

HUNTSMAN

Enriching lives through innovation

Huntsman Corporation



Who is Huntsman ?

Founded in 1970...

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- 3 Employees
- 1 Location
- USD 2,000,000 in Revenue
- Packaging business

The Huntsman Growth Story

Who is Huntsman ?

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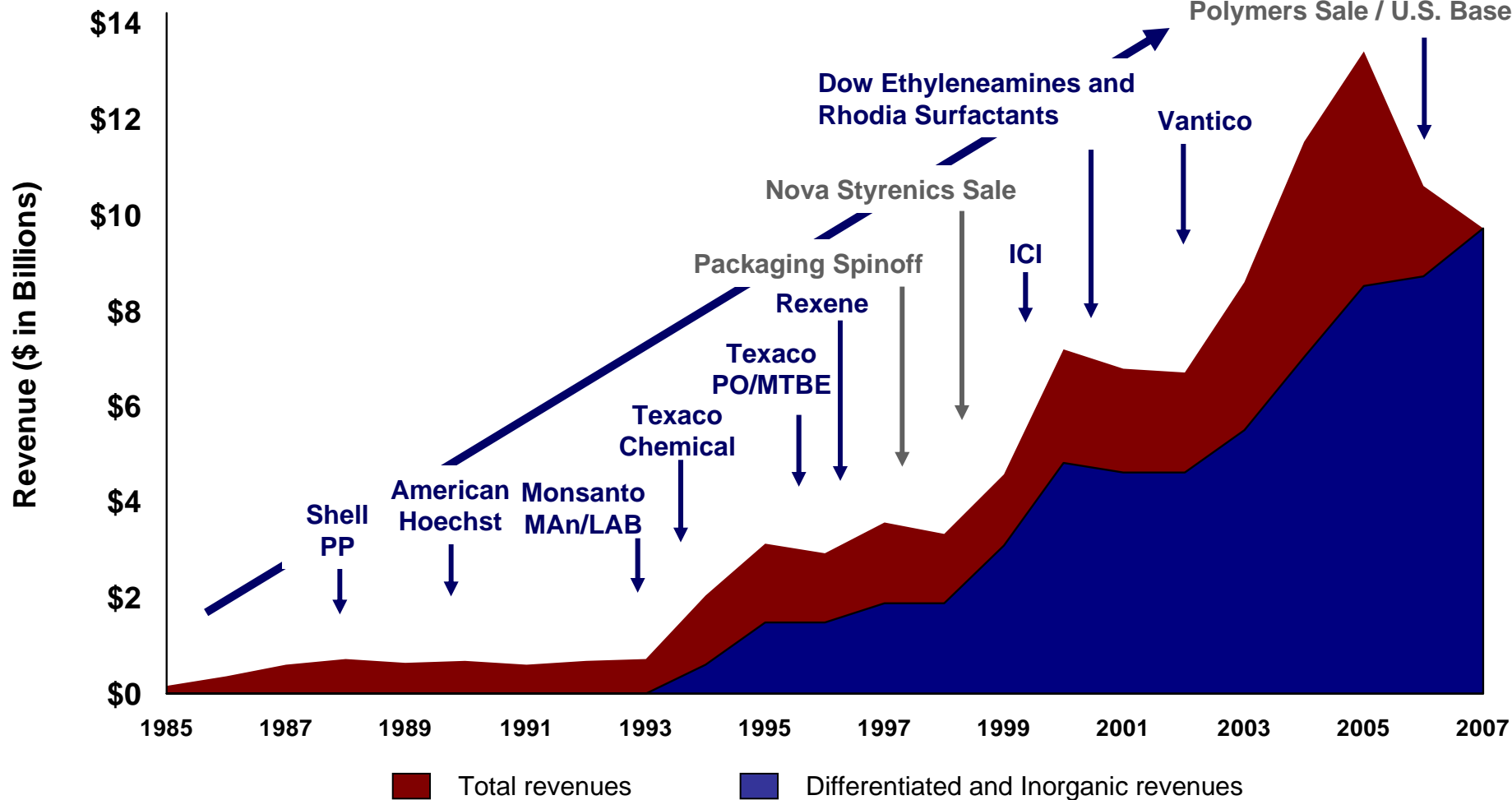
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Ciba TE

Butadiene/MTBE Sale

European Base Sale

Polymers Sale / U.S. Base



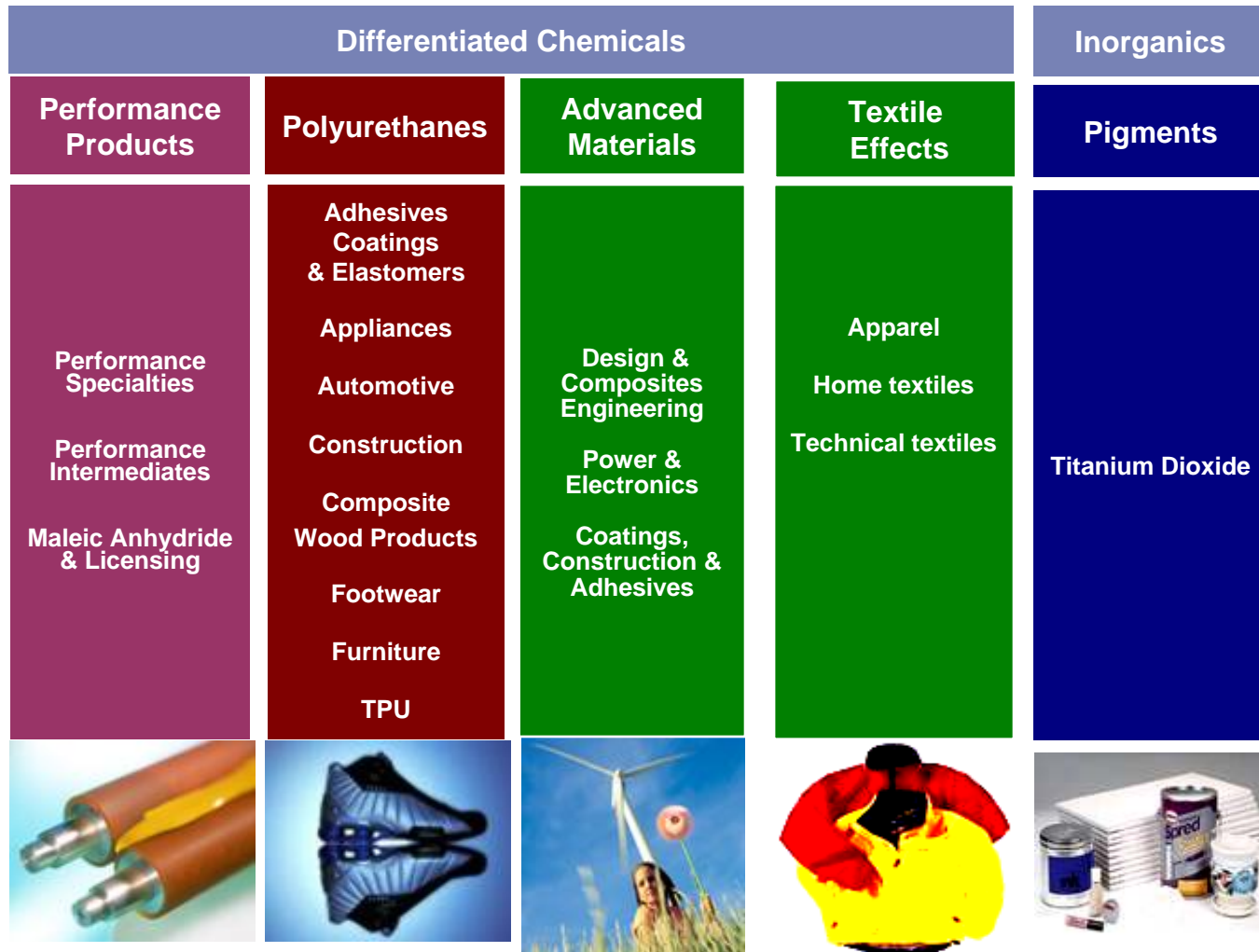
Huntsman has been a leader in the consolidation of the global chemical industry

Huntsman Business Structure today

Technology driven differentiated businesses...

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2008 Revenue: USD ~ 10 billion

Number of employees: 12,000

Leadership positions by business

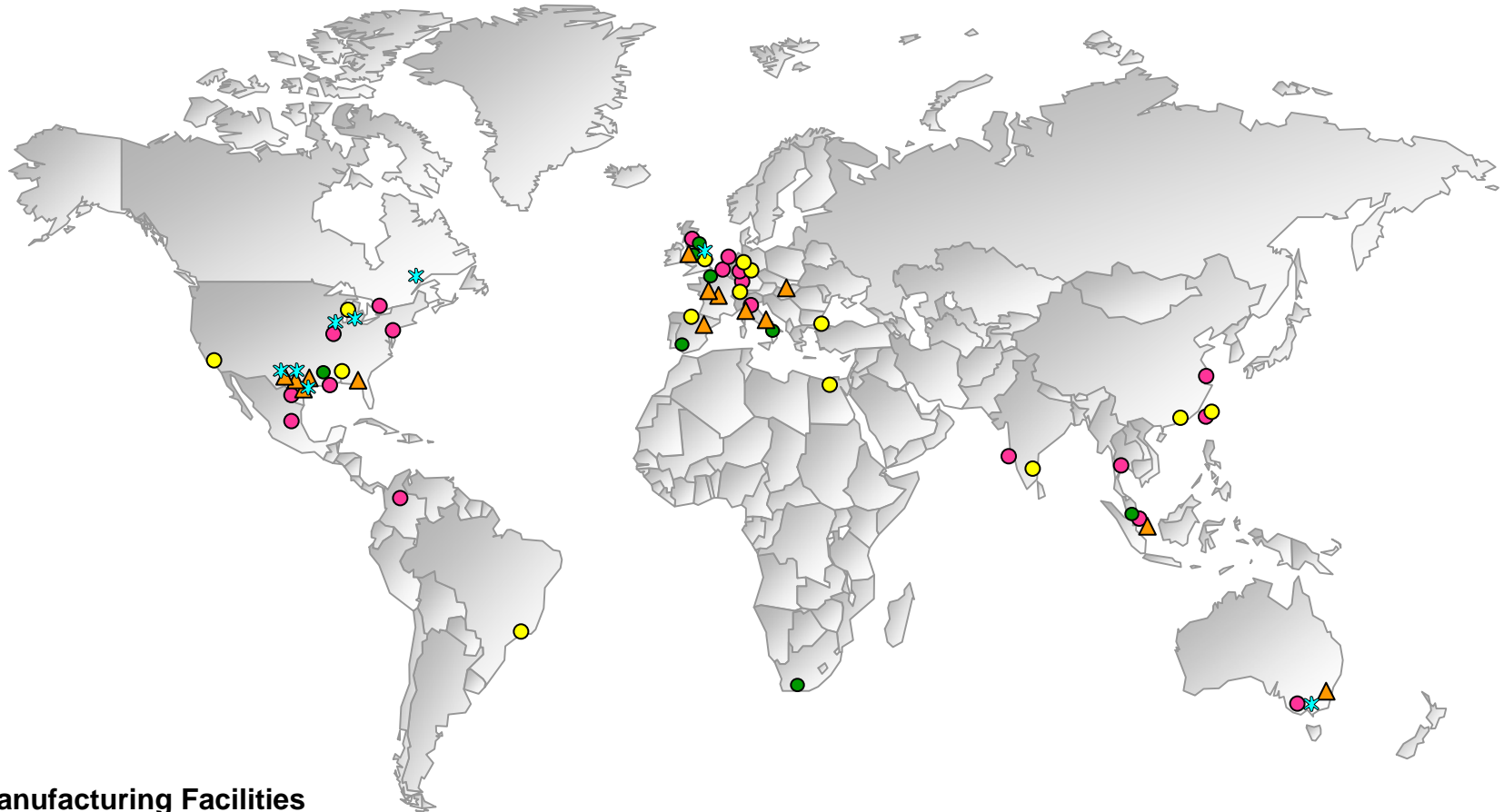
	Product	Market Position
Polyurethanes	MDI	#2 Globally, #1 in North America
	Polyurethane Catalysts	#2 Globally
Advanced Materials	Epoxy Adhesives	#1 Globally
	Epoxy Powder Coating Systems	#1 Globally
	Aerospace Composites	#1 Globally
	Electrical Insulating Materials	#1 Globally
Textile Effects	Effect chemicals	#1 Globally
	Process chemicals	#2 Globally
	Dyes	#2 Globally
Performance Products	Polyetheramines	#1 Globally
	Morpholines/DGA and Gas Treating	#1 Globally
	Ethylene and Propylene Carbonates	#1 Globally
	Maleic Anhydride (MAN)	#2 Globally, #1 in North America
	Ethyleneamines	#2 Globally
	Sulfonated Surfactants	#2 in Europe
	Ethanolamines	#2 in North America
	Linear Alkylbenzene (LAB)	#2 in North America
Pigments	Titanium Dioxide	#1 in Europe

Global presence

Growth platform looking for more dots on the map...

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Manufacturing Facilities

- Polyurethanes
- Advanced Materials
- Pigments
- ✱ Base Chemicals and Polymers
- ▲ Performance Products

Returning business profits to society

Social responsibility

Improving our communities

- Hunger
- Homelessness
- Education



Combating cancer

- Huntsman Cancer Institute and Hospital
 - www.hci.utah.edu



Commercial Licensing

Products and Services



Huntsman Technology Licensing

亨斯迈- 关于技术转让

- **Huntsman offers many technologies for licensing**
亨斯迈有许多技术可供转让
- **Usually not just licensing but a desire to cooperate**
通常来说不仅仅是技术转让，而是期望进一步合作
- **Commercial partnership (JV, off take agreement, route to market partner, other,..)** 商业合作伙伴关系(合资企业, 购销协议, 市场合作伙伴渠道, 其他,..)
- **As a producer and seller, Huntsman's technology** 作为制造商与卖方，**Huntsman的技术**
 - **Meet market/customer needs and is supported by an understanding of market dynamics** 符合市场与客户的需要，得到市场认可与支持
 - **Proven manufacturing track record on consistency and efficiency** 多年的营运证明，其具有一致性与有效性。
 - **Profitable returns** 丰厚的利润回报
- **Assistance in feasibility study/investment decision** 协助进行可行性研究与投资决策

- Licensing
 - License and Basic Engineering
 - Economic Feasibility
 - Market & applications information, if appropriate
- Distribution
 - Regional
 - Application-specific
- Investor or Joint Venture
 - Huntsman may be willing to invest
 - Provide technical support to customers
 - Provide alternate supply from global plants

- **Huntsman will:**
 - **Design** a proven process that meets or exceeds agreed expectations
 - **Startup** the client's process that meets or exceeds agreed expectations
 - **Assist** the client in evaluating the likelihood of success from a technical, marketing and financial perspective
 - **Provide** patented technology AND technical support for that technology, where needed

Huntsman Technology Licensing Product Portfolio

(1) 亨斯迈 – 技术转让产品一览

	License Only 只供技术转让	License and Cooperate 技术转让及合作	Feedstock 原料
Maleic Anhydride 马来酸酐	Yes 是	Yes 是	N-butane 丁烷
Propylene Oxide/ t-BA (MTBE) 环氧丙烷 (甲基叔丁基醚)	No 否	Yes 是	Propylene 丙烯/ isobutane 异丁烷
Ethylene carbonate 碳酸乙酯	Yes 是	Yes 是	Ethylene oxide 环氧乙烷
Propylene Carbonate 碳酸丙酯	Yes 是	No 否	Propylene oxide 环氧丙烷
Ethylene amines 乙烯胺	No 否	Yes 是	Ethylene dichloride/ammonia 二氯乙烯化合物/氨水

Huntsman Technology Licensing Portfolio (2)

亨斯迈 - 技术转让产品一览

	License Only 只供技术转让	License and Cooperate 技术转让及合作	Feedstock 原料
Ethanolamines 乙醇胺	Yes 是	Yes 是	Ethylene Oxide 环氧乙烷/ ammonia 氨
Polyurethane Catalysts 聚氨酯催化剂	No 否	Yes 是	Various 各类
Propylamines 丙胺	Yes 是	No 否	Propylene dichloride 二氯丙烯 /ammonia 氨
Linear alkyl benzene (LAB) 线性烷基苯	Yes 是	Yes 是	Parraffin

Huntsman Technology Licensing portfolio (3)

亨斯迈 - 技术转让产品一览

	License Only 只供技术转让	License and Cooperate 技术转让及合作	Feedstock 原料
Titanium dioxide (TiO₂) 二氧化钛	No 否	Yes 是	
Polyols/PPG 聚醚多元醇	No 否	Yes 是	Propylene oxide 环氧丙烷
G2PG	Yes 是	Yes 是	Crude glycerine
Styrene/EPS 苯乙烯/膨胀型聚苯乙烯	Yes 是	No 否	Benzene 苯

Full Scale Processes - Capabilities

- Maleic Anhydride
- PO / TBA
- Ethylene Carbonate
- Propylene Carbonate
- Polyetheramines
- Ethyleneamines
- Piperazine
- Polyurethane Catalysts
- Ethanolamine
- Glycerin to Propylene Glycol (G2PG)
- Alkylalkanolamine
- Propyl Amines
- Diglycoleamine® / Morpholine
- Linear Alkylbenzene
- Sulf(on)ation
- Titanium Dioxide
- Diisocyanates
- Polyols
- Nonionic Surfactants

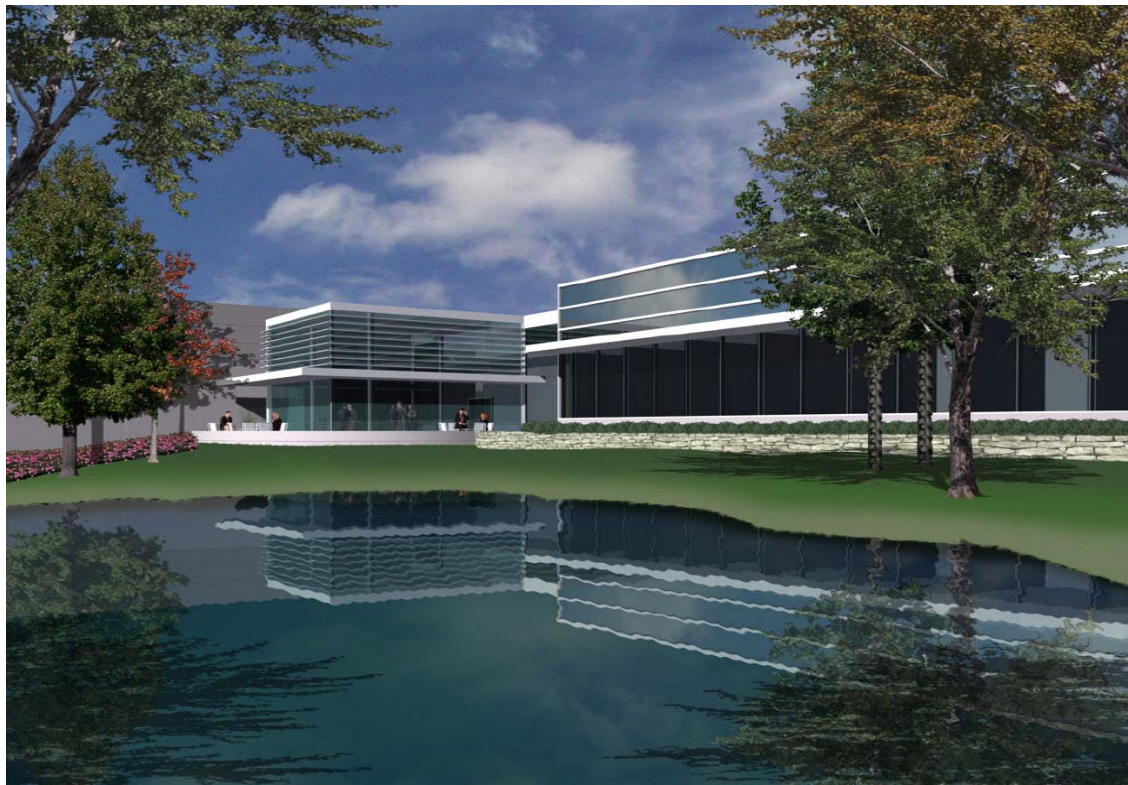
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Custom Process Capabilities

- Amination
- Alkylation
- Nitrile Reduction
- Hydrogenation
- Distillation

HUNTSMAN as a Technology Provider

- Huntsman invested more than \$60 million in 2005 to construct its new Huntsman Advanced Technology Center in The Woodlands, Texas – our Innovation Engine.....



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