



CURRENT PERSPECTIVES OF THE PLASTICS INDUSTRY

Midwest Association of Rail Shippers Summer Meeting

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INEOS
STYROLUTION

Driving Success. Together.

Agenda

Importance of Plastics

American competitiveness

Automotive case study

Serving the plastic converters

American Chemical Industry

THE BUSINESS
OF CHEMISTRY IS AN
\$801
BILLION ENTERPRISE

THE BUSINESS OF
CHEMISTRY PROVIDES
804,000
SKILLED, GOOD-PAYING
AMERICAN JOBS



THE BUSINESS
OF CHEMISTRY
SUPPORTS NEARLY
25%
OF THE U.S. GDP



A LEADER IN
PRODUCTION, THE
U.S. CHEMICAL INDUSTRY
PROVIDES OVER
15%
OF THE WORLD'S
CHEMICALS

THE BUSINESS OF
CHEMISTRY ACCOUNTS FOR
14% OF U.S. EXPORTS,
\$191 BILLION IN 2014, AND IS THE
LARGEST EXPORTER IN THE U.S.



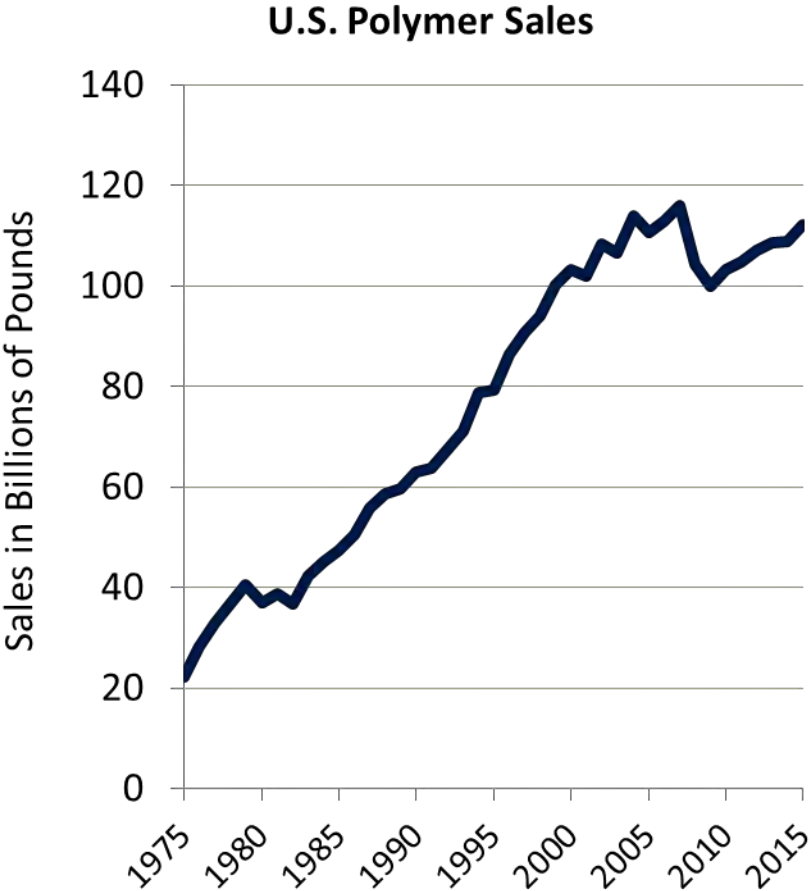
CAPITAL INVESTMENT
BY THE BUSINESS OF CHEMISTRY
REACHED MORE THAN
\$33 BILLION
IN 2014, INCLUDING INVESTMENTS
IN STRUCTURES AND EQUIPMENT

MORE THAN
96%
OF ALL
MANUFACTURED
GOODS ARE DIRECTLY
TOUCHED BY THE
BUSINESS OF CHEMISTRY

American Chemistry Council

American **Plastics** Industry

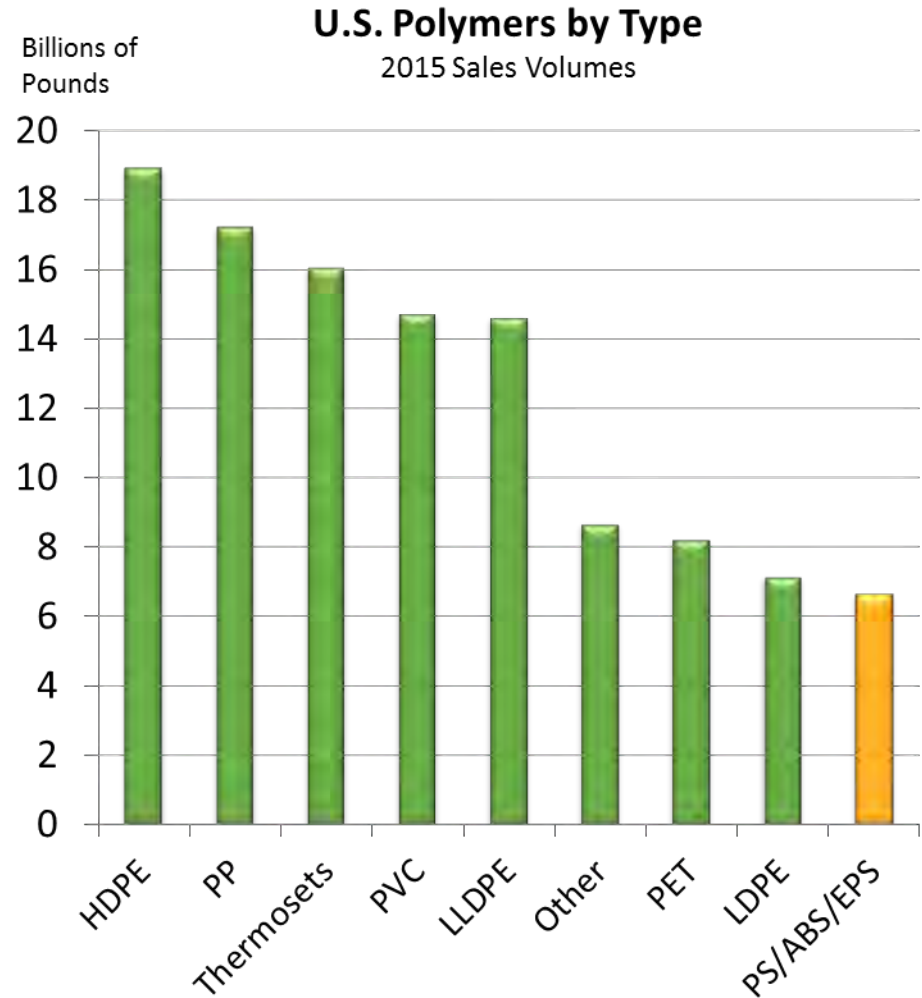
<p>U.S. PLASTICS INDUSTRY IS AN</p> <h1>112</h1> <p>BILLION POUND ENTERPRISE</p>	<p>U.S. SHALE GAS ADVANTAGE IS DRIVING</p> <h1>\$28 BILLION</h1> <p>IN NEW PLASTIC PRODUCTION CAPACITY</p>
<p>THE BUSINESS OF PLASTICS PROVIDES</p> <h1>600,000</h1> <p>AMERICAN JOBS</p>	<p>POLYETHYLENE CAPACITY TO GROW</p> <h1>50% BY 2020</h1>



American Chemistry Council
The Resin Review 2016

Overview of Key Polymers

- Continued growth on the horizon
 - Shale gas ethane and propane
- Shale gas benefits all polymers
 - Low cost energy
 - Feedstock cost advantage



The Resin Review 2016

American Shale Gas Advantage

Is it sustainable?

INEOS dared
to capitalize on
Shale Gas
Ethane



INEOS Styrolution at a glance

 **3,100** EMPLOYEES |  **9** COUNTRIES | **15**  PRODUCTION SITES |  **6** R&D CENTERS

No1 GLOBAL LEADER in styrenics

85+ YEARS of experience in styrenics

2,000+ APPLICATIONS ACROSS SEVEN INDUSTRIES



1,000+ ACTIVE PATENTS



1,500+ PRODUCTS



4,000+ CUSTOMERS



5.0 BILLION EUROS IN REVENUE IN 2015



Global leader in styrenics

Styrenic Applications in Automotive



Exterior: Front grills, rear light housings, mirror housings, roof consoles

Interior: Glove boxes, trim, steering column shrouds, drink holders

Plastics in Automotive



1960
20 lbs



Today
377 lbs



Soon
700 lbs

CAFE standard will increase from 35.5 mpg to 54.5 mpg in 2025

REDUCING VEHICLE
WEIGHT

10%

CAN IMPROVE FUEL
ECONOMY

6-8%

TODAY PLASTICS
MAKE UP

50%

OF THE VOLUME OF A CAR
AND LESS THAN

10% OF ITS WEIGHT

AUTOMOTIVE PLASTIC
PARTS ARE PRODUCED AT

1,572

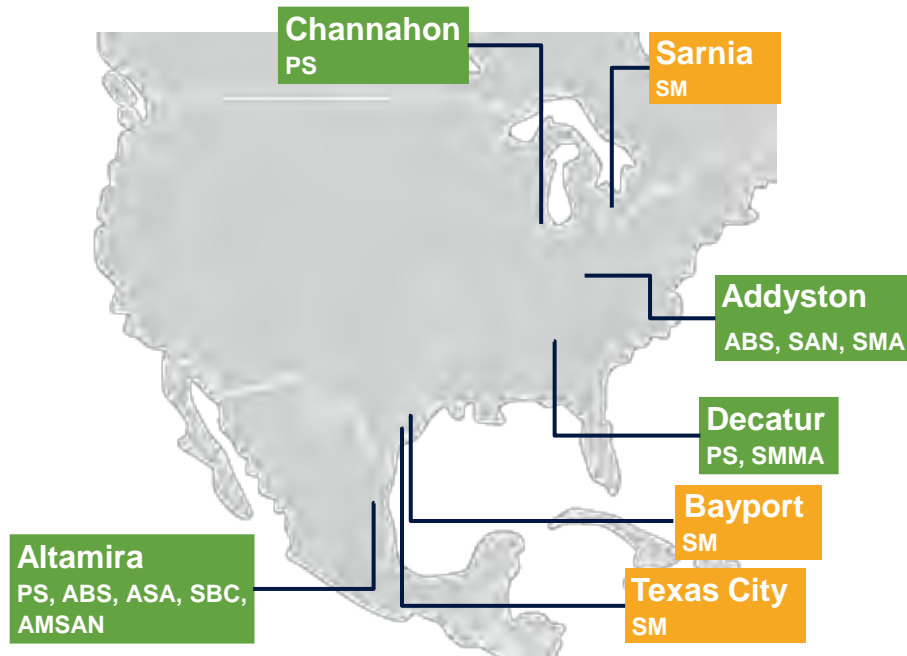
FACTORIES
IN

45 STATES



Serving the Customers in North America



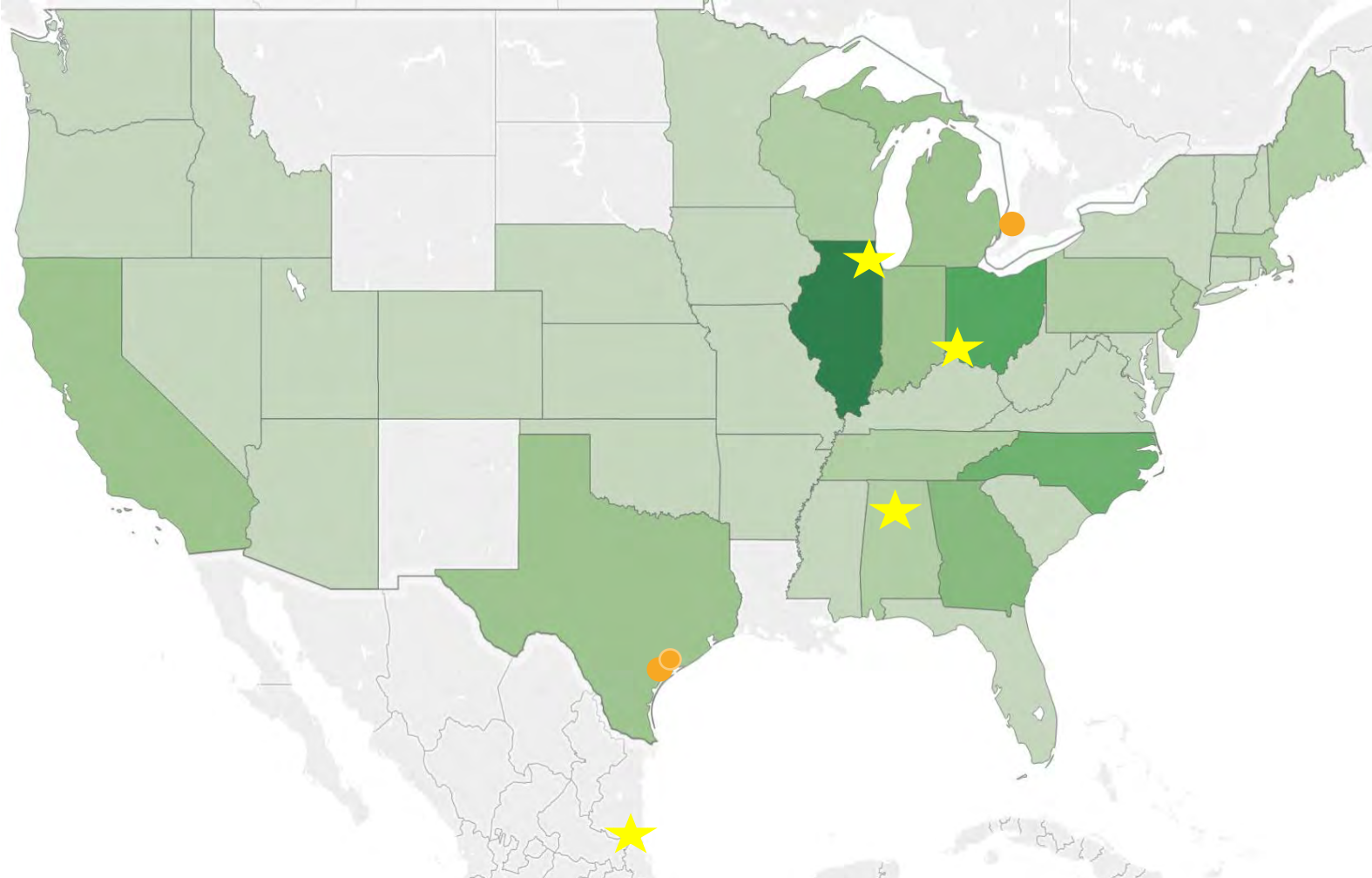
Proximity to Customer Markets



- INEOS Styrolution footprint
 - 4 polymer facilities
 - 3 styrene feedstock facilities
- Facility siting choices
 - Close to major markets and customers
 - Close proximity to feedstocks
- Logistics are critical for success

 Styrene monomer
 Polymers

Moving Plastic Around the Region





Plastics are set to grow

- Feedstock advantage
- New investments



Don't get burned by bad logistics

- Significant reliance on rail deliveries
- Need to move products long distances
- Rail differentiates us from Asian importers

INEOS STYROLUTION

For more information visit
www.ineos-styrolution.com

Driving Success. Together.