



Seaport Global Annual Transports & Industrials Conference

March 20, 2019

General Disclosure

This presentation includes “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements include statements concerning our plans, objectives, goals, strategies, future events, future revenue or performance, capital expenditures, financing needs, plans or intentions relating to acquisitions, business trends and other information that is not historical information. When used in this presentation, the words “estimates,” “expects,” “anticipates,” “projects,” “plans,” “intends,” “believes,” “forecasts,” or future or conditional verbs, such as “will,” “should,” “could” or “may,” and variations of such words or similar expressions are intended to identify forward-looking statements. All forward-looking statements, including, without limitation, management's examination of historical operating trends and data, are based upon our current expectations and various assumptions. Our expectations, beliefs and projections are expressed in good faith, and we believe there is a reasonable basis for them. However, there can be no assurance that management's expectations, beliefs and projections will be achieved.

The forward-looking statements in this release are subject to uncertainty and changes in circumstances and involve risks and uncertainties that may affect the company's operations, markets, products, services, prices and other factors as discussed in the Huntsman companies' filings with the U.S. Securities and Exchange Commission. Significant risks and uncertainties may relate to, but are not limited to, volatile global economic conditions, cyclical and volatile product markets, disruptions in production at manufacturing facilities, reorganization or restructuring of Huntsman's operations, including any delay of, or other negative developments affecting the ability to implement cost reductions and manufacturing optimization improvements in Huntsman businesses and realize anticipated cost savings, and other financial, economic, competitive, environmental, political, legal, regulatory and technological factors. Any forward-looking statement should be considered in light of the risks set forth under the caption “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2017.

All forward-looking statements attributable to us or persons acting on our behalf apply only as of the date made. We undertake no obligation to update or revise forward-looking statements which may be made to reflect events or circumstances that arise after the date made or to reflect the occurrence of unanticipated events.

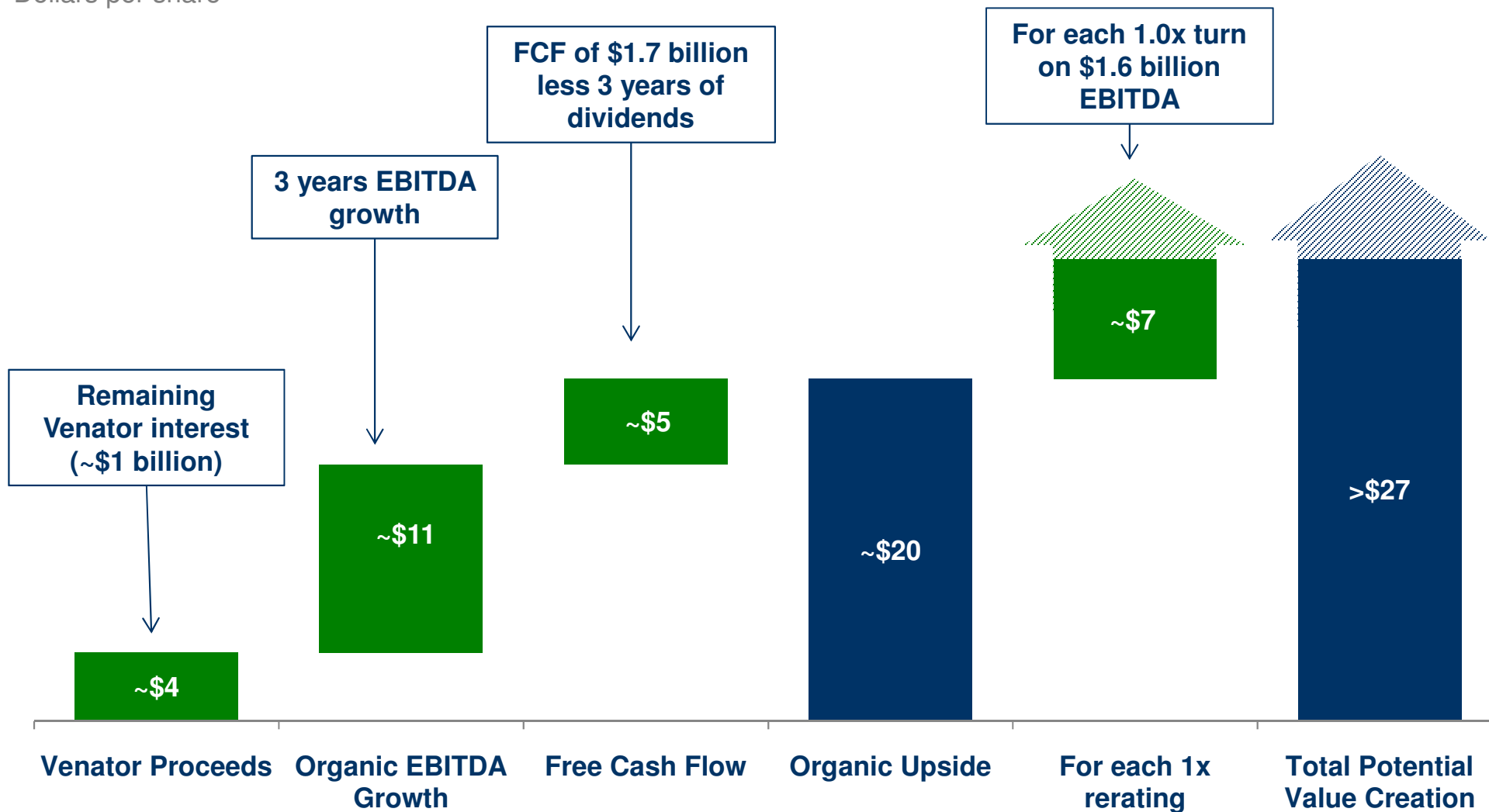
This presentation contains financial measures that are not in accordance with generally accepted accounting principles in the U.S. (“GAAP”), including EBITDA, adjusted EBITDA, adjusted EBITDA from discontinued operations, adjusted net income (loss), adjusted diluted income (loss) per share, free cash flow and net debt. Reconciliations of non-GAAP measures to GAAP are provided in the financial schedules attached to the earnings news release for the relevant period and available on the Company's website at <http://ir.huntsman.com/>

The Company does not provide reconciliations of forward-looking non-GAAP financial measures to the most comparable GAAP financial measures on a forward-looking basis because the Company is unable to provide a meaningful or accurate calculation or estimation of reconciling items and the information is not available without unreasonable effort. This is due to the inherent difficulty of forecasting the timing and amount of certain items, such as, but not limited to, (a) business acquisition and integration expenses, (b) merger costs, and (c) certain legal and other settlements and related costs. Each of such adjustments has not yet occurred, are out of the Company's control and/or cannot be reasonably predicted. For the same reasons, the Company is unable to address the probable significance of the unavailable information.

Significant Value Creation Upside

As Presented at Investor Day 2018

Dollars per share



>\$27 per Share in Potential Value Creation

Differentiated Adjusted EBITDA⁽¹⁾

Annual⁽¹⁾

Fourth Quarter⁽¹⁾

Adjusted EBITDA Margin



Margin Spike
 Differentiated Adj. EBITDA excl. Margin Spike
 Adj. EBITDA Margin
 Adj. EBITDA Margin excl. Margin Spike

Margin Spike
 Differentiated Adj. EBITDA excl. Margin Spike
 Adj. EBITDA Margin
 Adj. EBITDA Margin excl. Margin Spike

(1) Excludes MTBE and Olefins

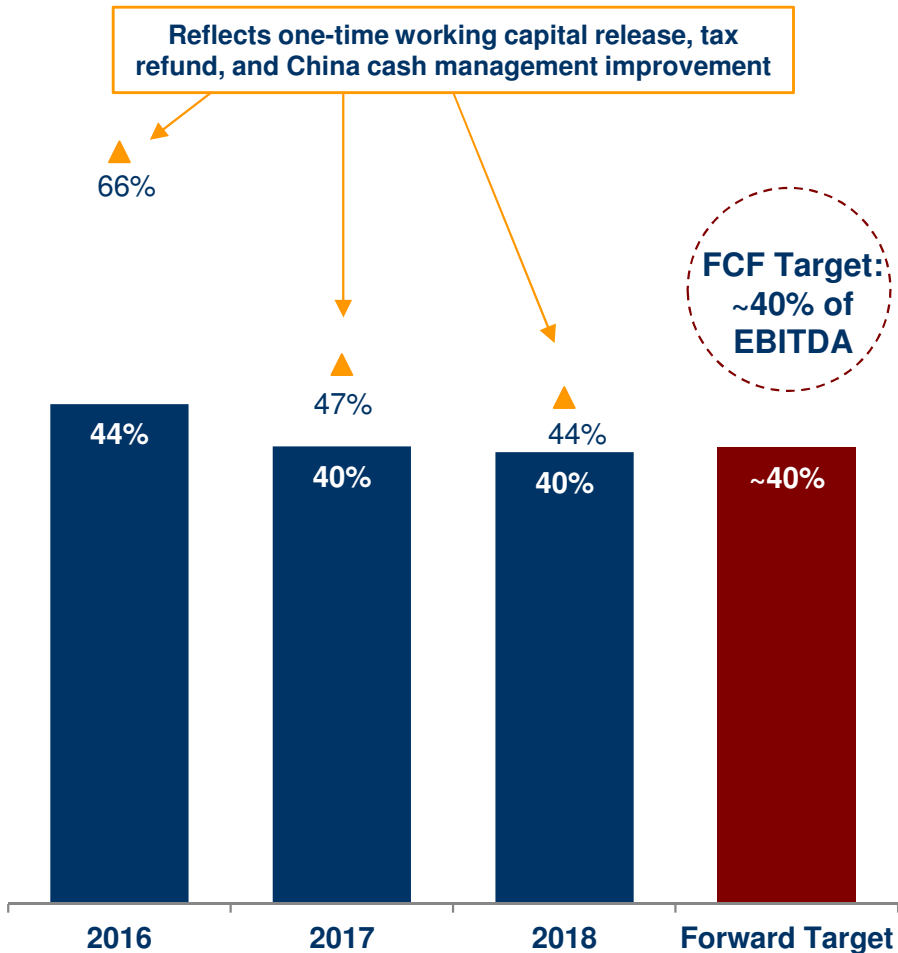
(2) Excludes European surfactants business, which was sold to Innospec on December 30, 2016

Cash Flow Generation and Balance Sheet Strength

Consistent Free Cash Flow Conversion has Assisted in Transforming Balance Sheet

Consistent Strong Free Cash Flow Conversion

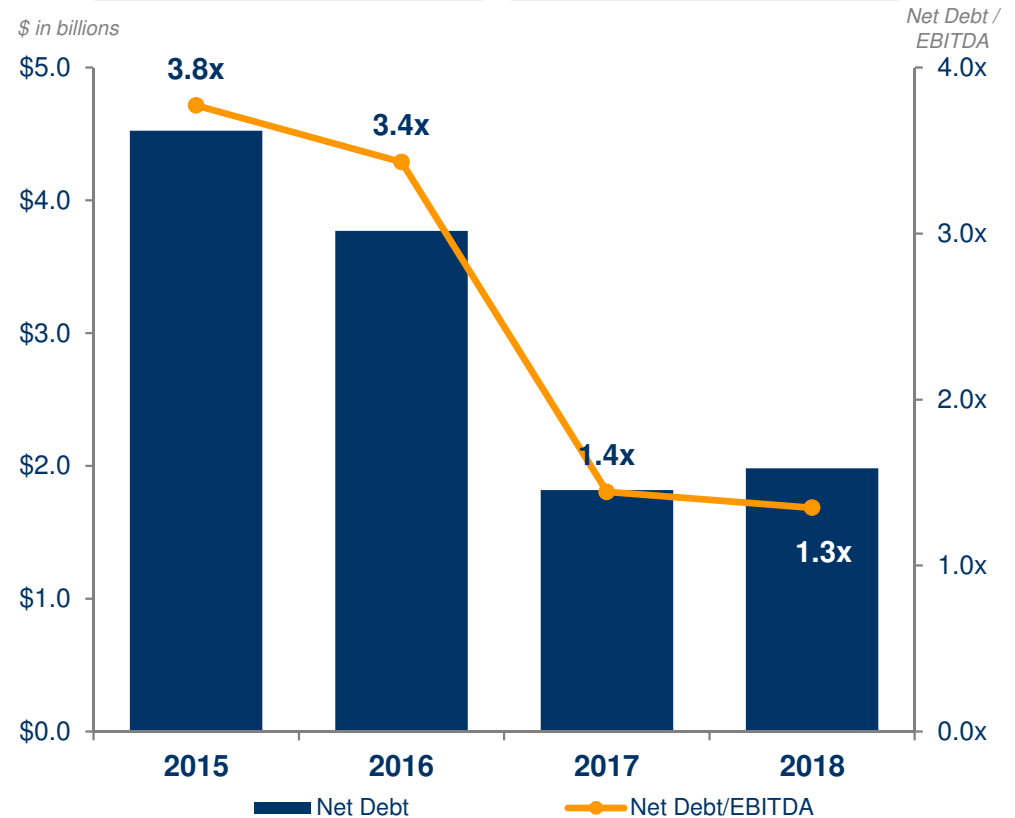
\$1.9 billion in Free Cash Flow Generated Since 2016



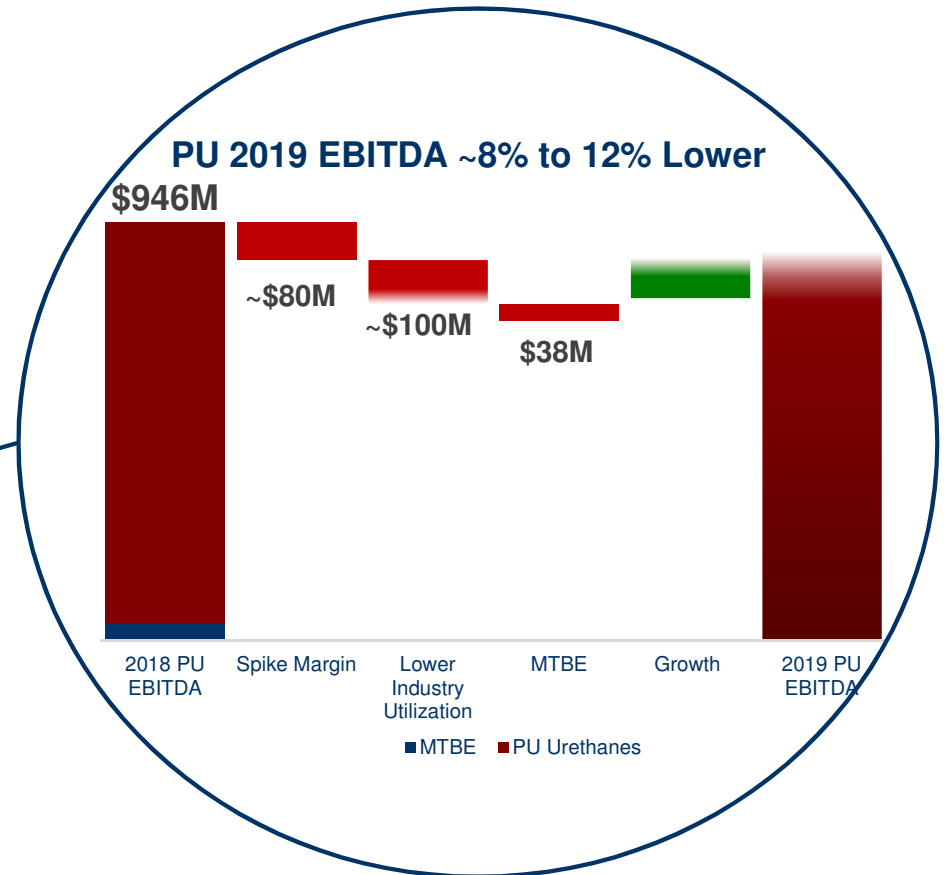
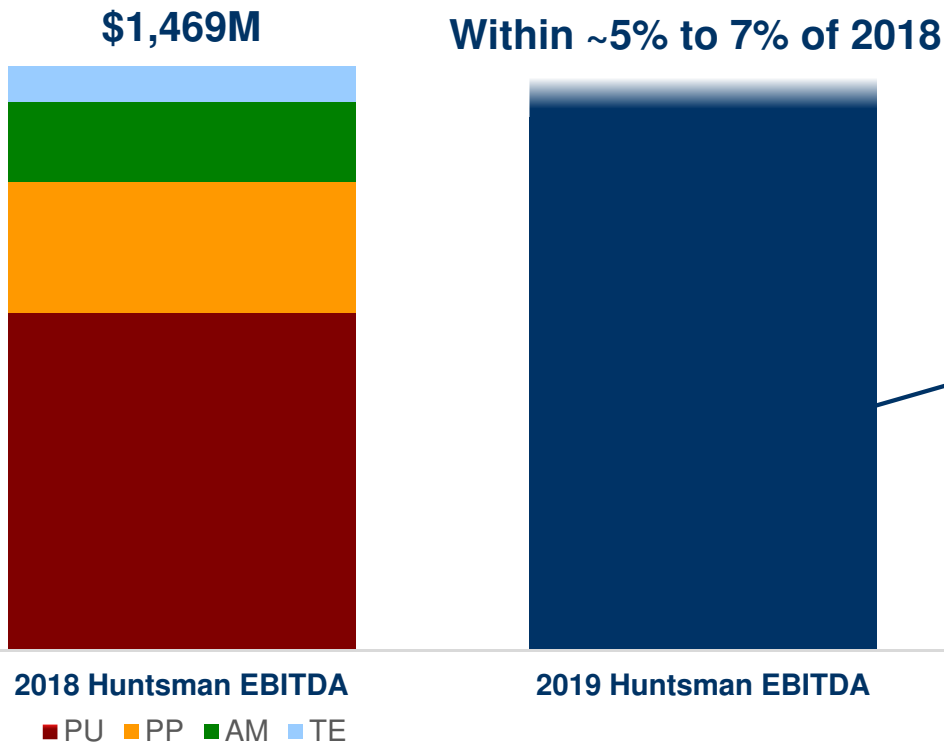
Transformation of Huntsman Balance Sheet

Investment Grade Achieved

MOODY'S		FitchRatings	
Corporate Rating	Baa3	Corporate Rating	BBB-Positive
Outlook	Stable	Outlook	



2019 Guidance Summary



2019 Guidance Summary

Total 2019 EBITDA: Within ~5% to 7% of 2018 EBITDA

1Q19 Total EBITDA: ~10% lower than 4Q18

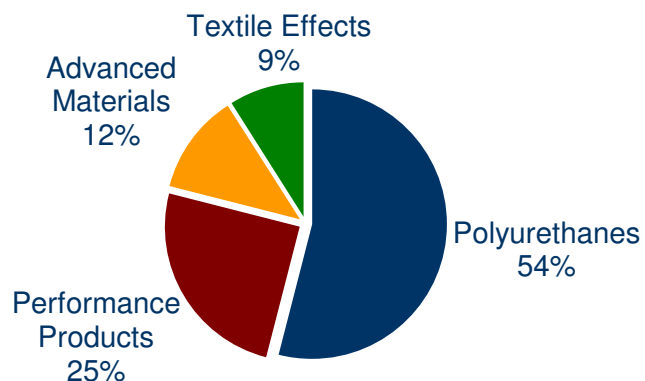
2019 Corporate expense: ~\$180M

Share Repurchases: Balanced and opportunistic

Potential cautions: Global trade tariff resolution, Global GDP growth, European/Brexit resolution

Portfolio Composition⁽¹⁾

Revenue⁽²⁾

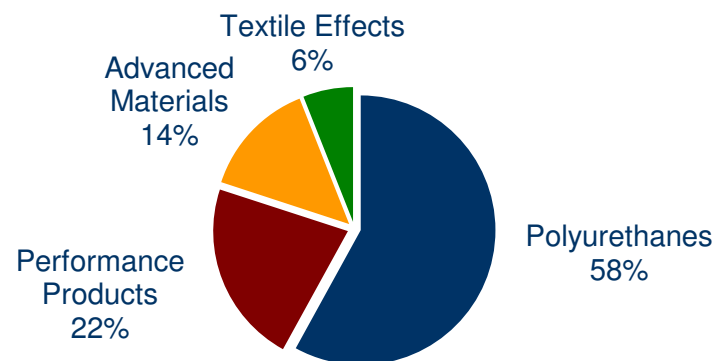


2018

Revenues
\$9.4
billion

Adjusted EBITDA
\$1.5
billion

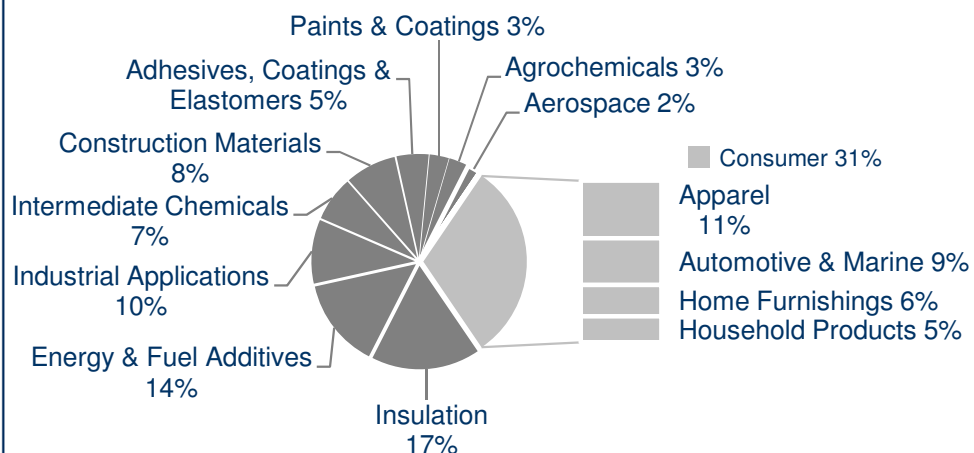
Adjusted EBITDA⁽²⁾⁽³⁾



End Markets

2018 Revenues

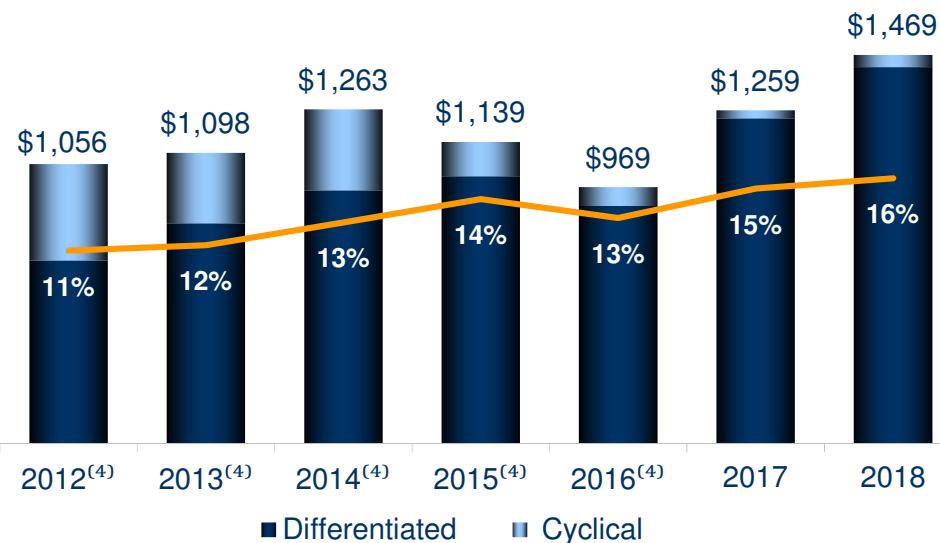
Source: Management estimates



Adjusted EBITDA⁽³⁾

\$ in millions

Adj. EBITDA Margin



(1) Pro forma to exclude the Pigments & Additives business, which was treated as discontinued operations after the Venator IPO on August 8, 2017.

(2) Segment allocation is before Corporate and other unallocated items.

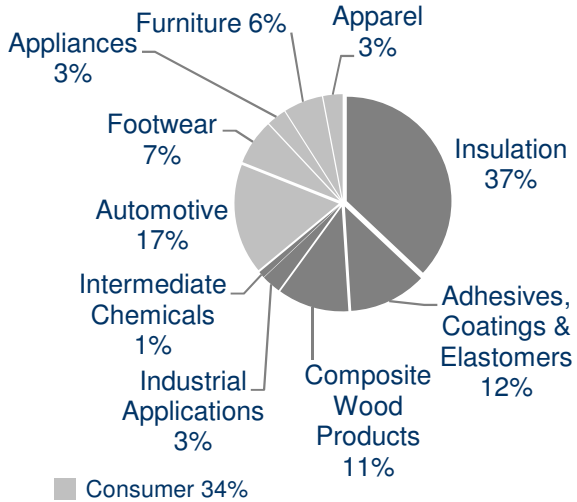
(3) See Appendix for a reconciliation.

(4) Excludes European surfactants business, which was sold to Innospec on December 30, 2016.

Polyurethanes

MDI End Markets

2018 Revenues Source: Management Estimates



2018

Revenues

\$5.1

billion

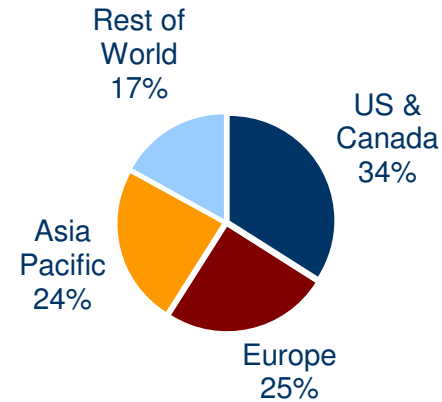
Adjusted EBITDA

\$946

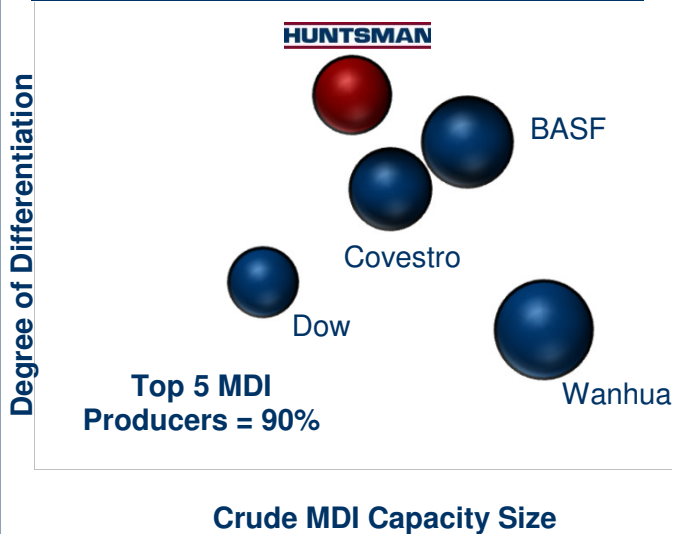
million

Revenues

2018 Revenues



MDI Competitive Intensity

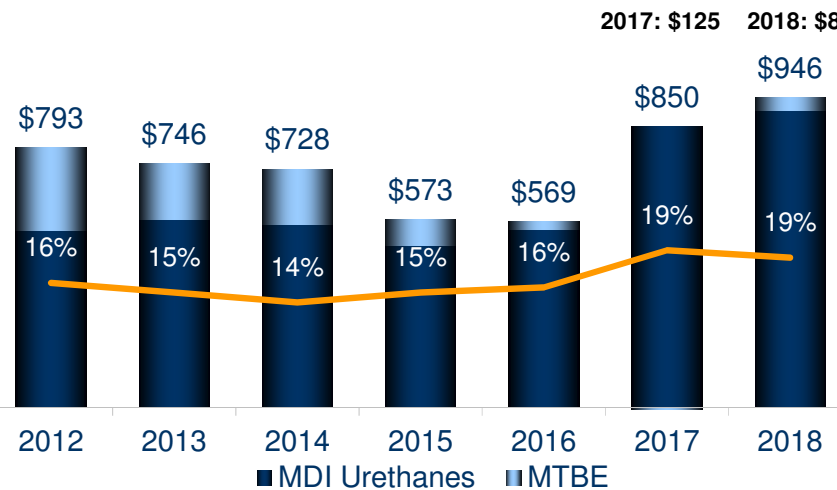


Source: Management Estimates

Adjusted EBITDA History

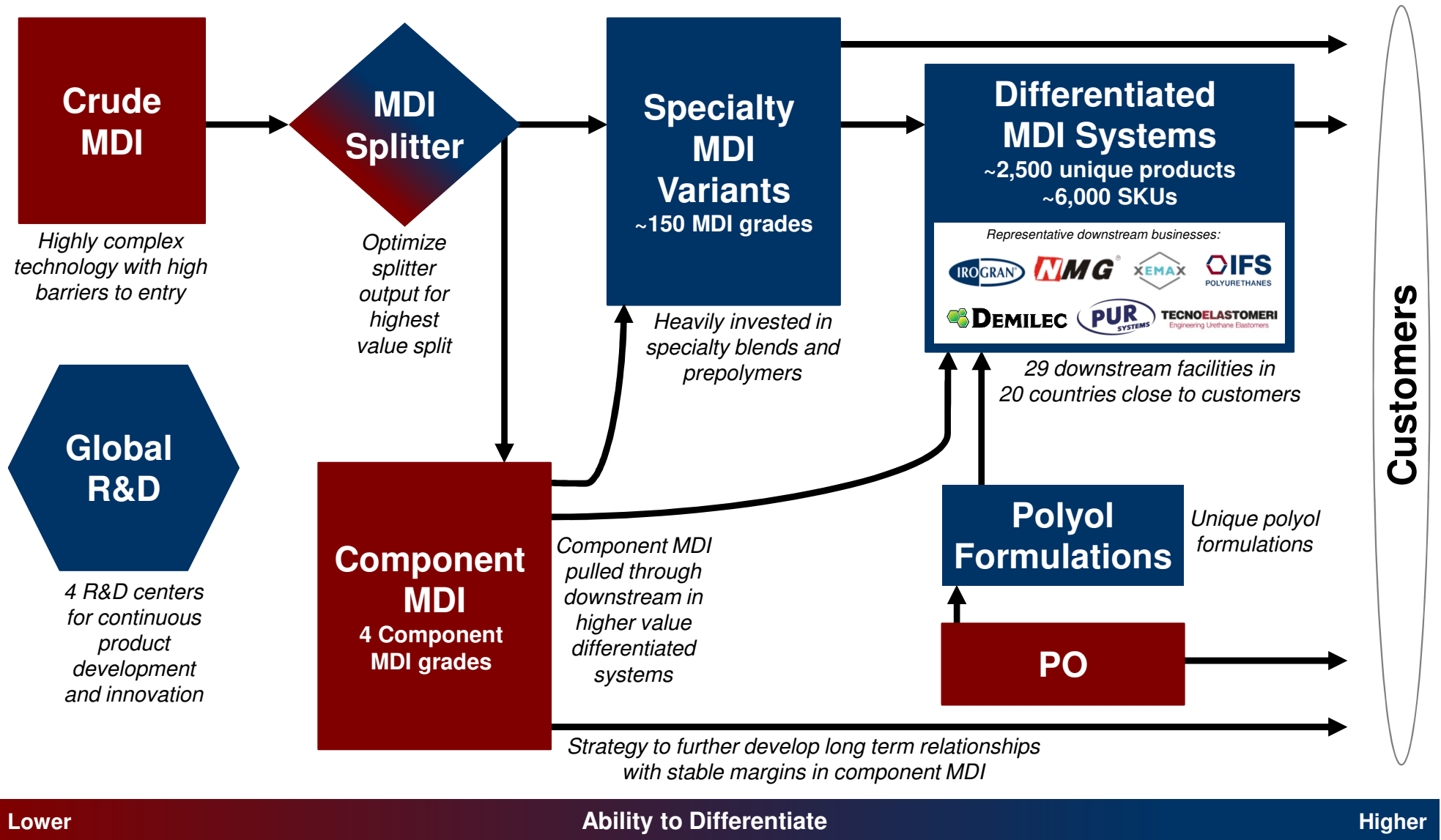
\$ in millions

Adj. EBITDA Margin
Includes short-term spike:



Huntsman Polyurethanes

Differentiating Factors Along the Value Chain



Global footprint of integrated MDI facilities, R&D and downstream systems businesses in higher growth end markets.

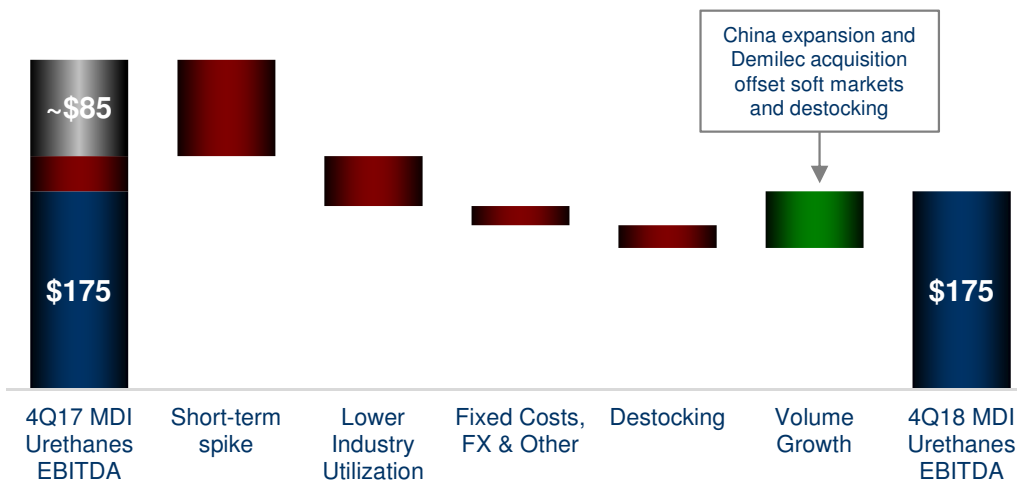
Huntsman MDI Overview

Industry Status

- Current global effective operating rates in mid-80s
- Differentiated margins stable despite destocking
- Exposure to component pricing largely contained to subset of China and Europe
- Component MDI pricing (YoY):
 - China declined by ~55%
 - Europe declined by ~45%
 - US exposure minimal

Margin Spike Gone, But Downstream Core Stable

Industry operating rates and polymeric MDI pricing at 2016 levels

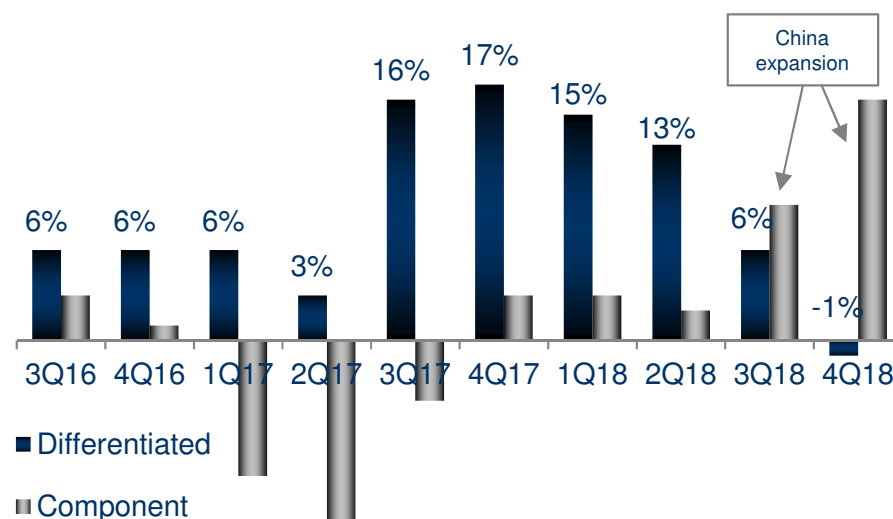


Huntsman Q4 Performance by Region (YoY)

- Americas
 - Growth attributable to Demilec acquisition and adhesives and elastomers
 - Partially offset by destocking in CWP
- Europe
 - Volume declines due to significant destocking and customer order cancelations in certain markets, such as insulation and adhesives
- Asia
 - Growth was driven by capacity expansion at our Caojing JV

Focus on Differentiated Volumes

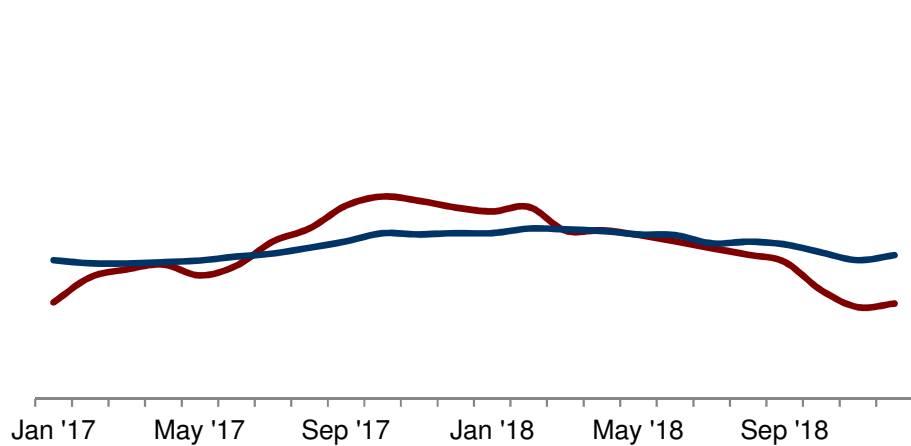
Destocking and lower demand led to 4Q18 decline in differentiated volumes, but margins remained stable



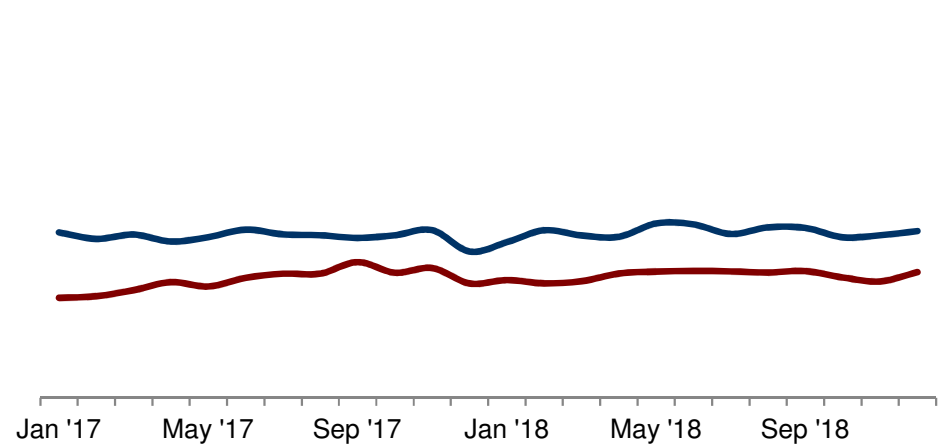
Strategic Core Differentiated Business Remains Stable

Polyurethanes

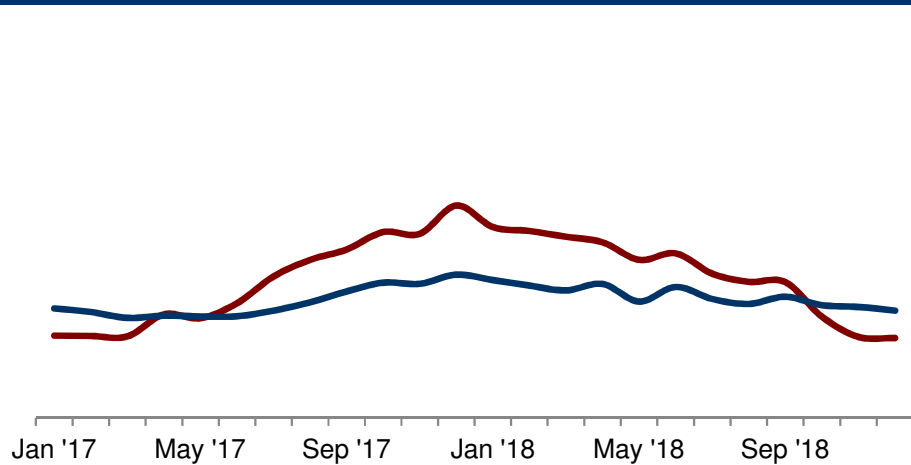
Global



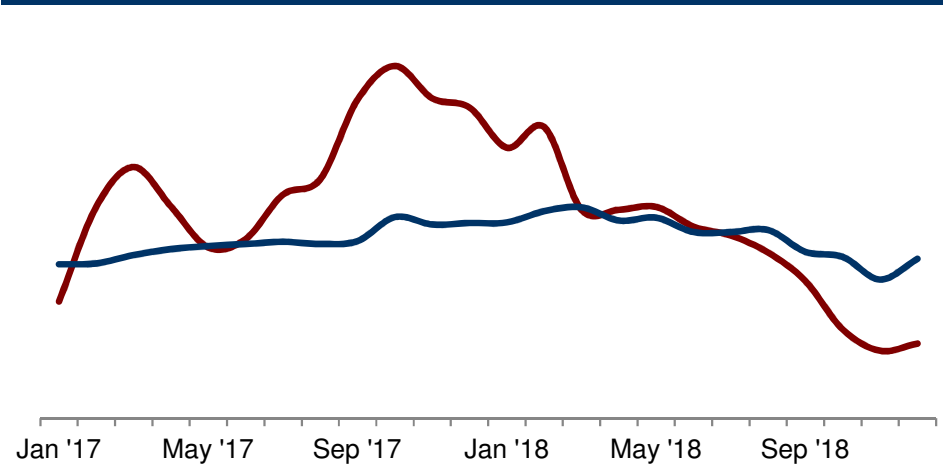
Americas



Europe



Asia

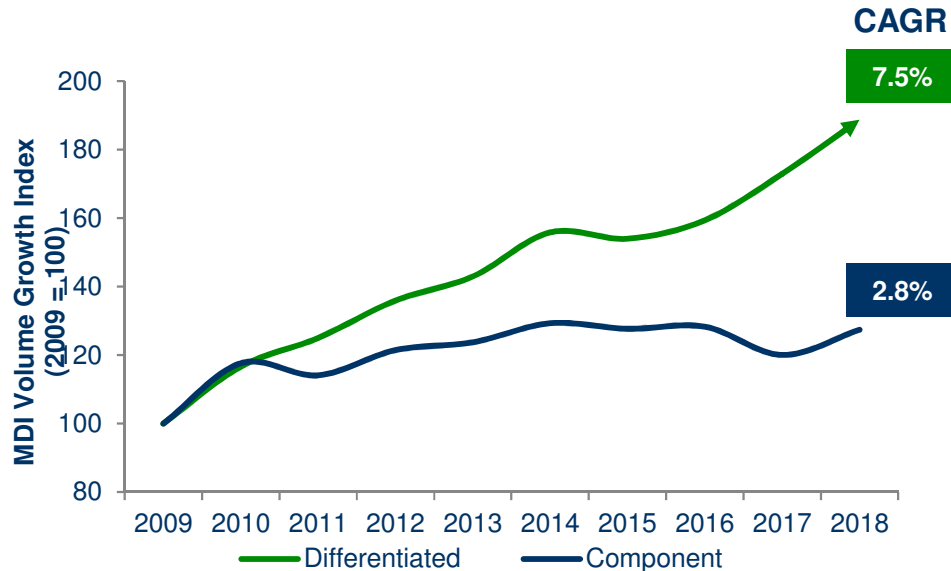


— Short-term spiked margins — All other margins

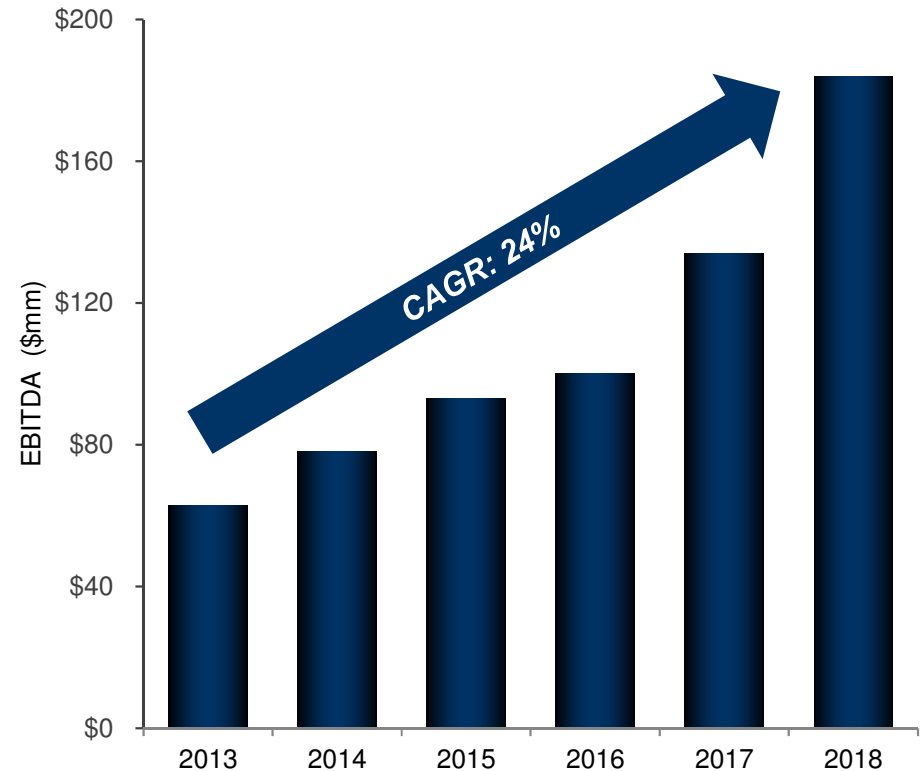
Downstream Strategy Progress

Differentiated Volume and EBITDA Growth

Focus on Growing Differentiated Volumes

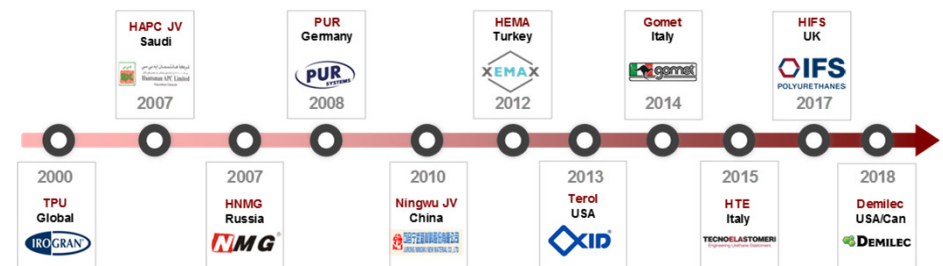


EBITDA from Bolt-On Acquisitions



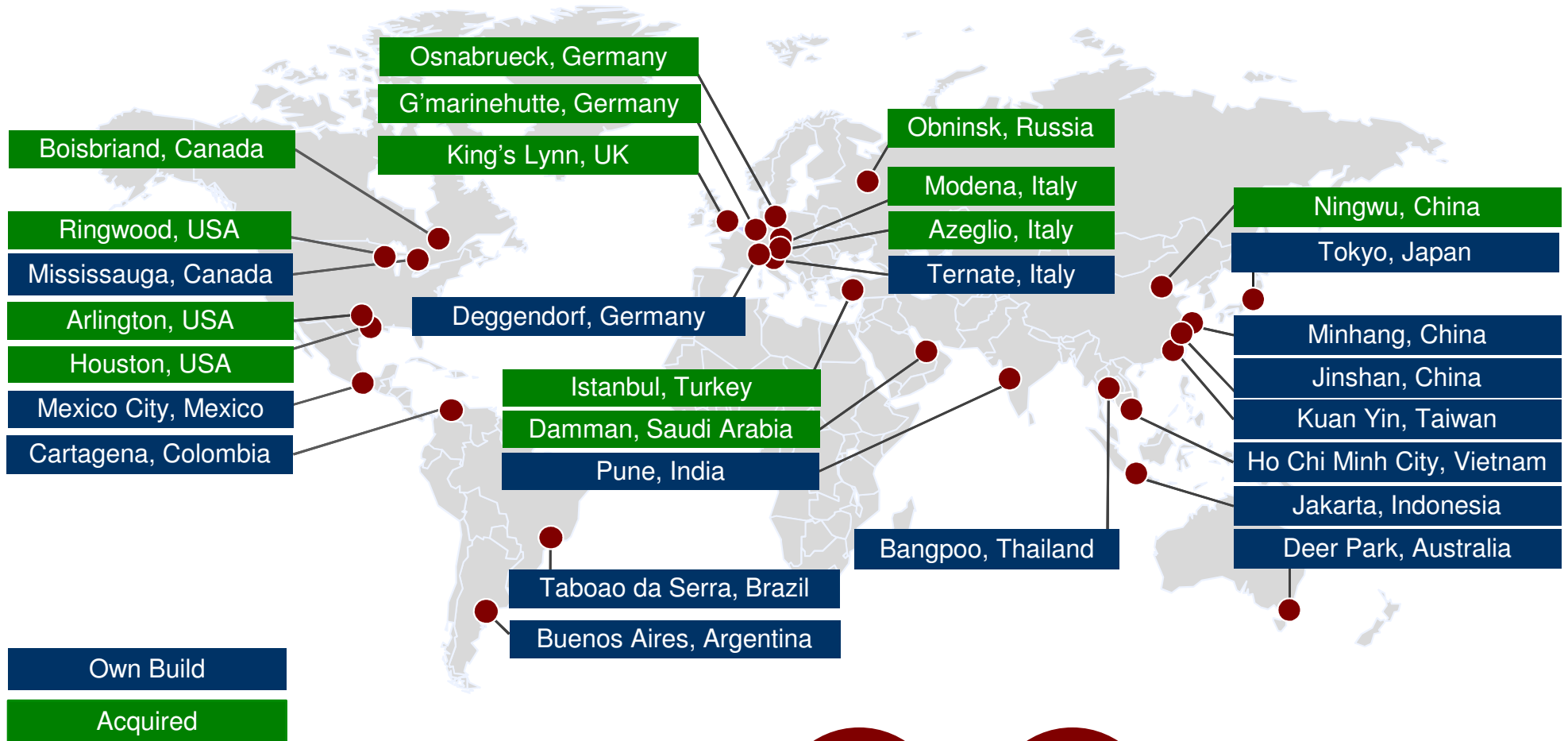
New Crude MDI Splitter in Geismar

- Construct new MDI splitter in Geismar, LA to increase total splitting capacity
- Will increase flexibility for splitting higher margin MDI in Americas, similar to Europe and China
- Investment of ~\$125mm: ~\$50mm in 2019, remainder in 2020
- IRR substantially higher than 20% hurdle rate



Downstream Footprint

Significant Expansion Program



- New investments under construction**
- Systems house in Dubai
 - Systems house in North China
 - TPU line in Jinshan, China
 - Systems house in Taiwan

3x
GDP Growth

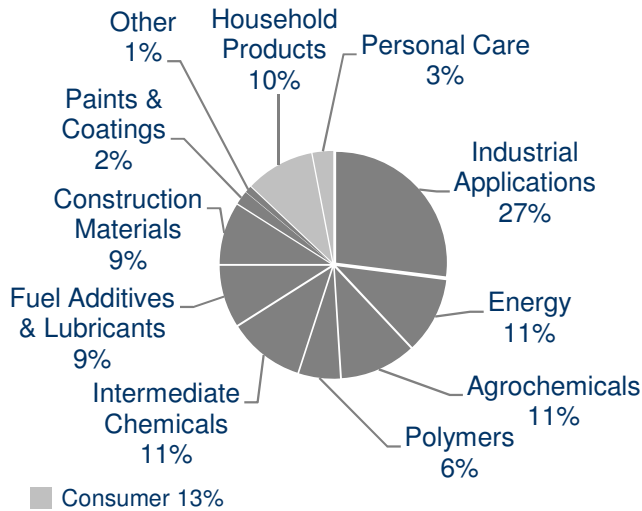
>20%
EBITDA
Margins

Performance Products

End Markets

2018 Revenues

Source: Management Estimates



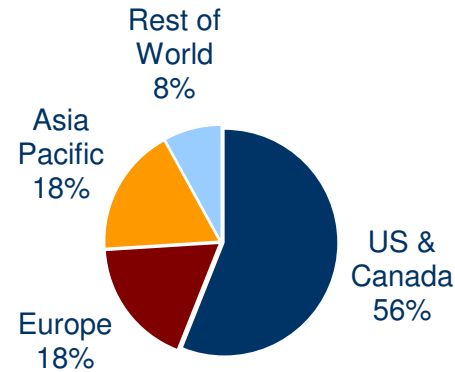
2018

Revenues
\$2.4
billion

Adjusted EBITDA
\$367
million

Revenues

2018 Revenues



AGRICULTURE



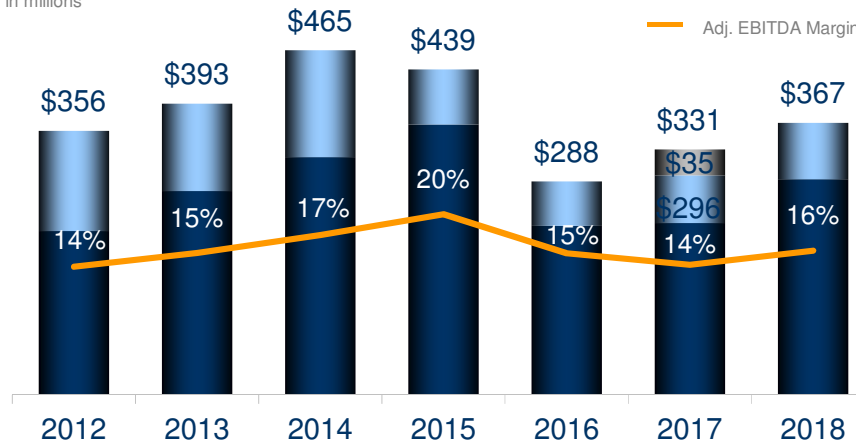
AUTOMOTIVE FLUIDS

Huntsman Market Share

Product	Market Share	Peers
Amines		
Polyetheramines (Global)	>60%	BASF
Ethyleneamines (Global)	45%	Dow, Tosoh, Delamine
Ethanolamines (Americas)	20%	Dow, Ineos, Oxiteno
Morpholine/DGA (Americas & EMEA)	50%	BASF
Specialty PU Catalysts (Global)	40%	BASF, Evonik, Momentive
Maleic Anhydride (Americas & EMEA)	40%	Lanxess, INEOS, Polynt, Bartek

Adjusted EBITDA History⁽¹⁾

\$ in millions



■ Differentiated ■ Upstream Intermediates ■ Harvey Impact

(1) Excludes European surfactants business, which was sold to Innospec in 2016



OILFIELD



MARINE

Performance Products Derivatives (~80% of Division EBITDA)

Sustainable Growth Underpinned by Macro Trends, Leading Market- and Low Cost Positions



~40%
of EBITDA

Amines

- Amines growth well supported by macro trends in light-weighting, clean air and energy efficiency
- Broadest product offering and largest global marketer of amines
- Global manufacturing footprint
- Available capacity for growth

Strategic Strengths



~25%
of EBITDA

Maleic Anhydride

- World's largest maleic producer and merchant seller; 12% global market share, >40% in North America and EU
- Global technology leader, licensor and catalyst provider
- Low-cost producer in North America and EU
- Free cash flow conversion of ~75%



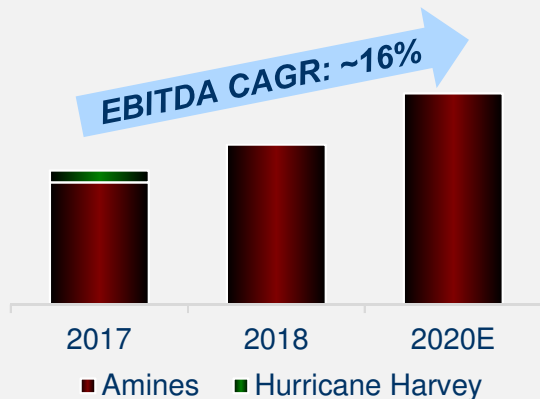
~15%
of EBITDA

Surfactants

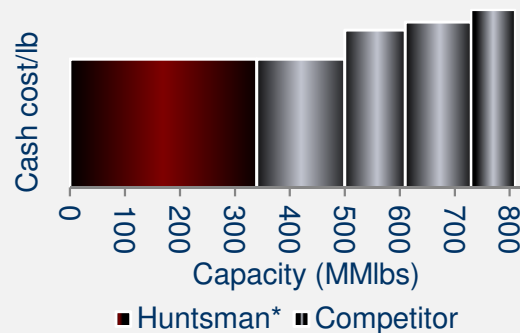
- Specialty Surfactants growth underpinned by fracking, food production and clean fuels
- Integrated to ethylene and EO in US
- Highest feedstock flexibility in alcohols gives lowest cost throughout cycle
- Ample EO capacity to support strong growth in specialty markets

Focus on Growth and Stable, High Margins

Broadest Product Offering Poised for Growth

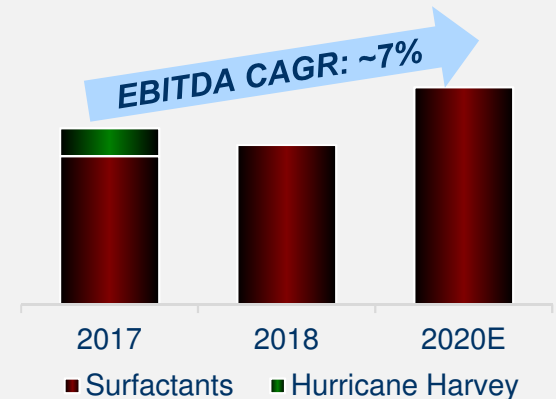


Stable, High-Margin Business with Low Cost Position



* Total capacity and average cost of two US plants
Source: Management Estimates

In Recovery, with Focus on Downstream Growth

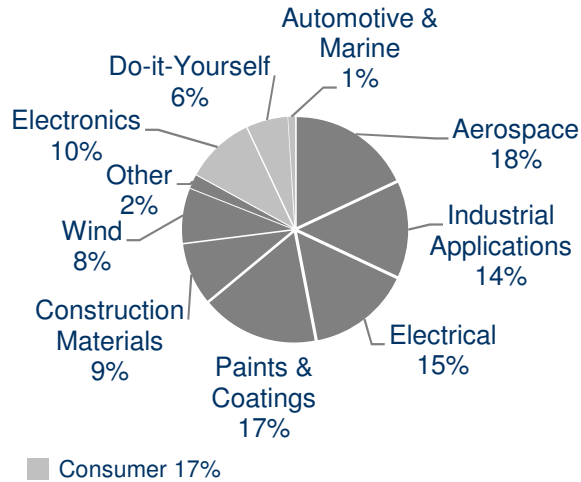


Advanced Materials

End Markets

2018 Revenues

Source: Management Estimates



2018

Revenues

\$1.1

billion

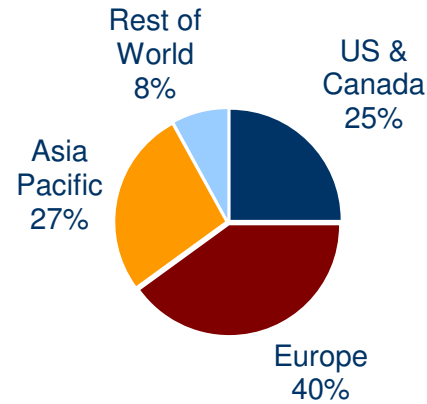
Adjusted EBITDA

\$225

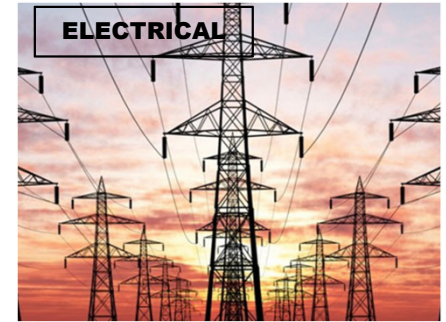
million

Revenues

2018 Revenues



AEROSPACE



ELECTRICAL



ADHESIVES



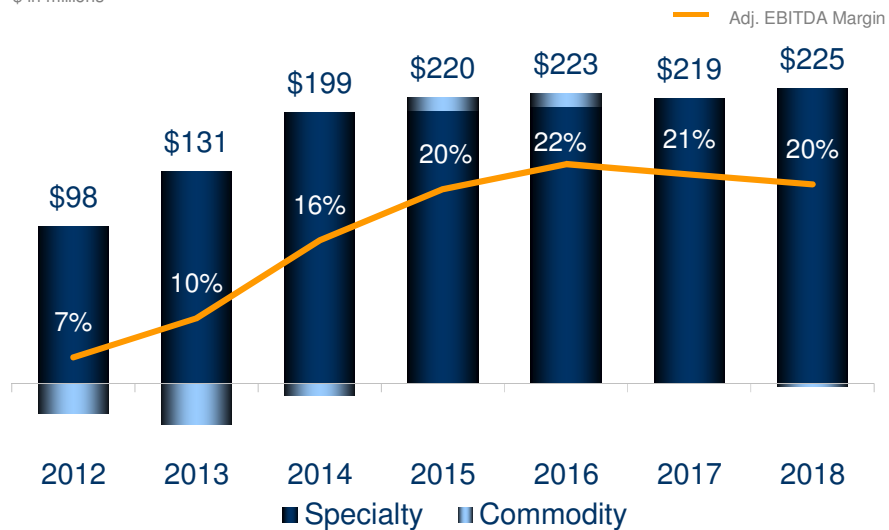
AUTOMOTIVE

Competitive Landscape

Primary Market	Select Competitors
Aerospace, Transportation & Industrial	Henkel, Sumitomo
Electrical & Electronic	Elantas, 3M, Xiongrun
Coatings & Construction Additives	Evonik, Allnex, BASF

Adjusted EBITDA History

\$ in millions



Advanced Materials Market Positioning

High Value Formulations Business

Large Epoxy Players

HUNTSMAN

Huntsman's Position

Increasing Product Differentiation in Value Chain

Raw Materials

- Allyl Chloride
- Epichlorohydrin
- Phenol
- Acetone
- Bisphenol A

Basic Resins

- Basic Liquid Resin
- Solid Resin
- Solutions

Specialty Components

- Modified Resins
- Multifunctional Resins
- Other chemistries
 - Cyanate Esters
 - Benzoxazines
 - Curatives

Formulated Systems
(tailored material solutions)

Huntsman's Value Proposition

Excellent Product Performance

Innovation Focus

Effect Formulation Expertise

Superior Productivity In Use

Exceptional Supply Reliability

Focus on Customer Service

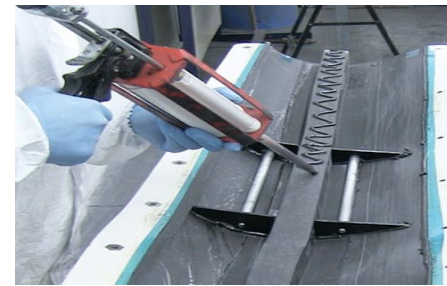
HUNTSMAN

Platform for Specialty Growth

Benefit by Leveraging Innovation and Acquisitions

2018 EBITDA

Effect Market	Light Weighting	Adhesion & Joining	Electrical Insulation	Protection	New Effects
Transportation & Industrial	EBITDA \$142mm				
Electrical & Electronic	EBITDA \$60mm				
Coatings & Construction	EBITDA \$26mm				
Adjacent Markets	Innovation and bolt-on acquisitions				

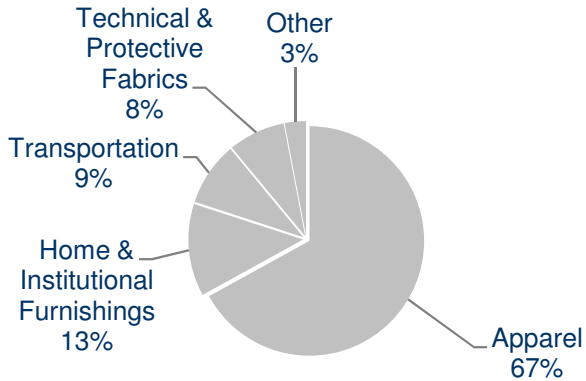


Textile Effects

End Markets

2018 Revenues

Source: Management Estimates



Consumer 100%

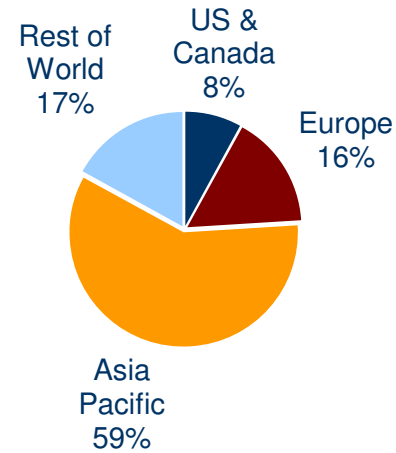
2018

Revenues
\$824
million

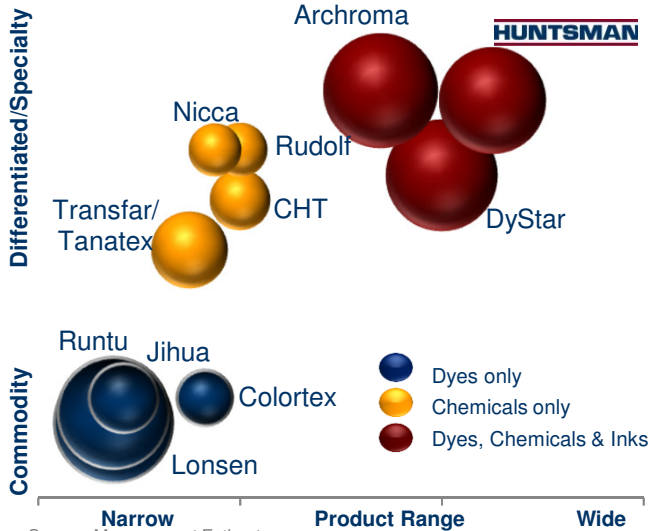
Adjusted EBITDA
\$101
million

Revenues

2018 Revenues



Competitive Landscape

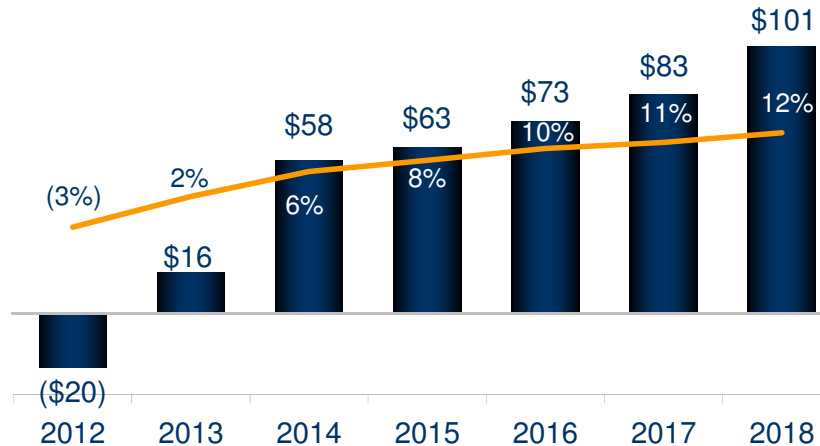


Source: Management Estimates

Adjusted EBITDA History

\$ in millions

Adj. EBITDA Margin



Huntsman Textile Effects Positioning

Technologies Aligned with Macro Trends

Indicative
Huntsman Products

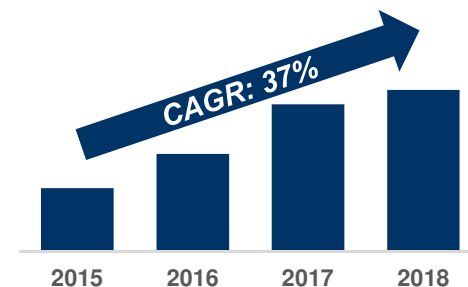
Brand
Partners

Volume Growth
2015-2018

Water and Energy
Conservation



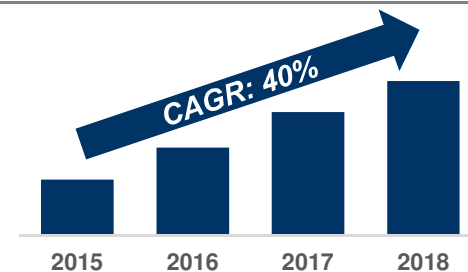
Award winning new generation specialty solutions for water and energy savings



Cleaner
Chemistries



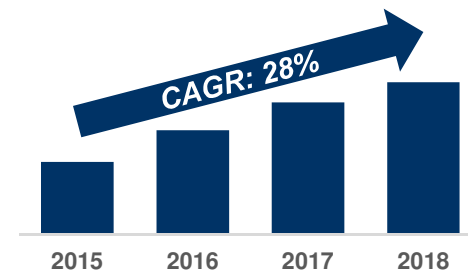
Leading the transition to specialty non-fluorochemical solutions



Zero
Discharge



Pioneer and leader in digital inks



Macro Trends

+

New Product Pipeline

=

~2x GDP

+

Expanded Margins

=

Mid-Teen
EBITDA Margin
2020

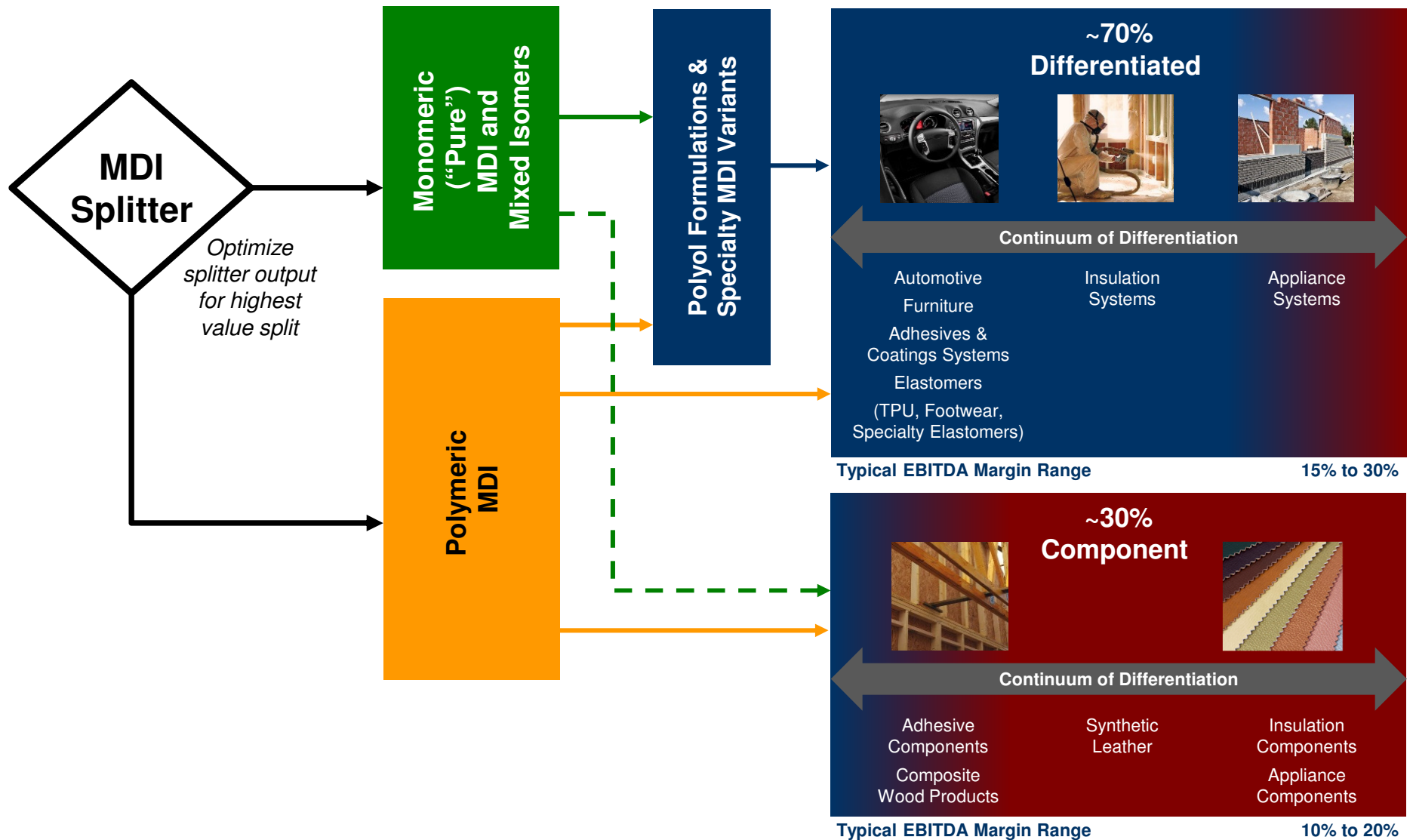
The logo for Huntsman, featuring the word "HUNTSMAN" in a bold, dark blue, sans-serif font. The text is centered and flanked by two horizontal red bars, one above and one below the letters.

Enriching lives through innovation

Appendix

Huntsman Polyurethanes

Differentiation is a Continuum



Huntsman is focused on moving downstream while developing long-term relationships with stable margins in Component MDI.

37%
MDI
Revenues

Growth in Insulation with Energy Saving Formulated Systems

MDI Insulation

- MDI systems provide highest insulation value, air tightness and moisture barriers
- Largest MDI sector growing at 6%-7% per annum
- Sector requires equivalent of two new world scale MDI plants to meet demand in the next five years
- 40%-50% of all energy used to heat & cool buildings – insulation is the most cost effective way of saving energy
- Huntsman focus on formulated insulation systems, back integrated into both MDI and TEROL polyester technology

Huntsman Insulation Innovation


Americas
SPF - Home Insulation




A full portfolio of environmentally friendly, energy-efficient insulation products, that reduce expenses for builders and building owners

TEROL  **DEMILEC**

Europe
Composite Panels



Rapid development of DaltoPUR and DaltoPIR fire retardant product portfolio in response to customer and regulatory demand for fire retardant products



Asia
SPF - Pipe Insulation



Developed new spray foam technology delivering 30% improvement efficiency on a 38 km pipeline providing heating to 2 million residents in Taiyuan, China



12%
MDI
Revenues

Global Elastomers Business

Versatile High Performance MDI / TPU Systems

Global Elastomers ~2,000 Ktes MDI Systems Market

Huntsman is a ~\$500 million global business
Highly fragmented customer base seeking custom solutions
Value pricing reflects need for formulation and innovation support

Footwear



- Accelerate growth to become the number 1 footwear PU company
- ~700 Huntsman SKUs
- >10% Growth (2017-2020)
- >20% EBITDA / revenue

Specialty Elastomers



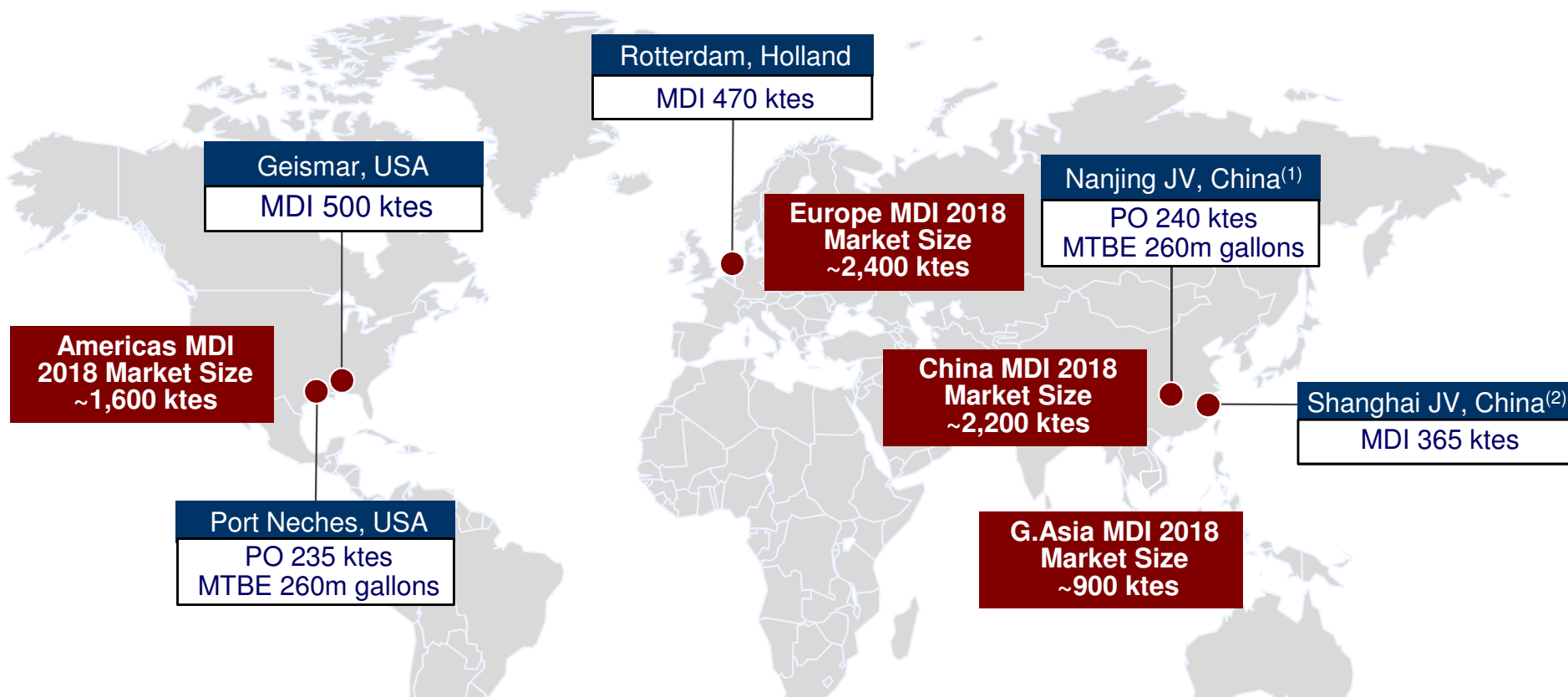
TECNOELASTOMERI
Engineering Urethane Elastomers

- With our customers deliver high quality sustainable solutions
- ~2,400 Huntsman SKUs
- 10% Growth (2017-2020)
- ~20% EBITDA / revenue

Leverage decades of global elastomer technology and innovation experience

Upstream Footprint

Partner Upstream And Stretch Existing Assets



Capacity Additions	Type	Amount	Comments
Rotterdam	MDI Debottleneck	+60 ktes	Complete
Nanjing	PO Joint Venture	+120 ktes	Complete
Caojing	MDI Expansion	+200 ktes	Ramp up 2018-2020

(1) Huntsman receives 49% equity income from its unconsolidated joint venture with a Sinopec subsidiary.

(2) Represents Huntsman's share of capacity from SLIC.

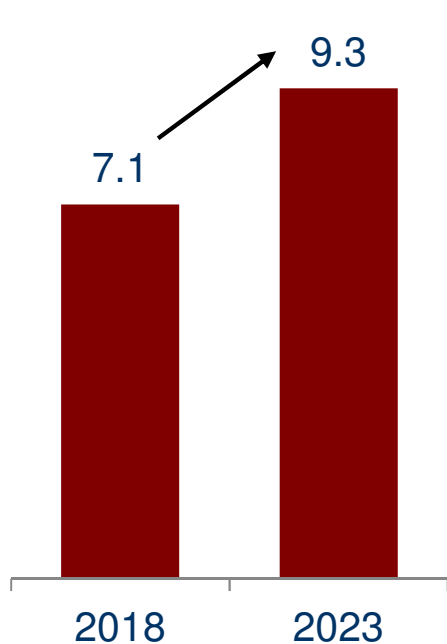
Note: Market Size, Source Nexant, Management

MDI Industry Capacity Utilization

Over the Next 5 Years the Industry Will Remain Balanced

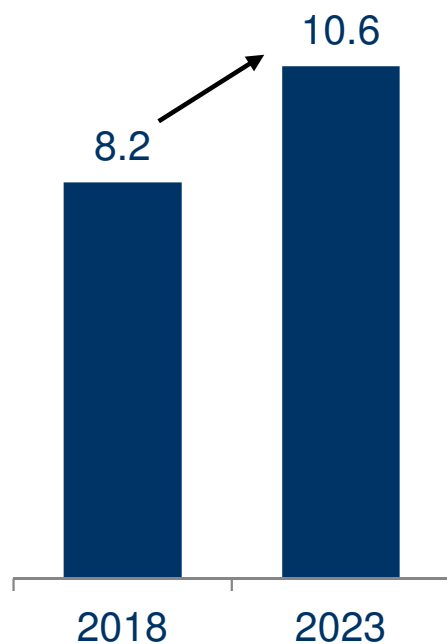
MDI Demand (‘000s ktes)

CAGR
~5%



MDI Capacity (‘000s ktes)

CAGR
~5%



New Investments 2019-2023

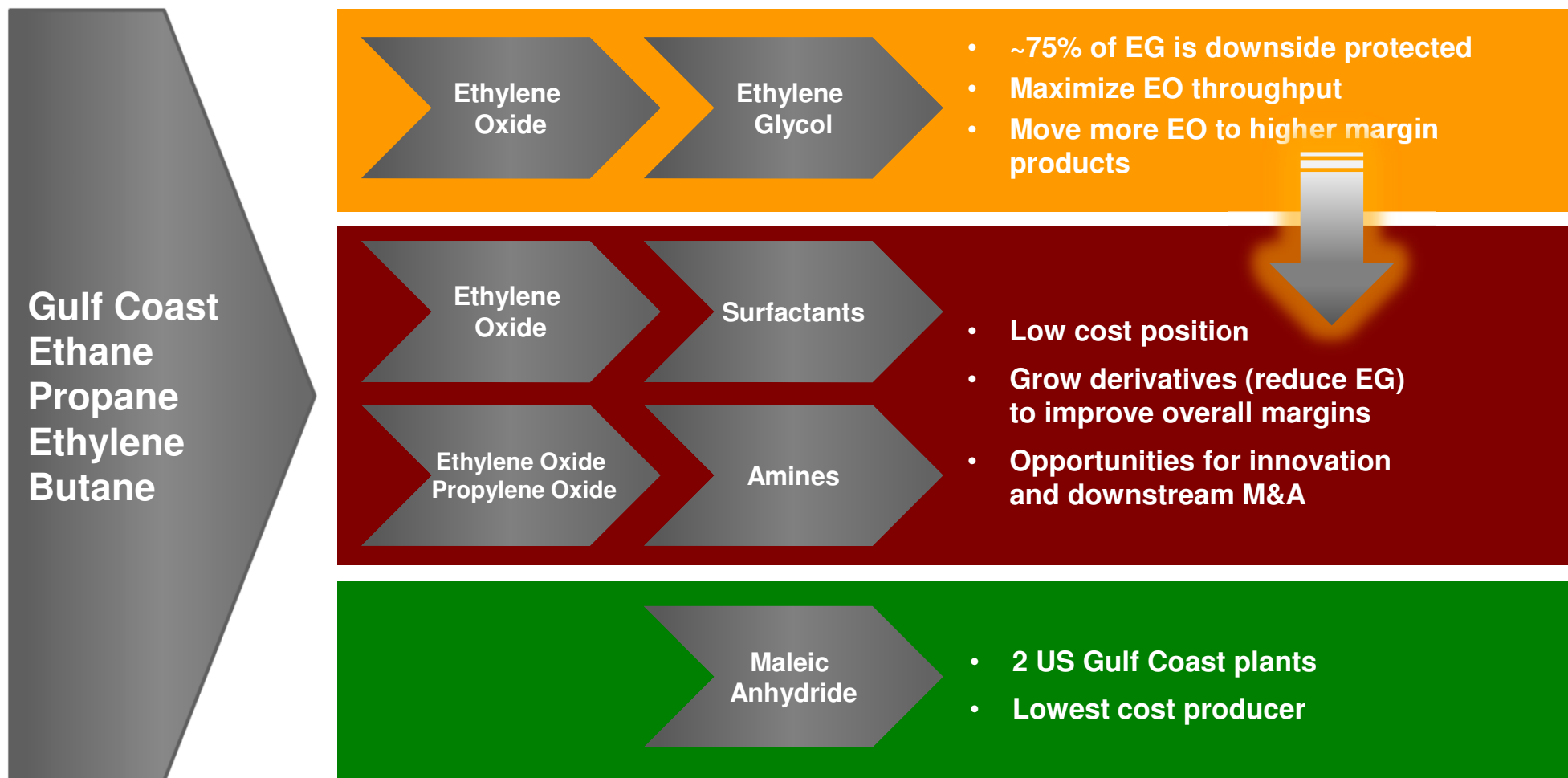
Company	Country	ktes
Wanhua	China	+800
Wanhua	US	+400
BASF	US	+300
Connell	China	+200
Covestro	Germany	+200
Covestro	China	+100
Covestro	Spain	+50

Note: 2023 capacity bar charts assumes full run rate of pre 2019 investments (Sadara, BASF Chongqing, SLIC, Kumho Mitsui)

Note: * Operating capacity
Source: Management estimates

Performance Products Competitively Integrated Value Chain

Gulf Coast Advantage



Two-thirds of global revenue from products produced in Gulf Coast Region

Adjusted EBITDA Reconciliation

(\$ in millions)

	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18
Net Income (loss)	\$ 137	\$ 92	\$ 183	\$ 179	\$ 287	\$ 350	\$ 623	\$ (8)	\$ (315)
Net income attributable to noncontrolling interests	(9)	(16)	(16)	(32)	(41)	(76)	(209)	(3)	(25)
Net income (loss) attributable to Huntsman Corporation	\$ 128	\$ 76	\$ 167	\$ 147	\$ 246	\$ 274	\$ 414	\$ (11)	\$ (340)
Interest expense, net	50	48	47	39	31	27	29	30	29
Income tax expense (benefit)	44	19	24	35	(14)	53	4	27	13
Depreciation and amortization	80	76	79	80	84	82	83	85	93
Interest, income taxes, depreciation and amortization in discontinued operations	14	33	50	34	37	29	95	(42)	(12)
Acquisition and integration expenses, purchase accounting adjustments	1	3	4	10	2	1	7	2	(1)
EBITDA from discontinued operations	(18)	(26)	(95)	(97)	(94)	(143)	(429)	279	418
Noncontrolling interest of discontinued operations	3	3	3	12	31	55	188	(21)	10
U.S. tax reform impact on noncontrolling interest	-	-	-	-	(6)	-	-	-	-
(Gain) loss on disposition of businesses/assets	(97)	-	(8)	-	(1)	-	-	-	-
Fair value adjustments to Venator Investment	-	-	-	-	-	-	-	-	62
Loss on early extinguishment of debt	-	-	1	35	18	-	3	-	-
Certain legal and other settlements and related expenses (income)	1	-	1	-	(12)	7	1	1	(3)
Plant incident remediation costs	-	-	-	13	3	-	-	-	1
Expenses associated with merger	-	-	6	12	10	-	1	1	-
Amortization of pension and postretirement actuarial losses	13	19	17	19	18	17	18	18	18
Restructuring, impairment, plant closing and transition costs (credits)	(9)	9	3	1	7	3	1	5	(13)
Adjusted EBITDA	210	260	299	340	360	405	415	374	275
Sale of European differentiated surfactants business ⁽²⁾	(6)	-	-	-	-	-	-	-	-
Proforma adjusted EBITDA	\$ 204	\$ 260	\$ 299	\$ 340	\$ 360	\$ 405	\$ 415	\$ 374	\$ 275

	2012	2013	2014	2015	2016	2017	2018
Net Income	\$ 373	\$ 149	\$ 345	\$ 126	\$ 357	\$ 741	\$ 650
Net income attributable to noncontrolling interests	(10)	(21)	(22)	(33)	(31)	(105)	(313)
Net income attributable to Huntsman Corporation	\$ 363	\$ 128	\$ 323	\$ 93	\$ 326	\$ 636	\$ 337
Interest expense, net	226	190	205	205	203	165	115
Income tax expense	104	109	59	60	109	64	97
Depreciation and amortization	350	364	358	298	318	319	343
Interest, income taxes, depreciation and amortization in discontinued operations	144	98	77	85	89	154	70
Loss on initial consolidation of subsidiaries	4	-	-	-	-	-	-
Acquisition and integration expenses, purchase accounting adjustments	5	11	7	9	12	19	9
EBITDA from discontinued operations	(350)	(78)	63	217	(81)	(312)	125
Noncontrolling interest of discontinued operations	-	-	1	7	11	49	232
U.S. tax reform impact on noncontrolling interest	-	-	-	-	-	(6)	-
(Gain) loss on disposition of businesses/assets	-	-	(2)	1	(97)	(9)	-
Fair value adjustments to Venator Investment	-	-	-	-	-	-	62
Loss on early extinguishment of debt	80	51	28	31	3	54	3
Extraordinary gain on the acquisition of a business	(2)	-	-	-	-	-	-
Certain legal and other settlements and related expenses (income)	2	4	-	1	1	(11)	6
Plant incident remediation costs	-	-	-	-	-	16	1
Purchase accounting inventory adjustments	-	1	2	-	-	-	-
Expenses associated with merger	-	-	-	-	-	28	2
Amortization of pension and postretirement actuarial losses	33	64	41	66	55	73	71
Restructuring, impairment, plant closing and transition costs (credits)	105	160	102	87	48	20	(4)
Adjusted EBITDA	1,064	1,102	1,264	1,160	997	1,259	1,469
Acquisition of PU Systems house from Rockwood ⁽¹⁾	5	6	7	-	-	-	-
Sale of European differentiated surfactants business ⁽²⁾	(13)	(10)	(8)	(21)	(28)	-	-
Proforma adjusted EBITDA	\$ 1,056	\$ 1,098	\$ 1,263	\$ 1,139	\$ 969	\$ 1,259	\$ 1,469

(1) Pro forma adjusted to include the Polyurethanes system house acquired from Rockwood in October 2014.
(2) Pro forma adjusted for the sale of the European Surfactants business on December 30, 2016.

Revenue, Adjusted EBITDA & Margin by Segment

(\$ in millions)

	Pro Forma ⁽²⁾⁽³⁾ 4Q16	Pro Forma ⁽²⁾ 1Q17	Pro Forma ⁽²⁾ 2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18
Revenue									
Polyurethanes	\$ 964	\$ 953	\$ 1,022	\$ 1,197	\$ 1,227	\$ 1,222	\$ 1,313	\$ 1,355	\$ 1,204
Performance Products	452	533	561	501	514	603	593	599	560
Advanced Materials	246	259	260	263	258	279	292	279	266
Textile Effects	184	188	205	193	190	200	227	204	193
Corporate, LIFO and other	(5)	(1)	6	15	14	(9)	(21)	7	13
Total	\$ 1,841	\$ 1,932	\$ 2,054	\$ 2,169	\$ 2,203	\$ 2,295	\$ 2,404	\$ 2,444	\$ 2,236

	Pro Forma ⁽²⁾⁽³⁾ 2012	Pro Forma ⁽²⁾⁽³⁾ 2013	Pro Forma ⁽²⁾⁽³⁾ 2014	Pro Forma ⁽²⁾⁽³⁾ 2015	Pro Forma ⁽²⁾⁽³⁾ 2016	Pro Forma ⁽²⁾ 2017	2018
Revenue							
Polyurethanes	\$ 4,915	\$ 4,991	\$ 5,053	\$ 3,811	\$ 3,667	\$ 4,399	\$ 5,094
Performance Products	2,574	2,566	2,695	2,251	1,885	2,109	2,355
Advanced Materials	1,325	1,267	1,248	1,103	1,020	1,040	1,116
Textile Effects	752	811	896	804	751	776	824
Corporate, LIFO and other	(285)	(251)	(219)	(80)	(46)	34	(10)
Total	\$ 9,281	\$ 9,384	\$ 9,673	\$ 7,889	\$ 7,277	\$ 8,358	\$ 9,379

(\$ in millions)

	Pro Forma ⁽²⁾⁽³⁾ 4Q16	Pro Forma ⁽²⁾ 1Q17	Pro Forma ⁽²⁾ 2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18
Adjusted EBITDA⁽¹⁾									
Polyurethanes	\$ 130	\$ 144	\$ 167	\$ 245	\$ 294	\$ 261	\$ 269	\$ 247	\$ 169
Performance Products	62	84	102	63	47	102	94	93	78
Advanced Materials	50	54	56	56	53	59	62	56	48
Textile Effects	14	21	24	19	19	26	29	25	21
Corporate, LIFO and other	(52)	(43)	(50)	(43)	(53)	(43)	(39)	(47)	(41)
Total	\$ 204	\$ 260	\$ 299	\$ 340	\$ 360	\$ 405	\$ 415	\$ 374	\$ 275

	Pro Forma ⁽²⁾⁽³⁾ 2012	Pro Forma ⁽²⁾⁽³⁾ 2013	Pro Forma ⁽²⁾⁽³⁾ 2014	Pro Forma ⁽²⁾⁽³⁾ 2015	Pro Forma ⁽²⁾⁽³⁾ 2016	Pro Forma ⁽²⁾ 2017	2018
Adjusted EBITDA⁽¹⁾							
Polyurethanes	\$ 793	\$ 746	\$ 728	\$ 573	\$ 569	\$ 850	\$ 946
Performance Products	356	393	465	439	288	296	367
Advanced Materials	98	131	199	220	223	219	225
Textile Effects	(20)	16	58	63	73	83	101
Corporate, LIFO and other	(171)	(188)	(187)	(156)	(184)	(189)	(170)
Total	\$ 1,056	\$ 1,098	\$ 1,263	\$ 1,139	\$ 969	\$ 1,259	\$ 1,469

	Pro Forma ⁽²⁾⁽³⁾ 4Q16	Pro Forma ⁽²⁾ 1Q17	Pro Forma ⁽²⁾ 2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18
Adj. EBITDA Margin									
Polyurethanes	13%	15%	16%	20%	24%	21%	20%	18%	14%
Performance Products	14%	16%	18%	13%	9%	17%	16%	16%	14%
Advanced Materials	20%	21%	22%	21%	21%	21%	21%	20%	18%
Textile Effects	8%	11%	12%	10%	10%	13%	13%	12%	11%
Total	11%	13%	15%	16%	16%	18%	17%	15%	12%

	Pro Forma ⁽²⁾⁽³⁾ 2012	Pro Forma ⁽²⁾⁽³⁾ 2013	Pro Forma ⁽²⁾⁽³⁾ 2014	Pro Forma ⁽²⁾⁽³⁾ 2015	Pro Forma ⁽²⁾⁽³⁾ 2016	Pro Forma ⁽²⁾ 2017	2018
Adj. EBITDA Margin							
Polyurethanes	16%	15%	14%	15%	16%	19%	19%
Performance Products	14%	15%	17%	20%	15%	14%	16%
Advanced Materials	7%	10%	16%	20%	22%	21%	20%
Textile Effects	-3%	2%	6%	8%	10%	11%	12%
Total	11%	12%	13%	14%	13%	15%	16%

(1) For a reconciliation see previous page.
(2) Pro forma adjusted to exclude the Pigments & Additives business (Venator), which is treated as discontinued operations.
(3) Pro forma adjusted for the sale of the European Surfactants business on December 30, 2016.