

Jefferies 11<sup>th</sup> Global Clean Technology Conference

New York, NY February 24, 2011

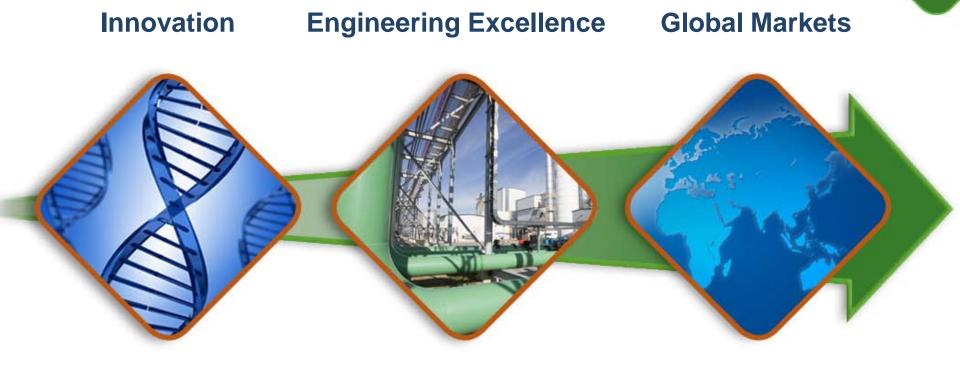
Rick Eno, CEO Joe Hill, CFO



Our presentation includes, and our response to various questions may include, forwardlooking statements about the Company's revenues and earnings and about our 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 11, 2010 and our form 10-Q filed November 9, 2010.

\*Under the Private Securities Litigation Reform Act of 1995

# Metabolix Core Capabilities Enabling global markets in plastics, chemicals, and fuels



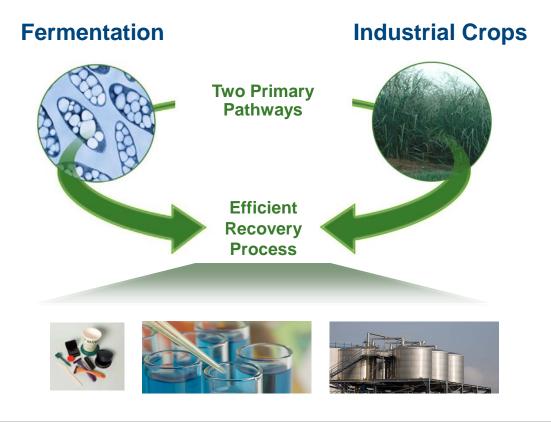
- Multi-gene systems
- Microbial engineering
- Plant biotechnology

- Scale-up & engineering
- Systems integration
- Pilot manufacturing

- Market analysis
- Product development
- Industrial branding

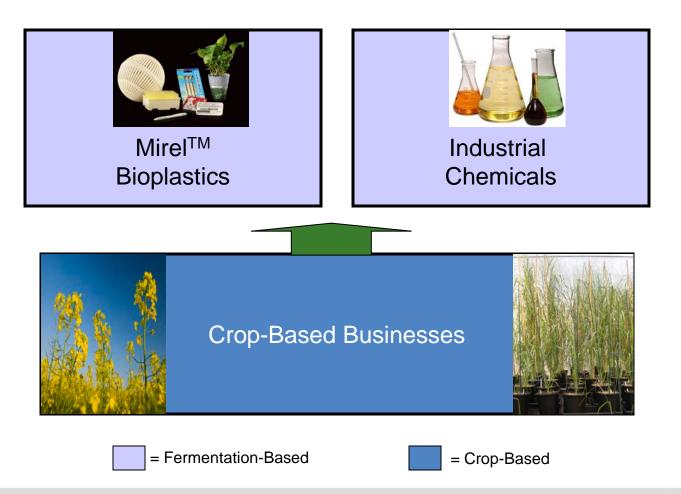
# Metabolix Capabilities

Industrial Biotechnology Leader - Two Primary Pathways



**Our Underlying Competency – PHA Chemistry** 

#### Business Portfolio Pathways Enable Three Integrated Business Platforms





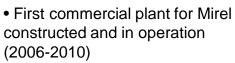
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## Business Portfolio An Early Biotech Leader – Robust Portfolio

# <u>Metabolix Growth Program:</u>

Steady Progress – Significant Potential

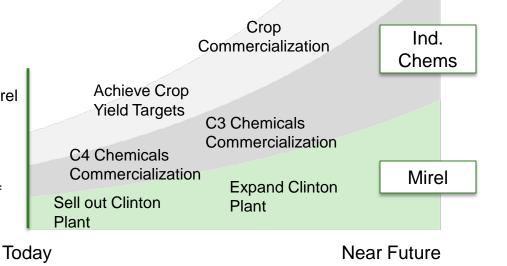


- Foundational PHA Technology demonstrated
- Deal with ADM (2006)

1992-2006

- Early adopter customers for Mirel on board (2008-2010)
- Industrial Chemicals proof of concept (2010)
- Oil Seeds Field Trial (2010)





#### **Metabolix**

Crops

#### Mirel<sup>TM</sup> Bioplastics Versatile Family of Bioplastics

#### Superior to petroleum plastics

- Reduces petroleum dependence
- Biodegradable
- Enables new applications

#### Superior to other bioplastics

- Vincotte certified biodegradability
- Moisture resistant
- Thermal stability
- Ease of processing
- Rigid to flexible

#### Broad commercial applicability

- Processed with existing plastics conversion equipment
- Wide range of processing technologies (sheet, film, injection molding) and vertical market applications





# Mirel<sup>TM</sup> Bioplastics Why do Customers want Mirel?

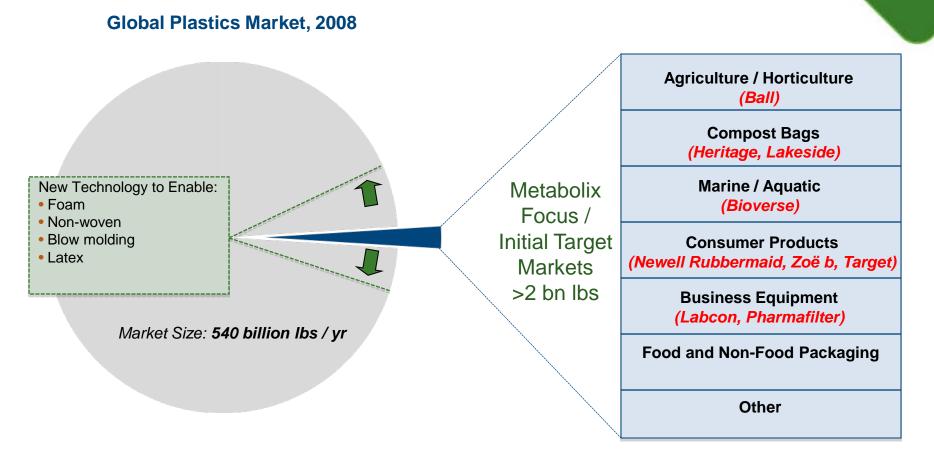
- Reduce petroleum use seek bio-based content
- Meet legislation e.g., plastic bag bans
- Improve existing products: Faster biodegradation, better physical properties
- Create new products:
  - Mulch film that biodegrades in the field
  - Biodegradable planters and plant clips
  - Bags suitable for home composting
  - Shoreline restoration
  - Many others







# Mirel<sup>TM</sup> Bioplastics Addressable Market is Huge; Early Adopter Validation



Red= Indicates Early Adopter Customers

**Metabolix** 

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Source: PlasticsEurope Association.

#### Build Potential: High Grade the Customer Mix

Potential Opportunities	Core Prospects		Base Opportui		
<b>3,000</b> Potential Opportunities in Pipeline	~100 Core Prospects Currently	~40 Gift Cards Coffee Cup Lids*	-50 Target for Frosion Control	Clinton 1 With Film Mulch Film Packaging	Office Supplies

#### Very Robust Customer Development Pipeline

- Typical plastic industry customer development cycle: 9-15 months
- New product introductions take time: product qualification, supply chain development, market testing, product placement. Numerous variables can affect sales forecast
- Pricing of \$2.25 \$2.75 / Ib discussed at all stages of development
- Currently expect plant to be at capacity by mid-2013



## Mirel<sup>TM</sup> Bioplastics First Facility is Operational

#### Clinton 1 Commercial Manufacturing Facility

#### Clinton 1:

- 30 Acres, 110 million lbs / year design capacity (\$275 MM revenue potential)
- 4x capacity expansion potential
- \$1+ bn revenue potential
- Rapid deployment and continued advancement of MBLX Mirel technology



Clinton, Iowa May 2010

#### Metabolix 88

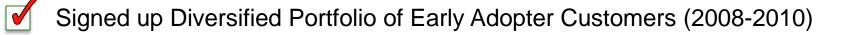
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Established Venture with ADM (2006)



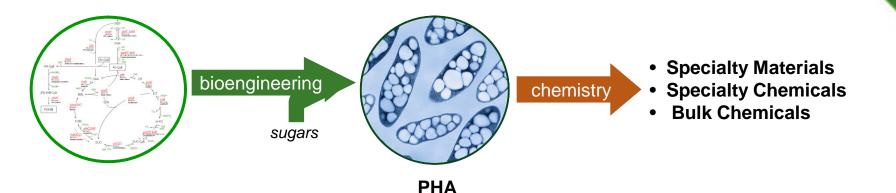
- Completed Construction of First Commercial Facility(2009)
- Plant Start Up Proved Technology at Commercial Scale (2010)



- Food Approved Grades: Injection Molding and Thermoforming (2010)
- Sign Up New Customers (2011+)
- Obtain Food Approved Grades: Film and Foam (expect in 2011)

- Build Production and Sales to Design Capacity of Initial Plant (by mid-2013)
- Continually Reduce Cost Base and Expand Margins (Ongoing)
  - Execute Plant Expansion (Currently being Analyzed)

#### Industrial Chemicals Unique approach built on Metabolix Strengths



- Goal is to replace petroleum-derived chemicals with renewable products
- Platform is based on Metabolix core strengths
  - Advanced engineered strains accumulating tailored PHA compositions
  - Highly efficient, scalable fermentation
  - Single step recovery process with very high conversion yield and selectivity, requiring only minimal work-up
- Initial focus is on \$800 million specialty C4 market; targets being expanded



# Industrial Chemicals

Initial Targets Identified; Technology Development Moving Well

Product	PHA Building Block	Market Size	State of Technology
GBL	P4HB	\$800 million (Solvents, Personal Care)	<ul> <li>Fermentation Scaled up; Test Product to Customers in Q1 2011.</li> <li>Recovery design being optimized</li> <li>Expect attractive returns at \$60-70/bbl crude</li> <li>Partnership discussions ongoing</li> </ul>
BDO	P4HB	\$2.5 billion (Fabrics, Engineering Resins, GBL)	<ul> <li>Derived from GBL</li> <li>Expect attractive returns at \$90-100/bbl crude</li> </ul>
Acrylates	P3HP	\$8 Bn (Paints, Coatings, Superabsorbents)	<ul> <li>Proof of concept demonstrated</li> <li>Expect attractive returns at \$90-100/bbl crude</li> </ul>

• GBL/BDO and Acrylates based on very similar technology platform offering integration potential; technology being optimized to reduce capital cost and enhance yields

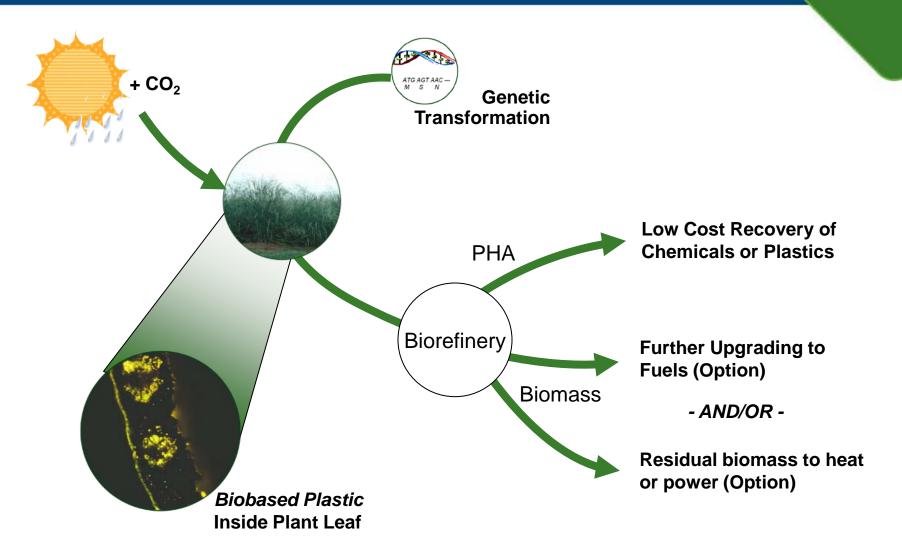
• Other products being examined include maleic anhydride, n-butanol and polyurethane additives

• Business and partnership models being evaluated for each



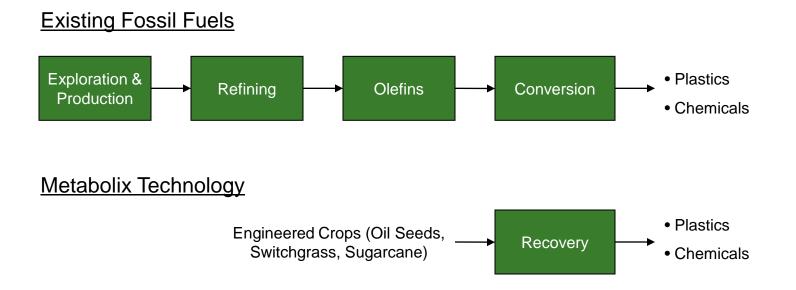
# **Crop-Based Businesses**

Turning Sunlight, CO<sub>2</sub> and Water Directly into Valuable Products





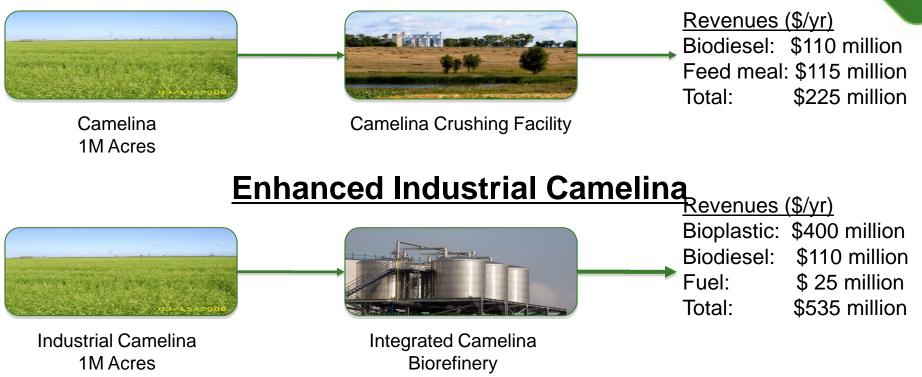
#### Simplification of Existing Value Chains



- Plastics and Chemicals costs to conceivably approach that of recovered sugars and oils from plants
- An essential contribution to the high return, integrated biorefinery

#### Crop-Based Businesses PHA doubles value of the oil seed crop

# **Conventional Camelina**



- New markets for farmers providing new revenue source and attractive returns per acre
- Industrial crop and product focus diversifies risk from volatile food/feed markets
- First Field Trial successfully conducted in 2010

Multiple platforms addressing large markets

Growing market driven by consumer awareness and public policy

Leader in biobased, biodegradable plastics

Initial platform in Commercial Operation; Product in the Market

Solid science platform & IP (600+ patents and applications)

Clear business strategy & experienced management

Strong financial position

