A Global Leading Thai Chemical Company
Today’s Presenters

D.K. Agarwal  
CEO PET & Feedstock  
The Most Global Polymers Company

Tom Zaiser  
CEO FiberVisions  
The World’s Fiber Company

Boriboon Sangiambut  
VP Feedstock  
Truly Global Integrated Producer

Aloke Lohia  
Vice Chairman & CEO  
A Global Leading Thai Chemical Company
The Most Global Polymers Company

PET & Packaging
- Beverage
- Food
- Performance
- Resin
- Recycling

North America
5 Production Sites

EMEA
10 Production Sites

Asia & ROW
15 Production Sites

Note: *Percentage of IVL 2015E Core Financials
Includes BP Decatur & Cepsa Spain

49%*
Of Production

51%*
Of Revenue
$4.0 B

42%*
Of EBITDA

2016 Capacity
4.6MMt

34%
35%
31%
Business Plan 2016-2018: Polymers

Capacity

<table>
<thead>
<tr>
<th>Year</th>
<th>Capacity (MMt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>3.6</td>
</tr>
<tr>
<td>2014</td>
<td>3.8</td>
</tr>
<tr>
<td>2016</td>
<td>4.6</td>
</tr>
<tr>
<td>2018</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Production

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (MMt)</th>
<th>Operating Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>2.6</td>
<td>78%</td>
</tr>
<tr>
<td>2014</td>
<td>3.1</td>
<td>85%</td>
</tr>
<tr>
<td>2016</td>
<td>3.9</td>
<td>86%</td>
</tr>
<tr>
<td>2018</td>
<td>4.3</td>
<td>89%</td>
</tr>
</tbody>
</table>

Revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue ($B)</th>
<th>HVA (%)</th>
<th>Necessity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>4.3</td>
<td>90%</td>
<td>84%</td>
</tr>
<tr>
<td>2014</td>
<td>4.4</td>
<td>84%</td>
<td>83%</td>
</tr>
<tr>
<td>2016</td>
<td>4.3</td>
<td>83%</td>
<td>82%</td>
</tr>
<tr>
<td>2018</td>
<td>5.3</td>
<td>82%</td>
<td>82%</td>
</tr>
</tbody>
</table>

Raw Material Margin

<table>
<thead>
<tr>
<th>Year</th>
<th>Margin ($)</th>
<th>HVA (%)</th>
<th>Necessity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>0.7</td>
<td>91%</td>
<td>91%</td>
</tr>
<tr>
<td>2014</td>
<td>0.8</td>
<td>79%</td>
<td>79%</td>
</tr>
<tr>
<td>2016</td>
<td>0.9</td>
<td>76%</td>
<td>76%</td>
</tr>
<tr>
<td>2018</td>
<td>1.0</td>
<td>75%</td>
<td>75%</td>
</tr>
</tbody>
</table>

EBITDA

<table>
<thead>
<tr>
<th>Year</th>
<th>EBITDA ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>250</td>
</tr>
<tr>
<td>2014</td>
<td>275</td>
</tr>
<tr>
<td>2016</td>
<td>300</td>
</tr>
<tr>
<td>2018</td>
<td>325</td>
</tr>
</tbody>
</table>

ROCE

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Capital Employed ($B)</th>
<th>ROCE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>2.6</td>
<td>7%</td>
</tr>
<tr>
<td>2014</td>
<td>2.8</td>
<td>9%</td>
</tr>
<tr>
<td>2016</td>
<td>3.4</td>
<td>16%</td>
</tr>
<tr>
<td>2018</td>
<td>4.0</td>
<td>24%</td>
</tr>
</tbody>
</table>

Note: PET + Packaging
Diversified and Growing Markets
Translating Megatrends into Demand for Our Products

- Packaging
- Personal Care
- Automotive
- Medical
- Industrial
- Functional
- Electronics

>9bn
3bn
60%
2x

- People by 2050
- Of New Middle Class in Next 20 Years
- Of the World Will Live in Cities
- More Energy Needed by 2050 if Business As Usual

Source: Industry Data, IVL Analysis
Supportive Macro and Industry Outlook 2016-2018

- Macroeconomic and industrial growth
- Low oil adding upside to global GDP
- China manufacturing discipline
- Increased substitution demand
- Strengthening USD positive for IVL
Population Growth
• Increase in population and changing demographics lead to greater demand for necessities such as food and beverages

Urbanization, Middle Class
• Growing middle class and urbanization in emerging markets

Higher Income Levels
• Wealth increase and upside purchasing power in emerging markets

Infrastructure Development
• The prevalence of supermarkets and convenience stores allows for ready access to packaged food and beverages as well as impulse purchase spending

Health Awareness
• Poor quality of tap water in emerging countries and health awareness driving bottled water consumption

Product Innovations
• Continued improvements in design, process, technology create new product applications

Brand Differentiation
• Brand owners increasingly use packaging as a source of differentiation

Lifestyle Changes
• Demand for more convenient and aesthetic packaging
• Consumers are increasingly encouraged to shift towards more on-the-go consumption
Continued PET Consumption Growth
PET Remains the Material of Choice

~1 million tonnes of new PET consumption every year

Source: Industry Data, IVL Analysis
Structural Changes Underpin On-Going Growth
Lower Prices Support PET Growth with Material Switching

<table>
<thead>
<tr>
<th>Material</th>
<th>Price Change 1/2014 through 01/2016 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass</td>
<td>-2%</td>
</tr>
<tr>
<td>Paper</td>
<td>-14%</td>
</tr>
<tr>
<td>Aluminum</td>
<td>-32%</td>
</tr>
<tr>
<td>HDPE</td>
<td>-42%</td>
</tr>
<tr>
<td>PP</td>
<td>-41%</td>
</tr>
<tr>
<td>PET</td>
<td></td>
</tr>
</tbody>
</table>

Source: Industry Data, IVL Analysis

The Most Cost Effective Alternative
Undisputable PET Industry Leader
Clearly The #1 Producer and Sole Global Player

Serving Global Customers Locally

North America
- 4 production sites
- Capacity share 33%
- HVA and recycling

Asia
- 7 production sites
- Capacity share: Thailand 55%, Indonesia 45%, India 12%, China 6%
- HVA and recycling

EMEA
- 7 production sites
- Capacity share: Europe 33%, Turkey 45%, Nigeria 100%
- HVA

Key Highlights

#1 Global market position
18% Global market share
>15% Specialty Polymers, Recycled Resins
1st Quartile Manufacturing Assets

Source: Industry Data, IVL Analysis
IVL North America PET Business
Sustainable Advantage of Domestic Production

### Strong Production Platform

![Map](image)

**N.America**

- **4 Sites**
- **Capacity:** 1.5 MMt

### Business Drivers

#### Market Drivers
- Demand growth 2% CAGR
- Low energy prices support low cost of production
- Potential anti-dumping duties in USA to result in imports replacement

#### Business Drivers
- Growing HVA production
- Attractive pipeline of new innovative products
- Recycling at the heart of our strategy
- Synergies across the portfolio

### Domestic Presence Ensures Competitiveness

**US PET Imports (Non NAFTA)**

<table>
<thead>
<tr>
<th></th>
<th>YTD Nov14</th>
<th>YTD Nov15</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD Affected 251 KMT (66%)</td>
<td>378</td>
<td>373</td>
</tr>
<tr>
<td>ADD Affected 147 KMT (39%)</td>
<td>24%</td>
<td>34%</td>
</tr>
<tr>
<td>China</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>Oman</td>
<td>11%</td>
<td>18%</td>
</tr>
<tr>
<td>India</td>
<td>22%</td>
<td>13%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IVL EMEA PET Business
Customer Reach Beyond Compare

Strong Production Platform

Europe
- 5 Sites
- Capacity 1.1 MMt

Turkey
- 2 Sites
- Capacity 0.4MMt

Africa
- 1 Site
- Capacity 0.1MMt

Domestic Production Replacing Imports

EU & Turkey PET Imports

2014: 760
2015: 480
-36% decrease

Business Drivers

Market Drivers
- Demand growth at 2% CAGR
- Reducing imports as domestic production becomes more competitive
- Industry consolidation

Business Drivers
- Unbeatable market and customer reach
- Turkey market with high growth potential
- Growing HVA production
- Synergies across the portfolio

Source: Industry Data, IVL Analysis
IVL Asia PET Business
Domestic Presence in Attractive Markets

Strong Production Platform

<table>
<thead>
<tr>
<th>Country</th>
<th>Sites</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>1</td>
<td>0.2 MMT</td>
</tr>
<tr>
<td>China</td>
<td>1</td>
<td>0.6 MMT</td>
</tr>
<tr>
<td>SEA</td>
<td>5</td>
<td>0.6 MMT</td>
</tr>
</tbody>
</table>

Market Drivers
- Strong demand growth at 6-10%
- Industry consolidation
- Domestic sales and product differentiation provide advantage

Business Drivers
- Entry into India market
- Acquisition of Bangkok Polyester
- Growing HVA portfolio
- Synergies across the portfolio

Growing HVA Portfolio

Source: Industry Data, IVL Analysis
### Diversified High-Value Add PET Portfolio
*Inventing the Future Everyday*

<table>
<thead>
<tr>
<th>End Markets</th>
<th>End Use Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food &amp; Beverages</strong></td>
<td>- Beer, milk, wine applications&lt;br&gt;- Oxygen barrier resins&lt;br&gt;- Multi-serve resins</td>
</tr>
<tr>
<td><strong>Bio &amp; Recycle</strong></td>
<td>- Bio-based PET resins&lt;br&gt;- Recycled PET bottles&lt;br&gt;- Recycled PET trays</td>
</tr>
<tr>
<td><strong>Medical</strong></td>
<td>- Pharma&lt;br&gt;- Blood tubes&lt;br&gt;- Face shields</td>
</tr>
<tr>
<td><strong>Industrial &amp; Electronics</strong></td>
<td>- Solar panels&lt;br&gt;- Wind turbines&lt;br&gt;- LED</td>
</tr>
<tr>
<td><strong>Personal &amp; Home Care</strong></td>
<td>- Shampoo containers&lt;br&gt;- Body care&lt;br&gt;- Cosmetics</td>
</tr>
</tbody>
</table>

*Note: Examples only and not exhaustive*
Tom Zaiser
CEO FiberVisions

The World’s Fiber Company
The World’s Fibers Company

Differentiated Portfolio

North America
5 Production Sites

EMEA
7 Production Sites

Asia & ROW
11 Production Sites

2016 Capacity
1.6MMt

16%
28%
55%

19%*
Of Production

27%*
Of Revenue
$ 2.1B

29%*
Of EBITDA

Note: *Percentage of IVL 2015E Core Financials
Business Plan 2016-2018: Fibers Segment

### Capacity

<table>
<thead>
<tr>
<th>Year</th>
<th>Capacity (MMt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>0.9</td>
</tr>
<tr>
<td>2014</td>
<td>1.4</td>
</tr>
<tr>
<td>2016</td>
<td>1.6</td>
</tr>
<tr>
<td>2018</td>
<td>1.6</td>
</tr>
</tbody>
</table>

### Production

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (MMt)</th>
<th>Operating Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>0.8</td>
<td>92%</td>
</tr>
<tr>
<td>2014</td>
<td>1.1</td>
<td>85%</td>
</tr>
<tr>
<td>2016</td>
<td>1.5</td>
<td>93%</td>
</tr>
<tr>
<td>2018</td>
<td>1.5</td>
<td>97%</td>
</tr>
</tbody>
</table>

### Revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue ($B)</th>
<th>HVA</th>
<th>Necessity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1.4</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>2.2</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>2.4</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>2.7</td>
<td>35%</td>
<td></td>
</tr>
</tbody>
</table>

### Raw Material Margin

<table>
<thead>
<tr>
<th>Year</th>
<th>Margin ($B)</th>
<th>HVA</th>
<th>Necessity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>0.4</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>0.8</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>1.0</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>1.1</td>
<td>16%</td>
<td></td>
</tr>
</tbody>
</table>

### EBITDA

<table>
<thead>
<tr>
<th>Year</th>
<th>EBITDA ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
</tr>
</tbody>
</table>

### ROCE

<table>
<thead>
<tr>
<th>Year</th>
<th>ROCE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>4%</td>
</tr>
<tr>
<td>2014</td>
<td>8%</td>
</tr>
<tr>
<td>2016</td>
<td>15%</td>
</tr>
<tr>
<td>2018</td>
<td>20%</td>
</tr>
</tbody>
</table>

Note: Core financials, IVL Analysis
IVL’s Shared, Leveraged Business Model
Synergistic Fiber Portfolio

- **Automotive**
- **Personal Care**
- **Apparel & Home**
- **Industrial**

- IVL Culture
- Sustainability
- Global Procurement
- Operational Excellence
- R&D Platform
- IT Platform

- Customers
- Markets
- Technologies
- Manufacturing
- Intellectual Property
- Brands

[Image of INDORAMA VENTURES logo]
Leadership in HVA Segments

**Automotive Segment**

<table>
<thead>
<tr>
<th>Year</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>4.4%</td>
</tr>
<tr>
<td>2015</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

**Personal Care Segment**

<table>
<thead>
<tr>
<th>Year</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>22%</td>
</tr>
<tr>
<td>2015</td>
<td>21%</td>
</tr>
</tbody>
</table>

**Industrial**

<table>
<thead>
<tr>
<th>Year</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>1.4%</td>
</tr>
<tr>
<td>2015</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

**Home & Apparel**

<table>
<thead>
<tr>
<th>Year</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>1.5%</td>
</tr>
<tr>
<td>2015</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Source: Industry Data, IVL Analysis
Diversified High Value Add Fiber Portfolio
Meeting Mission-Critical Demands

<table>
<thead>
<tr>
<th>End Markets</th>
<th>End Use Applications</th>
</tr>
</thead>
</table>
| **Automotive (Polyester, PA 66)** | ▪ Airbags
 ▪ Tires
 ▪ Seatbelts                                             |
| **Personal Care (Polyester, PP)** | ▪ Diapers
 ▪ Wipes
 ▪ Feminine Hygiene Products                              |
| **Home & Apparel (Polyester)**   | ▪ Specialty apparel
 ▪ Protective apparel
 ▪ Bio-active textiles                                     |
| **Medical (Polyester, PP)**      | ▪ Wound care
 ▪ Surgical masks
 ▪ Filters                                                  |
| **Industrial (Polyester, PA 66, PP, PLA)** | ▪ Shale gas cracking
 ▪ Geotextiles
 ▪ Filtration                                               |

Note: Examples only and not exhaustive
HVA Has a Lower Volatility of Prices

IVL Inventory Gains/Losses and Feedstock Prices Are Highly Correlated

Inventory Gain/Loss: Necessities

Inventory Gain/Loss: HVA
Convergence of performance and fashion
IVL innovation set to gain share

IVL only fiber player with presence across all major demand centers

Scope for IVL to drive functionality (Co-Branding)

LOW FASHION ORIENTATION
LOW FUNCTION ORIENTATION
HIGH FUNCTION ORIENTATION
HIGH FASHION ORIENTATION
Expanding Tire Production Globally

Global Tire Production

Source: Industry Data, IVL Analysis
World’s Airbag Demand Outpaces Car Production

Global Airbag Production

More Airbags Produced in 2018 than in 2015

More yarn for airbags in 2018 than in 2015

Source: Industry Data, IVL Analysis
Opportunity for Continued Penetration in Personal Care

**Strong Demand for Hygiene Products**

**Diapers Penetration Rate - 2014**

- US: 98%
- Western Europe: 95%
- China: 27%
- India: 7%

**Diapers, AI & Fem Care**

- Billion Units

**Global Hygiene NW Demand**

- KMT

**IVL is Well Positioned to Capture Growth**

Source: Industry Data, IVL Analysis
Converting Strategy into Value

Global R&D Platform
Culture of Collaboration
Customer Alliances
Shared Technologies
Joint Development
Shared Values

“Sustainable growth and steady cash flows
Maximize potential of existing businesses
Participate and grow in leading future businesses”
Boriboon Sangiambut
VP Feedstock
Truly Global Integrated Producer
The Most Global Integrated Producer

Strategic Integration

IPA
Paraxylene
MEG
PTA
PEO
Ethylene
NDC

North America
6 Production Sites

EMEA
3 Production Sites

Asia & ROW
3 Production Sites

2016 Capacity
4.8MMt

40%
38%
22%

32%*
Production

22%*
Revenue
$1.8B

29%*
EBITDA

Note: *Percentage of IVL 2015E Core Financials
Source: Including BP USA & Cepsa Spain M&A, Project Houston
Business Plan 2016-2018: Feedstock Segment

**Capacity**

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMT</td>
<td>2.3</td>
<td>2.3</td>
<td>4.8</td>
<td>5.2</td>
</tr>
</tbody>
</table>

**Production**

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMT</td>
<td>1.9</td>
<td>2.0</td>
<td>3.6</td>
<td>4.8</td>
</tr>
<tr>
<td>EBITDA</td>
<td>83%</td>
<td>87%</td>
<td>87%</td>
<td>92%</td>
</tr>
</tbody>
</table>

**Revenue**

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>$B</td>
<td>1.1</td>
<td>0.9</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td>HVA</td>
<td>86%</td>
<td>74%</td>
<td>78%</td>
<td>75%</td>
</tr>
<tr>
<td>Necessity</td>
<td>14%</td>
<td>26%</td>
<td>22%</td>
<td>25%</td>
</tr>
</tbody>
</table>

**Raw Material Margin**

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>$B</td>
<td>0.4</td>
<td>0.5</td>
<td>0.9</td>
<td>1.4</td>
</tr>
<tr>
<td>HVA</td>
<td>83%</td>
<td>77%</td>
<td>77%</td>
<td>80%</td>
</tr>
<tr>
<td>Necessity</td>
<td>17%</td>
<td>23%</td>
<td>23%</td>
<td>20%</td>
</tr>
</tbody>
</table>

**EBITDA**

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>$M</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>400</td>
</tr>
<tr>
<td>EBITDA</td>
<td>83%</td>
<td>87%</td>
<td>87%</td>
<td>92%</td>
</tr>
</tbody>
</table>

**ROCE**

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>$B</td>
<td>5%</td>
<td>7%</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>Net Capital Employed</td>
<td>95%</td>
<td>93%</td>
<td>90%</td>
<td>83%</td>
</tr>
</tbody>
</table>

Note: Core financials, IVL Analysis
Strategic Integration Provides Advantage

<table>
<thead>
<tr>
<th></th>
<th>North America</th>
<th></th>
<th>EMEA</th>
<th></th>
<th>ASIA</th>
<th></th>
<th>Global</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sites</td>
<td>Integration</td>
<td>Number of Sites</td>
<td>Integration</td>
<td>Number of Sites</td>
<td>Integration</td>
<td>Number of Sites</td>
<td>Integration</td>
<td></td>
</tr>
<tr>
<td>PX</td>
<td>1</td>
<td>67%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>27%</td>
</tr>
<tr>
<td>PTA</td>
<td>2</td>
<td>100%</td>
<td>2</td>
<td>75%</td>
<td>2</td>
<td>73%</td>
<td>6</td>
<td>86%</td>
</tr>
<tr>
<td>MEG</td>
<td>1</td>
<td>55%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>17%</td>
</tr>
<tr>
<td>IPA</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>100%</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>100%</td>
</tr>
</tbody>
</table>

Strategic Integration

Feedstock Security
Reliability of Supply to Customers
Value Chain Capturing
Complete Value Chain Integration in North America

**Feedstock**

- Crude Oil => Naphtha
- NGLs: Ethane/Propane

**Upstream**

- Ortho-xylene + Butadiene
- PX: Capacity: 0.72 MMt
- Ethylene: Capacity: 0.37 MMt
- Propylene: Capacity: 0.03 MMt
- Ethane/Propane

**Intermediates**

- NDC
- PTA: Capacity: 1.62 MMt
- MEG: Capacity: 0.33 MMt

**Downstream**

- Performance polymers and films
  - PET Resin: Capacity: 1.52 MMt
  - Poly Fiber: Capacity: 0.12 MMt
  - PEO: Capacity: 0.22 MMt
  - PP Fiber: Capacity: 0.10 MMt

**Timeline**

- 2003: Entry into HVA with acquisition of Invista
- 2011: Entry into PET through acquisition of Starpet
- 2012: Integration into EO/EG with Old World
- 1H15: Integration into PTA with Cepsa
- 2015: Integration into PX, PTA + New HVA (NDC)
- 2015: Ethylene Integration
US Cost Advantage Remains Strong Even At Low Oil Price

**Energy Price Relationship**

1. Crude, ethane, NG roughly same value
2. NG decouples from crude. Ethane remains linked to crude
3. Ethane decouples from crude and linked to NG

**Ethylene Cash Cost**

<table>
<thead>
<tr>
<th>Region</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME Ethane</td>
<td>94</td>
<td>100</td>
<td>132</td>
</tr>
<tr>
<td>US Ethane</td>
<td>244</td>
<td>261</td>
<td>215</td>
</tr>
<tr>
<td>WE Naphtha</td>
<td>1021</td>
<td>881</td>
<td>507</td>
</tr>
<tr>
<td>NEA Naphtha</td>
<td>1175</td>
<td>1104</td>
<td>627</td>
</tr>
</tbody>
</table>

Source: IHS
Project Houston
Benefits from Lower Capex and Integration

Cracker Investment Cost

<table>
<thead>
<tr>
<th></th>
<th>Project Houston</th>
<th>USGC World Scale Plant</th>
<th>Asian Naphtha 1MMTPA</th>
</tr>
</thead>
</table>
| 2015 Ethylene Cost Comparison

<table>
<thead>
<tr>
<th></th>
<th>Project Houston</th>
<th>USGC World Scale Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Reward*</td>
<td>~25%</td>
<td></td>
</tr>
</tbody>
</table>

Best in class investment cost offers protection from low crude / margin environment

Marginal conversion cost penalty offset by significantly lower CAPEX

Note: *Capital reward = Simple 5 years pay back.
**Net Raw Material = Raw Material – Byproduct Credit
Attractive High Value Add IPA Business Leading Global Position

Limited Number of Market Players

Global IPA Capacity - 2015 (KMT)

<table>
<thead>
<tr>
<th>Company</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lotte</td>
<td>260</td>
</tr>
<tr>
<td>CEPSA</td>
<td>220</td>
</tr>
<tr>
<td>FHR</td>
<td>200</td>
</tr>
<tr>
<td>Formosa</td>
<td>200</td>
</tr>
<tr>
<td>MGC</td>
<td>70</td>
</tr>
<tr>
<td>Eastman</td>
<td>68</td>
</tr>
<tr>
<td>Sinopec</td>
<td>50</td>
</tr>
</tbody>
</table>

Own Tech. ✔ ✔ ✗ ✗ ✗ ✗ ✗

Growing IPA Markets

Global IPA Demand - 2015 (KMT)

- Coatings: 23%
- PET Polymers: 48%
- Unsaturated Polyester Resins: 9%
- Others: 20%

IPA-Meta-Xylene Spread

<table>
<thead>
<tr>
<th>Year</th>
<th>IPA-Meta-Xylene Spread (€/MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>21</td>
</tr>
<tr>
<td>2013</td>
<td>77</td>
</tr>
<tr>
<td>2014</td>
<td>97</td>
</tr>
<tr>
<td>2015</td>
<td>-37</td>
</tr>
<tr>
<td>2016</td>
<td>-70</td>
</tr>
<tr>
<td>2017</td>
<td>-70</td>
</tr>
</tbody>
</table>

Increasing Capacity Utilization

<table>
<thead>
<tr>
<th>Year</th>
<th>Utilization Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>80%</td>
</tr>
<tr>
<td>2013</td>
<td>90%</td>
</tr>
<tr>
<td>2014</td>
<td>88%</td>
</tr>
<tr>
<td>2015</td>
<td>94%</td>
</tr>
<tr>
<td>2016</td>
<td>98%</td>
</tr>
<tr>
<td>2017</td>
<td>99%</td>
</tr>
</tbody>
</table>

Source: Industry Data, IVL Analysis
Aloke Lohia  
Vice Chairman & CEO

A Global Leading Thai Chemical Company
Touching Billions of Lives
We Are Closer Than you Think

1 in 6 plastic bottles is made from IVL polymers

1 in 2 premium baby diapers is made from IVL fibers

1 in 4 airbags is made from IVL yarns

Source: Industry Data, IVL Management Estimates 2015
IVL’s Key Essential Elements

- Competitive cost
- Resilient products
- Operational excellence
- Core EBITDA
- Cash Flow
- Sustainability

Core EPS

- Cost of debt
- Favorable trends and demographics
- Growing value addition
- Cyclical products
- Effective capacity utilization
- Top line growth

Net debt/EBITDA

- Dividend payout
- SCM for reduced cost of delivery
- Advantaged Raw Materials

core EPS

Net debt/Equity
One Company, One Team, One Goal
More than 14,000 People at the Heart of IVL
Truly Global Production Footprint
21 Countries, 65 Sites, 10 R&D Centers

North America
32% of Net Revenue
3 Countries
16 Production Sites
3 R&D Centers
>95% Domestic Sales

EMEA
30% of Net Revenue
13 Countries
21 Production Sites
4 R&D Centers
>95% Domestic Sales

Asia & ROW
38% of Net Revenue
5 Countries
28 Production Sites
3 R&D Centers
>75% Domestic Sales

Note: Net revenue by sales for 2015E; Domestic sales are sales sold within a region
Including BP USA & Cepsa Spain M&A not icompleted
Enhancing Our Portfolio
Diversified Markets With Long-Term Growth

<table>
<thead>
<tr>
<th>Segment</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mmt</td>
<td></td>
</tr>
<tr>
<td>Pet</td>
<td>Fibers &amp; Yarns</td>
</tr>
<tr>
<td>MMt</td>
<td>MMt</td>
</tr>
<tr>
<td>6.8</td>
<td>7.5</td>
</tr>
<tr>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>26%</td>
<td>23%</td>
</tr>
<tr>
<td>13%</td>
<td>19%</td>
</tr>
<tr>
<td>53%</td>
<td>50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>$B</th>
<th>$B</th>
</tr>
</thead>
<tbody>
<tr>
<td>$B</td>
<td>$B</td>
</tr>
<tr>
<td>6.8</td>
<td>7.5</td>
</tr>
<tr>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>11%</td>
<td>20%</td>
</tr>
<tr>
<td>20%</td>
<td>29%</td>
</tr>
<tr>
<td>63%</td>
<td>59%</td>
</tr>
</tbody>
</table>
Increasing Value Addition Over Time
Capturing More Value Chain Margin

<table>
<thead>
<tr>
<th>Year</th>
<th>PET</th>
<th>Fibers &amp; Yarns</th>
<th>Aromatics</th>
<th>Olefins</th>
<th>Raw Material Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$1,538M</td>
</tr>
<tr>
<td></td>
<td>206</td>
<td>127</td>
<td>442</td>
<td>295</td>
<td>1,538</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$2,064M</td>
</tr>
<tr>
<td></td>
<td>263</td>
<td>187</td>
<td>459</td>
<td>215</td>
<td>2,064</td>
</tr>
<tr>
<td>2016F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$2,811M</td>
</tr>
<tr>
<td></td>
<td>696</td>
<td>232</td>
<td>397</td>
<td>238</td>
<td>2,811</td>
</tr>
<tr>
<td>2018F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$3,537M</td>
</tr>
<tr>
<td></td>
<td>950</td>
<td>429</td>
<td>1,116</td>
<td></td>
<td>3,537</td>
</tr>
</tbody>
</table>

% of IVL Revenue:
- 2012: 23%
- 2014: 27%
- 2016F: 34%
- 2018F: 35%
Strategically Building on Our Polyester Core Opportunity to Replicate Success in Other Value Chains

Ample Avenues for Value-Accretive Growth

Note: US gas cracker project expected start-up in 4Q17
Disciplined Growth and Investment
Focus on Extracting Value from Recent M&A

Continued Transformation

$B

Committed Growth Capex

M&A Integration M&A Integration

EBITDA by Product Segment

Growth Synergies Operational Excellence

Growth Synergies Operational Excellence

HVA West Necessity Asia Necessity
Strong Financial Framework
Balancing Value and Risk Management

Capital Structure
- Net Debt: $2.2B
  - Debenture
  - LT Loan
  - ST Loan
- Total Equity: $2.3B
  - Shareholders Equity
  - PERP

2015E

Net Operating Debt Per Ton
- 2012: $342
- 2015: $234
- 2018: $150

Net Operating Debt to Equity
- Times
  - 2011: 0.63
  - 2012: 1.3
  - 2013: 1.2
  - 2014: 0.8
  - 2015: 0.9
  - 2016: 1.0
  - 2017: 0.8
  - 2018: 0.5

Capex Spending
- $B
  - 2011: 1.0
  - 2012: 1.4
  - 2013: 0.2
  - 2014: 0.4
  - 2015: 0.8

Net Operating Debt/Capacity
- 2011: 0.5
- 2012: 1.0
- 2013: 1.3
- 2014: 1.2
- 2015: 0.8
- 2016: 0.9
- 2017: 1.0
- 2018: 0.8

Note: Core financials 2015
Business Plan 2016-2018
Spreads Taken at Trough

<table>
<thead>
<tr>
<th>$/MT</th>
<th>Last 7-Year Average Historical Average</th>
<th>2013-2015 Avg</th>
<th>2016-2018 Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian PTA</td>
<td>Ø159</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>EU PTA</td>
<td>Ø226</td>
<td>190</td>
<td>190</td>
</tr>
<tr>
<td>NA PTA</td>
<td>Ø289</td>
<td>272</td>
<td>272</td>
</tr>
<tr>
<td>Asian PET</td>
<td>Ø135</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td>NA PET</td>
<td>Ø265</td>
<td>271</td>
<td>271</td>
</tr>
<tr>
<td>EMEA PET</td>
<td>Ø254</td>
<td>205</td>
<td>205</td>
</tr>
</tbody>
</table>

Note: Industry Margins, IVL Analysis, Simple average used
IVL Business Plan 2016-2018

Capacity

Production

Revenue

Raw Material Margin

EBITDA

ROCE

Note: Core financials, IVL Analysis
Aiming on Delivering Consistent, Superior Value

7 Consecutive Years of Core EPS Growth 2012-2018F
With Strong Cash Flow and Attractive ROCE

<table>
<thead>
<tr>
<th>1.6X Value Addition Growth since 2015</th>
<th>Double-Digit EBITDA Margin</th>
<th>~$3B Operating Cash Flow in 2016-18</th>
<th>&gt;15% ROCE</th>
<th>~4.0X Core EPS growth 2015-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enlarging from Integration and Feedstock Scale</td>
<td>Driven by HVA Margins and Volumes and Integration</td>
<td>&gt;85% Revenue from Consumer Staples</td>
<td>Enhanced by Value Addition &amp; Capex Discipline</td>
<td>Creating Shareholder Value</td>
</tr>
</tbody>
</table>
We Are Closer Than You Think