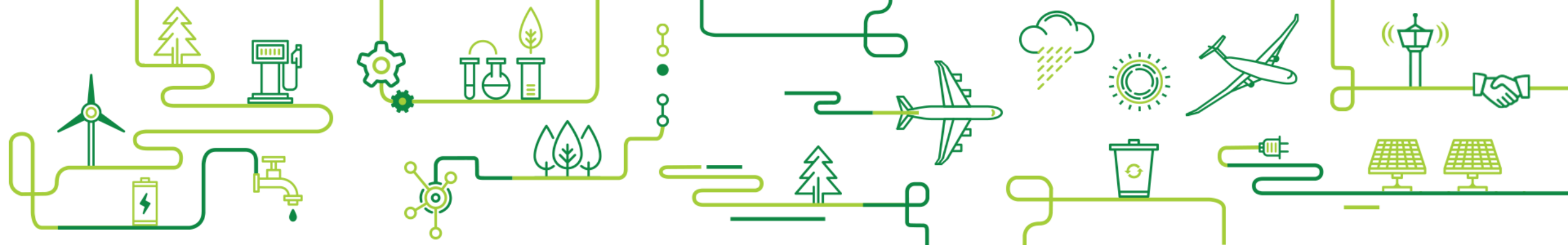




# AVIATION CO<sub>2</sub> REDUCTIONS

ONLINE STOCKTAKING  
PREVIEW

28 APRIL 2020



# Objectives of the ICAO Stocktaking process, Stocktaking Seminar and Online Stocktaking Preview

**Jane Hupe**

Deputy Director, Environment, Air Transport Bureau  
International Civil Aviation Organization



# Online Stocktaking Preview Agenda

Time in EDT (Montreal time)	Session Title
<b>09.00 – 09.20</b>	<b>Introduction</b> <ul style="list-style-type: none"><li>• Jane Hupe (ICAO) - <i>Objectives of the ICAO Stocktaking process, face-to-face Seminar in September and this online Stocktaking Preview</i></li></ul>
<b>09.20 – 09.40</b>	<b>Setting the scene</b> <ul style="list-style-type: none"><li>• Neil Dickson (ICAO) - <i>Aviation in-sector CO<sub>2</sub> emissions reductions: Trends and achievements</i></li></ul>
<b>09.40 – 10.20</b>	<b>Climate change and aviation</b> <ul style="list-style-type: none"><li>• Damon Matthews (Concordia University, IPCC) - <i>The current state of knowledge on climate change</i></li><li>• David Lee (MMU) - <i>CO<sub>2</sub> impacts of aviation</i></li></ul>
<b>10.20 – 10.30</b>	<b>Break</b>
<b>10.30 – 11.20</b>	<b>Reducing aviation CO<sub>2</sub> emissions - Challenges and solutions</b> <ul style="list-style-type: none"><li>• Neil Dickson (ICAO) - <i>Reductions from technologies, fuels and operations</i></li><li>• Toshimasa Masuyama and Francisco Boshell (IRENA) - <i>Opportunities for renewable energies</i></li><li>• Jacob Teter (IEA) - <i>Transition towards clean energies: global overview &amp; opportunities for aviation</i></li></ul>
<b>11.30 – 12.00</b>	<b>The Stocktaking Seminar and the next steps</b> <ul style="list-style-type: none"><li>• Jane Hupe (ICAO) - <i>The Stocktaking process, a key for aviation's work on a Long Term Aspirational Goal</i></li></ul>



# Vision

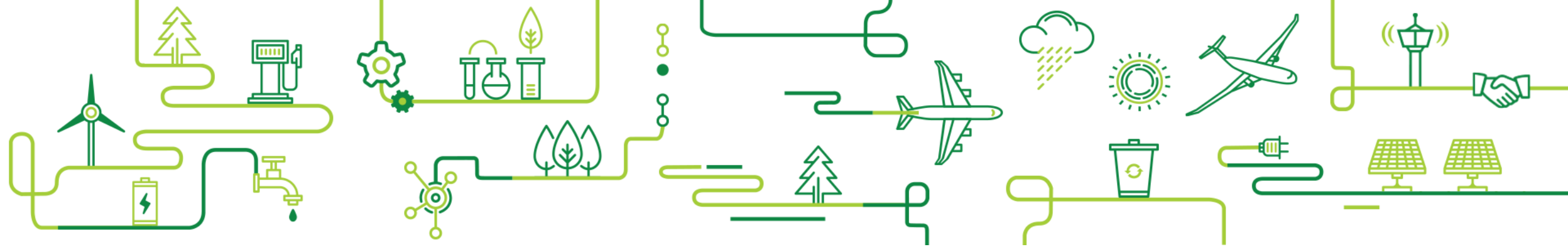
**Achieve the sustainable growth of the global civil aviation system.**

# Mission

**To serve as the global forum of States for international civil aviation.**

## ICAO Strategic Objectives:

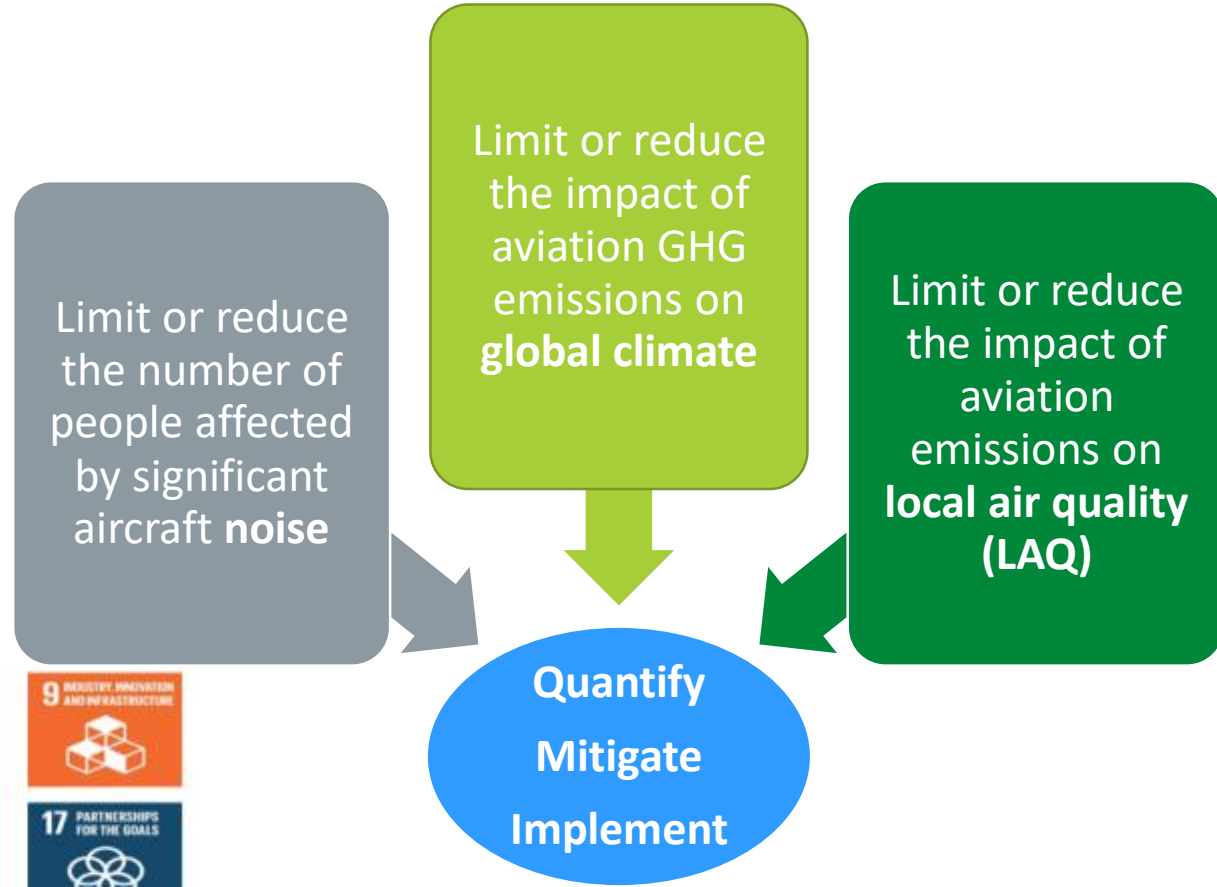
Safety	Security & Facilitation	<b>Environmental Protection</b>	Air Navigation Capacity and Efficiency	Economic Development of Air Transport
--------	-------------------------	---------------------------------	--	---------------------------------------

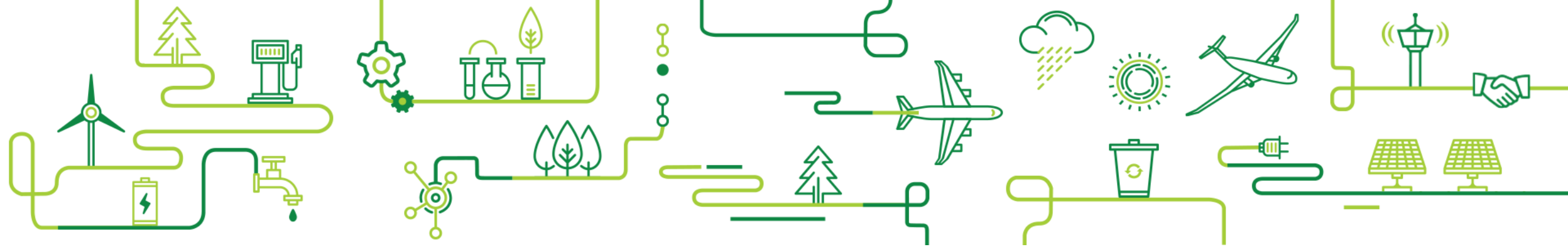


**ICAO Environmental Goals**

**ICAO Strategic Objective  
Environmental Protection:**

**Minimize the adverse effect  
of global civil aviation on  
the environment**





# ICAO GLOBAL ASPIRATIONAL GOALS



# ICAO Stocktaking Process – Main Goals

- “Take stock” of Member States’ and stakeholders’ progress on aviation **in-sector CO<sub>2</sub> emissions reductions**
  - Collecting data on:

## Technology



## Operations



## Sustainable Aviation Fuels (SAF)



- Support the work on the feasibility of a long-term global aspirational goal for international aviation





# Three “in-sector reduction streams” aligned with the Global Coalition for Sustainable Aviation

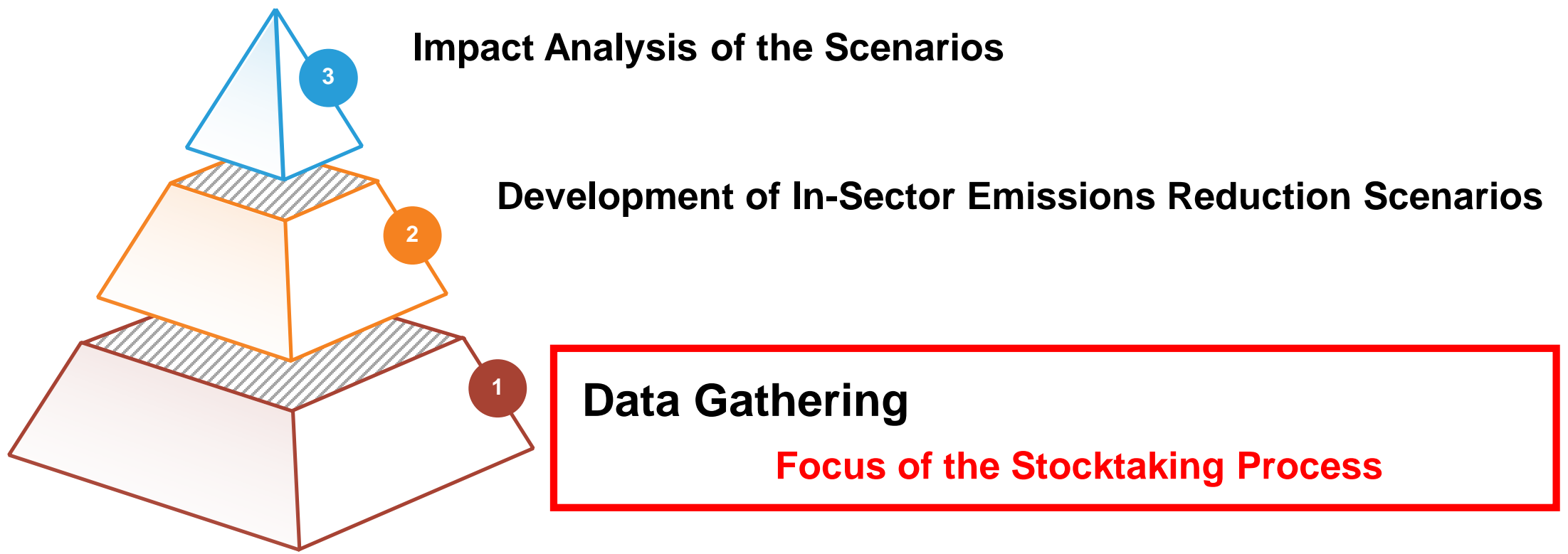


Progress on in-sector aviation CO<sub>2</sub> emissions reduction initiatives is continuously monitored through the Tracker tool



# — ICAO Stocktaking Process

Interactions with ICAO work on the feasibility of a long-term global aspirational goal for international aviation



# Stocktaking Process



## Questionnaires

Open invitation



## Connection

Seminars and workshops



## Coordination

Hundreds of stakeholders contributing

# LTAG work



## 1 - Data Gathering



## 2 – Scenarios Development



## 3 – Final Analysis

# The ICAO Stocktaking Process

- Information provided by States and International Organizations at the **Stocktaking Seminars**
- Submissions of ICAO Stocktaking **Questionnaires**
- Publicly available information

Past	Current	Next
<b>First ICAO Stocktaking Seminar (Sustainable Aviation Fuels)</b> 30 April – 1 May 2019	<b>Online Stocktaking Preview</b> 28 April 2020	<b>ICAO Stocktaking Seminar</b> 8 – 10 September 2020



# ICAO Stocktaking Process

## First ICAO Stocktaking Seminar toward the 2050 Vision for Sustainable Aviation Fuels (SAF) – Background

ICAO STOCKTAKING SEMINAR  
TOWARD THE 2050 VISION FOR  
SUSTAINABLE AVIATION FUELS

ICAO Headquarters, Montréal | 30 April - 1 May 2019

LEARN MORE

#SustainableFuels



### Outcomes:

- Policies/regulatory frameworks
  - International collaboration for SAF certification
- Financing
  - Need to ensure flexibility and lower capital risk
- Assistance
  - Technical and financial assistance could trigger initiatives
- Outreach:
  - clarify misconceptions, communicate in a simple manner, showcase SAF progress

### Objectives:

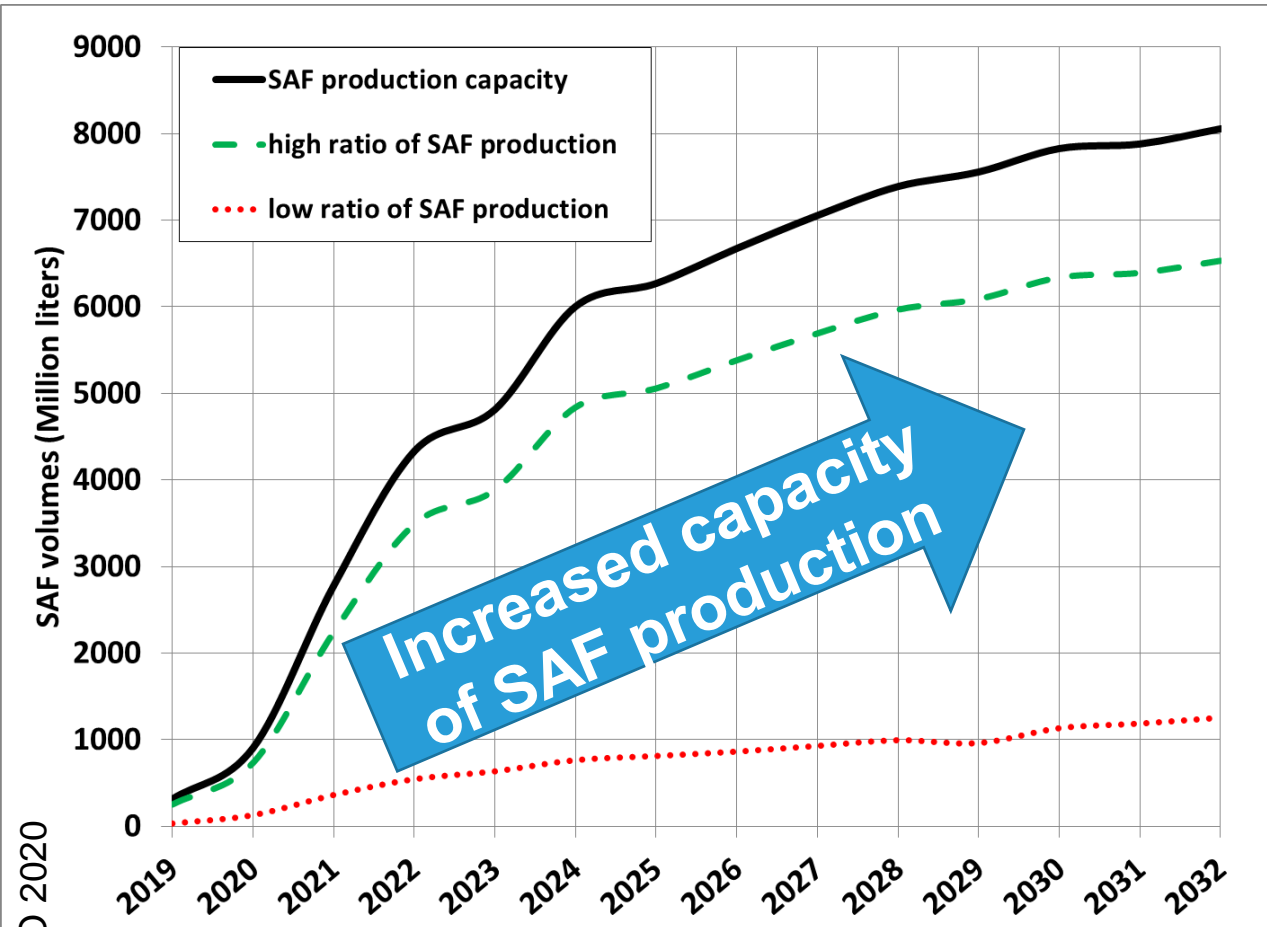
Collect data on SAF

Aggregate data on SAF

Assess progress on SAF

# ICAO Stocktaking Process

## First ICAO Stocktaking Seminar toward the 2050 Vision for Sustainable Aviation Fuels (SAF) – Background

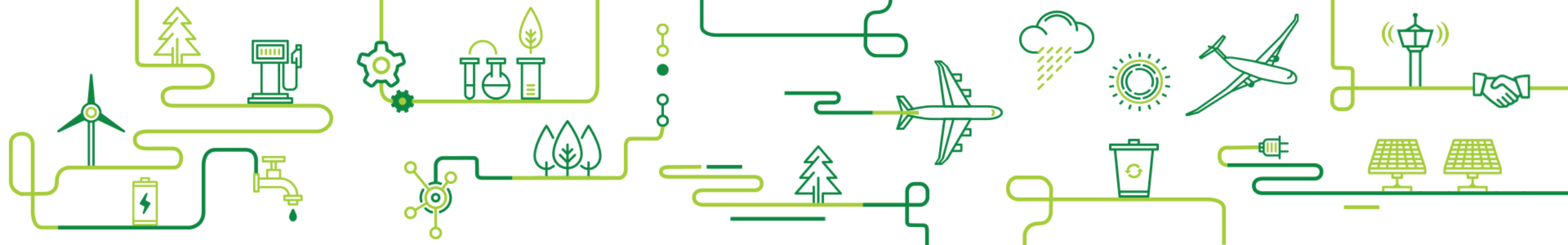


### Results:

Looking to the future - capacity for SAF production will continue to increase

But one major uncertainty exists:

**What will the share of SAF production be compared to other fuels?**



## The ICAO Stocktaking Process continues

### The First ICAO Stocktaking Seminar:

- Provided a detailed update on the progress of **sustainable aviation fuels**
- Integrated knowledge from a **range of experts** from across disciplines
- Relevant results obtained

### Expanded Scope – All In-Sector CO<sub>2</sub> Emissions:



**Technologies**



**Operations**



**Sustainable Aviation Fuels**

# ICAO Stocktaking Process

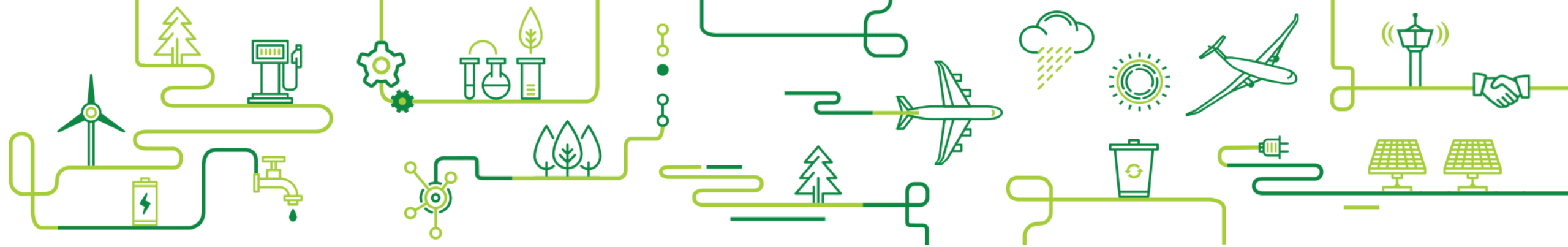
## First Step – Online Stocktaking Preview

### Aim:

- **Foster participation** in the Stocktaking Process
- **Set the scene** for the face-to-face event in September
- **Share knowledge** on:
  - *The current state of knowledge on climate change:* **Damon Matthews**, Concordia University, Canada. Contributing author to IPCC Working Group I.
  - *CO<sub>2</sub> impacts of aviation:* **David Lee**, Prof. Atmospheric Science and Director, Centre for Aviation, Transport, and the Environment (CATE), Manchester Metropolitan University, UK
  - *Reductions from technologies, fuels and operations:* **Neil Dickson**, Chief, Environmental Standards Section, ICAO Secretariat
  - *Opportunities for renewable energies:* **Toshimasa Masuyama**, Bioenergy Analyst, and **Francisco Boshell**, Analyst in Markets and Standards, International Renewable Energy Agency (IRENA)
  - *Transition towards clean energies: global overview & opportunities for aviation:* **Jacob Teter**, Energy and transport Analyst, International Energy Agency (IEA)







## NEXT: Stocktaking Seminar on aviation in-sector CO<sub>2</sub> emissions reductions

Open  
dialogue

Quantify  
sector  
emissions

Take  
stock of  
CO<sub>2</sub>

ICAO Headquarters  
Montréal, Canada  
**8 to 10 September 2020**

Support long  
term  
approaches

Network

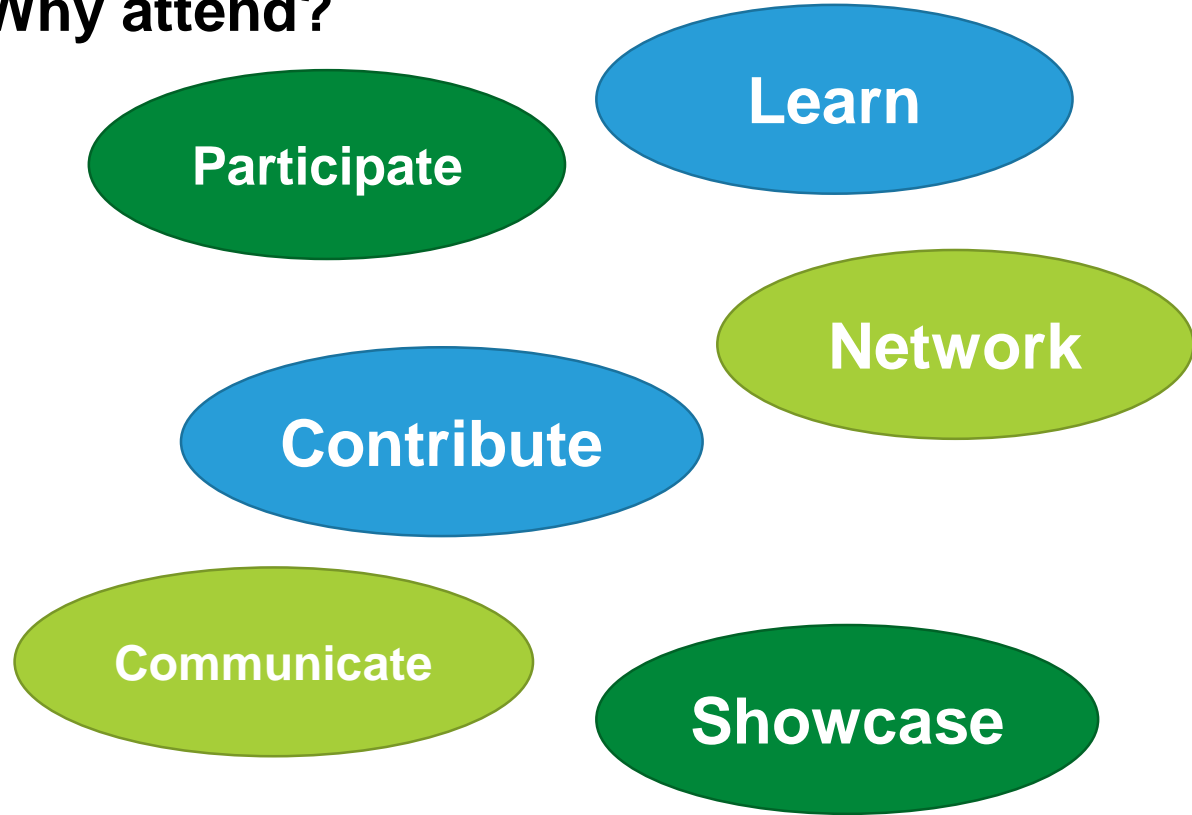
Explore  
feasibility

Understand  
obstacles



# 2020 ICAO Stocktaking Seminar

## Why attend?



## Who will attend ?

- Policy and decision makers from ICAO Member States,
- Airlines, airports, fuel producers, manufacturers, environmental groups, energy companies, financial groups, aviation marketing agents, and other organizations,
- Technical experts and researchers from the entire fuel supply chain, and
- Additional interested parties and individuals.

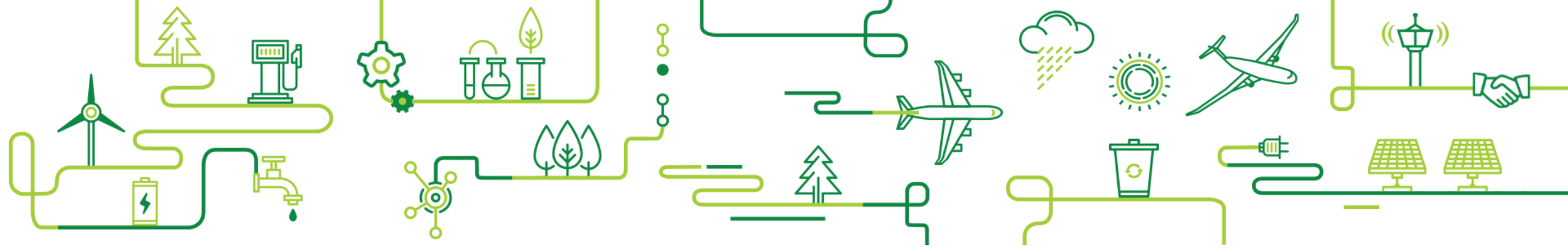


## ICAO Stocktaking Process

### How to get involved

- **Register** for the ICAO Stocktaking Seminar (8 to 10 September 2020)
- Respond to the **Questionnaire** on CO<sub>2</sub> emissions reductions
- Submit a **Video** that can be shared on the ICAO webpage
- **Exhibit** your work in a booth during the Stocktaking Seminar
- **Share** these details with your colleagues, partner organizations, and alma mater
  - Academics will have the chance to showcase their work in a **Poster** session

Contact [officeenv@icao.int](mailto:officeenv@icao.int) for more information



## **NEXT SESSION**

**09.20-09.40 EDT – Setting the scene**

**Aviation in-sector CO<sub>2</sub> emissions reductions:  
challenges, trends and achievements**

---

# Thank You

