

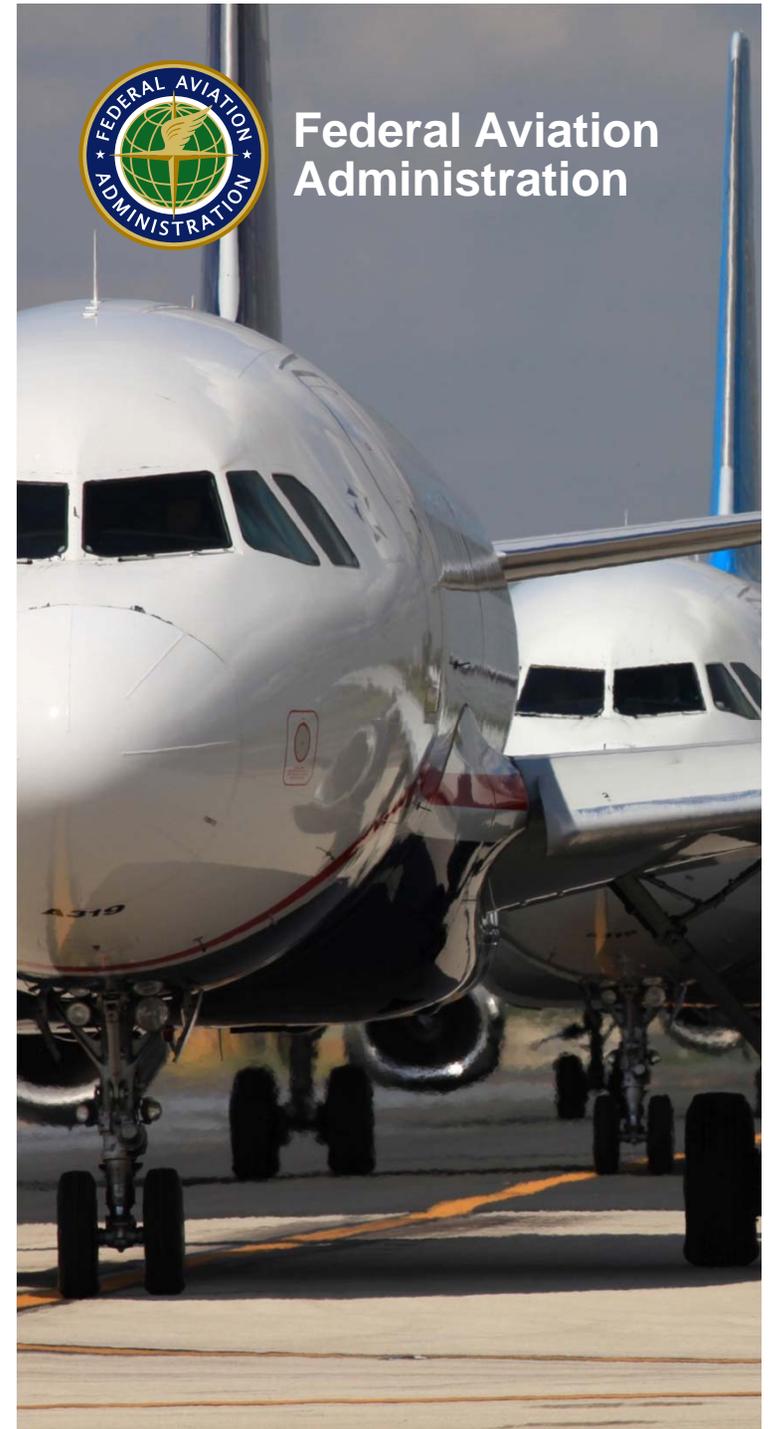
FAA Alternative Jet Fuel Activities

Overview

Presented to: CLEEN Consortium

By: Rhett Jefferies

Date: November 8, 2012

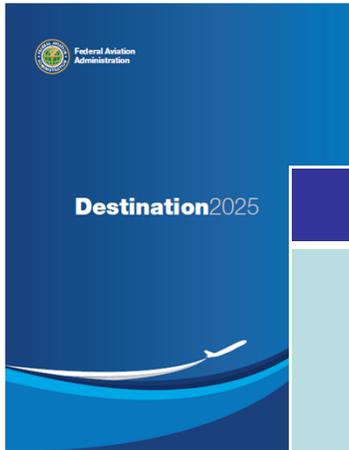


Outline

- **Alt Fuels Relevance to FAA goals**
- **Challenges for Alt Fuels Development**
- **FAA Role & Current FAA Alt Fuels Activities**
- **Near-term Alt Fuels Focus at FAA**
- **Conclusions**



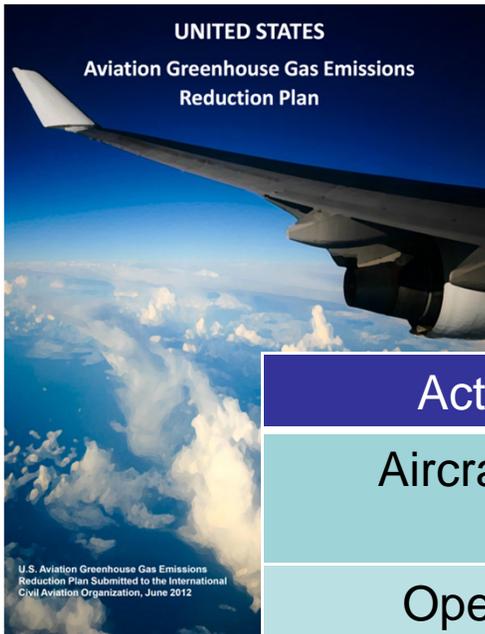
Alt fuels relevance to FAA D2025



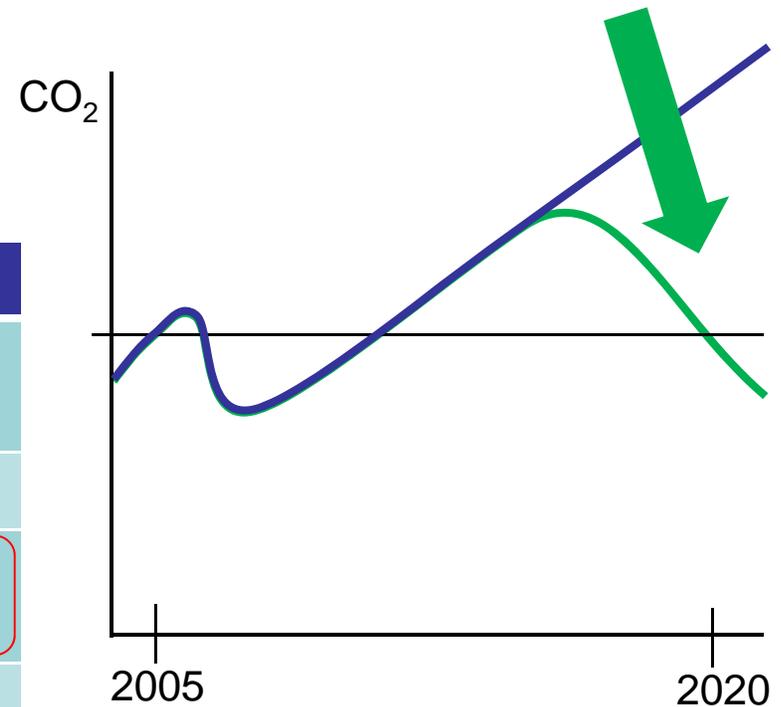
Aspiration	Performance Metrics (2018)
Sustaining our Future	One billion gallons of renewable jet fuel is used by aviation
	Population exposed to significant aircraft noise around airports reduced to less than 300,000.
	Aviation emissions contribute 50% less to significant health impacts and are on a trajectory for carbon neutral growth using a 2005 baseline
	Improve NAS energy efficiency (fuel burned/miles flown) by at least 2% annually



Alt fuels relevance to U.S. Climate Action Plan



- Actions to Reduce GHGs
- Aircraft & Engine Technology Improvement
- Operational Improvements
- Alternative Fuels Development & Deployment
- Policies, Standards & Measures
- Scientific Understanding & Modeling/Analysis



Challenges for Sustainable Alternative Fuels

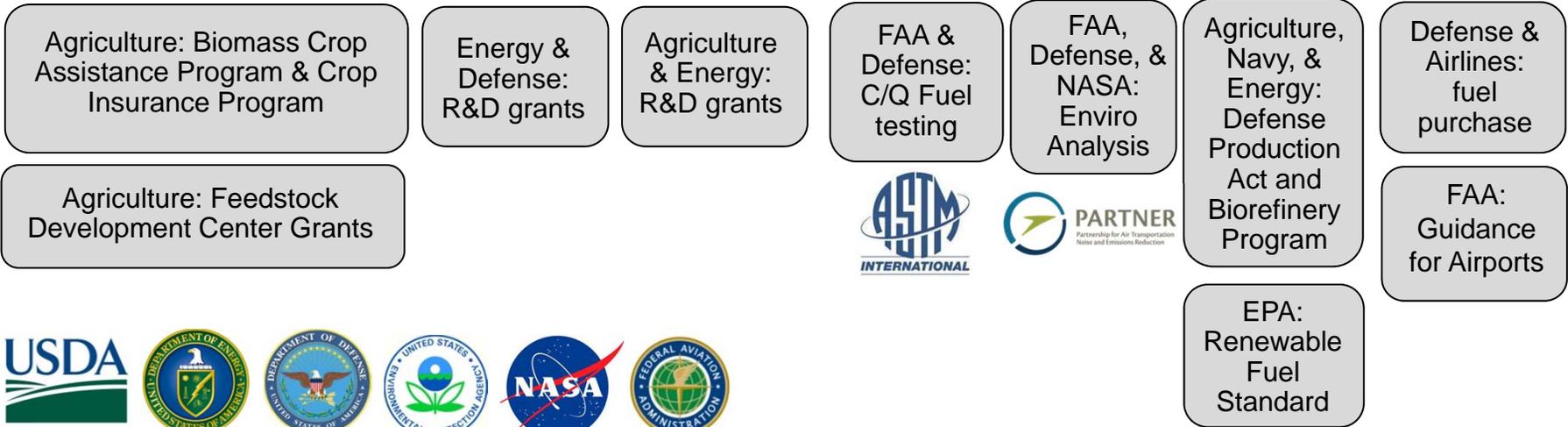
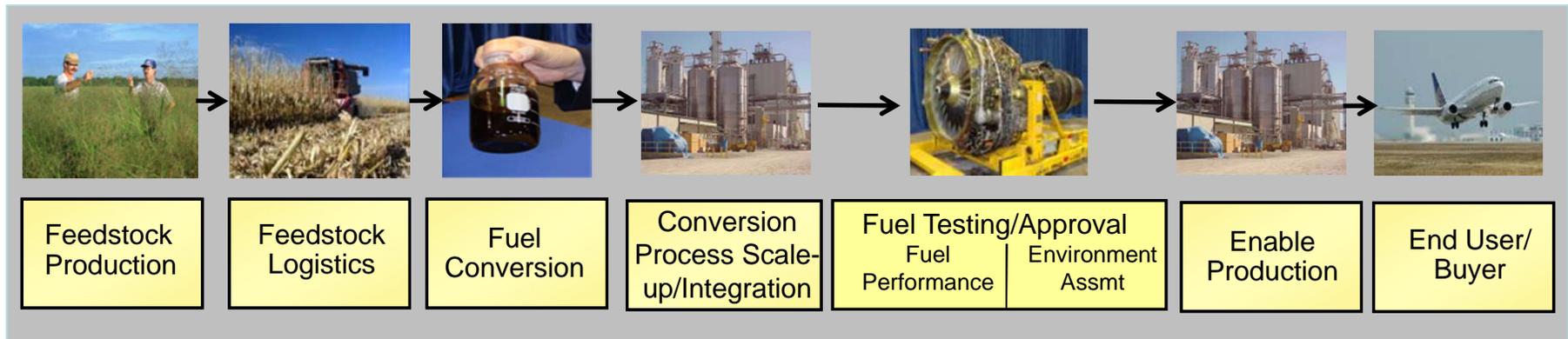
- **Feedstock Availability**
- **Competitive cost for alternative fuel**
- **Approved for performance/safety**
- **Environmentally sustainable**
- **Commercially produced**



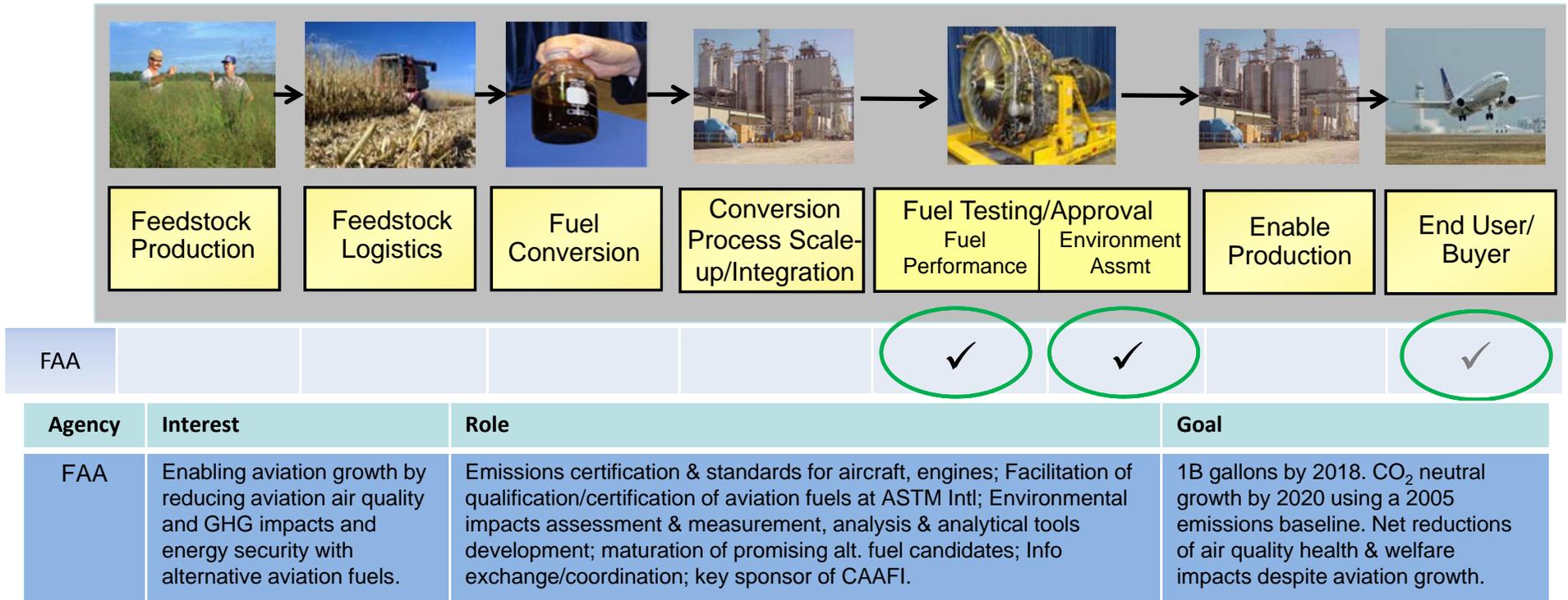
Coordinating USG Efforts across Supply Chain



Facilitating Deployment and Investment



Supply Chain – FAA Role



FAA address key aspects

- Enable government & aviation industry coordination
- Conduct environmental and cost analysis/tools
- Fund Cert/Qualification testing to inform ASTM



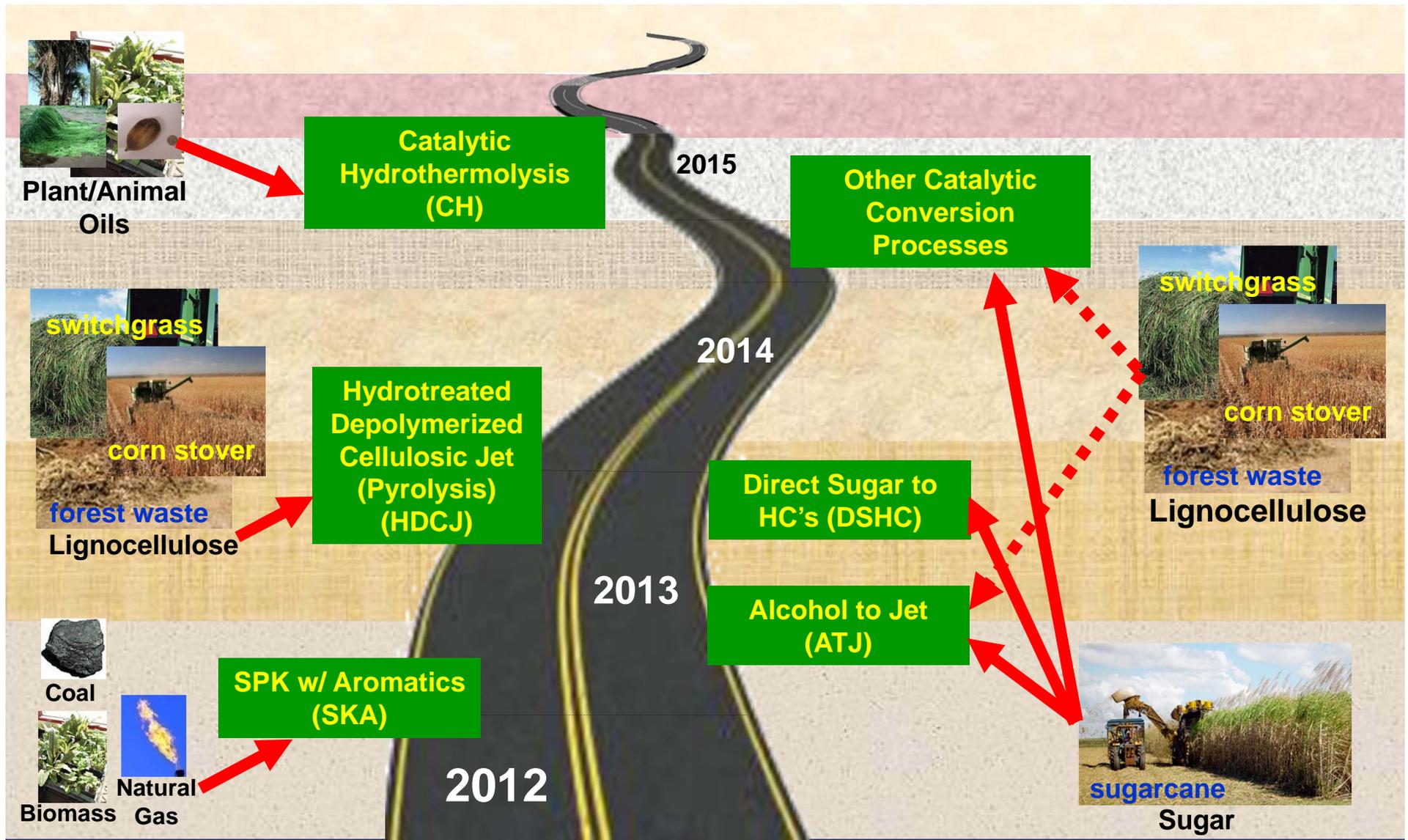
Federal Aviation Administration

Current Alt fuels R&D Activities

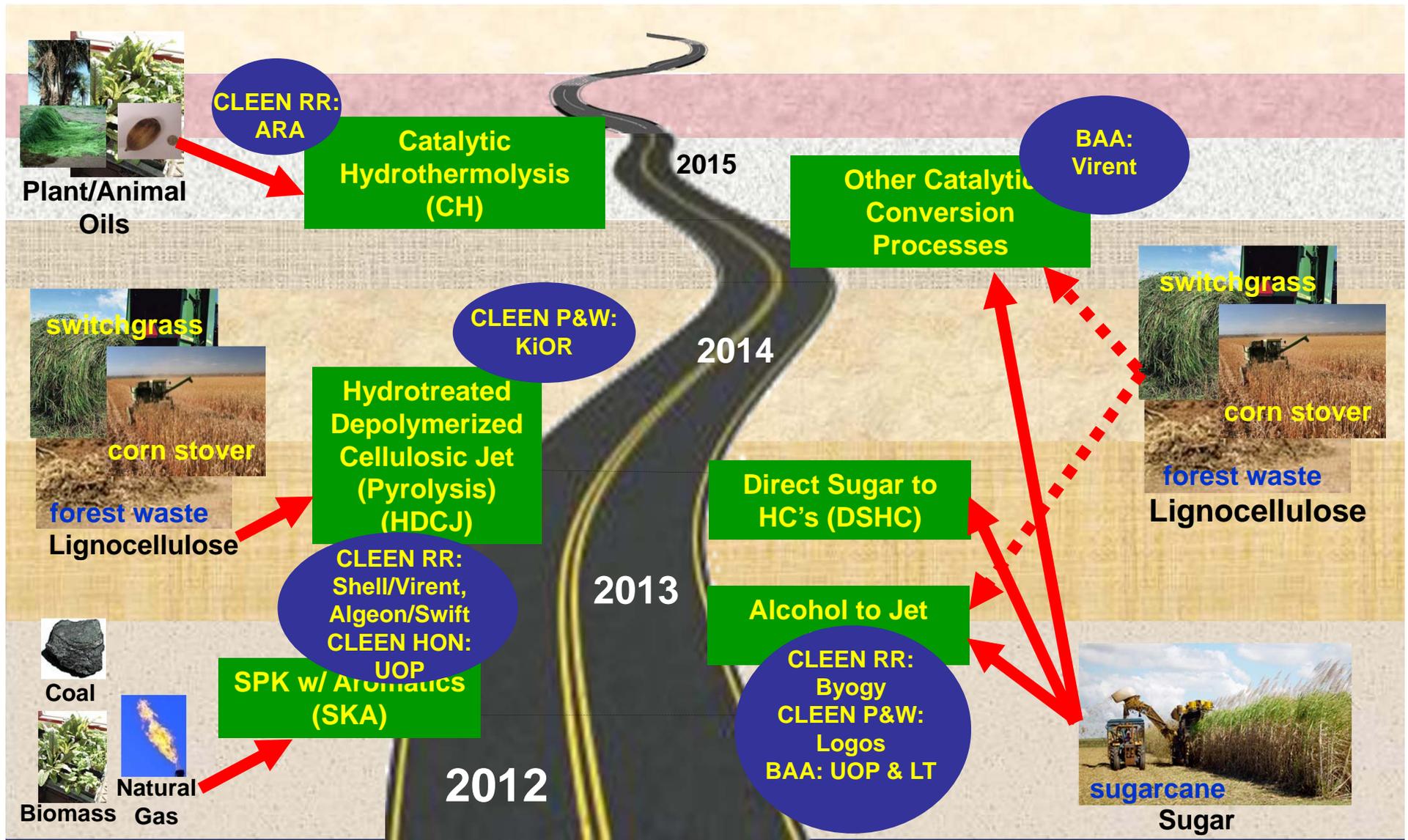
- 20 projects
- Analysis
 - Environmental sustainability
 - Techno-Economic
 - Future scenarios
- Testing
 - Material compatibility
 - Certification/Qualification
 - Emissions
- Coordination
 - Interagency
 - State & Regional
 - International



Example: C/Q Road to Future Alt Fuels



Example: C/Q Road to Future Alt Fuels



Near-term Alt Fuels Focus at FAA

- ***Tracking Use***
- ***Testing***
- ***Analysis***
- ***Policy Measures***
- ***Coordinate Domestic and International Stakeholder Community***
- ***Facilitate Deployment***



Observations

- **FAA & industry leadership in sustainable alt fuels has led to significant successes**
 - ASTM approvals of two alt fuels
 - Drawing focus to aviation
 - Inclusion of alt jet fuels in GREET
 - More interagency coordination & collaboration
 - OEM acceptance of alt fuels
- **Developing an Alt Fuels plan**
 - Focuses on FAA strengths
 - Leverages interagency & international investments

