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**Reason for Report:**
Industry Overview

| Related Companies: | Share Price: |
|---|---|
| CDXS | 10.40 |
| GEVO | 20.34 |
| GPRE | 12.26 |
| MBLX | 9.43 |
| MON | 67.33 |
| TRMB | 49.92 |

Clean Tech Industrials

# Growth Rates are Regulated by Product Cost & Fungibility; Webinar Takeaways

## CONCLUSION:

Following a webinar hosted by Piper Jaffray on Friday, we are highlighting the number of new factors introduced by a nascent company as a key determinant of how rapidly investors should expect growth. We have a favorable view of the growth potential of companies that use a well-defined commodity input, an advanced technology and process, and a drop-in product at cost parity with incumbents – companies such as Gevo. We take a bit more long-term approach to the Metabolix and Amyris models, as an over-reliance on selling 'new to the world' products using novel technologies is likely to lead to a long adoption cycle.

- **The Webinar focused on our 4 element framework for evaluating bio-industrial companies, the regulatory environment, and Gevo's strategy in developing a rapidly deployable technology.** During the Webinar, we presented our 4 element framework for evaluating companies that are attempting to commercialize bio-based fuels and chemicals. Feedstock cost and availability, the stage of development and costs for the technology, the end market potential & the fungibility of products, and the capital intensity are the key considerations within the framework. Also on the call, Gevo CEO Pat Gruber outlined his company's strategy to optimize economics through metabolic engineering and enable rapid adoption by marketing a drop-in molecule. One of the more important factors discussed on the call is how growth rate expectations should be determined by the novelty of the feedstock, process technology, or product.

- **We believe that two of the most important factors that determine how quickly a bio-industrial company will grow are price and fungability of products with existing infrastructure.** We have a favorable view of the growth potential of companies that use a well-defined commodity input, a highly advanced technology and process, and a product that is truly drop in at cost parity with incumbents – companies such as Gevo. Marketing a drop-in product enables rapid adoption by becoming a simple purchasing decision – customers can pick from a number of potential suppliers. In our view, novel products such as PHAs or farnesene will involve an incredibly long adoption cycle, likely taking 15 – 20 years to bring a 'new to the world' product to market. Customers have tremendous pricing leverage, and the length of time and cost of testing by potential customers lends itself to high attrition rates. Such a scenario played out for NatureWorks, a company that struggled for about 15 years to commercialize PLA before performance and price converged to finally generate market traction. Therefore, we have a bit more cautious stance on the Metabolix and Amyris models, as companies that rely substantially on selling 'new to the world' products at a price premium using novel technologies are likely to have a long adoption cycle.

- **Investors eyeing investment in bio-industrials should look for companies with a fungible product at cost parity to incumbents to enable rapid growth.** We have applied our view of the 4-element framework for various companies in the bio-industrial space. Companies that get high marks are those that have developed strong IP around a new angle to existing technology, have well thought-out feedstock logistics, and manufacture a drop-in product at low cost.

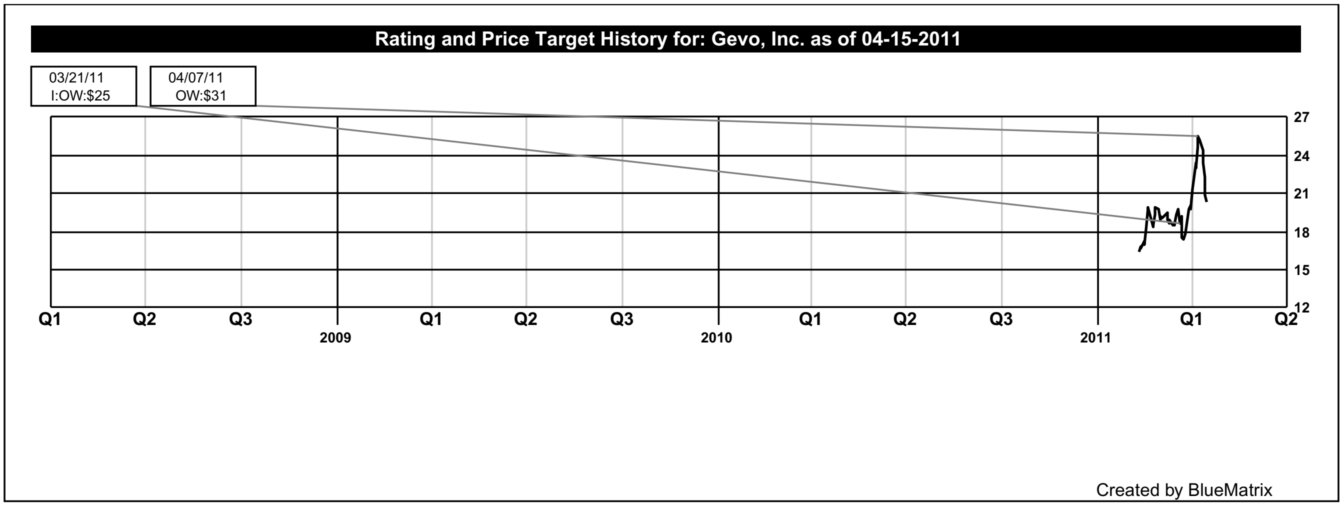
## RISKS

Economic conditions, commodity prices, competition, government regulations, weather, and acquisition integration.

Gevo, Inc. (GEVO) – Overweight / $31 Price Target. Our $31 price target is based on an EV/FY2014E revenue multiple of 1.6x. Risk factors include: Supply/demand of ethanol assets, commodity prices, material increase in global C4 supply,technology scale-up, retrofit project delays or cost over-runs.

Metabolix (MBLX) - Neutral / $9 Price Target. Our $9 price target is based on 2.0x EV / Telles JV revenue (MBLX 50% share) plus FY11 cash of $45 million. Risks include: Slower than expected customer approval, customer attrition in application process, and continued operating losses.

# Important Research Disclosures





Notes: The boxes on the Rating and Price Target History chart above indicate the date of the Research Note, the rating, and the price target. Each box represents a date on which an analyst made a change to a rating or price target, except for the first box, which may only represent the first Note written during the past three years.

Legend:

I: Initiating Coverage

R: Resuming Coverage

T: Transferring Coverage

D: Discontinuing Coverage

S: Suspending Coverage

OW: Overweight

N: Neutral

UW: Underweight

B: Buy (Piper Jaffray discontinued use of the B, N, and S ratings on June 30, 2009)

N: Neutral

S: Sell

AL On/AL Off: Placed on/removed from the Alpha List maintained by Piper Jaffray (AL use discontinued March 2010)

NA: Not Available

UR: Under Review

### Distribution of Ratings/IB Services
### Piper Jaffray

| Rating | Count | Percent | IB Serv./Past 12 Mos. Count | IB Serv./Past 12 Mos. Percent |
|---|---|---|---|---|
| BUY [OW] | 311 | 50.20 | 70 | 22.51 |
| HOLD [N] | 262 | 42.30 | 25 | 9.54 |
| SELL [UW] | 47 | 7.60 | 2 | 4.26 |

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## Analyst Certification — Michael E. Cox, CFA, Sr Research Analyst

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