



# Alternative Fuels Intelligence

## Emerging Technologies are Bringing Alternative Fuels to Market

The short supply, volatile price, and environmental impact associated with conventional fuels created opportunity for the first generation of biofuels. However, competition with the food supply forced fuel producers to explore lignocellulosic feedstocks, while favorable economics shift the focus to waste and natural gas feedstocks. Oil and gas companies, agribusiness firms, chemical companies, automakers, and others are capitalizing on this trend today, investing in alternative fuel solutions such as natural gas vehicles, waste-to-fuel, cellulosic ethanol, and gas-to-liquids. To capitalize on the Alternative Fuel opportunity, companies should:

- Identify breakthroughs in feedstock, process, and novel fuel production
- Establish relationships throughout the value chain
- Monitor and exploit geographies with favorable government support and available feedstock
- Explore novel financing mechanisms to bring emerging technologies to market

### Intelligence Access

For more information on how to access the Lux Alternative Fuels Intelligence service, contact your Lux Research account manager, or call +1-888-589-7373 or +1-617-502-5300. Send email to [info@luxresearchinc.com](mailto:info@luxresearchinc.com). Visit us on the web at [www.luxresearchinc.com](http://www.luxresearchinc.com).

### Sample Alternative Fuels Topics

#### Technologies

- Feedstocks:
- Micro- and Macroalgae
  - Lignocellulosic material
  - Energy crops
  - Municipal solid waste (MSW)
  - Natural gas
  - Jatropha, switchgrass, energy cane
- Conversions:
- Pyrolysis, gasification, catalysis
  - Fermentation, synthetic biology
  - Pretreatment, steam explosion, acid hydrolysis
  - Torrefaction

#### Applications

- Fuels:
- Ethanol, gasoline/petrol
  - Butanol, methanol
  - Renewable diesel, biodiesel
  - Biojet
  - Biocoal
  - CNG, LNG
  - Synfuels
  - Biocrude
  - Hydrogen
- End uses:
- Automotive
  - Aviation
  - Industrial processes
  - Co-firing

#### Companies

- Algenol
- CoolPlanet
- Enerkem
- INEOS Bio
- Joule
- LanzaTech
- Novozymes
- Renmatix
- Shell
- Velocys

### Lux Research Difference

The Lux Alternative Fuels Intelligence service is unique because it is:

#### Proprietary

Offers exclusive insights from primary interviews and site visits

#### Opinionated

Makes decisive calls about companies and technologies

#### Unbiased

Obtains objective/independent information and delivers impartial analysis

#### Confidential

Allows clients to secure information about innovators without revealing their identities

#### Cost-effective

Costs far less than expensive consultants or a resource-intensive internal team

# Alternative Fuels Intelligence

## Research Membership Access

Lux Research members get on-demand access to Lux’s analysts, publications, and data across a set of emerging technology domains customized to their needs. Analysts with deep expertise in each domain provide ongoing market intelligence and technology scouting to help executives find new business opportunities and make better decisions.

## Membership Benefits

### Executive Sessions

Lux Research analysts regularly structure and deliver Executive Sessions – typically half-day to full-day onsite interactive meetings, which are a combination of Lux Research presentations and working sessions – that allow clients to tap more deeply into Lux data, methodologies, and insight.

### Member Site

Lux Research’s ongoing series of Company Profiles, Journals, and Market Reports provide a wealth of information. To access these publications and quickly find the information you need, clients can use Lux Research’s Member Site.

### Market Analysis

Lux Research analysts’ deep understanding of the underlying technologies makes them uniquely qualified to provide insightful market analysis of emerging technology areas. Drawing on extensive primary research for technical and market insight, Lux Research helps clients understand market opportunities through:

- Market Reports
- Analyst Insights
- Data Trackers

### Company Profiles

The core of Lux Research’s Intelligence services are our ongoing briefings – analysts select 50 to 125 leading innovators in each emerging technology field and publish primary-research-driven, opinionated, quantitative profiles of these players. These profiles are delivered to clients in email and available online through the Member Site.

### Analyst Inquiries

In addition to accessing Lux Research’s written research in the form of Company Profiles, Journals, and Market Reports, clients can also contact Lux Research analysts, who will quickly answer custom questions based on their ongoing research into emerging technology areas.

### Visualization Tools

#### Lux Innovation Grids

Lux Research collects information and provides analysis on top innovators in emerging technology areas through company briefings. The Lux Innovation Grid uses data and insights from these profiles to compare companies.



#### Spider Charts

Lux Research uses spider charts to show a technology provider’s scorecard, rating the company on 10 critical success factors, and compares it to other companies in the market in which they participate and the broader area of companies in their technology space.



#### Global Offices

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