Low Emission Mobility: Role of Liquid Fuels in Transport

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This is ExxonMobil

Global Integrated Oil & Gas Company

- Largest publicly traded international oil and gas company
- Upstream, downstream and chemicals

ExxonMobil focuses on providing the energy that drives progress and improves lives around the world in an environmentally responsible way

Major investor in technology

- Invest $1bn per year in R&D
- Employ 2,300+ Ph.D. scientists and engineers
- Collaborate with universities, national labs, and other companies – including 18 leading European universities

Innovating across the value chain

Invested $9bn since 2000 to develop and deploy lower-emission energy solutions

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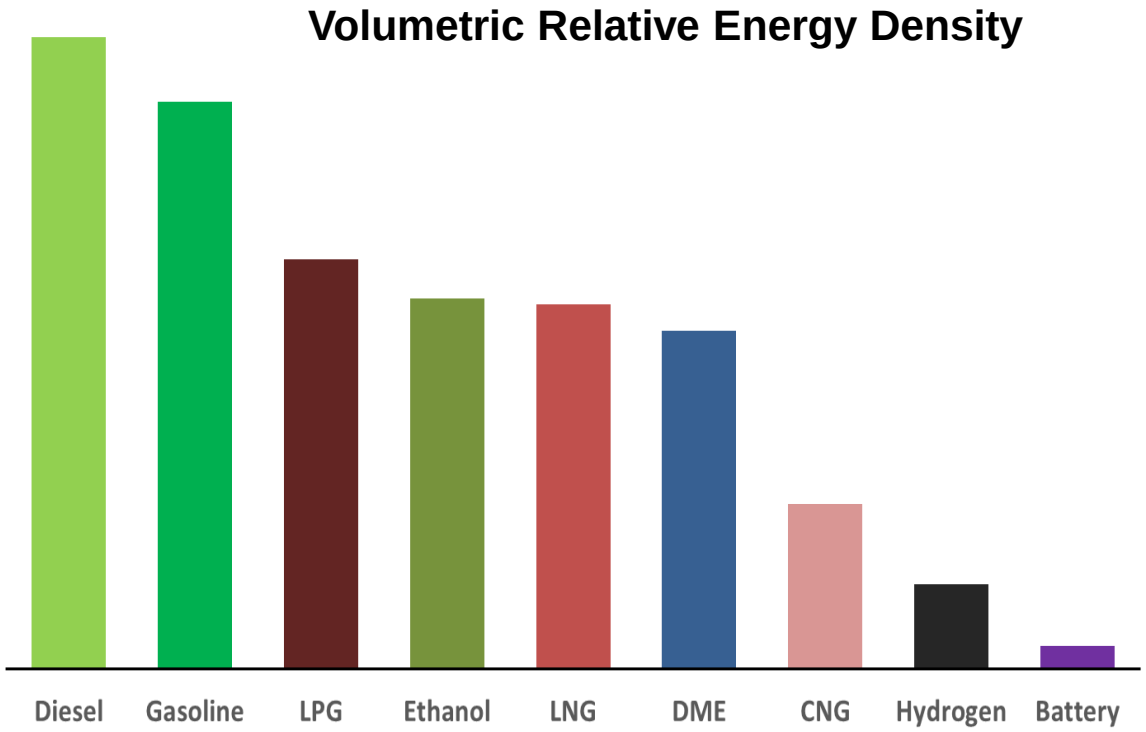
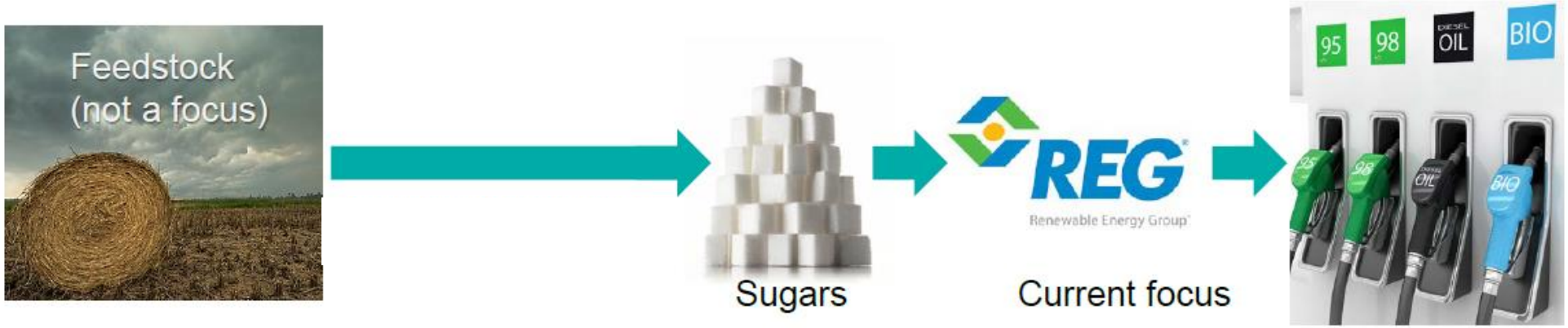
Low carbon liquid transportation fuels

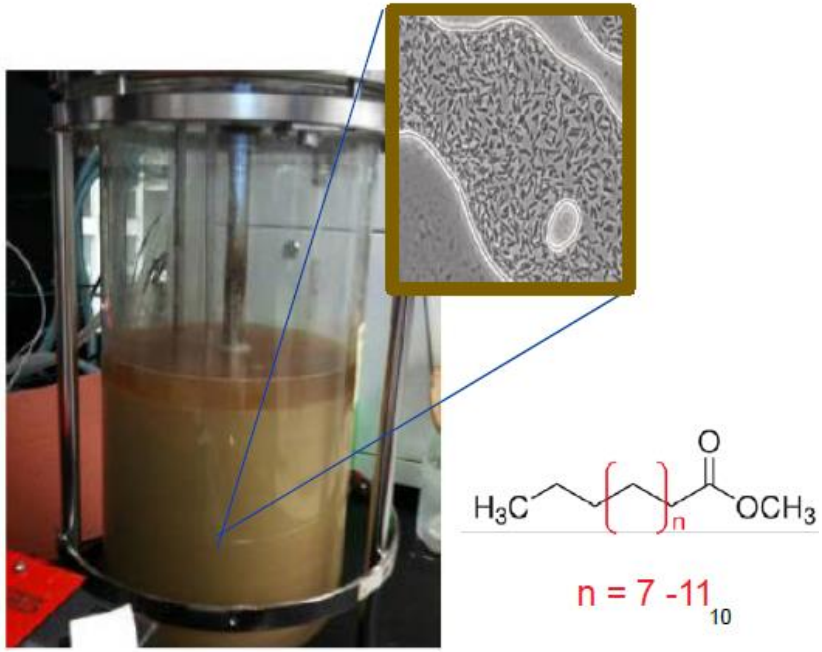
- Liquid fuels offer most affordable and widely available transport energy
- High energy density is fundamental advantage
- Low carbon liquid fuels optimized with more efficient engines offer cost-effective CO_2 reduction
- Several innovative approaches to low carbon liquid fuels



Cellulosic biofuels research with the Renewable Energy Group



- Microbes used to convert cellulosic sugars into biodiesel
- Aerobic bio-conversion process
- Technology capable of achieving substantial reduction of CO_2 compared to petroleum diesel



Algae could be the fuel of tomorrow

Lower-emission fuel

Year-round harvest

High yield

Doesn’t use arable land

Doesn’t impact fresh water supplies

- 2017 breakthrough: modified algae strain to **enhance oil content from 20% to over 40%**
- **Targeting 10,000 barrels per day by 2025**

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