

# **Goldman Sachs Industrials & Materials Conference**

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# **Cautionary Statement**

The statements in this presentation relating to matters that are not historical facts are forward-looking statements. These forward-looking statements are based upon assumptions of management which are believed to be reasonable at the time made and are subject to significant risks and uncertainties. Actual results could differ materially based on factors including, but not limited to, the business cyclicality of the chemical, polymers and refining industries; the availability, cost and price volatility of raw materials and utilities, particularly the cost of crude oil, natural gas, and associated natural gas liquids; competitive product and pricing pressures; labor conditions; our ability to attract and retain key personnel; operating interruptions (including leaks, explosions, fires, weather-related incidents, mechanical failure, unscheduled downtime, supplier disruptions, labor shortages, strikes, work stoppages or other labor difficulties, transportation interruptions, spills and releases and other environmental risks); the supply/demand balances for our and our joint ventures' products, and the related effects of industry production capacities and operating rates; our ability to achieve expected cost savings and other synergies; our ability to successfully execute projects and growth strategies; any proposed business combination, the expected timetable for completing any proposed transactions and the receipt of any required governmental approvals, future financial and operating results, benefits and synergies of any proposed transactions, future opportunities for the combined company; legal and environmental proceedings; tax rulings, consequences or proceedings; technological developments, and our ability to develop new products and process technologies; potential governmental regulatory actions; political unrest and terrorist acts; risks and uncertainties posed by international operations, including foreign currency fluctuations; and our ability to comply with debt covenants and service our debt. Additional factors that could cause results to differ materially from those described in the forward-looking statements can be found in the "Risk Factors" section of our Form 10-K for the year ended December 31, 2018, which can be found at www.LyondelBasell.com on the Investor Relations page and on the Securities and Exchange Commission's website at www.sec.gov.

The illustrative results or returns of growth projects are not in any way intended to be, nor should they be taken as, indicators or guarantees of performance. The assumptions on which they are based are not projections and do not necessarily represent the Company's expectations and future performance. You should not rely on illustrated results or returns or these assumptions as being indicative of our future results or returns.

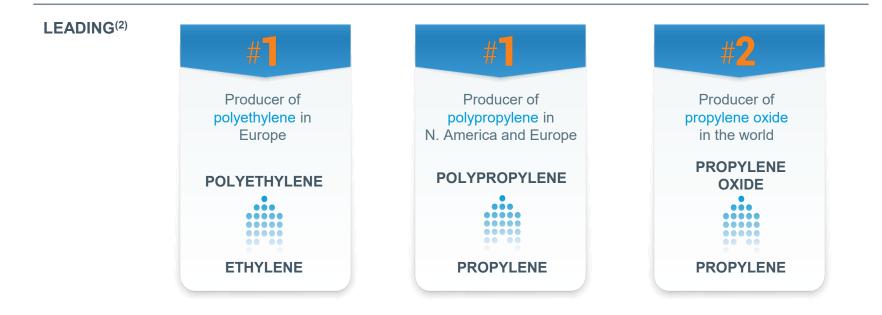
This presentation contains time sensitive information that is accurate only as of the date hereof. Information contained in this presentation is unaudited and is subject to change. We undertake no obligation to update the information presented herein except as required by law.

Reconciliations for our non-GAAP measures can be found in the Appendix to this presentation or on our website at <u>www.LyondellBasell.com/investorrelations</u>.

## LyondellBasell A Strong, Global Company Delivering Outstanding Performance

#### **GLOBAL** \$40 billon enterprise value<sup>(1)</sup>

Manufacturing in 24 countries and our products are sold in more than 100 countries



#### GROWING OLEFINS & POLYOLEFINS

Expanded polypropylene compounds capacity in **China, India** and **Europe** 

Building the first world-scale Hyperzone HDPE plant

Acquired A. Schulman

#### **INTERMEDIATES & DERIVATIVES**

Building the world's largest PO/TBA plant

(1) Enterprise value means market capitalization plus preferred equity (non-controlling interests), total debt and minority interest less cash and cash equivalents and short term investments as of March 31, 2019.

(2) Source IHS Markit, LYB. 2018 ranking as of December 31, 2018

#### LyondellBasell in 2018



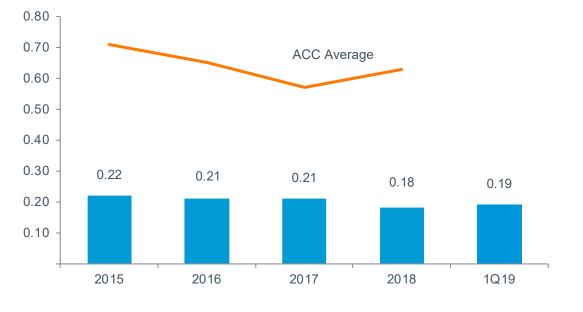
1. Free operating cash flow yield is the ratio of the net cash provided by operating activities minus sustaining (maintenance and HSE) capital expenditures as of December 31, 2018.

# LyondellBasell – An Industry Leader in Safety Performance



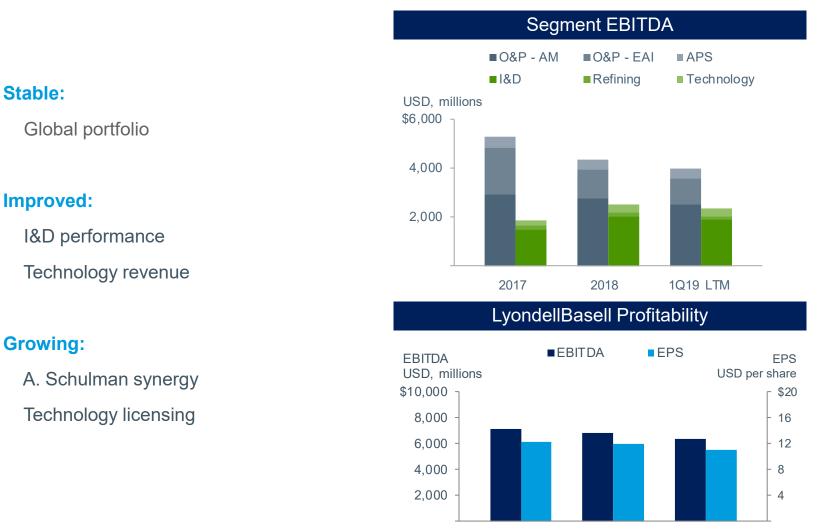
Ferrara, Italy

Injuries per 200,000 Hours Worked



Source: American Chemistry Council (ACC), LYB. ACC data includes all available periods. Number of hours worked includes employees and contractors. Data includes safety performance from the acquisition of A. Schulman from August 21, 2018 forward.

# LYB Portfolio Diversity Increases Earnings Resiliency



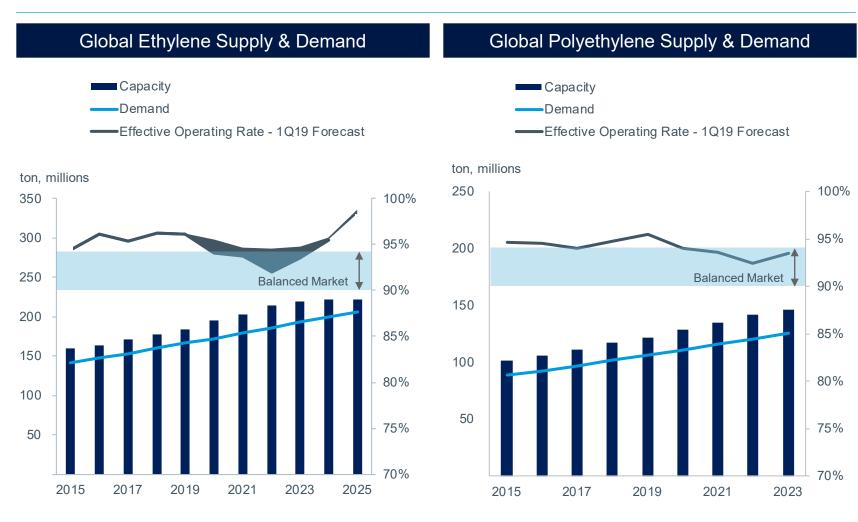
2017

2018

1Q19 LTM

www.lyondellbasell.com

#### **Industry Capacity Additions Serving Strong Global Demand**



Source: IHS Markit, Wood Mackenzie, LYB estimates, effective operating rate assuming 6% industry downtime for ethylene and 8% for polyethylene. Based on 2019 updated balances.

#### LyondellBasell's *Hyperzone* HDPE Technology A New Platform for Growth

1.1 billion pounds per year

Estimated investment: ~\$725 million

Start-up: 3Q 2019

Estimated EBITDA<sup>(1)</sup>: \$170 - \$210 million/year



La Porte, Texas

(1) For the purpose of this slide, estimated EBITDA for Hyperzone Polyethylene is volume times average 2014-2018 margins.

#### Advancing Our Leading PO/TBA Technology and Market Position

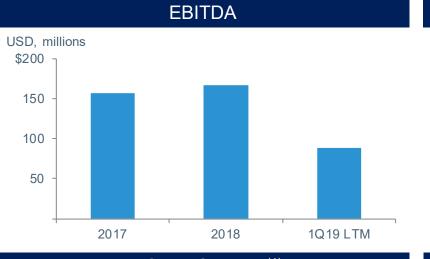
- 1.0 billion pounds Propylene Oxide, 2.2 billion pounds TBA
- Estimated investment: ~\$2.4 billion
- Groundbreaking: August 2018
- Start-up: 2021
- Estimated EBITDA<sup>(1)</sup>: \$400 \$450 MM/year



#### Value-driven growth supported by advantaged feedstocks and technology

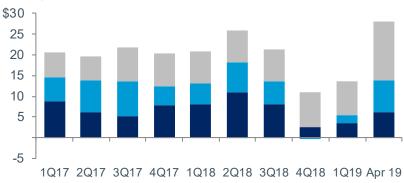
(1) For the purpose of this slide, estimated EBITDA for Propylene Oxide / TBA is volume times 2014-2018 average margins.

### Refining: Margin Outlook Improving for the Balance of 2019



Refining Spreads<sup>(1)</sup>

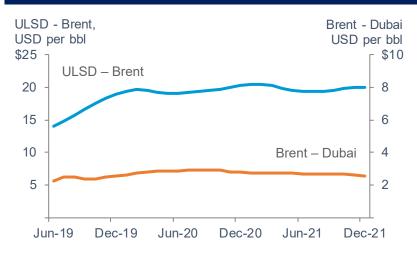
■LLS-Maya ■USGC RBOB - LLS ■USGC ULSD - LLS USD per bbl



#### **Refinery Outlook**

- Improved reliability since 2017
- Full capability to meet Tier 3 gasoline sulfur specifications
- Poised to benefit from January 2020 IMO marine fuel oil sulfur regulations

Indicative Forward Curves<sup>(2)</sup>



(1) Note: Light Louisiana Sweet (LLS) is the referenced light crude. Maya is the referenced heavy crude oil. USGC RBOB is the referenced U.S. Gulf Coast unleaded gasoline future. USGC ULSD is the U.S. Gulf Coast diesel future. Data represents quarterly, monthly and April 23, 2019 month-to-date average per Platts.

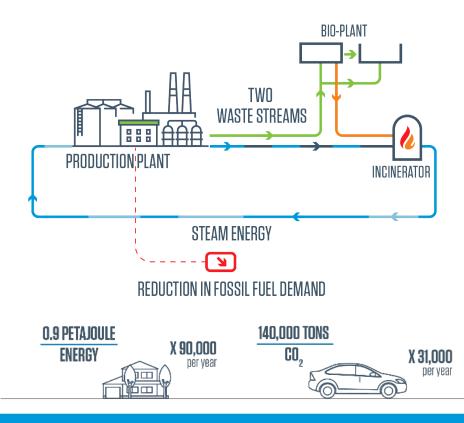
(2) Source: NYMEX as of February 4, 2018

#### **Circular Steam Project – Advancing a Sustainable Solution**

Reduces energy to support a sustainable economy

Contributes to Dutch government **CO<sub>2</sub> reduction** targets

Reduces operating cost structure





Rotterdam, The Netherlands

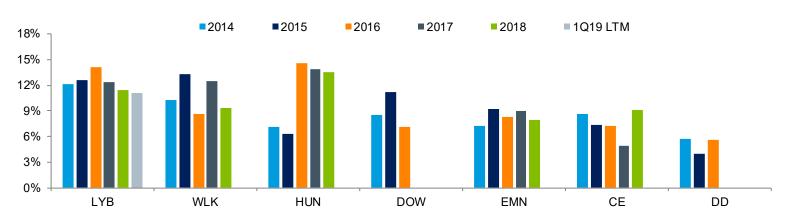
# Strong, Consistent Cash Generation

- 1Q19 LTM Free Operating Cash Flow<sup>(1)</sup>: \$4.1 B
- 1Q19 LTM Sustaining Capex: \$1.0 B
- 1Q19 Ending Total Liquidity<sup>(2)</sup>: \$8.4 B

#### Cash From Operating Activities



#### Cash From Operating Activities as a Percent of Average Enterprise Value<sup>(3)</sup>

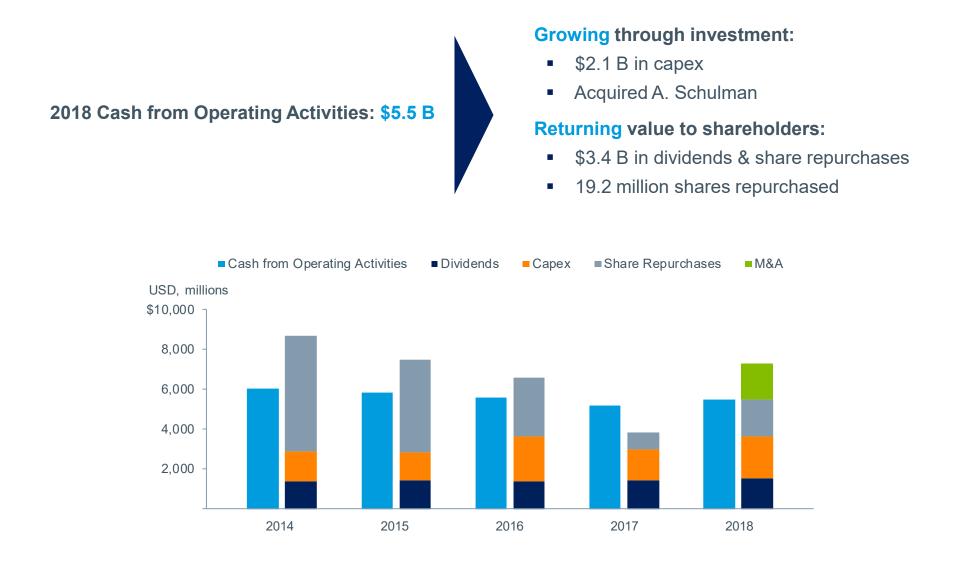


(1) Free Operating Cash Flow = cash from operating activities – sustaining (maintenance and HSE) capital expenditures.

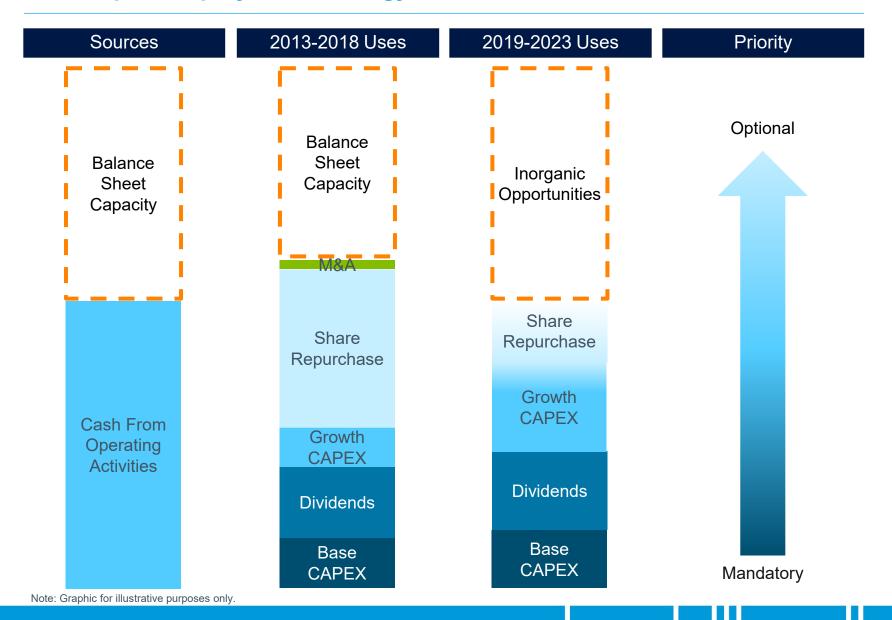
(2) Total liquidity includes cash and cash equivalents, restricted cash and restricted cash equivalents, short term investments, repurchase agreements, and availability under our Three-Year Team Loan due 2022, Senior Revolving Credit Facility and our receivables facilities as of the end of each period presented.

(3) Source: CapIQ, LYB. Cash from operating activities is as of the end of each period presented. Average enterprise value means average market capitalization plus preferred equity, total debt and minority interest less cash and cash equivalents and short term investments. Market capitalization is based upon the average daily closing share price for the respective period. Preferred equity (redeemable non-controlling interests), total debt, minority interest, cash and cash equivalents and short-term investments are as of the last day of the respective period.

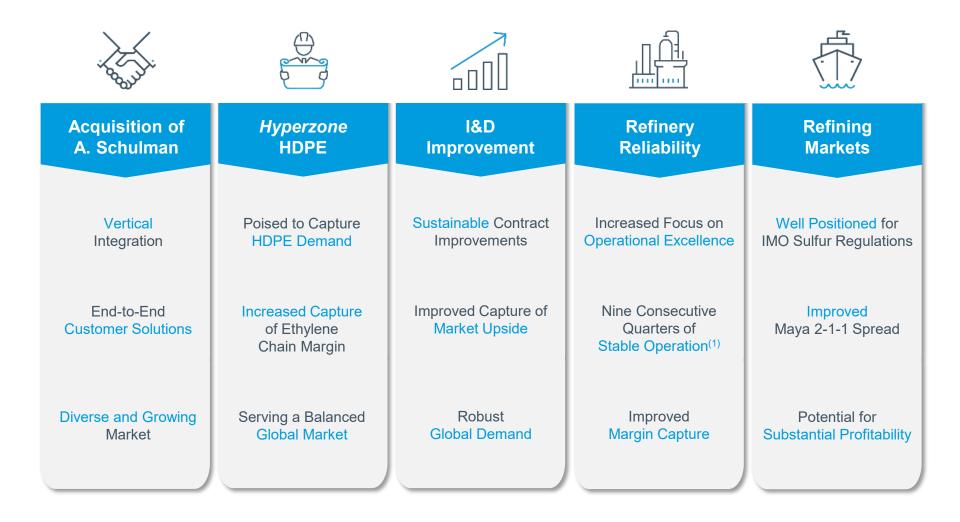
#### **Cash Generation Funding Growth Investments and Shareholder Returns**



#### **Our Capital Deployment Strategy Remains Consistent**

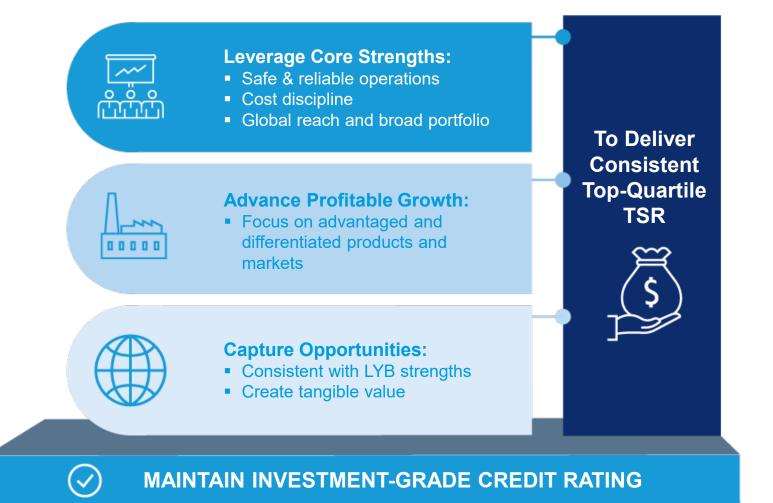


#### **Tangible Earnings Growth Over the Next Twelve Months**



1. Excludes impact of planned maintenance and Hurricane Harvey.

#### **Strategic Goals to Guide our Growth**



# **Iyondellbasell** Advancing Possible

# **Appendix**

#### **Global Macro Trends - Demographics Driving Demand**

50

1990

1995

2000



#### World PE and PP Demand lb., billions 300 PE -PP 250 200 150 100 '90 - '18 '13 – '18 '17 – '18

PE: 4.4%

PP: 6.5%

2010

PE: 4.5%

PP: 5.6%

2015

PE: 5.5%

PP: 5.3%

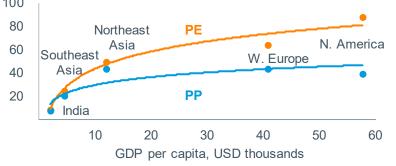
2020 Est.

#### 2018 Polyolefins Consumption



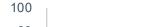
2005

Consumption, Ib per capita



Source: IHS Markit and LyondellBasell estimates.

China polyolefin trade deficit is production less domestic demand. 1.

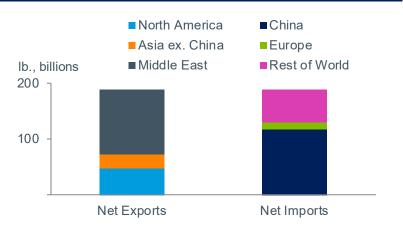


# Majority of New N. American Industry Capacity Already in the Market

Status & Impact of New Capacity	2016-2019: N. America Capacity Startups <sup>(1)</sup>	
<ul> <li>Ethylene units are running well</li> </ul>	~ 70% of 24 Blbs of Ethylene	
<ul> <li>New PE capacity is in the market</li> </ul>		
<ul> <li>PE exports are expected to increase</li> </ul>	~ 75% of 19 Blbs of Polyethylene	

#### 1Q19 LTM : Strong Operations and Markets<sup>(2)</sup>

	Ethylene Effective Operating Rate	Polyethylene Domestic Demand Growth
U.S. & Canada	91%	6.0%
Northeast Asia	99%	7.4%
Europe	94%	0.6%



2016-2019: Polyethylene Trade<sup>(1)</sup>

(1) Source: IHS Markit and LYB estimates.

(2) Source: IHS Markit and LYB estimates. Polyethylene domestic demand growth is 1Q19 LTM compared to 1Q18 LTM. Data is actual for 2017-2018 and a forecast for 1Q19.

# Advanced Polymer Solutions: Creating a New Platform for Growth

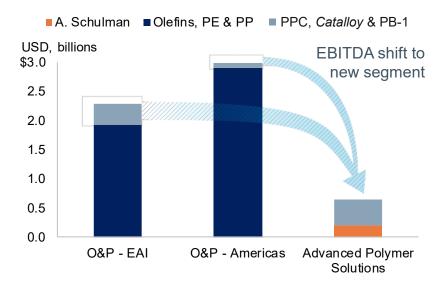
#### ■ Olefins, PE & PP ■ PPC ■ Catalloy & PB-1 A. Schulman lbs., billions 16 Product shift to new segment 14 12 10 8 6 4 2 O&P - FAI O&P - Americas Advanced Polymer Solutions

2017 Sales Volume<sup>(1)</sup>

#### • A. Schulman ~ 2.4 Blb

- LyondellBasell ~ 3.4 Blb
  - PP Compounds
  - Catalloy
  - PB-1

#### 2017 EBITDA<sup>(2)</sup>



- A. Schulman ~ \$200 MM
- LyondellBasell ~ \$440 MM
  - PP Compounds
  - Catalloy
  - PB-1
- (1) 2017 sales volume represents LyondellBasell's third party olefins, polyethylene, polypropylene, polypropylene compounds, *Catalloy* and polybutene-1 sales for the twelve-month period ended December 31, 2017. A. Schulman was acquired on August 21, 2018. A. Schulman information was obtained from publicly available quarterly release data and management estimate for the twelve-month period ended November 30, 2017.
- (2) A. Schulman EBITDA is adjusted EBITDA based on publicly available quarterly release data for the twelve-month period ended November 30, 2017.

### Advanced Polymer Solutions: A New Segment Focusing on Broad and Attractive Markets



# **Information Related to Financial Measures**

This presentation makes reference to certain "non-GAAP" financial measures as defined in Regulation G of the U.S. Securities Exchange Act of 1934, as amended. The non-GAAP measures we have presented include EBITDA. We report our financial results in accordance with U.S. generally accepted accounting principles, but believe that certain non-GAAP financial measures, such as EBITDA and earnings provide useful supplemental information to investors regarding the underlying business trends and performance of the company's ongoing operations and are useful for period-over-period comparisons of such operations. Non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, or superior to, the financial measures prepared in accordance with GAAP.

EBITDA, as presented herein, may not be comparable to a similarly titled measure reported by other companies due to differences in the way the measure is calculated. We calculate EBITDA as income from continuing operations plus interest expense (net), provision for (benefit from) income taxes, and depreciation & amortization. EBITDA should not be considered an alternative to profit or operating profit for any period as an indicator of our performance, or as an alternative to operating cash flows as a measure of our liquidity.

While we also believe that free operating cash flow (FOCF) and free operating cash flow yield (FCF Yield) are measures of profitability commonly used by investors to evaluate performance, free operating cash flow and free operating cash flow yield, as presented herein, may not be comparable to similarly titled measures reported by other companies due to differences in the way the measures are calculated. For purposes of this presentation, free operating cash flow means net cash provided by operating activities minus sustaining (maintenance and HSE) capital expenditures. Free operating cash flow yield means the ratio of free operating cash flow to market capitalization.

Additionally, total liquidity, enterprise value and the ratio of cash from operating activities to average enterprise value are measures that provide an indicator of value to investors. For purposes of this presentation, total liquidity includes cash and cash equivalents, restricted cash and restricted cash equivalents, short term investments, repurchase agreements, and availability under our Three-Year Team Loan due 2022, Senior Revolving Credit Facility and our receivables facilities. Enterprise value means market capitalization plus preferred equity (redeemable non-controlling interests), total debt and non-controlling interests less cash and cash equivalents and short term investments. The ratio of cash from operating activities to average enterprise value means cash from operating activities divided by average enterprise value. Average enterprise value means average market capitalization plus preferred equity (redeemable non-controlling interests), total debt and non-controlling plus preferred equity (redeemable non-controlling interests), total debt and non-controlling plus preferred equity (redeemable non-controlling interests), total debt and non-controlling plus preferred equity (redeemable non-controlling interests), total debt and non-controlling plus preferred equity (redeemable non-controlling interests), total debt and non-controlling interests), total debt and non-controlling interests less cash and cash equivalents and short term investments.

Reconciliations for our non-GAAP measures can be found on our website at www.lyondellbasell.com/investorrelations.

# **Enterprise Value**

#### Calculation of LYB Enterprise Value (EV)

In Million of Dollars except for common shares outstanding		
Common shares outstanding, March 31, 2019	370	),326,103
Multiplied by:		
Closing share price, March 31, 2019	\$	84.08
Market capitalization	\$	31,137
Add:		
Current maturities of long-term debt		5
Short-term debt		2,377
Long-term debt		7,522
Less:		
Cash and cash equivalents		339
Short-term investments		423
Net debt		9,142
Redeemable non-controlling interests		116
Non-controlling interests		22
Enterprise value	\$	40,417

# **EBITDA by Segment to EBITDA**

#### Reconciliation of Segment EBITDA to EBITDA

	For the Y	Mont	t Twelve hs Ended rch 31,		
In Millions of Dollars	2016	 2017	2018		2019
Segment EBITDA:					
Olefins & Polyolefins - Americas	\$ 2,788	\$ 2,899	\$ 2,762	\$	2,522
Olefins & Polyolefins - EAI	1,729	1,927	1,163		1,040
Intermediates & Derivatives	1,333	1,490	2,011		1,915
Advanced Polymer Solutions	427	438	400		425
Refining	72	157	167		89
Technology	262	223	328		355
Other	 (9)		 36		36
Total EBITDA	\$ 6,602	\$ 7,134	\$ 6,867	\$	6,382

# **Net Income to EBITDA**

#### **Reconciliation of Net Income to EBITDA**

In Millions of Dollars	 	 inded Dece		,	Mont Ma	t Twelve hs Ended arch 31,
	 2016	 2017	2018			2019
Net income	\$ 3,837	\$ 4,877	\$	4,690	\$	4,276
Loss from discontinued operations	 10	 18		8		8
Income from continuing operations	3,847	4,895		4,698		4,284
Provision for income taxes	1,386	598		613		513
Depreciation and amortization	1,064	1,174		1,241		1,264
Interest expense, net	 305	 467		315		321
EBITDA	\$ 6,602	\$ 7,134	\$	6,867	\$	6,382

# Free Operating Cash Flow to Net Cash Provided by Operating Activities

#### Reconciliation of Free Operating Cash Flow to Net Cash Provided by Operating Activities

_		I	For the	e Years End	led De	cember 31	,		Mont	t Twelve hs Ended arch 31,
In Millions of Dollars	;	2015		2016		2017		2018		2019
Free operating cash flow	\$	5,027	\$	4,497	\$	4,187	\$	4,419	\$	4,086
Add:										
Sustaining (maintenance and HSE) capital expenditures		815	_	1,109		1,019		1,052		1,036
Net cash provided by operating activities	\$	5,842	\$	5,606	\$	5,206	\$	5,471	\$	5,122

# **Free Cash Flow Yield**

#### Calculation of Free Operating Cash Flow Yield

In Millions of Dollars (except share data)		ar Ended ember 31, 2018
Net cash provided by operating activities	\$	5,471
Less:		
Sustaining (maintenance and HSE) capital expenditures		1,052
Free operating cash flow	\$	4,419
Divided by:		
Market capital:		
Common stock outstanding	3	75,696,661
Closing share price, end of period	\$	83.16
Market capital	\$	31,243
Free operating cash flow yield		14.1%

# **Return on Invested Capital**

#### Calculation of LYB Return on Invested Capital (ROIC)

	For the Ye	ars	<sup>.</sup> 31,		
2	2016	_	2017		2018
		\$	4,895	\$	4,698
			819		
					346
			467		315
			25.8%		18%
			347		258
			4,423		4,610
	10,137		10,997		12,477
	9,599		11,738		10,566
	4,540		4,777		5,513
	875		1,523		332
\$	14,321		16,435		17,198
		\$	15,378	\$	16,817
			29%		27%
		<b>2016</b> 10,137 9,599 4,540 875	2016 \$ 10,137 9,599 4,540 875 \$ 14,321	2016         2017           \$         4,895           819         467           25.8%         347           4,423         4,423           10,137         10,997           9,599         11,738           4,540         4,777           875         1,523           \$         14,321           \$         15,378	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

# **Cash and Liquid Investments and Total Liquidity**

#### Components of Cash and Liquid Investments and Total Liquidity

In Millions of Dollars	ırch 31, 2019
Cash and cash equivalents and restricted cash and cash equivalents	\$ 358
Short-term investments	423
Repurchase agreements	 534
Cash and liquid investments	1,315
Availibility under Three-Year Term Loan	4,000
Availability under Senior Revolving Credit Facility	2,240
Availability under U.S Receivables Facility Total liquidity	\$ 797 8,352

# **Dividends and Share Repurchases**

#### Schedule of Spending for Dividends and Share Repurchases

		Fo	or the Yea	rs E	nded Deo	cem	ber 31,	
In Millions of Dollars	 2014		2015		2016		2017	 2018
Dividends	\$ 1,403	\$	1,410	\$	1,395	\$	1,415	\$ 1,554
Repurchases of ordinary shares	 5,788		4,656		2,938		866	 1,854
Total	\$ 7,191	\$	6,066	\$	4,333	\$	2,281	\$ 3,408

# Cash from Operating Activities as a Percent of Average Enterprise Value

	For the Years Ended December 31,											st Twelve hths Ended arch 31,
In Millions of Dollars, except share amounts		2014	2015		2016		2017		2018			2019
Cash from operating activities	\$	6,048	\$	5,842	\$	5,606	\$	5,206	\$	5,471	\$	5,122
Average enterprise value:												
Common shares outstanding	486	6,969,402	440	,150,069	404	,046,331	394	,512,054	375	696,661	370	,326,103
Daily average closing price	\$	93.66	\$	91.47	\$	81.00	\$	92.00		105.57		99.41
Market capitalization		45,610		40,261		32,728		36,295		39,662		36,814
Current maturities of long-term debt		4		4		2		2		5		5
Short-term debt		346		353		594		68		885		2,377
Long-term debt		6,695		7,671		8,385		8,549		8,497		7,522
Less:												
Cash and cash equivalents		1,031		924		875		1,523		332		339
Short-term investments		1,593		1,064		1,147		1,307		892		423
Net debt		4,421		6,040		6,959		5,789		8,163		9,142
Redeemable non-controlling interests										116		116
Non-controlling interests		30		24		25		1		23		22
Average enterprise value	\$	50,061	\$	46,325	\$	39,712	\$	42,085	\$	47,964	\$	46,094
Cash from operating activities as a												
percent of enterprise value		12%		13%		14%		12%		11%		11%