OriginOil™

Single-Step Extraction™

National Algae Association
30 April 2009

A BREAKTHROUGH TECHNOLOGY TO TRANSFORM ALGAE INTO OIL

Safe Harbor Statement

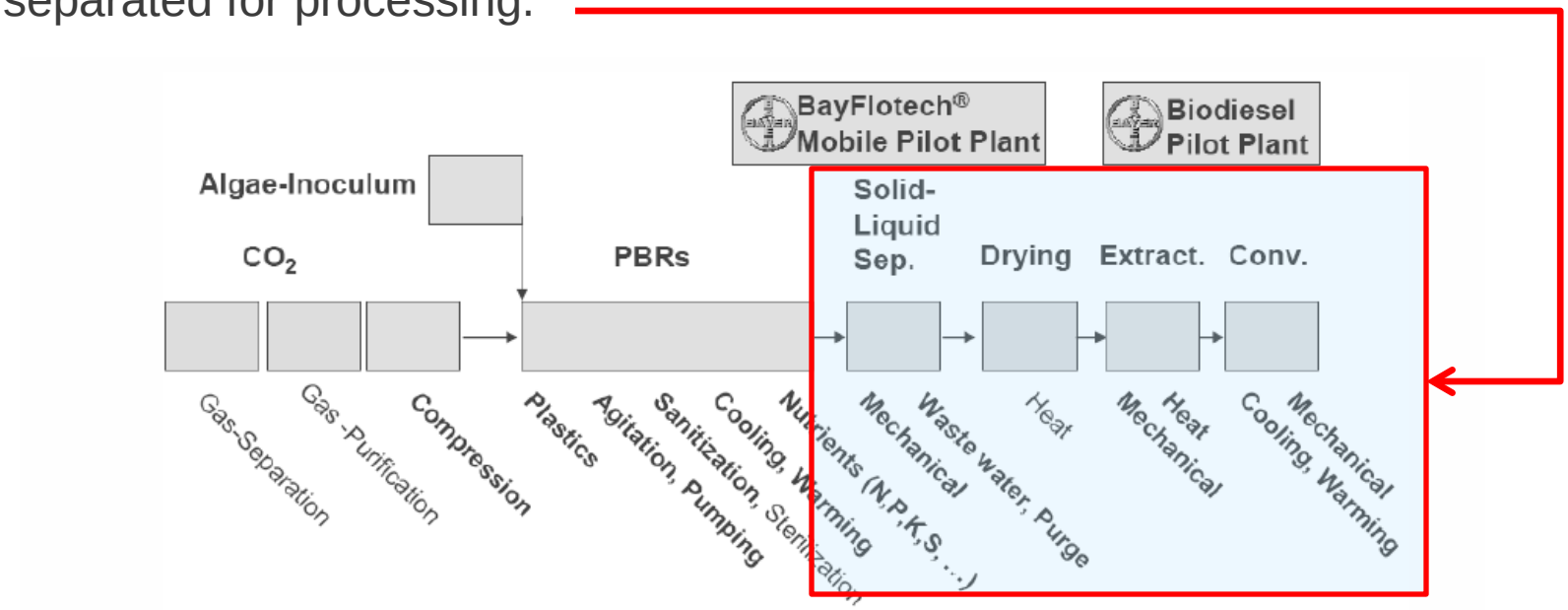
Matters discussed in this presentation contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. When used in this press release, the words "anticipate," "believe," "estimate," "may," "intend," "expect" and similar expressions identify such forward-looking statements. Actual results, performance or achievements could differ materially from those contemplated, expressed or implied by the forward-looking statements contained herein, and while expected, there is no guarantee that we will attain the aforementioned anticipated developmental milestones. These forward-looking statements are based largely on the expectations of the Company and are subject to a number of risks and uncertainties. These include, but are not limited to, risks and uncertainties associated with: the impact of economic, competitive and other factors affecting the Company and its operations, markets, product, and distributor performance, the impact on the national and local economies resulting from terrorist actions, and U.S. actions subsequently; and other factors detailed in reports filed by the Company.

Breakthrough Extraction Announced

- On 20 April 2009, OriginOil announces Single-Step Extraction.
  - Revolutionary simplification of the algae harvesting process.
  - Time-lapse video: in less than an hour, oil, water and biomass separate by gravity alone.
  - No chemicals or heavy machinery used, no initial dewatering required.
  - Filed Patent #7: “Device and Method for Separation, Cell Lysing and Flocculation of Algae From Water.”
  - OriginOil plans to rapidly commercialize process for use by algae producers.

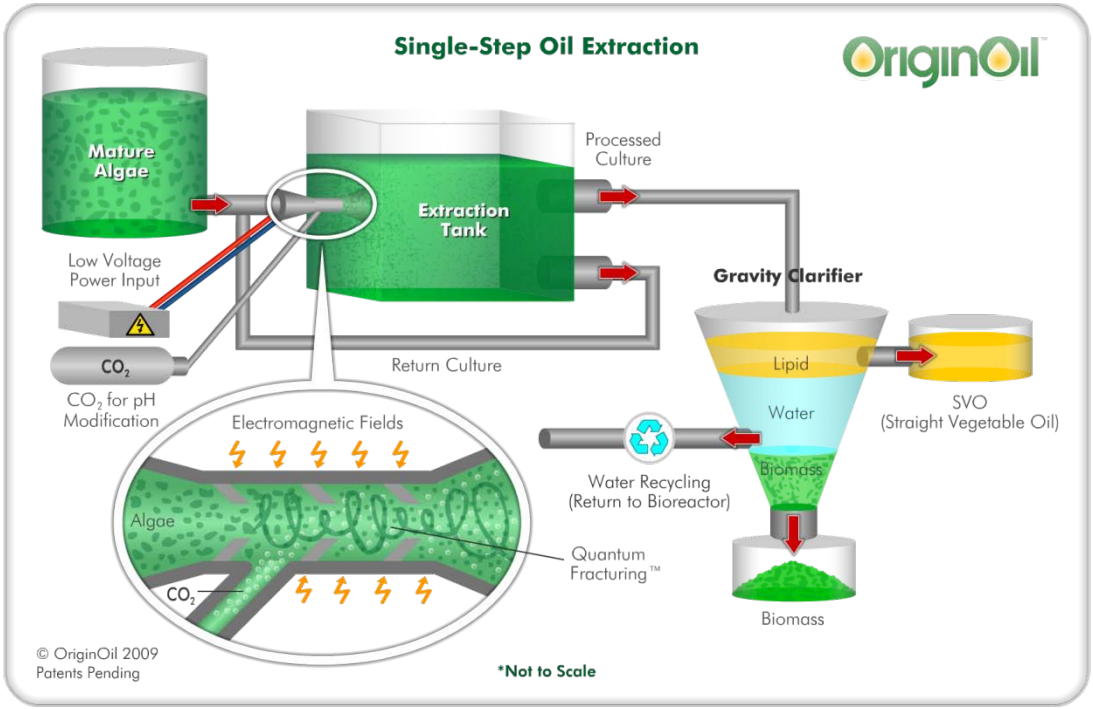
The Extraction Challenge

- Harvesting algae is a challenge. Algae grow suspended in large volumes of water. Once ready for harvest, the algae culture must be concentrated and the oil extracted from the cells. Then, the oil, water and biomass must all be separated for processing.



Source: Bayer Technology Services.

Low Cost Oil Extraction



View the time lapse video

- In one step, Quantum Fracturing™ combines with electromagnetism and pH modification to break down cell walls.
- Algae oil rises to the top for skimming and refining, while the remaining biomass settles to the bottom for further processing as fuel and other valuable products.

Next Steps

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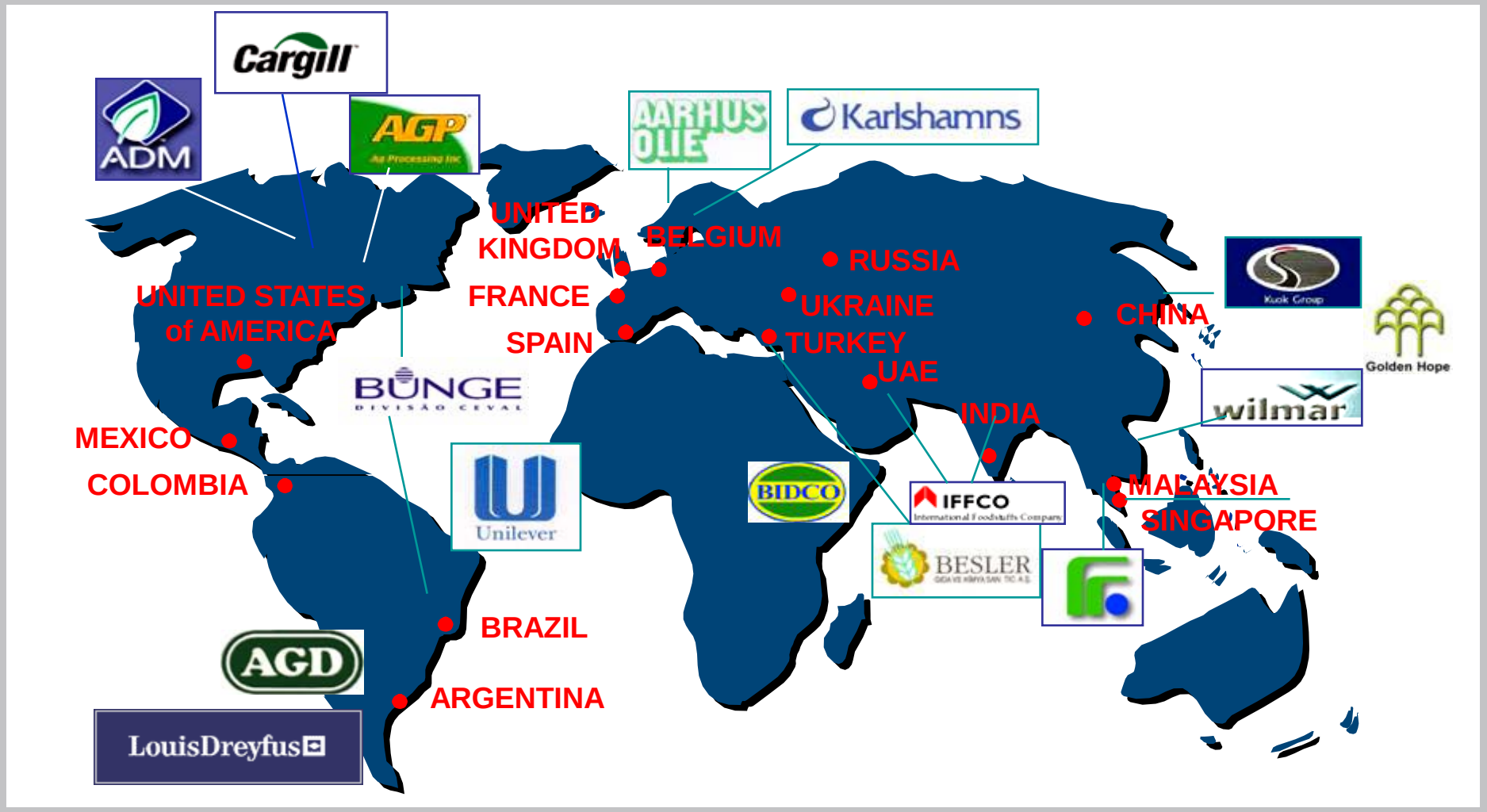
- Desmet Ballestra is…
  - International leader in oil and fats technologies.
  - Pioneer in commercial algal oil extraction.

Desmet Ballestra

Key Facts

- Process equipment/technology provider, specializing in oils & fats market.
- Multi-national privately held company with offices in 17 countries.
- Founded in 1940s in Antwerp, Belgium.
- > $500 million/year equipment sales
- > 1000 people, mostly engineers

Global Reach



Energy Benefit – Initial Finding

- Conventional algae oil extraction with solvents: greatest energy consumption comes from first dewatering and drying dilute wet algal biomass to dry biomass state.
- Single Step Extraction™ allows oil separation from biomass with no dewatering or drying required, which can reduce energy use by as much as 90%, for total energy cost as little as $200 per metric ton of algae oil at full scale production.
- When the spent algal biomass after oil separation can be processed as a wet sludge, for example by utilizing liquid digestion to generate methane, then no energy needs to be expended to dry the spent algal biomass before or after oil separation.

(Industrial price of 7 cents per Kilowatt/Hour of electrical energy is assumed in this model.)

Additional Benefits

- The OriginOil Single Step Extraction™ technology also requires significantly less capital expenditure per ton of oil extracted.
- Conventional oil extraction systems utilizing hydrocarbon and alcohol solvents are rather complex and need to be large in scale to keep the capital cost per ton of oil within reason.
- The OriginOil Single Step Extraction™ technology has much more potential to be economical at more moderate scale.
- Another intangible benefit is that the OriginOil Single Step Extraction™ technology does not require a hydrocarbon solvent, such as hexane, known to require an extensive permitting process before implementation.

Process Costs Reduced or Eliminated

Basic list of unit processes in conventional solvent extraction of algae starting with "green water“:

- **Green water** -> ELECTRO-MECHANICAL DEWATERING -> dewatered algae (70% moisture) + water (returned to algae growing)
- Dewatered algae -> THERMAL DRYING -> dry algae (10% moisture) + water vapor (condensed and returned to algae growing)
- Dry algae -> ELECTRO-MECHANICAL LYSING -> lysed dry algae (cell walls destroyed)
- Lysed dry algae + solvent -> SOLVENT EXTRACTION -> spent biomass (solids with 30% solvent) + miscella (10% oil in solvent solution) + waste air
- Spent biomass -> THERMAL DESOLVENTIZING -> PNEUMATIC COOLING -> **algal biomass meal** (12% moisture) + solvent/water vapor
- Miscella -> THERMAL EVAPORATION -> STEAM STRIPPING -> WATER COOLING -> crude algal oil + solvent/water vapor
- Solvent/water vapor -> CONDENSATION -> DECANTING -> solvent (return to solvent extraction) + waste water
- Waste water -> STRIPPING -> solvent/water vapor + **water effluent to sewer**
- Waste air -> MINERAL OIL ABSORBTION -> solvent/water vapor + **air effluent to atmosphere**
- Crude algal oil -> NEUTRALIZATION -> SILICA ABSORBTION -> THERMAL DRYING -> **algal biodiesel feedstock**

ADDITIONAL REQUIREMENTS

- Steam boiler is required for the thermal & stripping processes
- Cooling tower is required for condensation & water cooling.

More to Come

- Desmet Ballestra and OriginOil are continuing to model the use of OriginOil's Single Step Extraction™ technology in commercial algal oil extraction and expect to announce further details in the months to come.

OriginOil, Inc.

(OTCBB: OOIL)

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