



**INTERNATIONAL
CIVIL AVIATION
ORGANIZATION**



ICAO Finvest

Enabling the financing to scale SAF

MyAero - Malaysia
Wednesday 1 July 2026

Robert Boyd – Chief, Finvest Hub

Agenda:

- ❖ Setting the aviation context – Why SAF matters.
- ❖ Framing the SAF Financing Challenge
- ❖ Finvest Bankability Framework
- ❖ Bankability Case Study
- ❖ How the Finvest Programme helps projects
- ❖ Wrap up

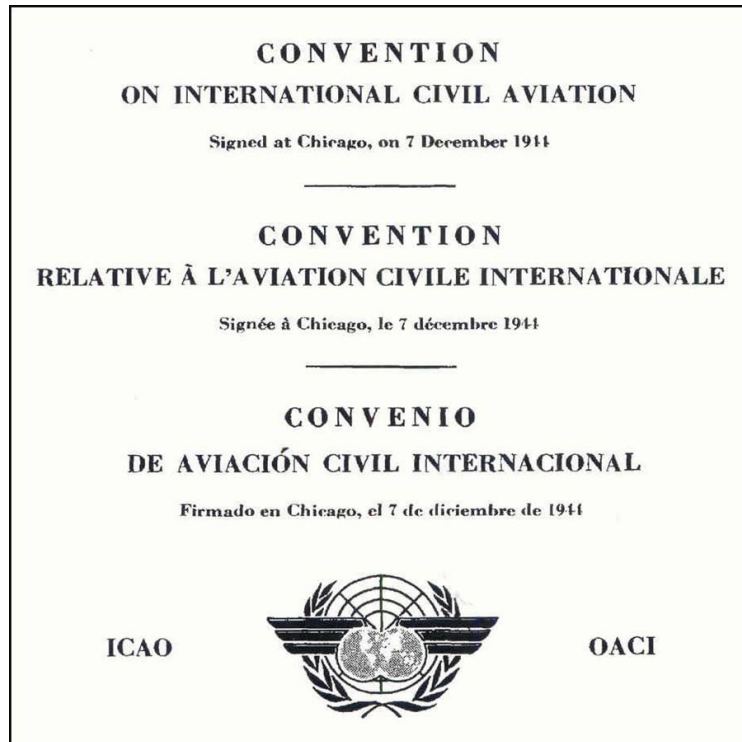
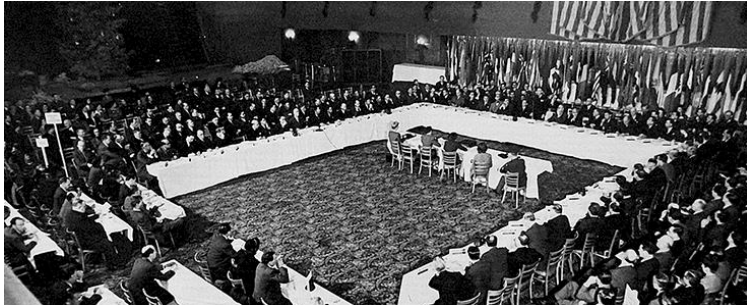
Finance roles: 1999-2008



Robert Boyd: Chief, Finvest Hub, ICAO

What is ICAO?

5





ICAO ANNEXES

Annex 1 Personnel Licensing	Annex 11 Air Traffic Services
Annex 2 Rules of the Air	Annex 12 Search and Rescue
Annex 3 Meteorological Service for International Air Navigation	Annex 13 Aircraft Accident and Incident Investigation
Annex 4 Aeronautical Charts	Annex 14 Aerodromes
Annex 5 Units of Measurement to be Used in Air and Ground Operations	Annex 15 Aeronautical Information Services
Annex 6 Operation of Aircraft	Annex 16 Environmental Protection
Annex 7 Aircraft Nationality and Registration Marks	Annex 17 Security: Safeguarding International Civil Aviation Against Acts of Unlawful Interference
Annex 8 Airworthiness of Aircraft	Annex 18 The Safe Transport of Dangerous Goods by Air
Annex 9 Facilitation	Annex 19 Safety Management
Annex 10 Aeronautical Telecommunications	



The Aviation Context

Options other than SAF?

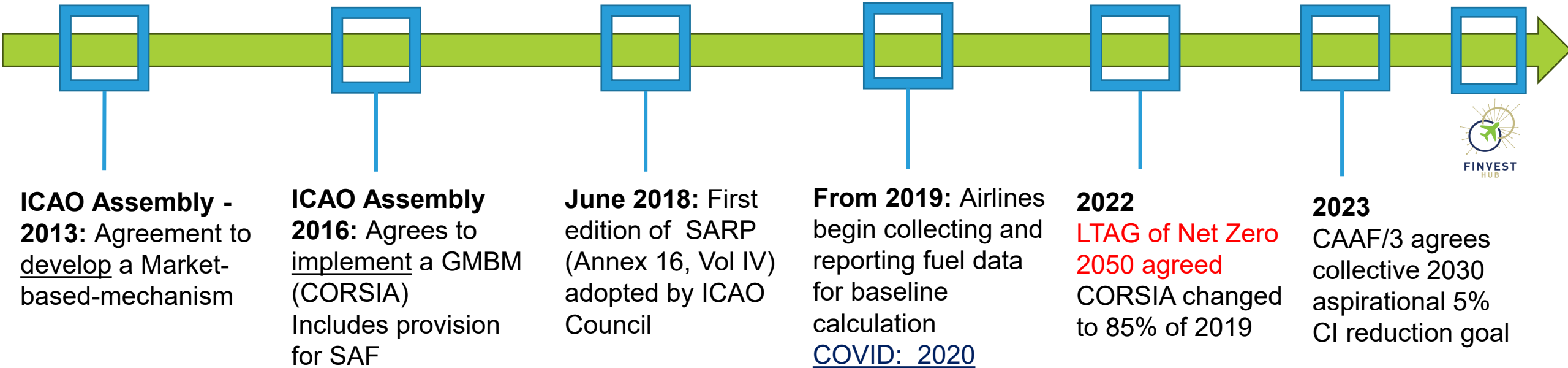
6

	2025	2030	2035	2040	2045	2050	
Commuter » 9-50 seats » <60 minute flights » <1% of industry CO₂	SAF	SAF, electric, hybrid/electric, and/or hydrogen fuel cell	SAF, electric, hybrid/electric, and/or hydrogen fuel cell	SAF, electric, hybrid/electric, and/or hydrogen fuel cell	SAF, electric, hybrid/electric, and/or hydrogen fuel cell	SAF, electric, hybrid/electric, and/or hydrogen fuel cell	~27% of CO ₂ emissions
Regional » 50-100 seats » 30-90 minute flights » ~3% of industry CO₂	SAF	SAF	SAF, potentially some hydrogen fuel cell	SAF, hybrid/electric, and/or hydrogen fuel cell	SAF, hybrid/electric, and/or hydrogen fuel cell	SAF, electric, hybrid/electric, and/or hydrogen fuel cell	
Short-haul » 100-150 seats » 45-120 minute flights » ~24% of industry CO₂	SAF	SAF	SAF	SAF, hybrid/electric, potentially some hydrogen combustion	SAF, hybrid/electric, potentially some hydrogen combustion	SAF, hybrid/electric, potentially some hydrogen combustion	
Medium-haul » 100-250 seats » 60-150 minute flights » ~43% of industry CO₂	SAF	SAF	SAF	SAF	SAF, hybrid / electric, potentially some hydrogen combustion	SAF, hybrid / electric, potentially some hydrogen combustion	~73% of CO ₂
Long-haul » 250+ seats » 150 minute + flights » ~30% of industry CO₂	SAF	SAF	SAF	SAF	SAF	SAF	

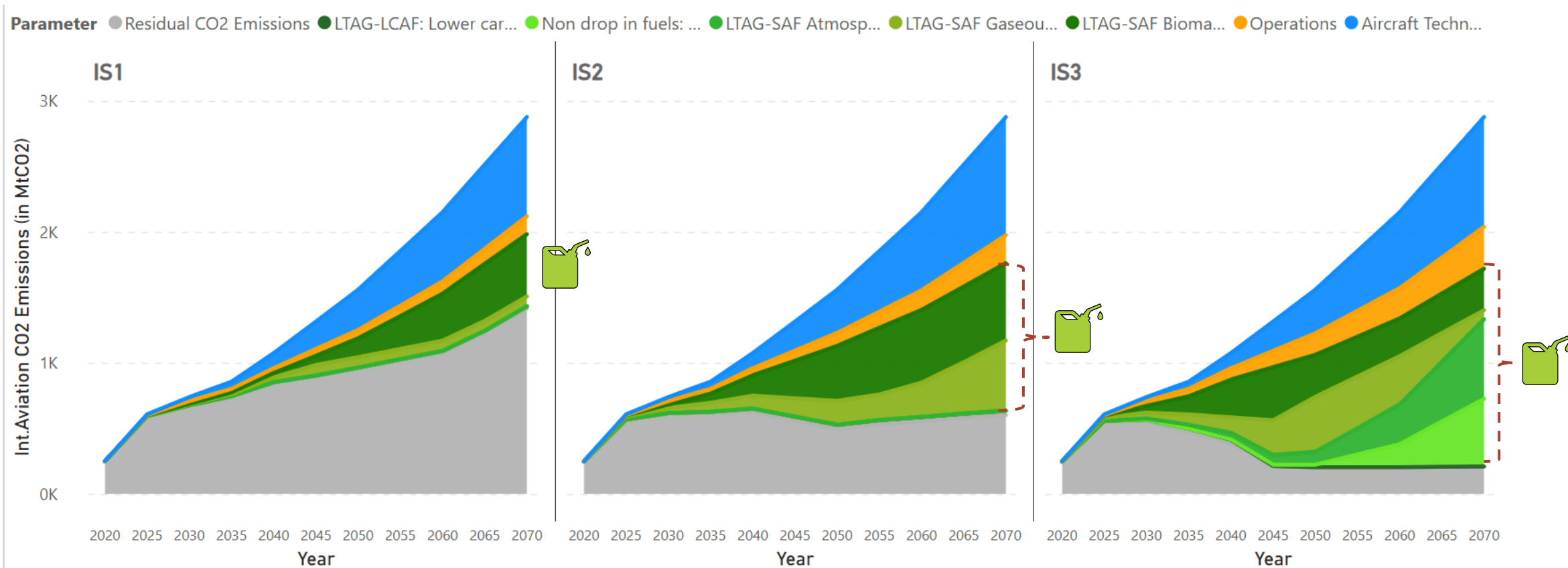
Some past ICAO milestones linked to SAF

7

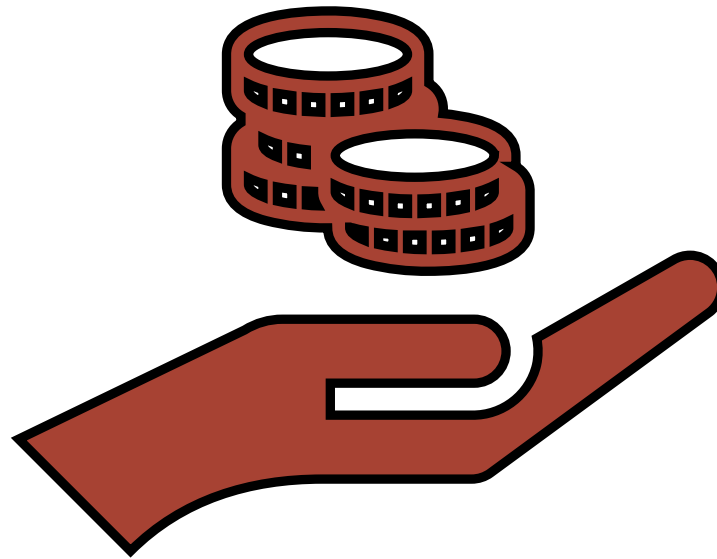
2025: A42
Finvest



Three primary scenarios states used to inform the LTAG agreement in 2022



Framing the financing challenge



Framing the financing challenge:

The 2022 LTAG agreement underpins why Fininvest is important

10



Under the LTAG scenarios,
fuels suppliers to invest up to **USD 3.2 trillion**

Operators USD 4.07 trillion
in aviation clean energies by 2050.

Climate finance – key component in ICAO Assembly Resolution A41-21



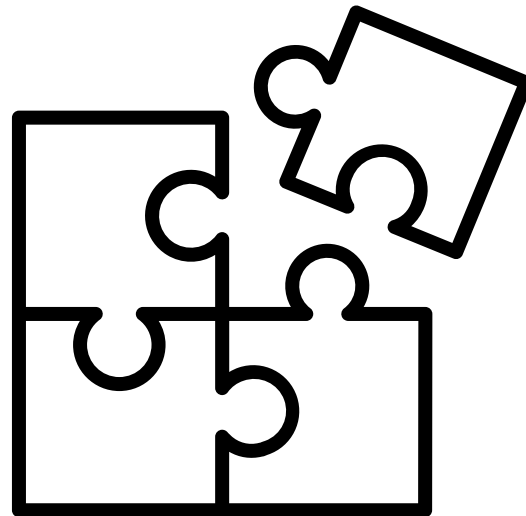
A41-21 Para. 17: achievement of the LTAG requires **substantial investments** ...

Para. 18 a): initiate specific measures or mechanisms to facilitate...for developing countries and States having particular needs, **better access to...investment...and funding...**

Despite the enablers, SAF facilities in production remain low

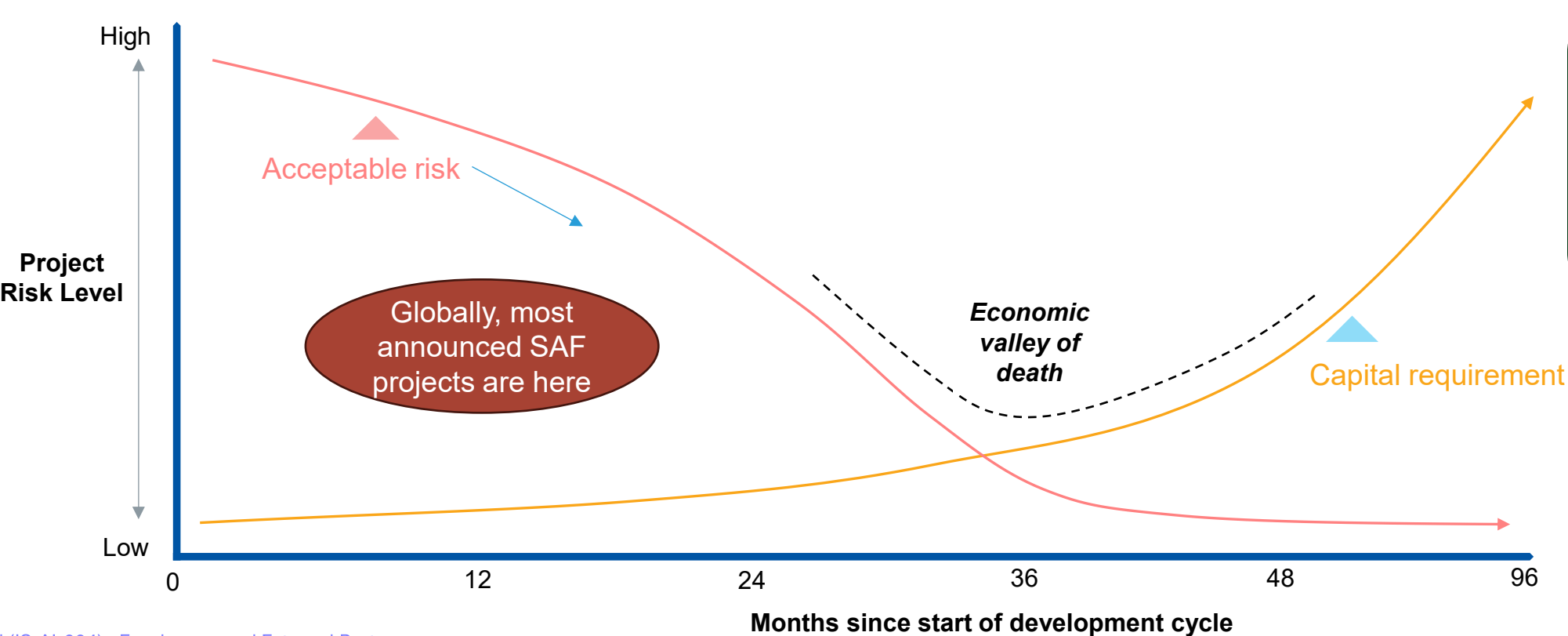


Project bankability and innovative financing



Project risk reduction is the key to securing larger capital sums

SAF Project development typically has several stages



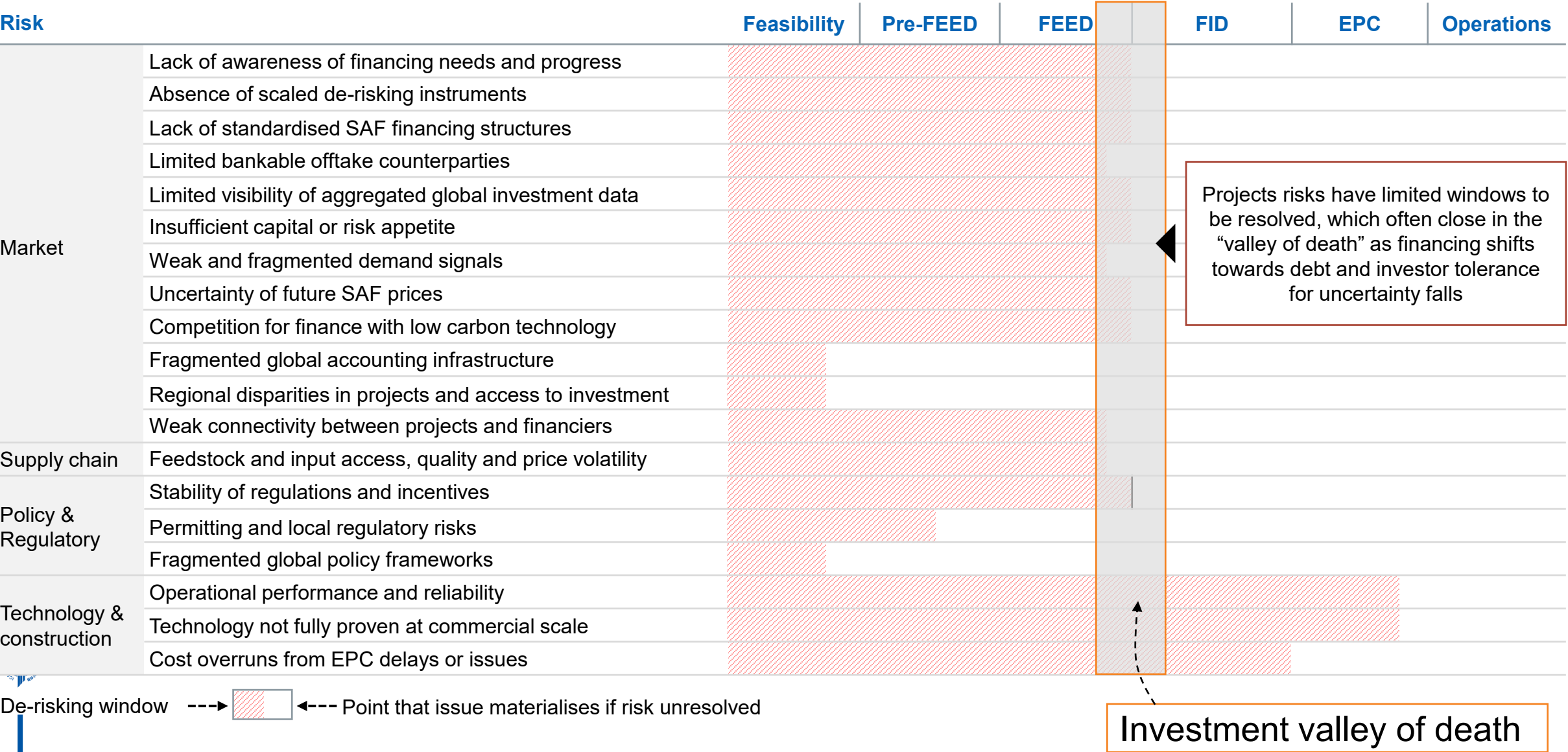
By 2050, several thousand SAF and cleaner energy projects will be required

Numerous stakeholders can play enabling roles in de-risking SAF projects.

Category	Stakeholders	Role in project development	Role de-risking finance
Key investment stakeholders			
 Project sponsors & developers	Developers, fuel suppliers, producers	Originate, structure, and advance SAF projects to financial close	Integrate contracts, manage interfaces, and deliver bankable project structures
 Demand & infrastructure anchors	Airlines, airports, OEMs	Enable SAF demand and physical delivery through use and infrastructure	Underwrite revenues and reduce logistics and integration risk
 Governments & inter-governmental bodies	Governments, multilateral or inter-govt. bodies	Set policy direction and provide public support mechanisms for deployment	Reduce market/political risk via mandates, incentives, and public finance tools
 Capital & risk providers	Investors (equity and debt), insurers	Provide equity, debt, and risk coverage to enable project execution	Allocate, price, and transfer financial and insurable risks to enable scale-up
Enablers			
 Feedstock and other input providers	Feedstock suppliers, utilities companies	Supply sustainable feedstocks and inputs required for operations	Improve input cost certainty, availability, and sustainability compliance
 Regulatory & certification authorities	Regulators, certification schemes, standards bodies	Define compliance, safety, and sustainability requirements for projects	Provide regulatory and eligibility certainty critical for investment confidence
 Knowledge & innovation enablers	Academia, research institutions	Support innovation, validation, and continuous improvement	Strengthen long-term technology credibility and investor confidence
 Technology & delivery partners	Technology licensors, EPC providers	Provide core technology, engineering, and construction of SAF facilities	Reduce technology and construction risk via proven solutions and guarantees

Framing the SAF financing challenge

The aim should be to address risk before it becomes a problem



The primary financing organisations provide equity and debt to projects

16

Financing Group	Examples	Role	Returns
Equity	✓ Private equity funds ✓ Infrastructure investors ✓ Venture capital ✓ Impact investors ✓ Airlines	Provide early-stage, risk-taking capital for project development	Ownership stake in the project, often involving influence in decision-making
		Absorb risk before revenue certainty arises	Long-term returns on investment
Debt	✓ Commercial banks ✓ Green banks ✓ Development finance institutions	Supply large share of project capital once the project is de-risked	Fixed interest payments and repayment plan
		Provided through project finance loans	Limited exposure to technology or market risk
Government	✓ Ministries (such as environment or energy ministries) ✓ Regulators ✓ State investment arms	Provide subsidies, tax credits, price-support schemes, loan guarantees and grants	Strong security packages
			Socioeconomic benefits, such as job creation, emissions reductions and energy security
Others	✓ Academia & research institutions ✓ Airlines & fuel suppliers ✓ Philanthropies	R&D grants for new technologies	Research and development into new pathways
		Airlines & fuel suppliers provide revenue certainty through offtake agreements	Guaranteed SAF supply

Finvest bankability checklist – top 10

17

1

Project narrative

Clarity and credibility of the project's investment story and why it is attractive to investors

2

Technology readiness

reliability and commercial viability of the proposed technology and production pathway

3

Construction risk

Extent to which construction scope, costs, timeline and delivery risks are defined and appropriately allocated

4

Delivery Capability

Capability of the sponsor team and delivery structure to execute, operate and manage the project successfully

5

Feedstock security

Availability, sustainability and price stability of inputs required to support consistent fuel production

6

Infrastructure and Permits

Readiness of site, consents and enabling infrastructure required to build and operate the project

7

Capital Structure

Credibility of the proposed financing approach and likelihood of securing debt and equity on acceptable terms

8

Contracted Revenue

Extent to which long-term, predictable and bankable revenue streams are in place to underpin project cashflows

9

Creditworthy Counterparties

Strength and reliability of contractual counterparties to meet long-term financial obligations

10

Policy Support

Clarity and durability of policy mechanisms that create and sustain demand for SAF

A compelling story supported by credible evidence

1

Project narrative

Clarity and credibility of the project’s investment story and why it is attractive to investors



Clear value proposition



Credible business case



Alignment with market demand



Ambitious or overly optimistic claims unsupported by evidence

Will it work at commercial scale?

2

Technology readiness

Reliability and commercial viability of the proposed technology and production pathway



Proven technical pathway



Is there an operational track record?



Are there performance guarantees and what are the terms?



Ambitious first of a kind scale up assumptions

Can it be built on time and on budget?

3

Construction risk

Extent to which construction scope, costs, timeline and delivery risks are defined and appropriately allocated



FEED has been completed



There is an EPC strategy which is clearly defined



Thorough contingency planning has been prepared



Materials inflation, general cost creep and technical re-works

Can the team execute the project?

4

Delivery capability

Capability of the sponsor team and delivery structure to execute, operate and manage the project successfully



Competent relevant experience



Strong governance



A proven delivery record for either the same project or one with strong similarities



Promising technology, but inexperienced team / sponsor

Does the plant have long-term feedstock supply?

5

Feedstock security

Availability, sustainability and price stability of inputs required to support consistent fuel production



Long-term contracts – up to 20 years



Diversity of suppliers



Certified sustainability under global regulations including ICAO CORSIA



The project relies on one supplier

Can this project physically and legally operate?

6

Infrastructure and permits

Readiness of site, consents and enabling infrastructure required to build and operate the project



Site secured



Utilities available and early contracts



Permits in place or progressing



If any critical infrastructure remains uncertain

Is the financing strategy credible?

7

Capital Structure

Credibility of the proposed financing approach and likelihood of securing debt and equity on acceptable terms



Committed sponsors



Balanced capital stack



Financing pathway(s) identified



Excessive reliance on future funding rounds or a single funding option

Where does repayment of the debt and return for equity come from?

8

Contracted revenue

Extent to which long-term, predictable and bankable revenue streams are in place to underpin project cashflows



Long term binding offtake



Revenue visibility



Demand certainty (or support mechanisms)



Revenue dependent on future market assumptions

How reliable are the project business partners?

9

Creditworthy counterparties

Strength and reliability of contractual counterparties to meet long-term financial obligations



Investment-grade (or close) counterparties



Proven track record

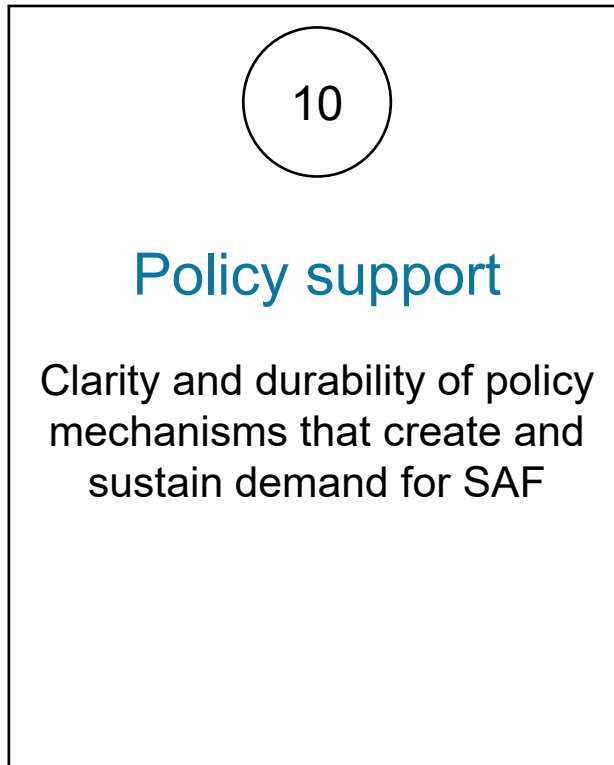


Strong contractual commitments



Counterparty weakness can cause risks to cascade

How supportive are market conditions?



Demand and or supply side support



Enabling policies



Long term policy visibility



Project economics replying entirely on policy

Project Overview:

BSF Ltd proposes to develop a SAF production facility in a developing country with strong aviation growth potential. In 2025, a SAF Feasibility study was completed by ICAO for the the Civil Aviation Authority. The report showed strong sustainable feedstock potential from various sources. Capacity within the Government is developing and some discussion on policy is occurring, however, no specific framework exists.

Project details and situational background:

- ~180 million litres/year SAF
- Technology is the HEFA pathway (The tech provider has two other operating facilities). Performance guarantees are available.
- A FEED study has been completed, an EPC contractor identified but not yet signed and construction cost estimates (+/- 25%)
- The management team of 6 has some biofuel experience but no SAF projects delivered or operated. The Board has a mix of experience including infrastructure investments.
- The planned feedstock is UCO with contracts signed covering 70% of requirements. The suppliers are on the way having CEF Sustainability certification. Imports may be required for the remaining 30%.
- A site has been secured and environmental approvals are progressing. Power is secured from a signed grid connection agreement.
- Initial investors have committed 25% equity with a total construction cost est: USD 550 million. Discussions are underway with an MDB.
- A memorandum of understanding has been signed with two (large) airlines to explore an offtake, however no binding agreement has been struck. A binding agreement has been struck with a major OEM for 15 million litres per year for 10 years with the option to increase to 60 million litres. This contract is a cost plus agreement, however the SAF premium remains uncertain for the remainder of the output.
- While the airlines and OEM are large and credible counterparties, the feedstock suppliers are regional.
- Policy discussions are active including a potential mandate of a 5% CI reduction starting in 2030. This is not yet agreed by the government. The government has taken a keen interest in a Revenue Certainty Mechanism design and impact assessment from another market.
- Target operation date: 2029

The developer is seeking debt and equity financing and has approached a consortium of commercial banks, development finance institutions and strategic investors.

Illustrative Case Study

How to score

Score	Descriptor
Yes	☐ Fully in place, clearly evidenced, and consistent with investor expectations for a bankable project.
Partial	☐ Partially developed or evidenced, with material gaps or uncertainties that require further work to meet investor expectations.
No	☐ Not in place, unclear, or insufficiently developed to support investment assessment.

Score	Result
80-100	Bankable
65-79	Near Bankable
50-64	In Development
0-50	Early Stage

Bankable:

A project with strong fundamentals across all key areas and sufficiently de-risked to support immediate investor engagement and potential financial close.

Near Bankable:

A credible project with core elements in place but requiring further de-risking in one or more areas before full investment commitment. May benefit from an advanced accelerator program

In development:

A project with a viable concept but significant gaps or uncertainties that must be addressed before attracting serious investor interest.

Early Stage:

A project at an early stage of development with substantial uncertainties and insufficient definition to support investment consideration. Improvement required.

Investment Readiness (self) Assessment Framework

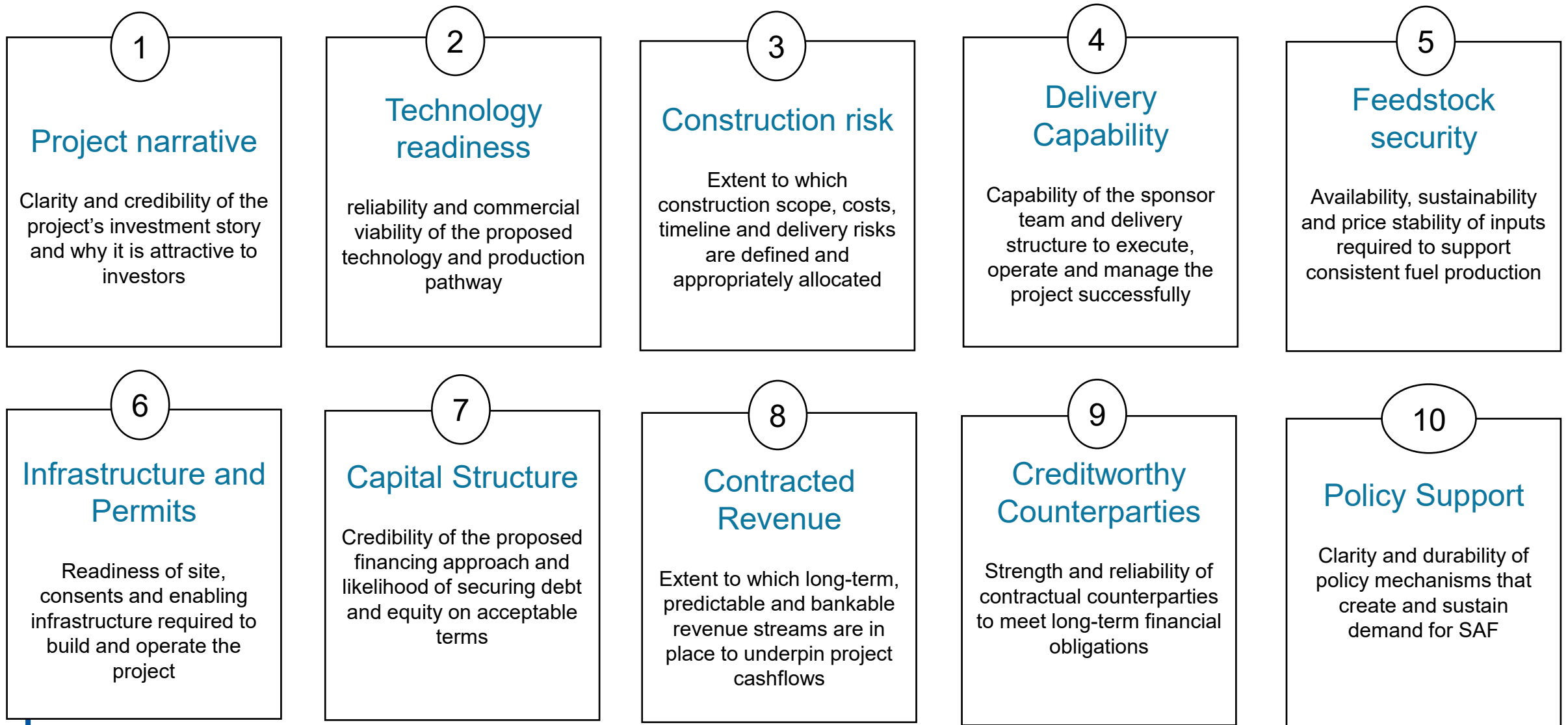
Score each criterion using the following guide

Score	Investor Interpretation
5 	Investment-ready – provides strong confidence
4 	Minor issues remain – manageable risk
3 	Promising, but further development required
2 	Significant concerns – unlikely to attract finance
1 	Critical weakness – major barrier to investment

* The framework is had been developed in conjunction with financial institutions, however, is intended as a guide

You are the investment committee – time to review this project

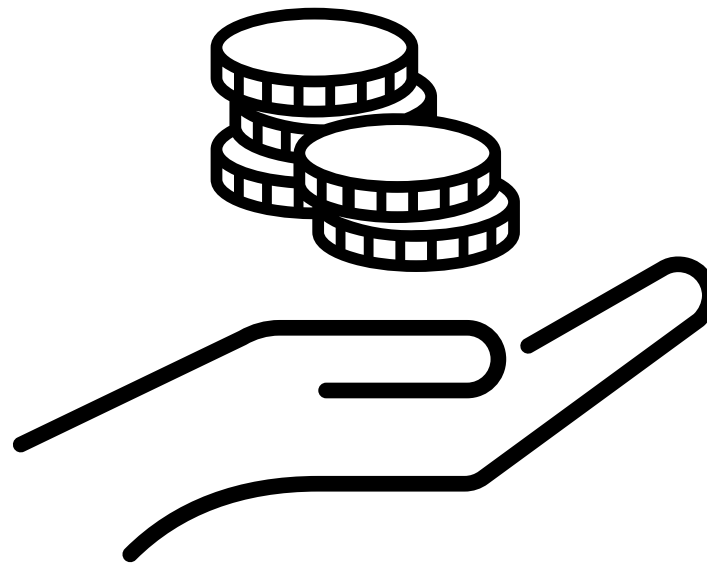
31



31

Sample Project Bankability Assessment: Excel model

32



What 3 actions would most improve the projects bankability?

6 months later.....

15 year offtake
with one of the
major airline for
60 million litres
p/a

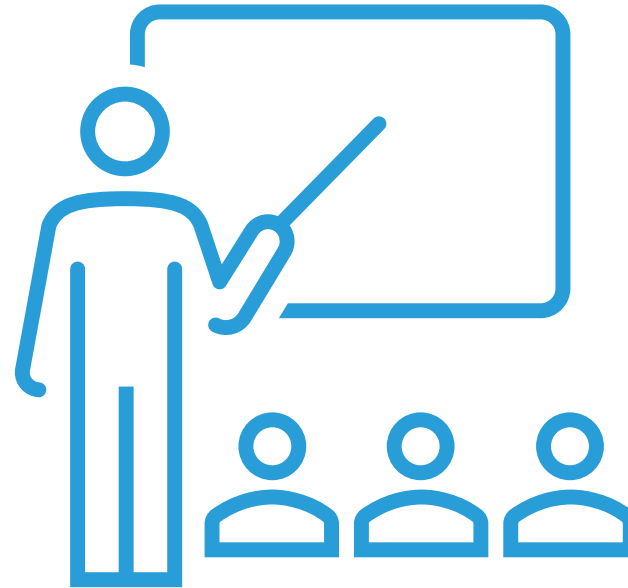
Feedstock supply
repositioned to an
aggregator with
risk guarantees
for supply failure

5% CI reduction
policy mandate
passed by the
government with
introduction
commencing
2030

Review the assessment.....

Feedback, Discussion

34



Finvest conceptualised

2

Facilitate development of financial instruments and risk mitigation tools

Work with governments and industry to establish legal and policy framework including innovative instruments

4

Foster Public private partnerships

Facilitate dialogue and collaboration between the aviation decarbonization eco system



FINVEST HUB



Connecting SAF and Cleaner Energy projects with global finance
so no country is left behind on the runway to **net zero**

SAF AND CLEANER ENERGY PROJECTS

Repository with support resources

193 member states



ICAO

Trust | Respect | Authority | Standards

CLEAN ENERGY FINANCING HUBS

Our goal is to attract and organise a diverse array of financing options for projects.

Multilateral Development Banks | Institutional Investors |
Development Finance Institutions

FINVEST
SUPPORT
PARTNERS

AIRBUS

BOEING

GenZero

International
PtX Hub

3

Provide technical support and capacity building

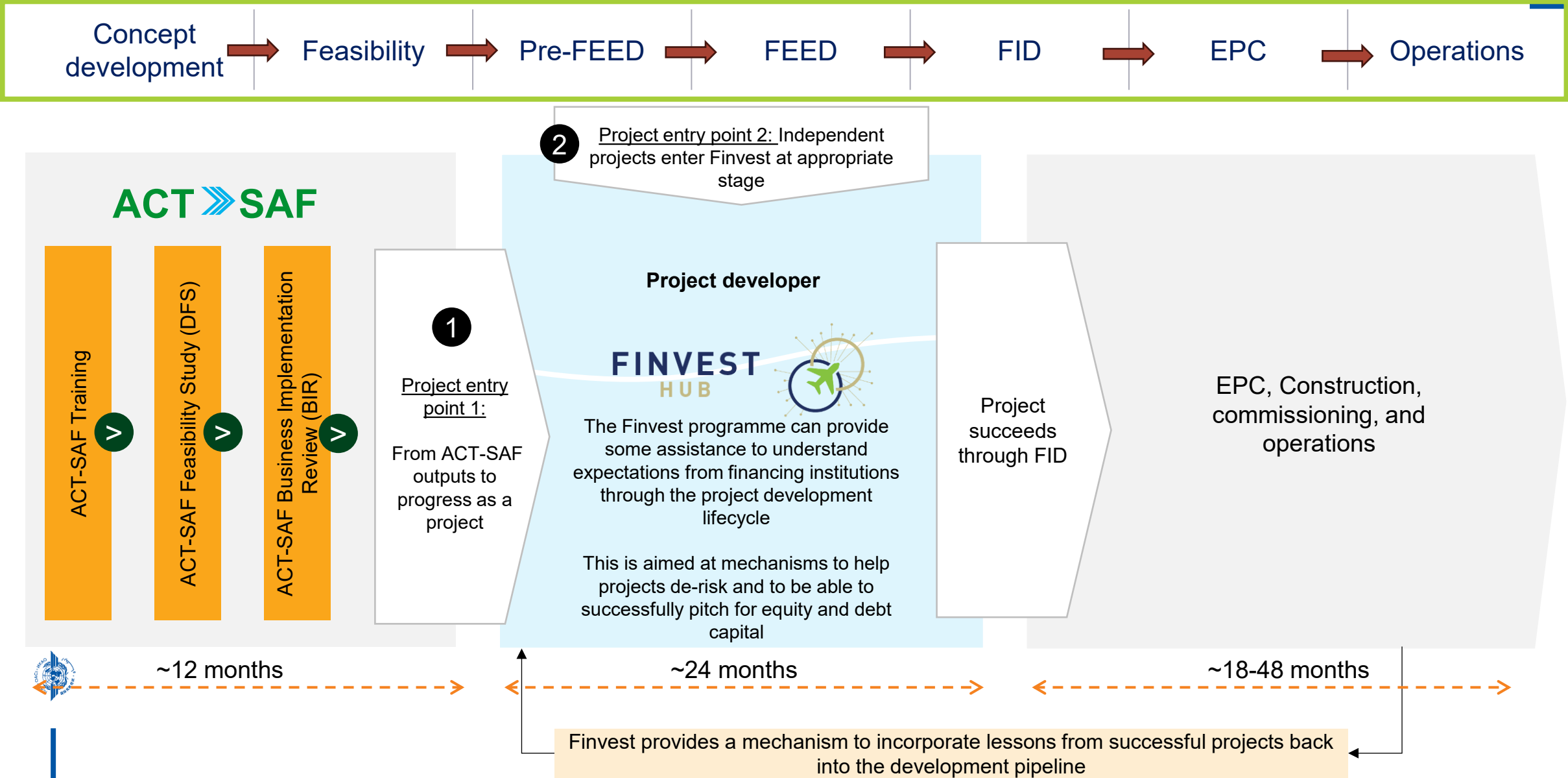
Deliver expertise and training where needed. Ensure no country left behind

5

Outreach and advocacy

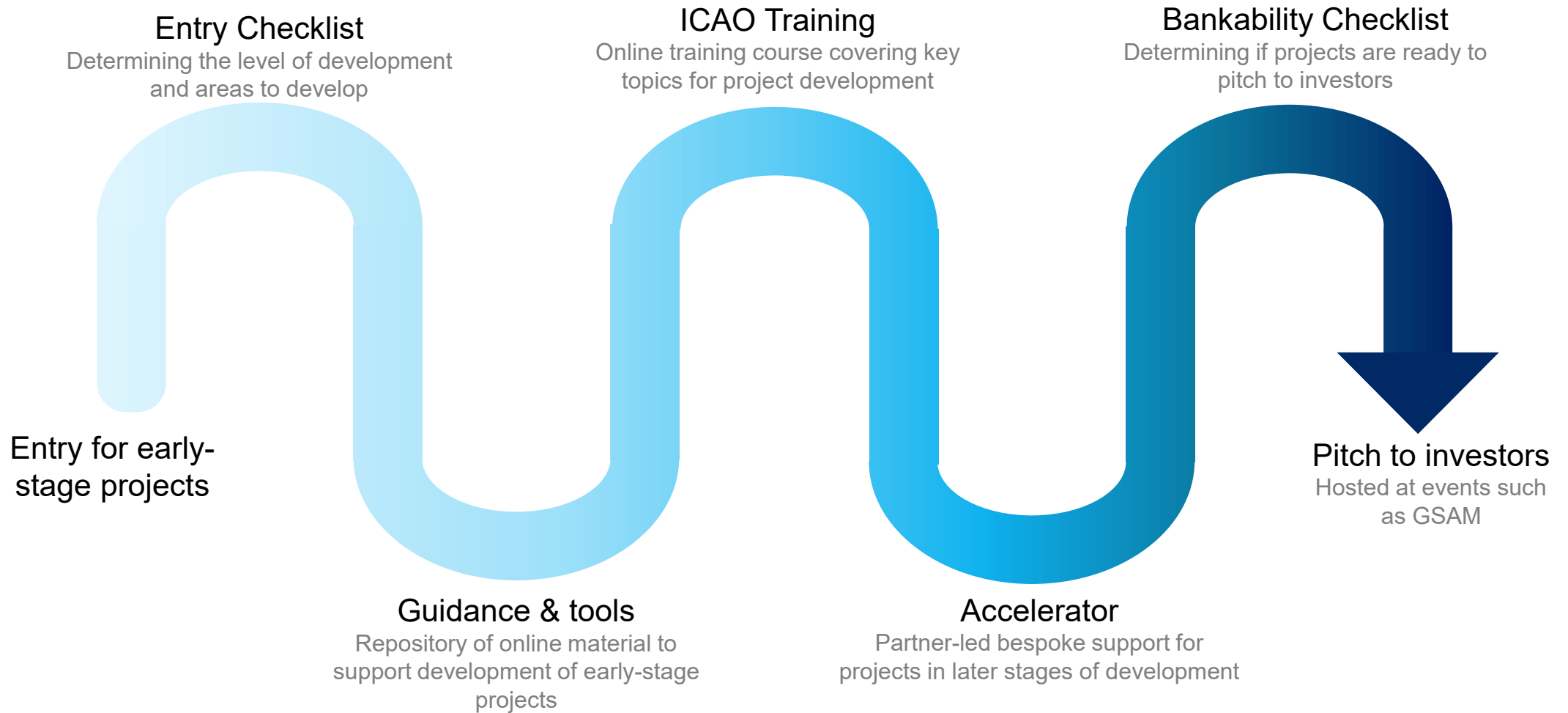
Execute awareness raising campaigns to promote the importance of sustainable aviation the specific financing needs

From concept to operations



The Finvest process aims to support projects to prepare to pitch to investors

37



ICAO Finvest Partners



38



Foster Public private partnerships

Facilitate dialogue and
collaboration between
the aviation
decarbonisation eco
system

- ✓ *Partners have made a commitment through a letter of intent to support the development and effectiveness of Finvest Hub*
- ✓ *Established monthly partner meeting where projects are discussed*

Partner Support:

AIRBUS



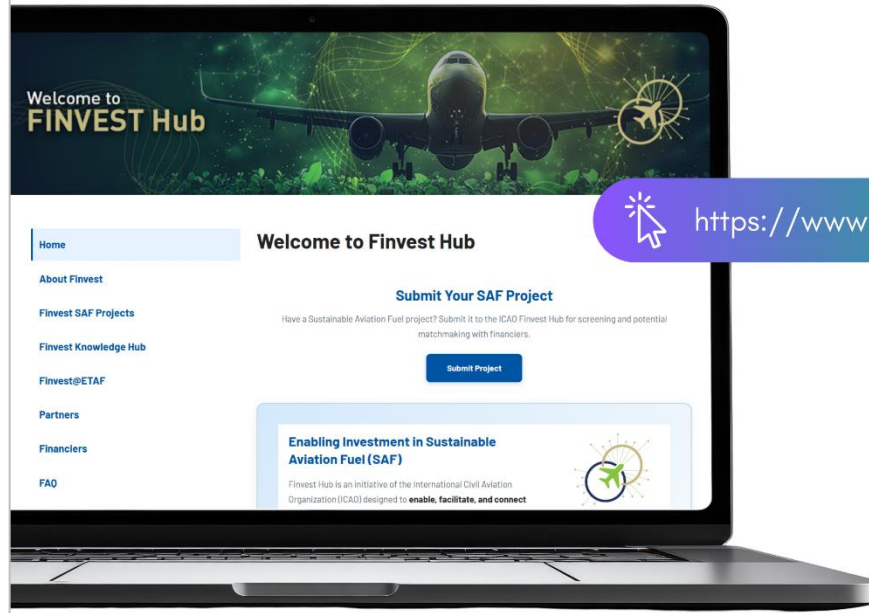
Aiming to expand partners by the end of 2026

Finvest: For more information

39



Visit [ICAO Finvest Hub](https://www.icao.int/finvest) page for more details.



<https://www.icao.int/finvest>

Questions & Answers

rboyd@icao.int



Thank You



Robert Boyd: rboyd@icao.int
Contact – finvest@icao.int