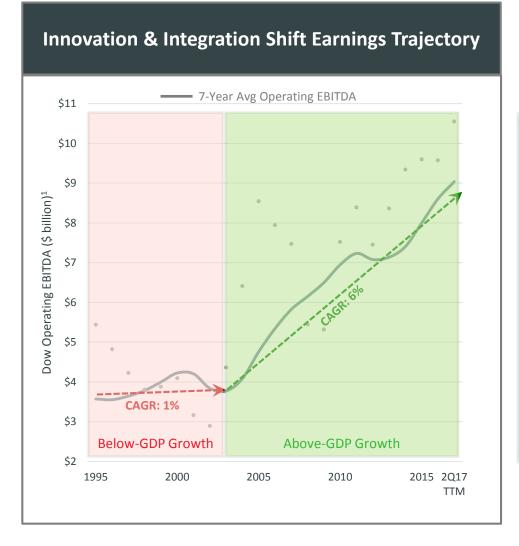


### Track Record of Outperformance Enabled by Integration and Innovation Strategy

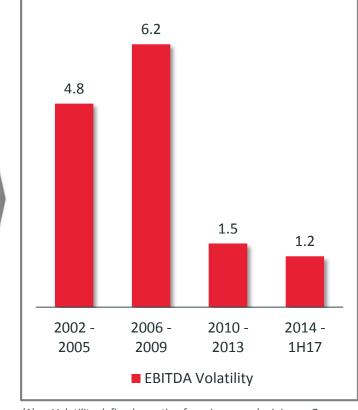


- 1. Cash flow from operations excluding the post-tax impacts of K-Dow arbitration award, Urethanes settlements, Bayer settlements and Costs Associated with Portfolio and Productivity Actions
- 2. Source: Bloomberg; annual equivalent rate at June 30, 2017
- 3. Source: CapitalIQ; based on Avg. Monthly Market Capitalization

# **Shift to Consumer-Driven Portfolio Drives Earnings Consistency**



Significant Reduction in Op. EBITDA Volatility<sup>(1)</sup>



(1) Volatility defined as ratio of maximum and minimum Op. EBITDA during time period.



# **Consistent Track Record of Delivering on Financial Priorities**

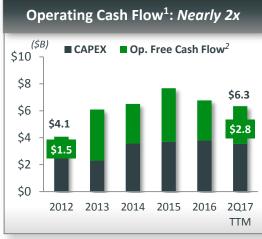
Progress on Key Financial Metrics (2012-2Q17)

- Operating EPS CAGR of 18%
- Operating ROC improved by >400 bps
- Maintained strong liquidity and financial position
  - Net debt to cap down from ~43% to ~34%
  - Net debt to EBITDA down from 2.2x to 1.4x
- Over \$17B remunerated to shareholders



**Operating ROC:** Up 410 bps

2012 2013 2014 2015 2016 2017





1. Cash flow from operations excluding the post-tax impacts of K-Dow arbitration award, Urethanes settlements, Bayer settlements and Costs Associated with Transactions and Productivity Actions

11.7%

TTM

2. Operating cash flow less CAPEX

7.6%

13%

11%

9%

7%

5%

3. Common dividends paid + share re-purchases (includes \$1.5B in non-cash share repurchases related to the Dow Chlorine Products transaction)

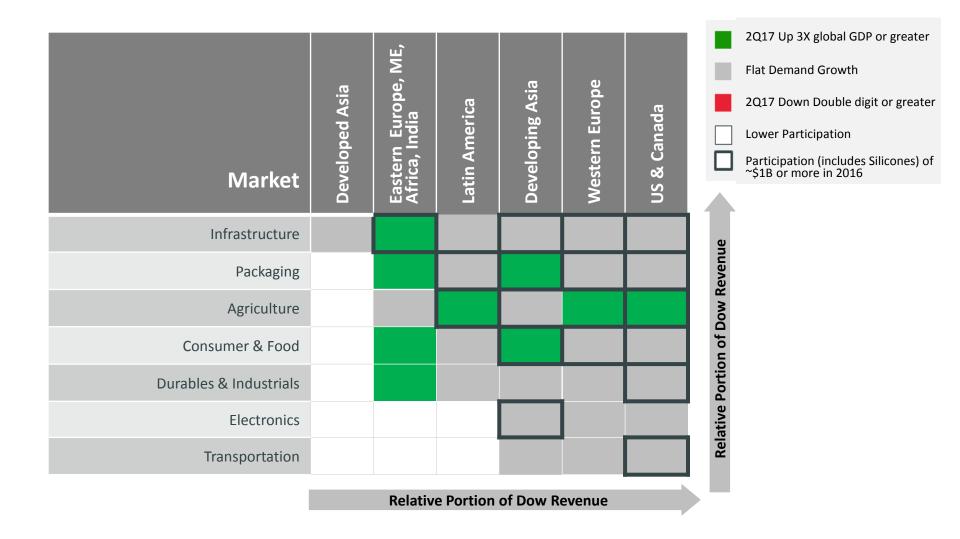
# Dow

### Significant Earnings & Cash Flow Growth Drivers in Place to Support Future Shareholder Returns





### Market Pulse – 2Q17 Heat Map





# **3Q17 Modeling Guidance**

	Dow Revenue	\$13.0-13.5B	Corp. Segment EBITDA	\$(80)-(100)MM	
ate	Operational Tax Rate	24-26%	D&A	\$750-800MM	
porc	Share Count	~1,235MM	Net Interest Expense \$240-		
Cor	Y-o-Y Dow Op. EBITDA Margin Impace 25-50 bps decline on marketing arran		Increase in D&A and Net Interest Expense as USG growth projects come online		

Segments	Key EBITDA Drivers (3Q17 vs. 3Q16)
Agricultural Sciences	Favorable currency translation in 3Q16 will not repeat in 3Q17, based on a relatively stable forex environment (~\$45MM headwind). Benefit from differentiated products continue to offset challenging industry macros.
Consumer Solutions	Silicones cost synergies (~\$80MM higher Y-o-Y, of which 40% in CS). Ramping of silicones growth (\$60-80MM, of which 40% in CS). HSC earnings flat (\$10-20MM pre-tax, of which 50% in CS). Softening in automotive end-markets offset by strength in electronics end-markets.
Infrastructure Solutions	Silicones cost synergies (~\$80MM higher Y-o-Y, of which 60% in IS). Ramping of silicones growth (\$60-80MM, of which 60% in IS). HSC earnings flat Y-o-Y (\$10-20MM pre-tax, of which 50% in IS). Benefit from improving energy end-markets and delayed peak season in construction end-markets. PDH a small tailwind (~\$10MM) offset by higher turnaround costs in Performance Monomers.
Perf. Materials & Chemicals	Modest improvement in business earnings on pockets of tight supply/demand fundamentals. ~\$10MM higher equity earnings, driven by reduced Sadara losses. PDH a small tailwind (~\$20MM).
Performance Plastics	TX-9 and derivatives start-up expense (~\$75MM). Margins impacted by higher feedstock costs. Higher volume from LA-3 and TX-PE debottlenecks adds ~\$20MM. Higher equity earnings as ramp-up of PE volumes at Sadara more than offset lower earnings from other joint ventures. Nominal contribution from our USGC capacity start-ups in 3Q17 as they ramp-up production throughout the quarter.



# 2Q17 vs. 2Q16 Sales Trends by Business

Agricultural Sciences Consumer Solutions <sup>1</sup>			] [	Infrastructure Solutions		S <sup>1</sup>						
	Sales	Price	Volume		Sales	Price	Volume		Dow Building &	Sales	Price	Volume 1
Crop Protection	-	↓ ↓	1 1	Dow Automotive Systems Consumer Care	1 t	-	t t		Construction Energy & Water Solutions	Ť	Ļ	t
Seeds		+		Dow Electronic Materials	t t	Ļ	t	Π	Dow Coating Materials	Ť	t	Ļ
						1			Performance Monomers	Ť	t	1 1

Performance Materials & Chemicals						
	Sales	Price	Volume			
Polyurethanes	t	t	Ť			
Industrial Solutions	t	t	t			
Chlor-Alkali and Vinyl	t	t	ţ			
and Vinyl			+			

Performance Plastics							
Sales Price Volume							
Dow Packaging and Specialty Plastics	t	-	t				
Dow Elastomers	Ļ	Ļ	t				
Dow Electrical and Telecommunications	Ļ	t	Ļ				
Hydrocarbons	t	t	1 T				
Energy	Ļ	t	Ļ				



# **Quarterly Preliminary Results for Principal Joint Ventures**

#### Principal Joint Ventures<sup>1</sup> – Total

Dollars in millions (unaudited)	2Q17	2Q16
Sales	\$2,940	\$2,358
Adjusted Sales <sup>2</sup>	\$1,885	\$1,617
Operating EBITDA <sup>3</sup>	\$585	\$424
Depreciation & Amortization	\$331	\$210

#### **Dow Proportionate Share**

Dollars in millions (unaudited)	2Q17	2Q16
Adjusted Sales <sup>2</sup>	\$738	\$634
Operating EBITDA <sup>3</sup>	\$240	\$179
Depreciation & Amortization	\$127	\$83
Equity Earnings	\$47	\$47
Operating EBITDA in Excess of Equity Earnings	\$193	\$132
Net Debt <sup>4</sup>	\$6,299	\$6,302

- 1. Dow Corning Corporation (thru 5/31/16), EQUATE Petrochemical Company K.S.C., The Kuwait Olefins Company K.S.C., The Kuwait Styrene Company K.S.C., Sadara Chemical Company, The SCG-Dow Group, Map Ta Phut Olefins Company Limited, and HSC Group
- 2. Adjusted Sales defined as Sales for these joint ventures less sales to Dow and/or to other Dow joint ventures
- 3. Operating EBITDA is defined as EBITDA (which Dow defines as earnings (i.e., "Net Income") before interest, income taxes, depreciation and amortization) excluding the impact of certain items
- 4. Net Debt excludes debt owed to Dow and/or to other Dow joint ventures



# **Reconciliation of Non-GAAP Financial Measures**

	Three Mo	nths Ended	Six Months Ended		
In millions	6/30/2017	6/30/2016	6/30/2017	6/30/2016	
Net Income Available for The Dow Chemical Company Common Stockholders	\$1,321	\$3,123	\$2,209	\$3,292	
+ Preferred stock dividends	-	85	-	170	
+ Net income attributable to noncontrolling interests	38	19	65	40	
+ Provision for income taxes	455	130	668	20	
Income Before Income Taxes	\$1,841	\$3,357	\$2,942	\$3,522	
+ Interest expense and amortization of debt discount	226	208	445	409	
- Interest Income	22	18	47	38	
+ Depreciation and amortization	739	680	1,517	1,287	
EBITDA	\$2,757	\$4,227	\$4,857	\$5,180	
- Certain Items	(2)	1,763	(606)	463	
Operating EBITDA	\$2,759	\$2,464	\$5,463	\$4,717	

