

# SUSTAINABLE ALTERNATIVE FUELS FOR AVIATION

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PROPOSAL FOR A META-STANDARD  
FRAMEWORK

10 OCTOBER 2017

# SUSTAINABLE ALTERNATIVE FUELS AND CORSIA

- CORSIA aims to offset any annual increase in total GHG emissions from international civil aviation above 2020 levels
- Sustainable alternative fuels (SAF) will serve as an important means to reduce life cycle GHG emissions from aviation
- SAFs will need to meet sustainability criteria to qualify under CORSIA
- High-level sustainability criteria proposed by ICAO in 2013
- ICAO's Alternative Fuels Task Force (AFTF) has been tasked to:  
***“develop recommendations on environmental, social, and economic sustainability criteria for SAFs in the context of their recognition under the CORSIA”***

A sustainability framework for SAFs was proposed by Ecofys in 2016 on request of IATA as input to this discussion ...

# DESIGNING A SUSTAINABILITY FRAMEWORK

*The sustainability framework (or ‘**Meta-standard**’) specifies requirements that SAF producers would need to meet to be recognised by the aviation industry or governments internationally under the CORSIA.*

## Key considerations

- Aims to build on existing sustainability standards
  - Sustainability criteria
  - Compliance mechanism
- Seeks a globally harmonised approach to implementing sustainability requirements
- Allows for a differentiated level of sustainability ambition
  - Mandatory requirements targeted at CORSIA compliance
  - (Additional) Voluntary requirements

# APPROACH TO DEVELOPING A META-STANDARD

1. Identification of 'long-list' of **environmental**, **social** and **economic** sustainability considerations
  - ICAO Resolution A38-18
  - Regulatory standards
  - Voluntary standards
  - Other initiatives
2. Synthesis into Meta-standard sustainability principles and criteria
3. Design of Meta-standard framework
  - Levels of sustainability ambition
  - Options for compliance

# 1. ICAO RESOLUTION A38-18 ON CLIMATE CHANGE

- Published in November 2013 at ICAO 38<sup>th</sup> General Assembly
- The following **environmental** and **social** sustainability criteria are listed:
  - *achieve net **GHG emissions reduction** on a life cycle basis*
  - ***respect the areas of high importance for biodiversity, conservation and benefits for people from ecosystems**, in accordance with international and national regulations; and*
  - ***contribute to local social and economic development, and competition with food and water should be avoided***
- The resolution furthermore calls to:
  - *“adopt measures to ensure the sustainability of alternative fuels for aviation, **building on existing approaches or combination of approaches**, and monitor, at a national level, the sustainability of the production of alternative fuels for aviation.”*

# 1. STANDARDS AND FRAMEWORKS ALREADY EXIST

## Regulatory standards



EU RED  
US RFS2  
ISPO  
UK RTFO  
etc.

## Voluntary standards



2BS  
ISCC  
RSB  
RSPO  
etc.

## Other global standards




aireg  
EN 16214  
GBEP  
ISO 13065  
etc.

Many established sustainability standards and frameworks operate in the market

# 1. AIREG (THE AVIATION INITIATIVE FOR RENEWABLE ENERGY IN GERMANY E.V.)

- aireg's objective is to promote the development and use of SAFs
- aireg published a “Meta-standard” for SAFs in 2015
- 10 existing voluntary standards were benchmarked against the Meta-standard to determine their overall level of compliance:
  - RSB: 92%
  - RSPO-RED: 88%
  - ISCC: 80%
  - RTRS: 69%
- Benchmark aims to provide a transparent guide to the aviation industry on the relative differences in sustainability ambition between the standards
  - Not intended that SAF suppliers are certified to the aireg Meta-standard, or use it to fulfil regulatory requirements

## 2. SUSTAINABILITY COVERAGE VARIES ACROSS STANDARDS AND INITIATIVES



Sustainability criteria	Regulatory standards			Voluntary standards	Other standards
	EU RED	US RFS2	UK RTFO	RSB	aireg
Economic					
Social	EC reporting	EPA reporting			
Biodiversity conservation, Soil, Air & Water protection	EC reporting	EPA reporting			
Land conversion restrictions (Biodiversity & Carbon stock)					
GHG savings					



## 2. META-STANDARD INCLUDES ENVIRONMENTAL AND SOCIAL PRINCIPLES AND CRITERIA

Legality

GHG emission savings

Land conversion restrictions

- Carbon stock
- Biodiversity

**Environmental**

- Biodiversity conservation
- Soil conservation
- Sustainable water use
- Air quality

Responsible use of  
chemicals, wastes and by-  
products

**Social**

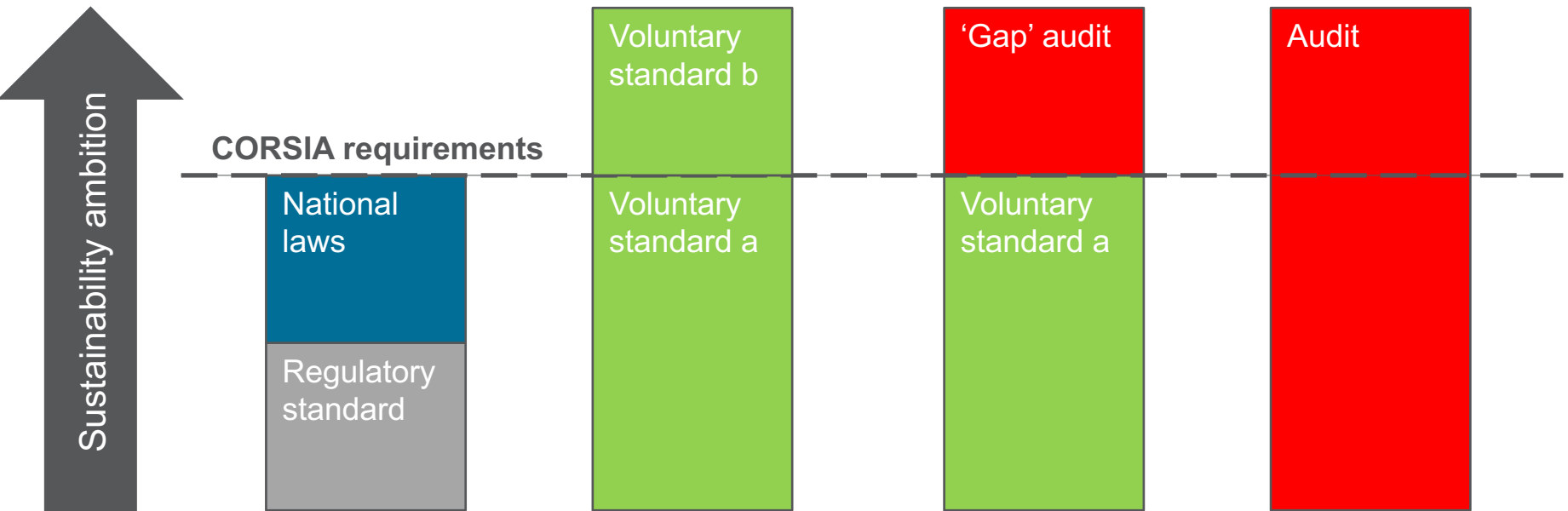
- Land and Water rights & community engagement
- Human rights and Labour rights
- Rural, Social and Economic development
- Local food security

### 3. THREE LEVELS OF SUSTAINABILITY PROPOSED

Sustainability level	Compliance level	Criteria covered (Ecofys proposal)
<i>Sustainable Jet Fuel</i>	Mandatory (CORSIA compliance)	<ul style="list-style-type: none"> <li>- Legality</li> <li>- GHG emission savings (<u>no</u> threshold)</li> <li>- Carbon stock conservation</li> <li>- Biodiversity conservation*</li> <li>- Soil conservation</li> <li>- Sustainable water use</li> <li>- Air quality</li> <li>- Responsible use of chemicals and management of waste*</li> </ul> <p>* Option to 'phase-in' specified criteria</p>
<i>Sustainable Jet Fuel <b>Plus</b></i>	Voluntary	<p>Plus:</p> <ul style="list-style-type: none"> <li>- Min. 35% GHG emission savings</li> <li>- Land and Water rights and Community engagement</li> <li>- Human rights and Labour rights</li> <li>- Local food security</li> </ul>
<i>Sustainable Jet Fuel <b>Premium</b></i>	Voluntary	<p>Plus:</p> <ul style="list-style-type: none"> <li>- Min. 60% GHG emission savings</li> <li>- Rural, Social and Economic development</li> <li>- Indirect land use change mitigation <i>or</i></li> <li>- Restoration of degraded or heavily contaminated land</li> </ul>

### 3. AIRLINES COULD USE EXISTING INITIATIVES TO DEMONSTRATE COMPLIANCE

- Airlines could demonstrate compliance against the Meta-standard through use of:
  - Regulatory standards and/or national laws
  - Voluntary standards
  - Independent ('gap') audits against some/all of the specific requirements of the Meta-standard



# MAKING THE META-STANDARD A REALITY

- Proposed Meta-standard concept is already well developed
- Key next steps are to:
  - Agree specific Meta-standard requirements (principles and criteria)
  - Benchmark standards/national laws against these requirements
  - [Designate an owner for Meta-standard set-up and on-going administration]
- Process needs to be actioned in the short-term in order to meet CORSIA implementation by 2019

# FURTHER INFORMATION – PLEASE VISIT [WWW.ECOFYS.COM](http://WWW.ECOFYS.COM)



Roadmap for a Meta-standard for  
sustainable alternative jet fuels  
Final report



Assessment of sustainability  
standards for biojet fuel  
Final report





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