

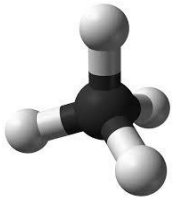
CALYSTA

Food and Energy Security through Sustainable Life Sciences™

ABLC Next 2014
November 10, 2014

Platform Tech Supports 2 Industry Verticals

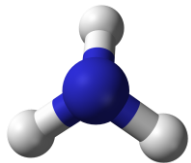
Methane



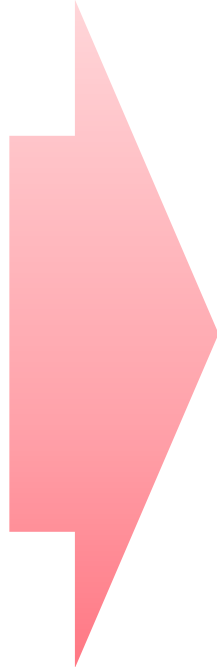
Oxygen



Ammonia



Minerals



Methanotrophs



&

CALYSTA

Technology



Protein

Carbohydrates

Fatty acids

Nutraceuticals

Lactic Acid

Butanediol

Fatty alcohols

Isoprene

N-Butanol

Succinic Acid

and more...

NUTRITION

CHEMICALS/ENERGY

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2014: A Year of Important Achievements

CALYSTA Energy

- Validated lactic acid production from methane with NatureWorks
- DOE grant for fermentation on biogas awarded to NatureWorks

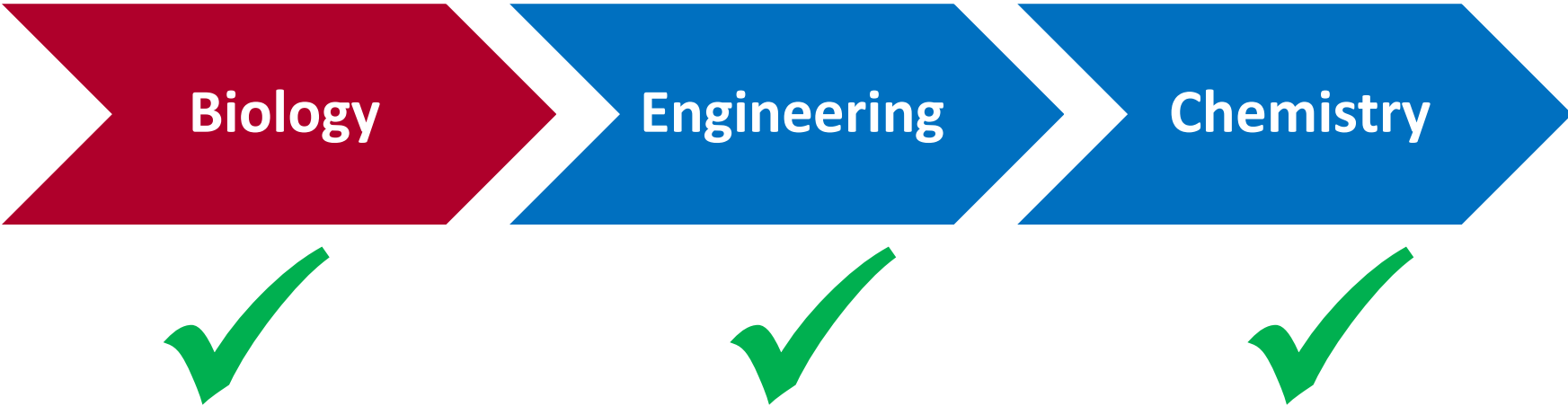
CALYSTA Nutrition

- Acquired BioProtein
- Entered the aquaculture and animal feed industry

Calysta Has All the Pieces for Scale-up

Calysta

BioProtein Acquisition



Moving Towards Commercialization

2015: Break ground on a commercial scale single cell protein plant

2017: Start delivering product to customers

Ongoing efforts:

Develop enhanced products for the animal feed industry

Expand chemicals business to support several high quality partnerships

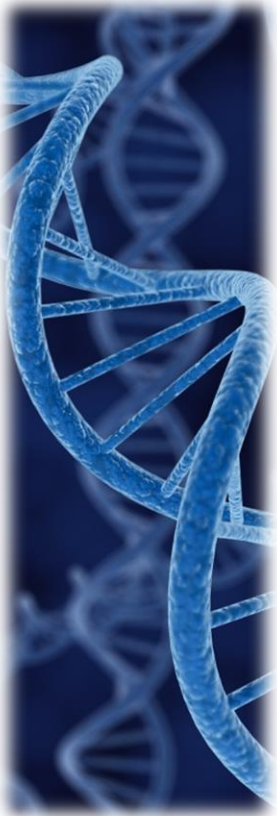


IP and Know-how from the World's Only Commercially Validated Gas Fermenter

- Over \$350M invested by Statoil and DuPont
- Built and operated 300,000 liter fermenter
- Successfully produced over 10,000 tons of single cell protein
- Successfully marketed and sold protein into the aquaculture and animal feed industries in Norway



Calysta is Leading in Gaseous Fermentation



- Licensee of extensive BioGPS™ IP from DNA 2.0
- 14 patent families filed by Calysta covering any fermentation from natural gas to chemicals or feed products
- 7 patent families from BioProtein covering methane fermenter design
- ARPAe funded project on efficient novel bioreactor design
- Acquisition of BioCee high mass transfer reactor design

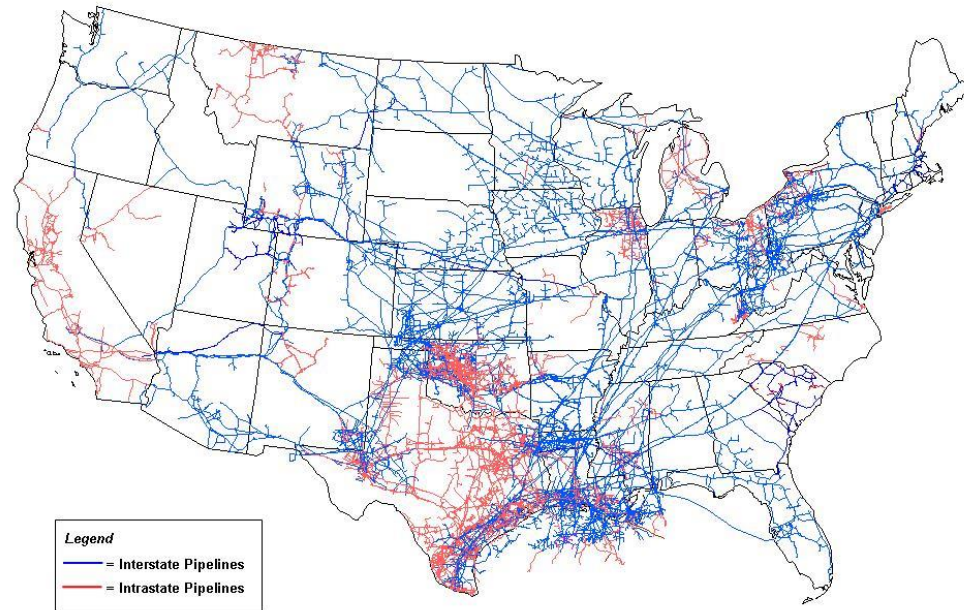
Anaerobic Digestion: Nature's Cellulosic Pre-treatment



- Anaerobic digestion is the original treatment for cellulosic biomass
- Almost all organic matter will emit methane through natural decomposition
- **Renewable Fuel Standard** now recognizes biogas as a cellulosic and advanced fuel pathway

Methane Has Several Key Advantages as a Feedstock

- Homogeneous – methane doesn't vary due to weather or growing conditions
- Transportable – pipeline transport is cheap, reliable, and efficient
- Infrastructure in place – the US has the world's most extensive methane distribution network



Source: Energy Information Administration, Office of Oil & Gas, Natural Gas Division, Gas Transportation Information System

Calysta Continues to Lead with Innovative Uses for Methane

- Calysta's progress in the last year has changed the face of the company
- Fully integrated lab-to-commercial platform
- Commercial plant siting is underway with construction to begin next year

Building a sustainable platform to food, fuels, and chemicals from an abundant resource that does not compete with the human food chain



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