



Virent is Replacing Crude Oil.

Advanced Biofuel Leadership Conference

Lee Edwards – Virent CEO

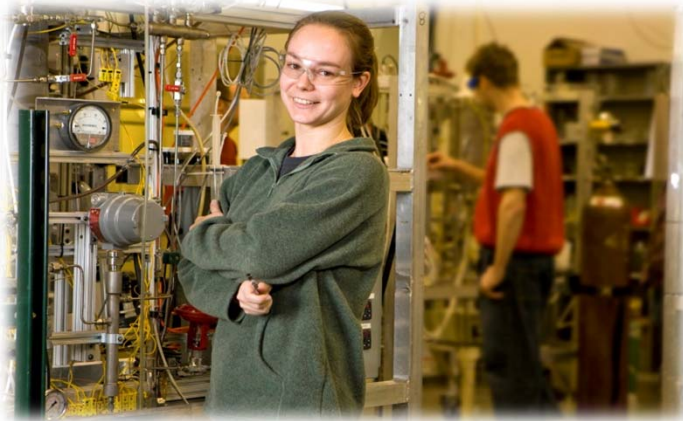
April, 2012



Virent at a Glance

The global leader in catalytic biorefinery research, development, and commercialization

120 Employees



Partners & Investors



Financial



Infrastructure



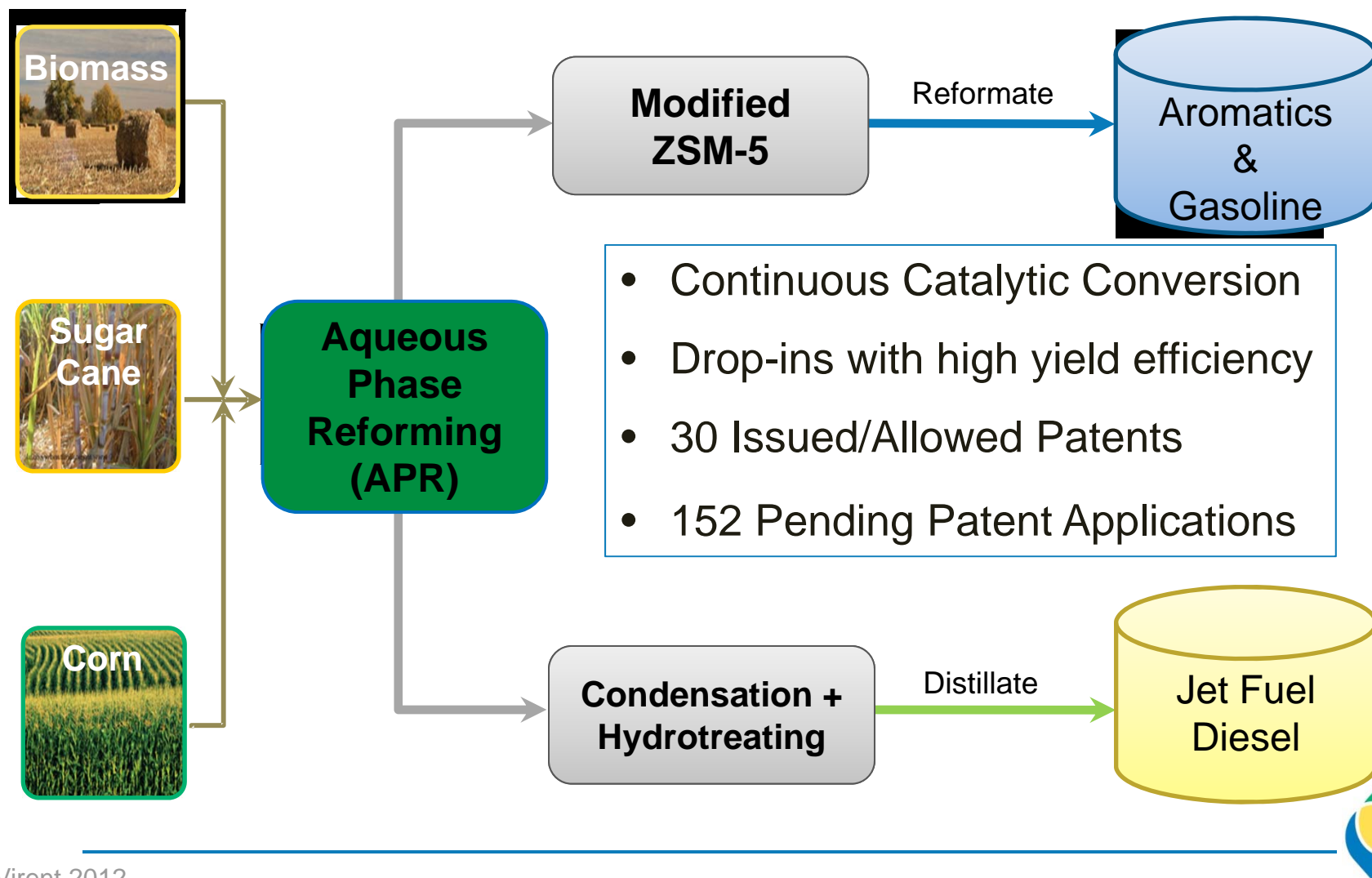
> \$77 MM in Equity Funding, > \$75 MM in Gov & Industry

26x Development Pilot Plants, 1x 10,000 gal/yr Demo Plant

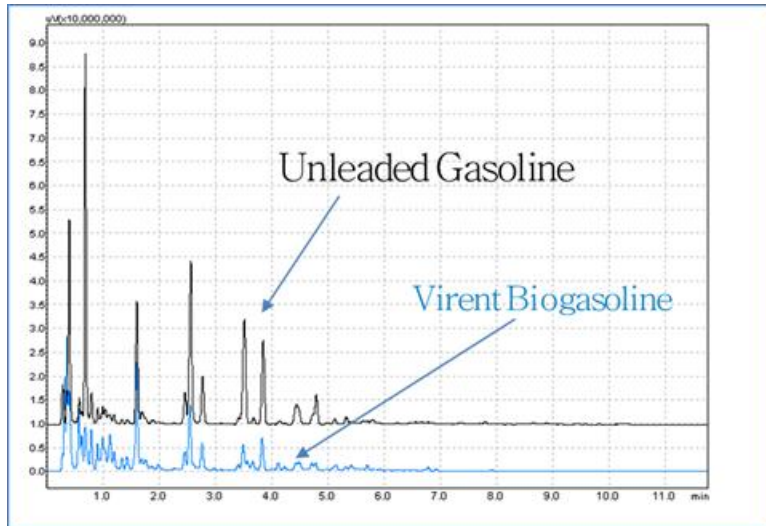


Virent BioForming® Platform

Process flexibility enables the production of gasoline, aromatic chemicals, jet fuel and diesel from a variety of raw materials.



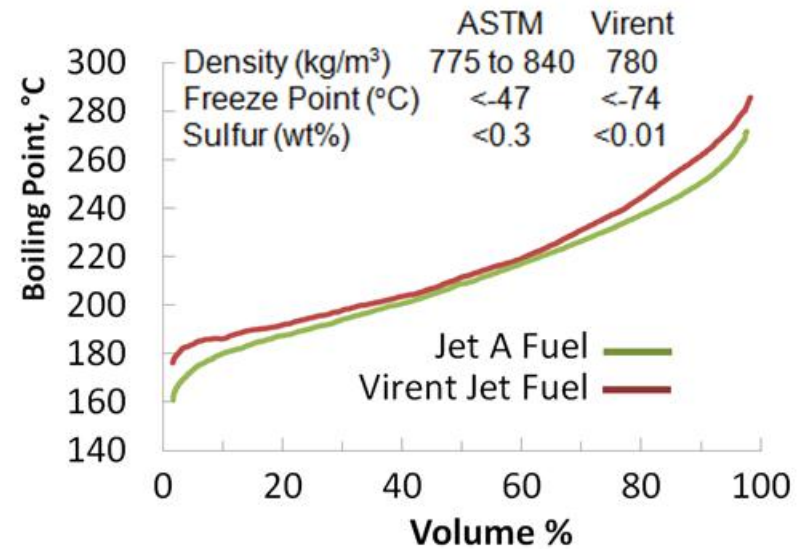
High Quality, Drop-in Fuels



Premium Biogasoline – 120,000 Btu/gal



Virent Fuel in Scuderia Ferrari Race Fuel



Virent Distillates Meet ASTM Specifications

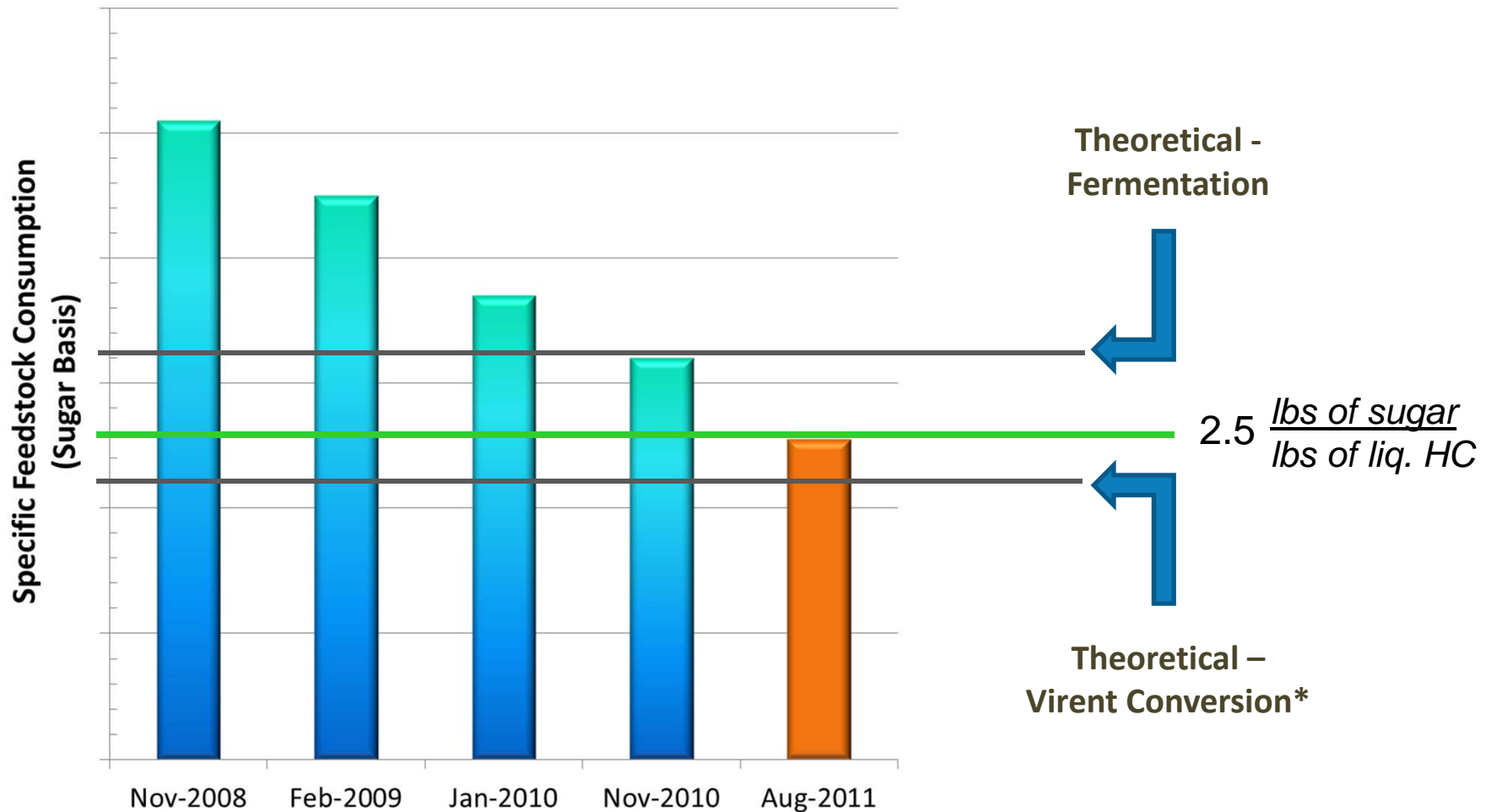


Energy Dense, Drop-in Fuels



Virent Process Yield Advantage

Approaching Theoretical- Lower is Better

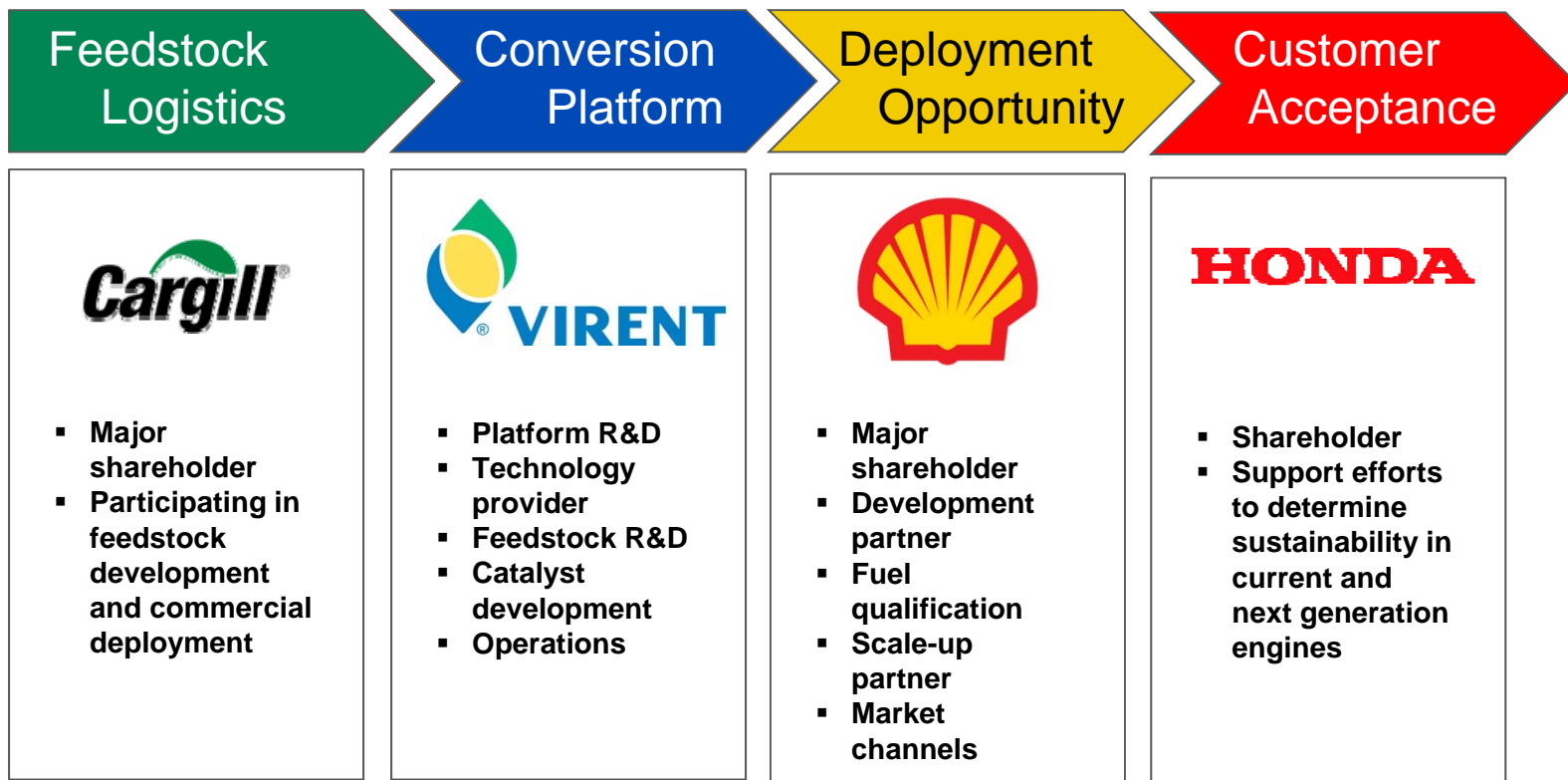


* Virent conversion process with external H_2



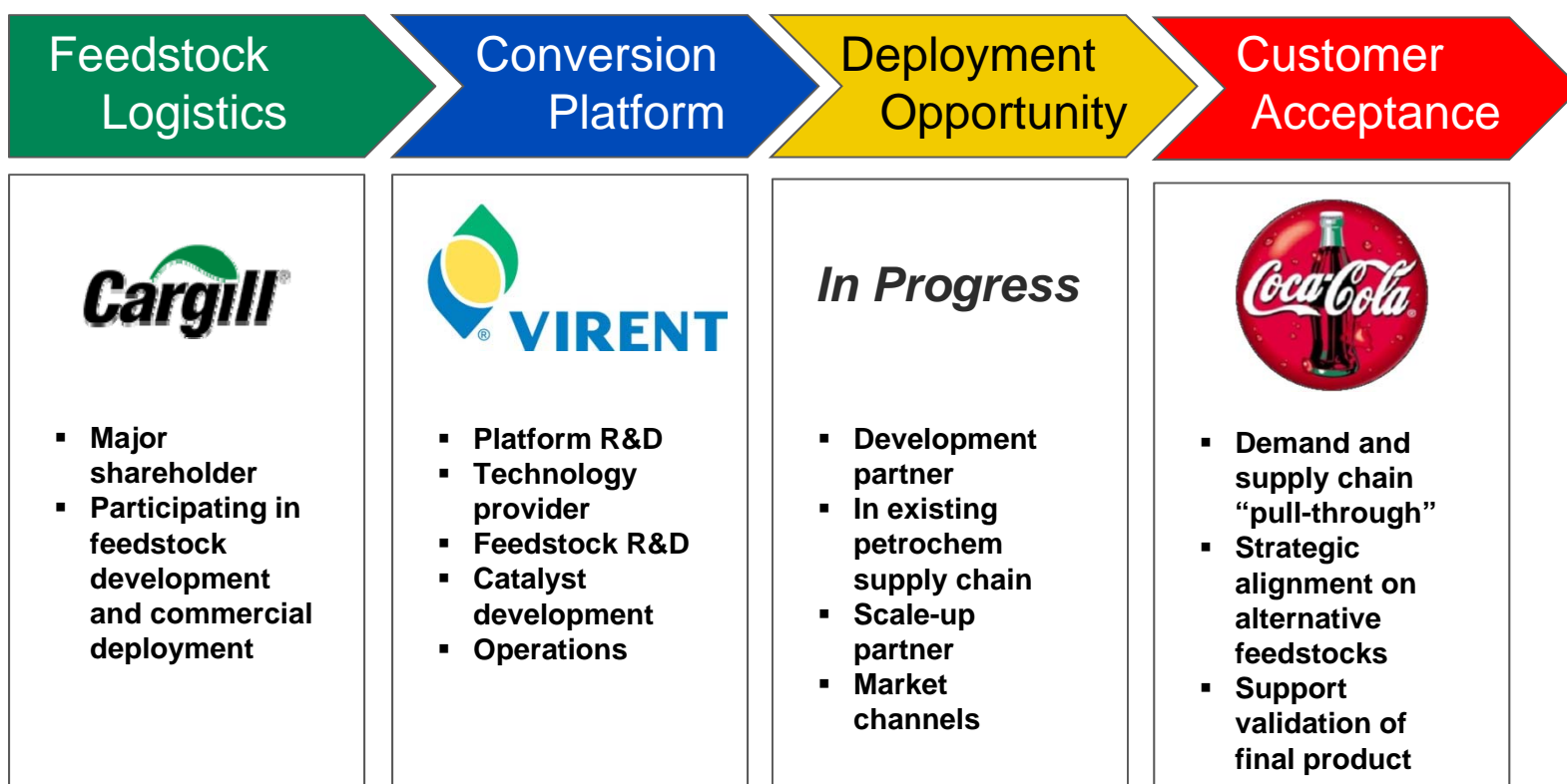
Strategic Investors & Fuel Partners

Develop, deploy and commercialize at scale a renewable “petrochemical” platform that can utilize existing infrastructure.



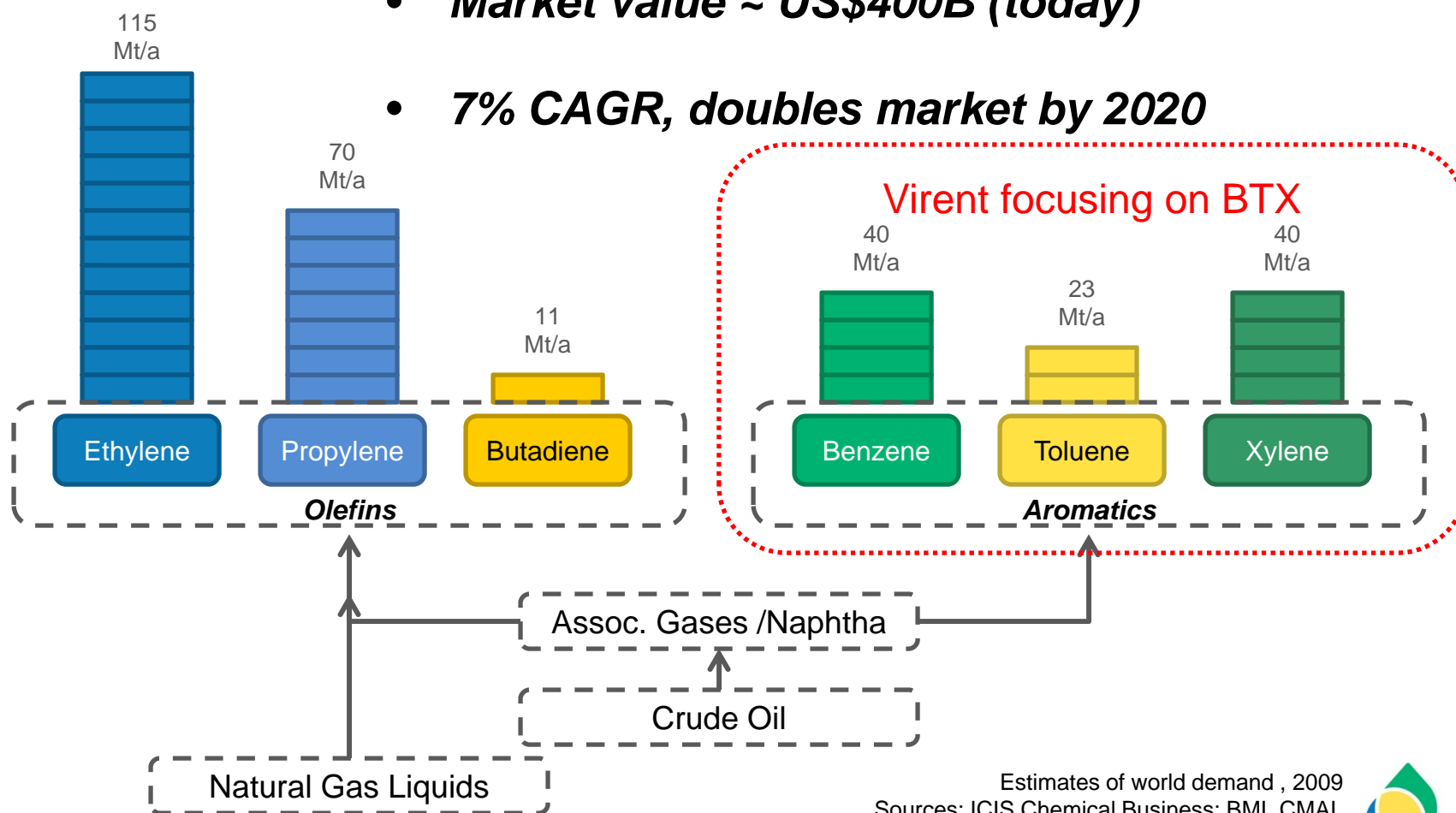
Chemicals Strategic Investors & Partners

Develop, deploy and commercialize at scale a renewable “petrochemical” platform that can utilize existing infrastructure.



World Petrochemical Volumes

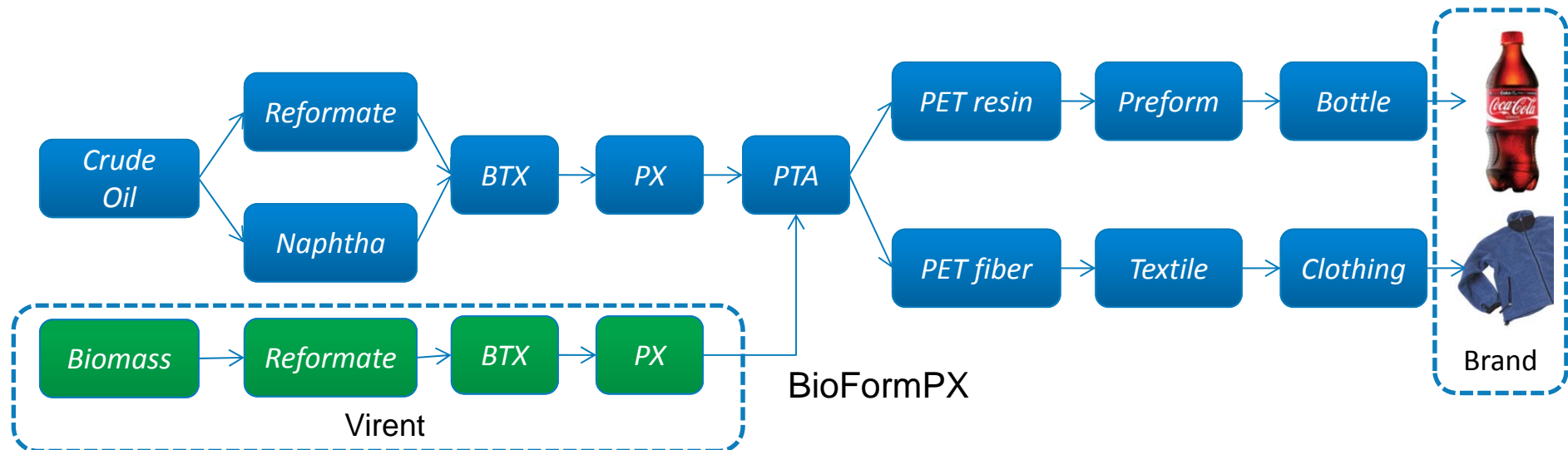
- *Approximately 300M tonnes in 2009*
- *Market value ~ US\$400B (today)*
- *7% CAGR, doubles market by 2020*



Estimates of world demand , 2009
Sources: ICIS Chemical Business; BMI, CMAI.



PET Supply Chain Integration



Virent's technology addresses sustainability: supply, economics, & environment

- Diversify raw materials leveraging current supply chain.
- Reduce exposure crude oil pricing
- Solution for demand for sustainability

Virent will target 2015 or sooner for the production of BioFormPX

- Secured Coca-Cola development and supply agreement.
- Establishing production and supply chain partnerships.



VirentSummary

- Leading technology with catalytic conversion to quality hydrocarbons including aromatics
- First mover opportunities in chemicals
 - PX is chemicals target
 - Signed a JDA and MSA with Coca-Cola
 - Establishing supply chain partnerships to support deployment
- Deployment opportunities for fuels
 - Supporting Shell to accelerate biomass to fuels deployment.
 - DPA tri-agency partner opportunities
- Developing pathways to accelerate integration with cellulosic feedstocks and lignin to further improve yields and profitability.



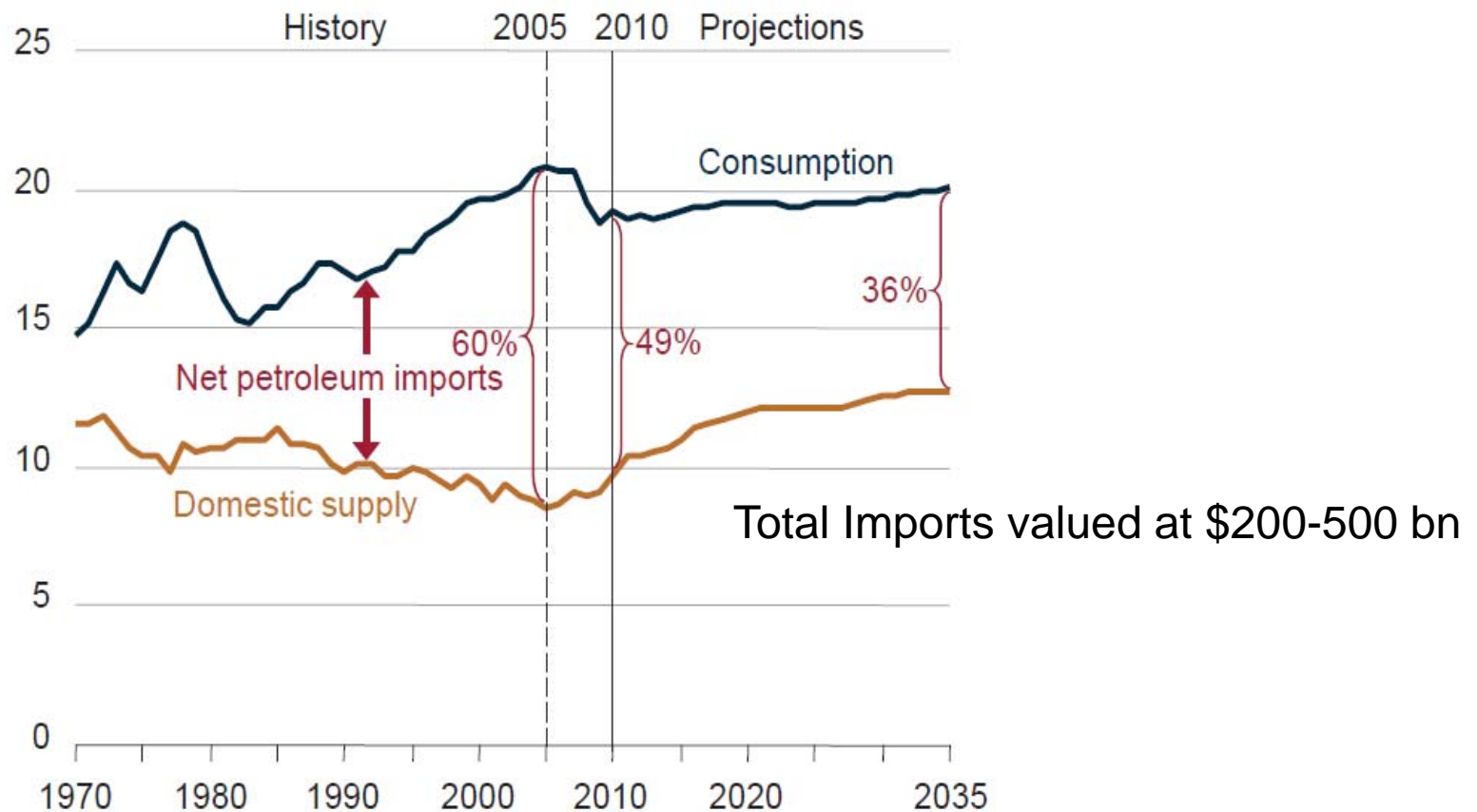


Industry Opportunity



Closing in on US Liquid Fuels Supply

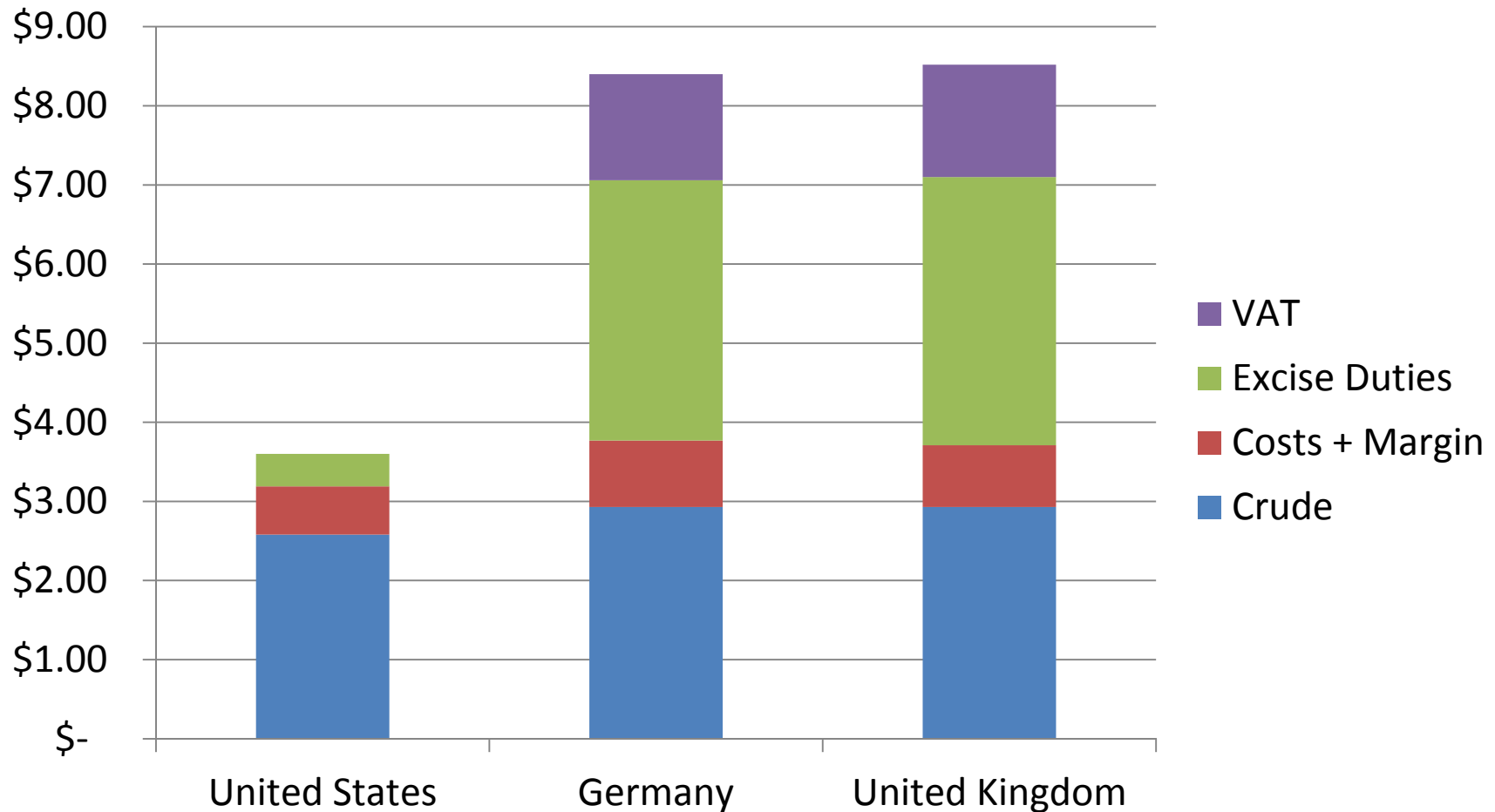
Figure 1. U.S. liquid fuels supply, 1970-2035
(million barrels per day)



U.S. Energy Information Administration | Annual Energy Outlook 2012 Early Release Overview



Fuel Prices could be higher!



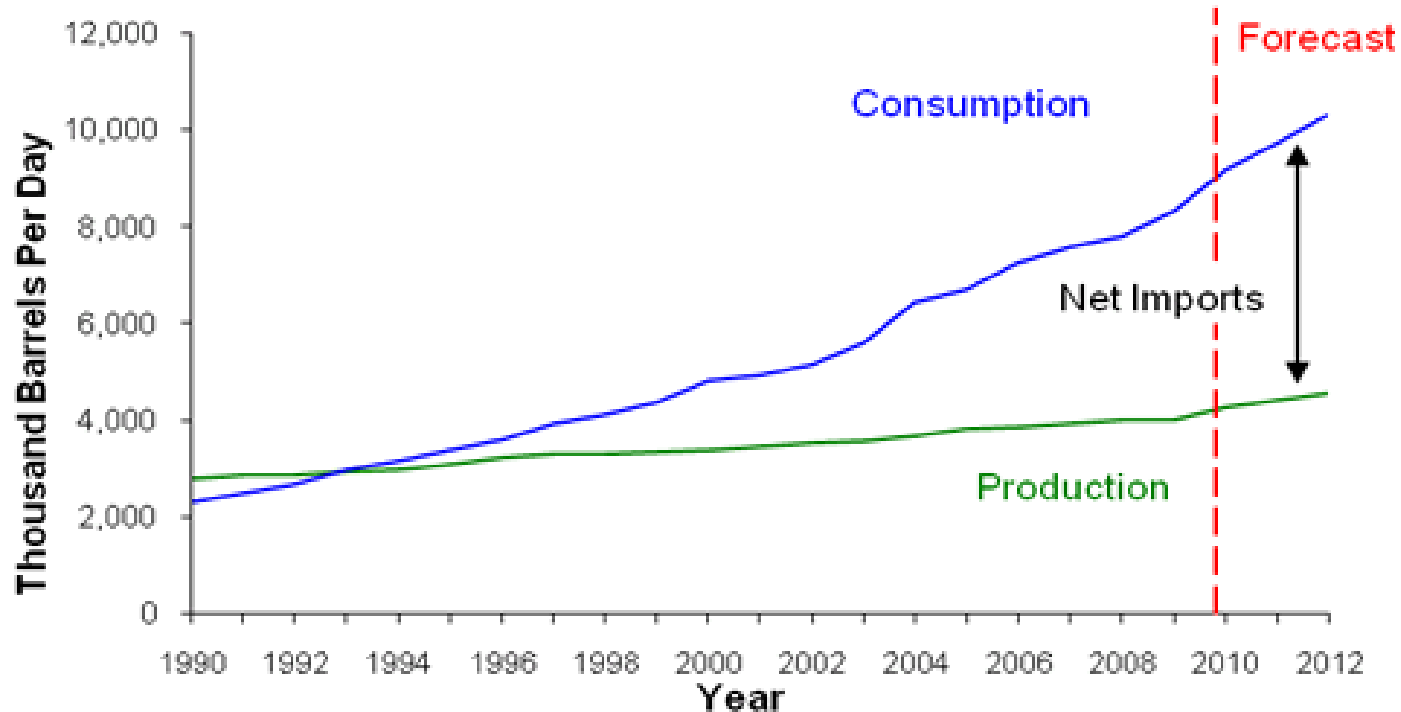
EIA: <http://205.254.135.7/tools/faqs/faq.cfm?id=22&t=10>

<http://www.energy.eu/#fueltaxes>



China Liquid Fuel Supply Outlook

China's Oil Production and Consumption, 1990-2012

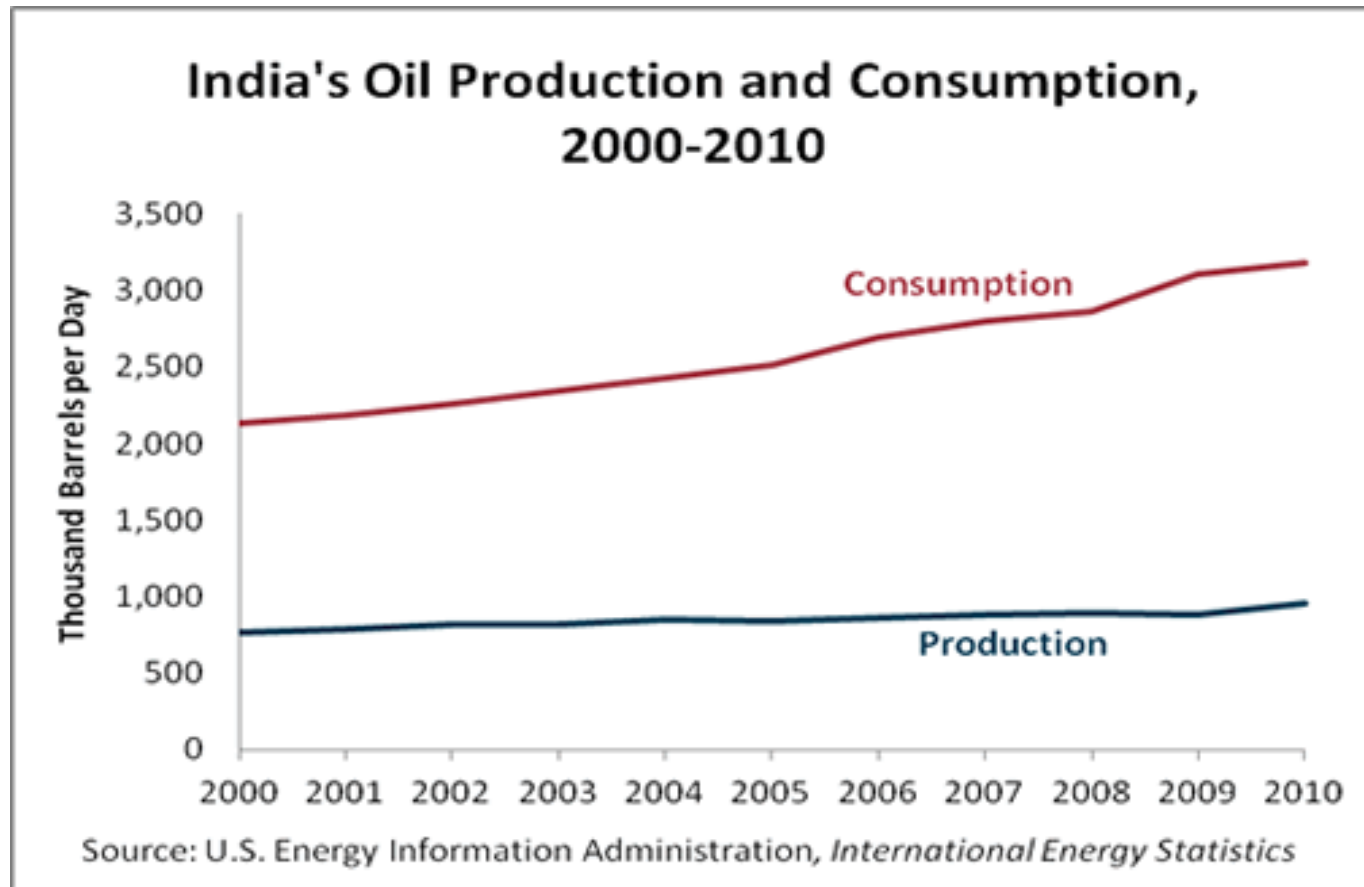


Source: EIA Short-Term Energy Outlook (April 2011)

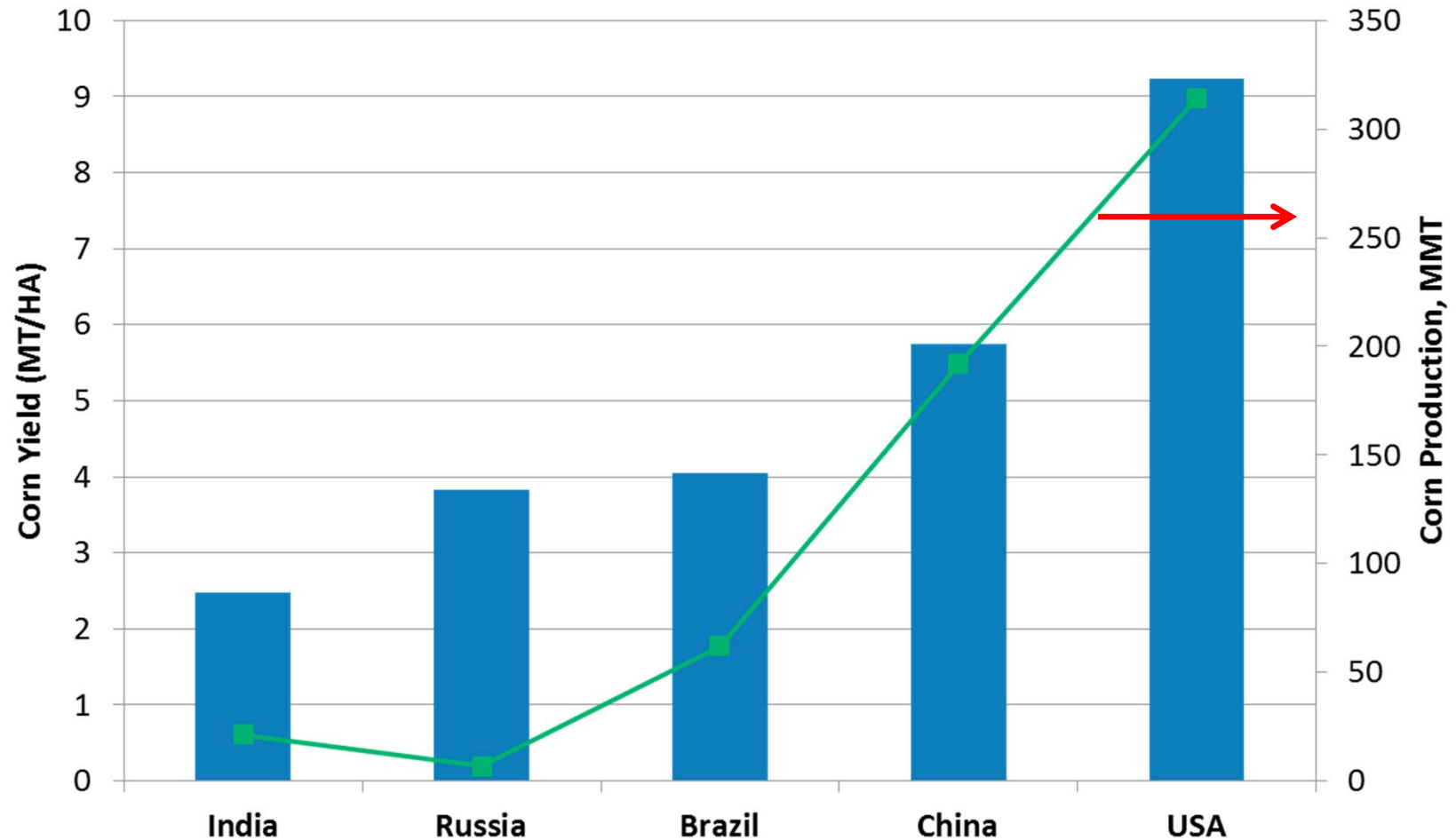
Note USA Consumption is 20 mm bbls/day: 200% more than China



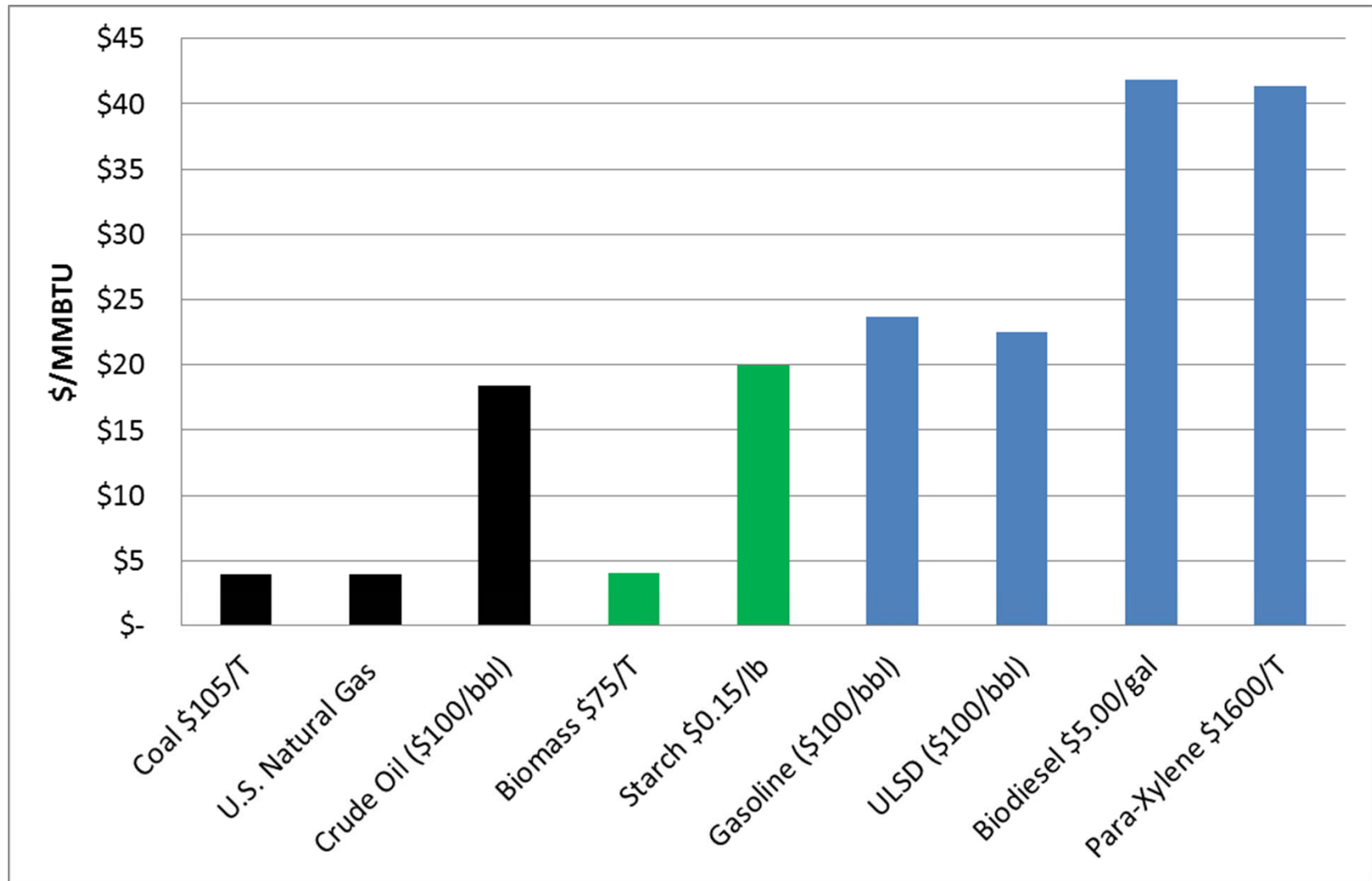
India Liquid Fuel Supply Outlook



USA Agricultural Productivity Advantage 2011/2012



Feedstock Energy Costs – Opportunity to Innovate



Heating Value Data Sources: GREET and Aspen Plus



Supporting the Industry



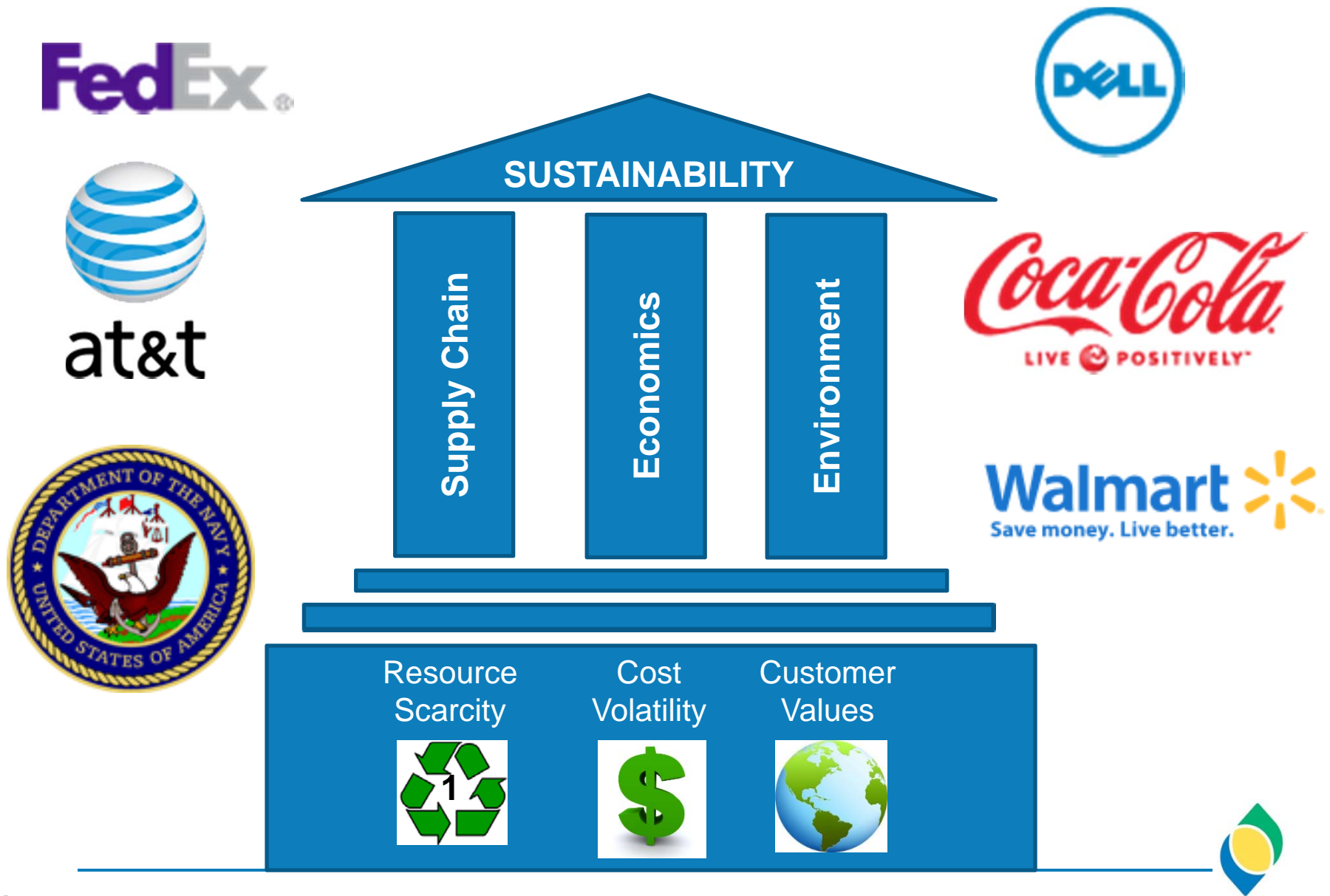
- Stable and secure
- Farmer incentives to participate
- Sugar Availability Outside the Sugar Program

- Bonus Depreciation
 - Section 179C
 - Cellulosic Biofuels
- Investment Tax Credit
- Expansion of MLPs
- Loan Guarantees/Grants

- Stable Market Drivers
 - RFS
 - Section 526
- Market Floor
 - Section 45K
- Long-term Off-take



Leadership in Sustainability



Industry Prospects

- | | |
|--|------------------------------------|
| Meet or Exceed 2012-13 commercial milestones: | Restore investor confidence |
| - Signal risks early, avoid surprises | |
|
 | |
| Distinguish Plant 1 performance and nth Plant: | Set realistic forward plans |
| - Yield | |
| - Scale | |
| - Capital Efficiency | |
|
 | |
| New feedstocks & technologies compete with 1 st Generation: | Upside profits |
| - Cellulosics | |
| - Waste streams | |
|
 | |
| Support long term Policy stability and competition: | We can win! |





Thank you.

Lee Edwards – CEO

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