




Biofuels?


 Bad Image?

- 0 Effect on food prices
食物との競合
- 0 Deforestation
森林破壊
- 0 Impact on Local Env.
地域環境への影響

 Image Caused by 1st Gen Biofuels
第一世代のバイオ燃料の影響

 Or What It Is?

- 0 Ethanol
エタノール
- 0 Hydrogen
水素

 These are Options for Automobile
自動車の代替燃料

We discuss Next Gen Jet Fuels
次世代 航空機 燃料

To be a Next Gen Jet Fuels



A jet aircraft flies with Kerosene
(Carbons: 8-16)

ジェット燃料は灯油に似たケロ
シンを利用 (炭素数 8-16)

Paraffin 70-85%, Aromatics <25%

- Suitable for Aircraft
航空機に向いている
- Certificated (Safety is Paramount)
安全であると証明されている
- Stable Supply
安定供給が可能
- Low Cost
低コスト、低価格
- Low Impact on Environment
環境に負荷をかけない

Various Feedstock Possibility

1st Gen

Sugar:
Sugar Cane
Corn

エタノール

Oil Plant:
Palm
Jatropha
Camerina

Inedible
Animal Fat:
Tallow
獣肉、牛脂

Algae

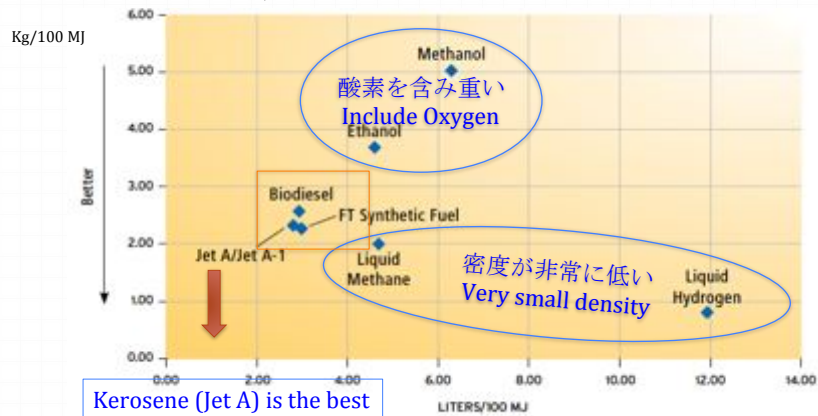
Other Waste
Incl. Waste Gas

Ligneous
Cellulous

ROUNDTABLE ON SUSTAINABLE BIOFUELS (RSB)

Suitable for Aircraft ~Small Mass and Volume

As you prefer light and small bags to carry...
カバンもタンクも軽くて小さい方がいい



できるだけ近いものがよい

https://www.cgabusinessdesk.com/document/5719_Aviation_Addendum_webpdf.pdf

Like Kerosene 近しいものとは



Certificated as Drop-In Fuels

And you don't want your airlines to "try" a new fuel on your flight. Of course the authorities don't allow them to do. And the fuels should be certificated as "Drop-In Fuel" by ASTM so that airlines can fly with it without time-consuming Airworthiness Certification process.

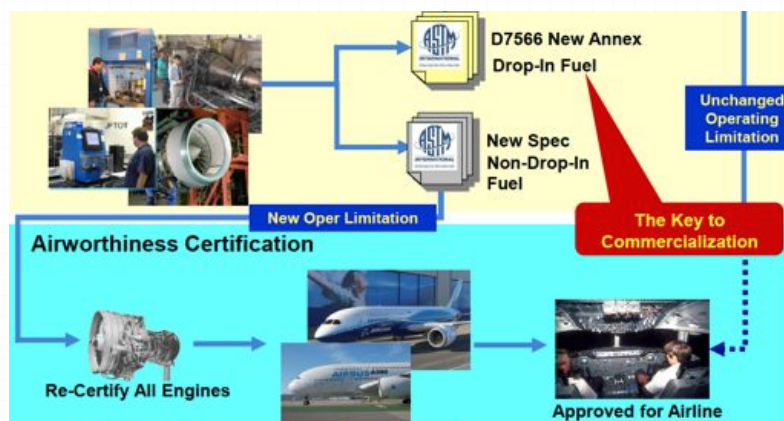
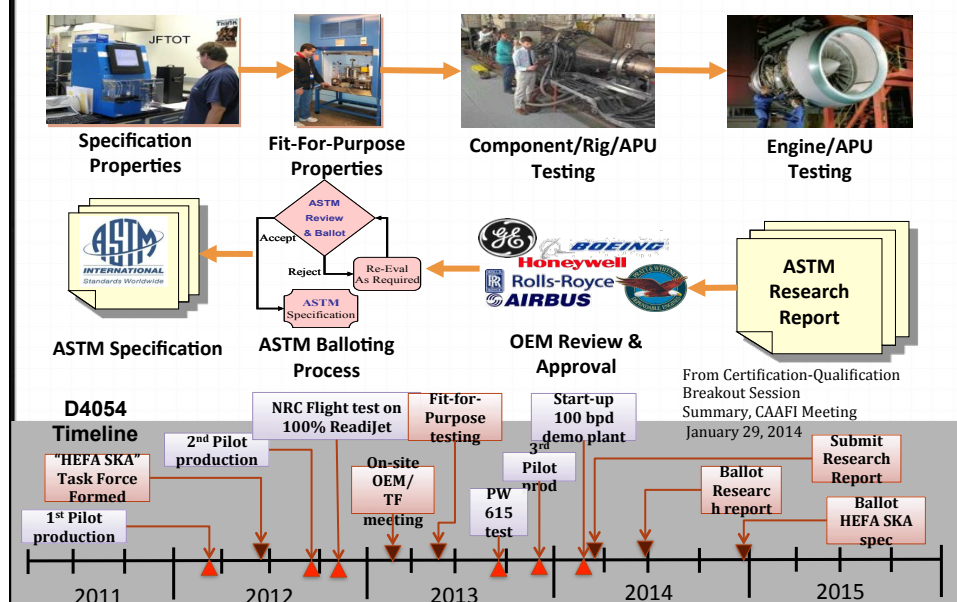
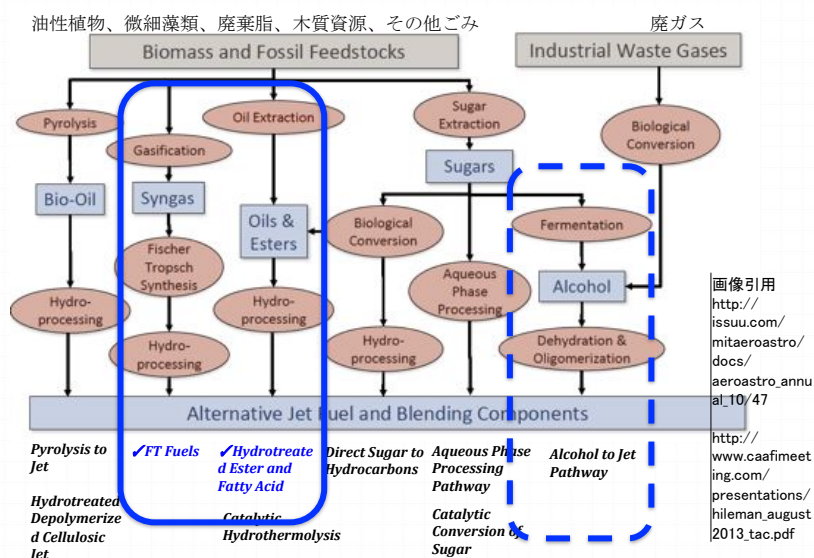


Image is retrieved from From CAAFI Homepage

ASTM Certification



Many Fuel Pathways



To be a Next Gen Jet Fuels

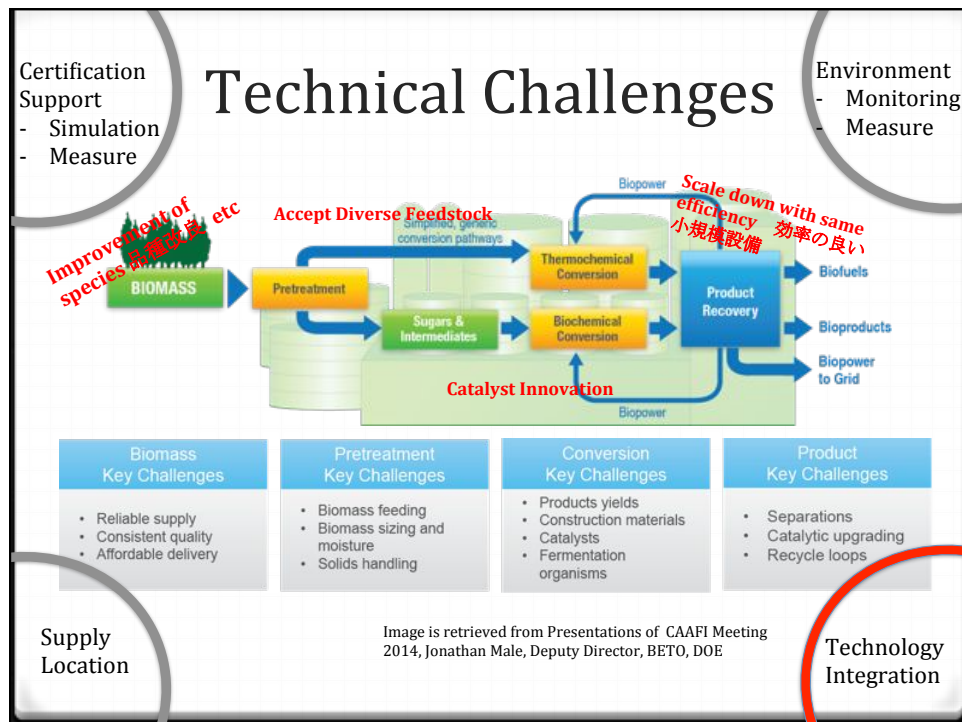


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Let's challenge for 2020 together!