

## Safe Harbor Statement\*

Our presentation includes, and our response to various questions may include, forwardlooking 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 12, 2012.

\*Under the Private Securities Litigation Reform Act of 1995



## **Metabolix Vision**

# **Bio-Industrial Evolution**

Through bioscience and engineering, we bring clean, sustainable, and economically viable solutions to the world in plastics, chemicals, and energy.







## Metabolix Core Capabilities Industrial Biotechnology Leader – Two Primary Pathways



Integrated Value Chain based on Metabolix PHA Core Competency



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## Broad-Based Renewables Platform Three Areas of Metabolix Focus





## Accomplishments 2012 Year-to-Date Momentum Building - post-ADM Termination

- ü Transferred all biopolymer business operations to Metabolix (inventory, certifications, IP, trademarks, pilot plant)
- ü Restructured business operations to reduce costs
- ü Opened and advanced discussions with prospective manufacturing partners; narrowed from 10 to 4 choices
- ü Provided customers with access to inventory
- ü Reported first sales of inventory
- ü Signed NatureWorks license for biopolymer blends
- ü Opened office in EU to serve as focal point for commercial activity in Europe
- ü Obtained validation of Industrial Chemicals competitiveness
- ü Continued to meet all milestones of \$6 million DOE crop grant

## Mirel<sup>TM</sup> Biopolymers Addressing Critical Customer Needs

### Drivers of Mirel Demand:

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









## Extensive Market Opportunity Vast Addressable Market with Well Defined Targets



Source: PlasticsEurope Association

<sup>1</sup> Assumes 2bn lbs market multiplied by mid-point of current average selling price of \$2.50/lb



## Industrial Chemicals The Next Application of Metabolix Technology



#### Fermentation Pathway

Produce industrial chemicals through biological conversion of sustainable feedstocks

#### **Broad Range of Opportunities**

- Metabolix PHA fermentation technology can potentially address broad array of industrial chemicals
- Demand pull for renewable chemicals is increasing
- Initial Metabolix targets:
  - Specialty C4 Chemicals market
  - Commodity C4 Chemicals
  - C3 Chemicals / Acrylates
- Differentiated FAST technology to address multiple chemical families from same asset



## Competitiveness Versus Existing Products

Potential for cost position in top half, or quartile, of industry





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### Well Defined Development Plan Historical Milestones Met

- Established Foundation IP for Industrial Chemicals
- Produced C4 Chemicals Samples; Received Positive Customer Feedback
  - Established Partnership for C4 Chemicals (JDA w/CJ Bio)
  - Scale fermentation up to 60,000L
- Produce Tonnage Samples; Prepare for Commercial C4 Chemicals Plant Design (YE 2011)
  - Construct and Launch Commercial Business



Leverage C4 Development Experience into C3 Platform Unique Differentiation – Platform Approach

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## **Crop-Based Businesses**

*Turning Sunlight, CO2 and Water Directly into Valuable Products* 



## Crops Platform Focus on Achieving DOE Grant Milestones



- § \$6mm REFABB project award from US DOE June 2011
- § Increase yields of PHB in switchgrass and pilot production of chemicals
- § Research published in *Plant Biotechnology Journal* showing PHB production in sugarcane, a key biomass crop



# The Game Plan Moving Forward

### **Biopolymers**

- § Secure new supply chain as foundation to build the business
- § Deploy updated fermentation and recovery technology
- § Manage customer relationships / inventory to provide a smooth bridge to new supply
- § Focus efforts on proven market segments

### **Bio-based Industrial Chemicals**

- **§** Achieve technical milestones to enable industrial scale production
- § Secure off-take customers
- **§** Explore synergies of common manufacturing assets for the biopolymers and chemicals platform

### Crops

§ Identify and secure grants to support crop research / evaluate commercialization options



# The Future Integrated Chemical Complex

PHA Molecules Offer a New Paradigm for Integration



- Expect strong margins at wide range of crude/sugar pricing
- Modular expansion possibilities
- Real time feedstock optimization (oils, ethanol)



Broad based renewables platform addressing large markets

Expertise in discovery and science on unique PHA chemistry platform

Differentiated biopolymer products; proven customers

Chemicals platform moving towards commercialization

Customer pipeline driven by pull demand

Exciting product portfolio accelerated by existing IP and know-how

