



# Annual Stockholders' Meeting

May 30, 2013



# Safe Harbor Statement\*

Our presentation includes, and our response to various questions may include, forward-looking statements about the Company's future plans and objectives. Any such statements are subject to risks and uncertainties that could cause the actual results and the implementation of the Company's plans and operations to vary materially. These risks are discussed in the Company's filings with the S.E.C., including, without limitation, our Form 10-K filed March 28, 2013.

\*Under the Private Securities Litigation Reform Act of 1995

# Investment Highlights



**Well-Positioned in Large, Growing Markets**



**Creating Barriers through Solid IP Position**



**Converting Customers to Long-term Contracts**



**Building Markets Ahead of Capacity**



**Chemicals and Crops offering Additional Value**

# Metabolix Mission

## *Advanced Bio-Materials To Address Today's Challenges*

*Metabolix deploys leading edge science and innovative capabilities to address critical societal and customer needs*



2006  
**Bioplastics**  
Awards  
Winner



## ***Key Societal and Customer Needs***

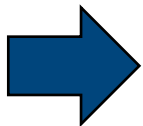
1. Enhancing the management of waste
2. Improving the performance of existing materials
3. Offering renewable raw material supply

# Metabolix Products

*Addressing Critical Customer Needs*

## Key Issues in Waste Management

- ✧ 97.5% of all food waste goes to landfills
- ✧ 100 billion plastic shopping bags used in the US alone, creating 300,000 tons of landfill waste – every year
- ✧ US waste per capita has increased by 65% since 1960
- ✧ 100 million tons of plastic dumped into the oceans – and growing every year

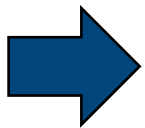


***Metabolix biobased, biodegradable polymers***



### **Performance Limitations in Existing Materials**

- Compostable bags that don't biodegrade fast enough
- Current bioplastics melt or warp when exposed to boiling water
- Plastics that crack or shatter when stressed or dropped
- Products that have poor ultraviolet (UV) stability - fade or haze after exposure to sunlight



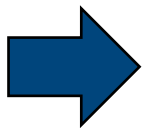
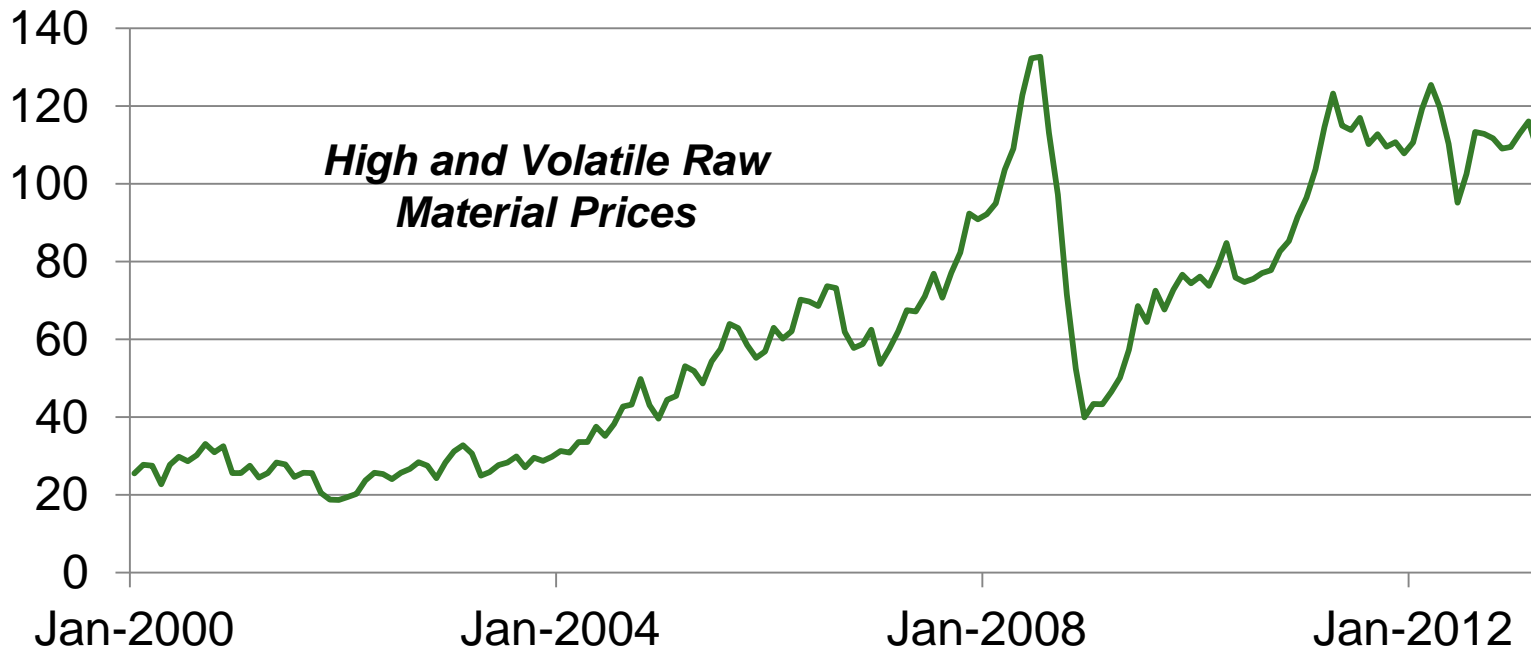
***Metabolix biobased, performance additives***



# Metabolix Products

*Addressing Critical Customer Needs*

## Brent Crude (\$/bbl)

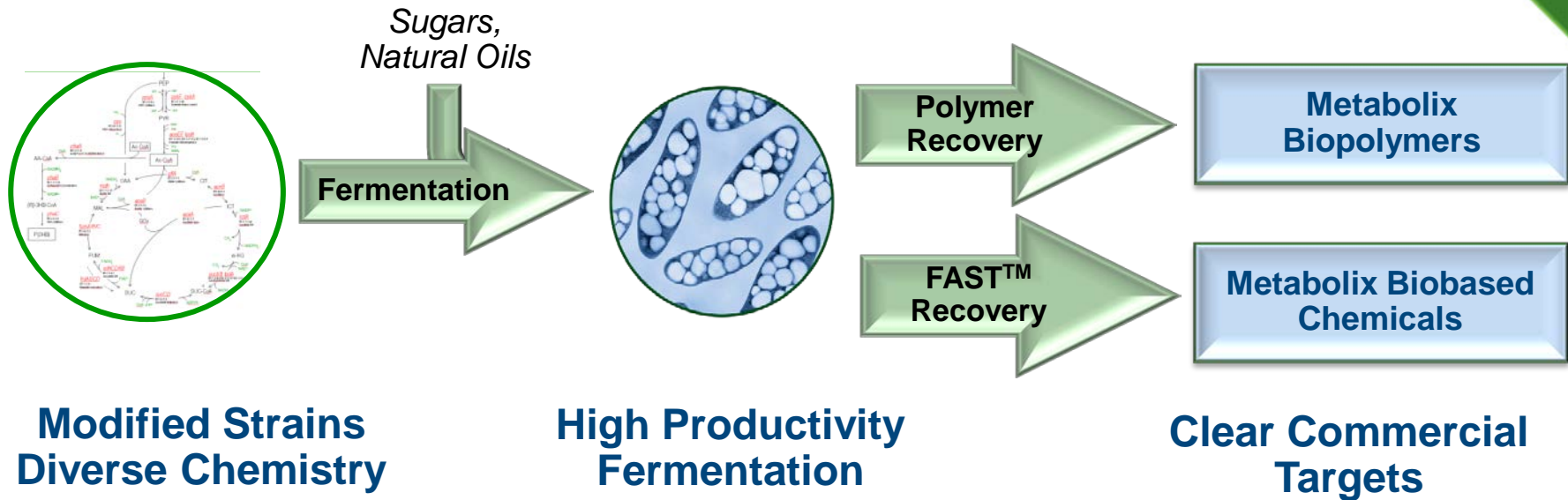


***Metabolix bio-manufacturing platform uses renewable materials such as sugars and natural oils as inputs***



# Common PHA Technology Platform

*Supports All of Our Businesses*

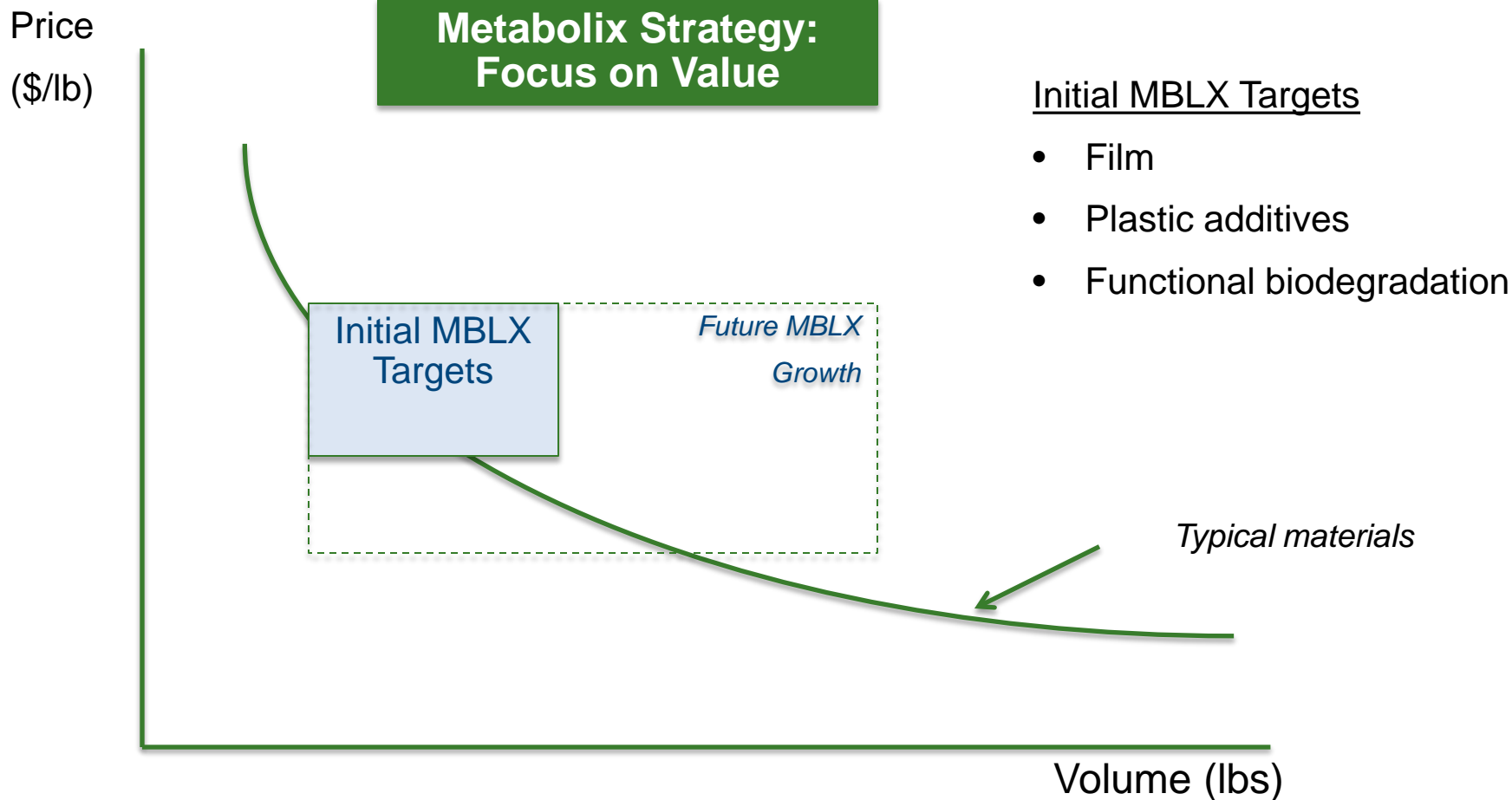


## The Metabolix Solution

- ✧ World-leading position in polyhydroxyalkanoate (PHA) chemistry
- ✧ Manufacturing technology proved at scale
- ✧ Market-tested by wide range of current and potential customers
- ✧ Position defended by more than 500 patents and applications

# Metabolix Biopolymers

*Develop High Valued Markets Ahead of Capacity*



# Target Segment: Films

*Strong Growth Drivers; Rich Product Pipeline*

## Film Market Overview

- ✧ Films represent a \$100 Bn market of the plastics industry
- ✧ Biobased and biodegradable films represent \$400 M growing at ~20% annually
- ✧ Rich pipeline of Metabolix products:
  - Compostable bags
  - Packaging films
  - Barrier films
  - Super strong films
  - Agricultural mulch films



Compostable  
Bags



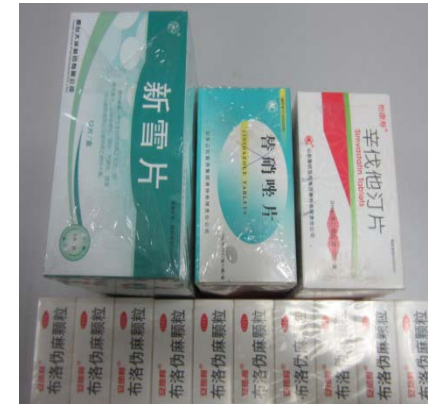
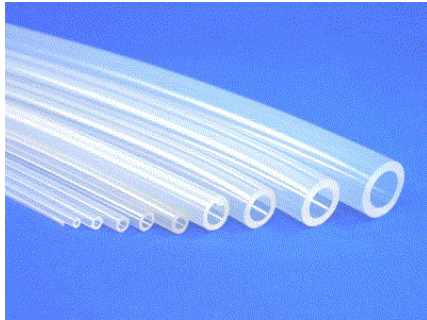
Agricultural Mulch  
Films



"End of Life" Compost

# Target Segment: Performance Additives

## Improving PVC, PLA and Others



- ❖ Medical regulations
- ❖ Clarity & translucence
- ❖ Migration & barrier
- ❖ Semi-durable or disposable

- ❖ Aging & weathering
- ❖ Needs to last years

- ❖ Impact reliability
- ❖ Clarity & translucence
- ❖ Semi-durable

- ❖ Migration testing
- ❖ Disposable

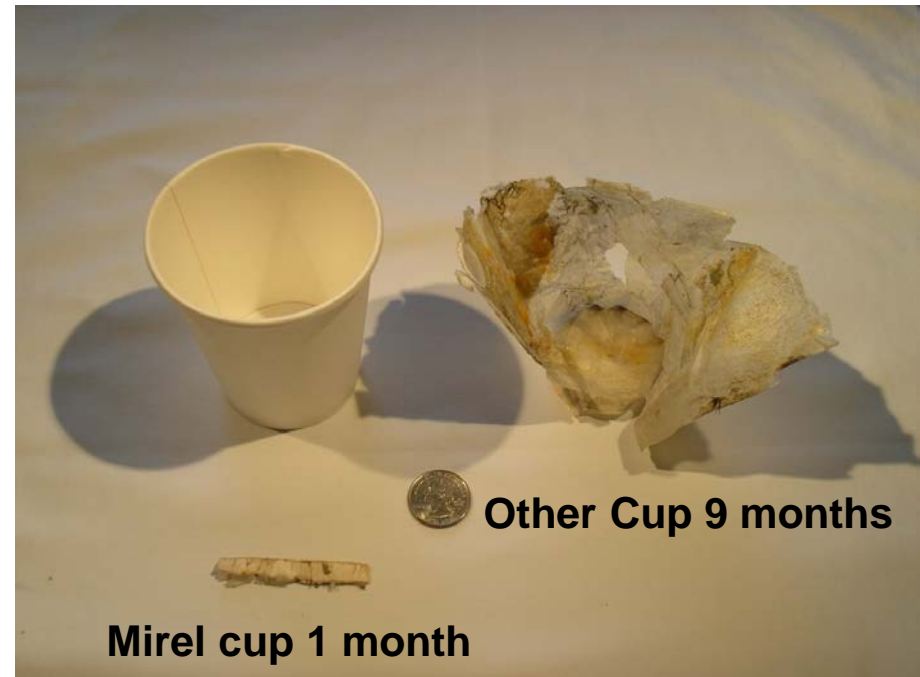
# Target Segment: Functional Biodegradation

*Addresses Customer and Societal Needs*

## Functional Biodegradation Overview

- ✱ PHA biopolymers are naturally degradable in oceans, streams, soil and anaerobic digestion
- ✱ Highly differentiated - numerous high valued opportunities
  - Anaerobic digestion
  - Agriculture/Horticulture
  - Water treatment
  - Prebiotic feed supplements
  - Erosion control

Mirel Biopolymers:  
Marine Biodegradation





# Substantial Biopolymers Progress

*Foundation Established; Momentum Building*

- ☒ Secure Ability to Operate: Wound down ADM venture. Acquired inventory, trademarks, pilot plant. Secured IP. Set up business infrastructure
- ☒ Establish Commercial Foundation: Focused on three growing, attractive segments. Built customer base to >70 customers.
- ☒ Grow the Business: Launched two new products: B5008 – Compostable Film, I6001 – PVC Modifier. Now sold commercially. Conversion to annual contracts.
- ☒ Define Capacity: Relationships with TGBM, Antibioticos. Evaluating low cost site options. 20% reduction in variable cost over last 16 months.
- ☐ Path Forward: Solidify attractive market position, align long range supply strategy, demonstrate strong business economics



# Biobased Chemicals

*Used to Produce Specialty Products*



## Fermentation Pathway

Produce industrial chemicals  
through biological conversion of  
sustainable feedstocks

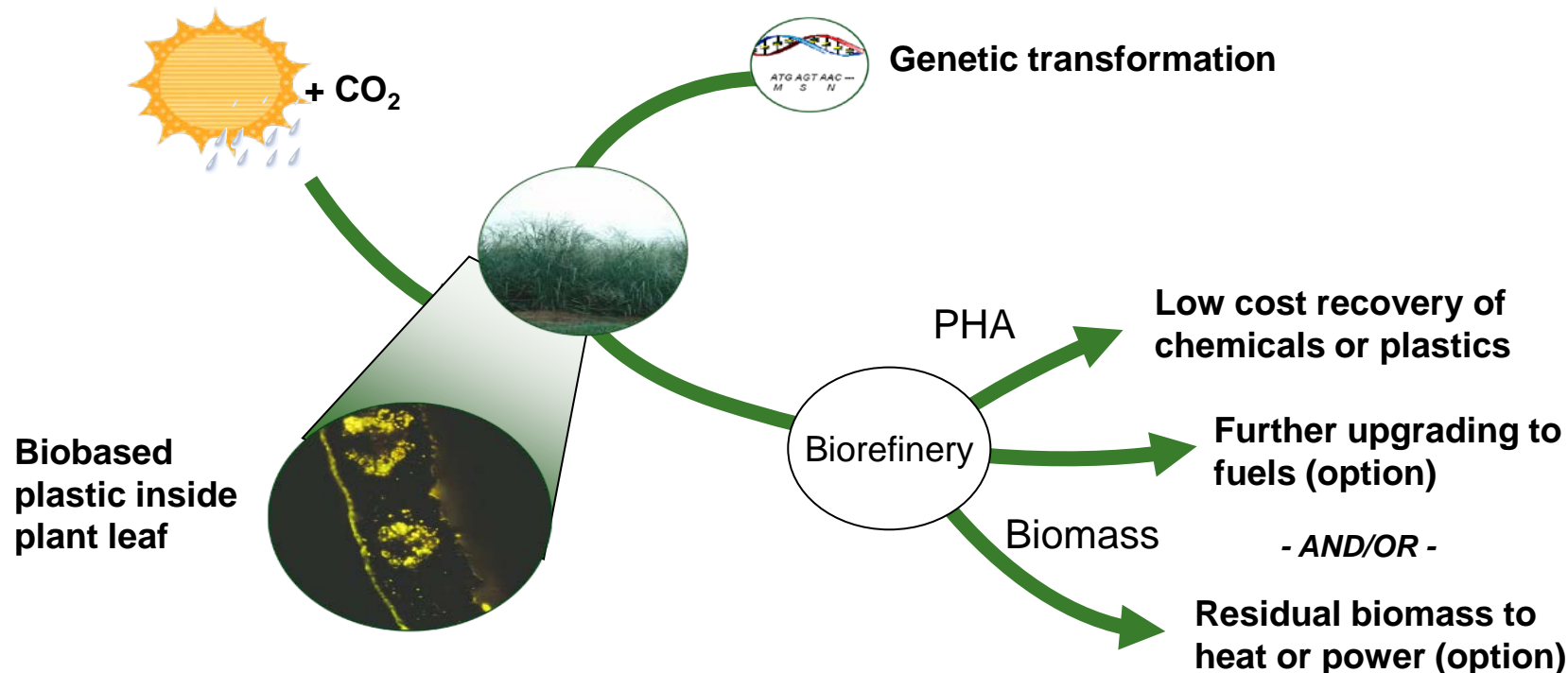
## Broad Range of Opportunities

- ✱ Initial targets: Biobased chemicals; \$10 Bn addressable market; used in paints / coatings, diapers, personal care products, pharmaceuticals, engineering plastics, others
- ✱ Metabolix offers diversity of raw material supply and high purity product. Differentiated FAST recovery process
- ✱ Initial focus on **high-valued** segments and applications
  - Applications seeking renewable solutions
  - Applications where high purity is needed



# Crop-Based Business

*Option Value Aligned with Key Trends*



- ✱ Research activity leverages Metabolix platform technology
- ✱ Long-term technology approaching cash neutrality
- ✱ Building tool set and IP around enhanced photosynthetic capacity of plants – core capability for improved crop yield

# Financial Summary

*Conservative Cash Management - Sufficient Near-term Runway*

- ✱ Cash, and cash equivalents (end-Q1) of \$37.7 million
- ✱ No debt
- ✱ High degree of partner interest
- ✱ Sufficient cash for next 12 months

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