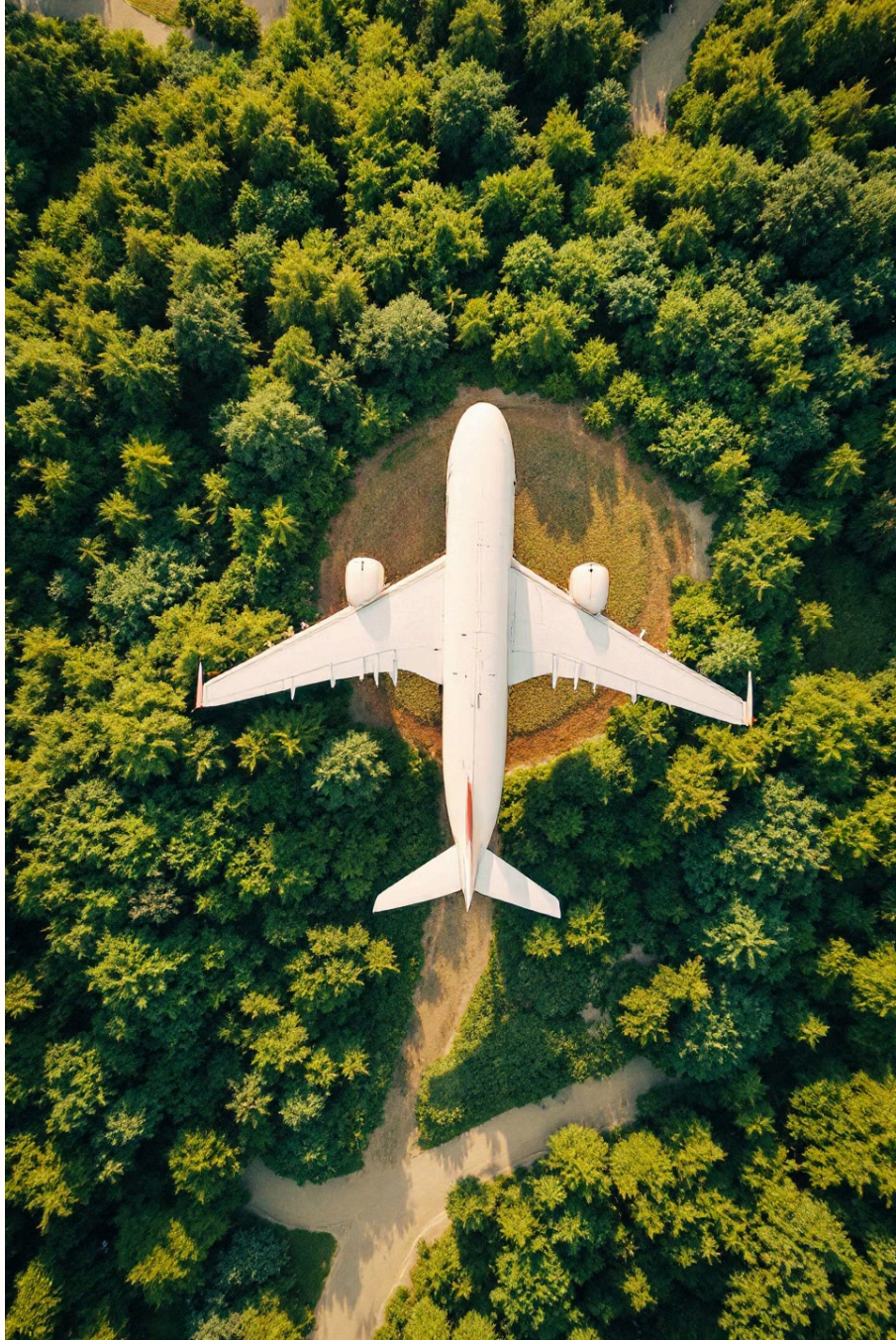
Aviation and Carbon Emission Reduction

Aviation significantly impacts global carbon emissions. But carbon credits and sustainable fuels can offer a viable path towards a greener future. As technology advances and markets evolve, the integration of these solutions can transform aviation into a more sustainable and environmentally responsible sector.

Arnildo Schildt



Aviation's CO2 Footprint

Global Impact

Aviation is a fast-growing industry.

It contributes significantly to greenhouse gases.

2019 Statistics

Commercial aviation emitted 915 million tons of CO2.

This is approximately 2-3% of global emissions.

Ambitious Emission Goals

1

Reduction Target

Aviation aims for a 50% reduction by 2050.

This is compared to 2005 levels.

2

Key Strategies

Improvements in fuel efficiency are essential.

3

Fleet Modernization

Airlines are upgrading to new airplanes.

4

Sustainable Aviation Fuel

The industry is investing in alternatives.

The Role of Carbon Credits

CO2 Reduction

One credit equals one ton of CO2 reduced.

Carbon Markets

Credits are bought and sold in carbon markets.

Price Variation

Prices vary based on market and regulations.

Understanding SAF

1

Sustainable Sources

SAF is made from sustainable sources.

Agricultural waste can be used.

2

Emission Reduction

SAF reduces emissions by up to 80%.

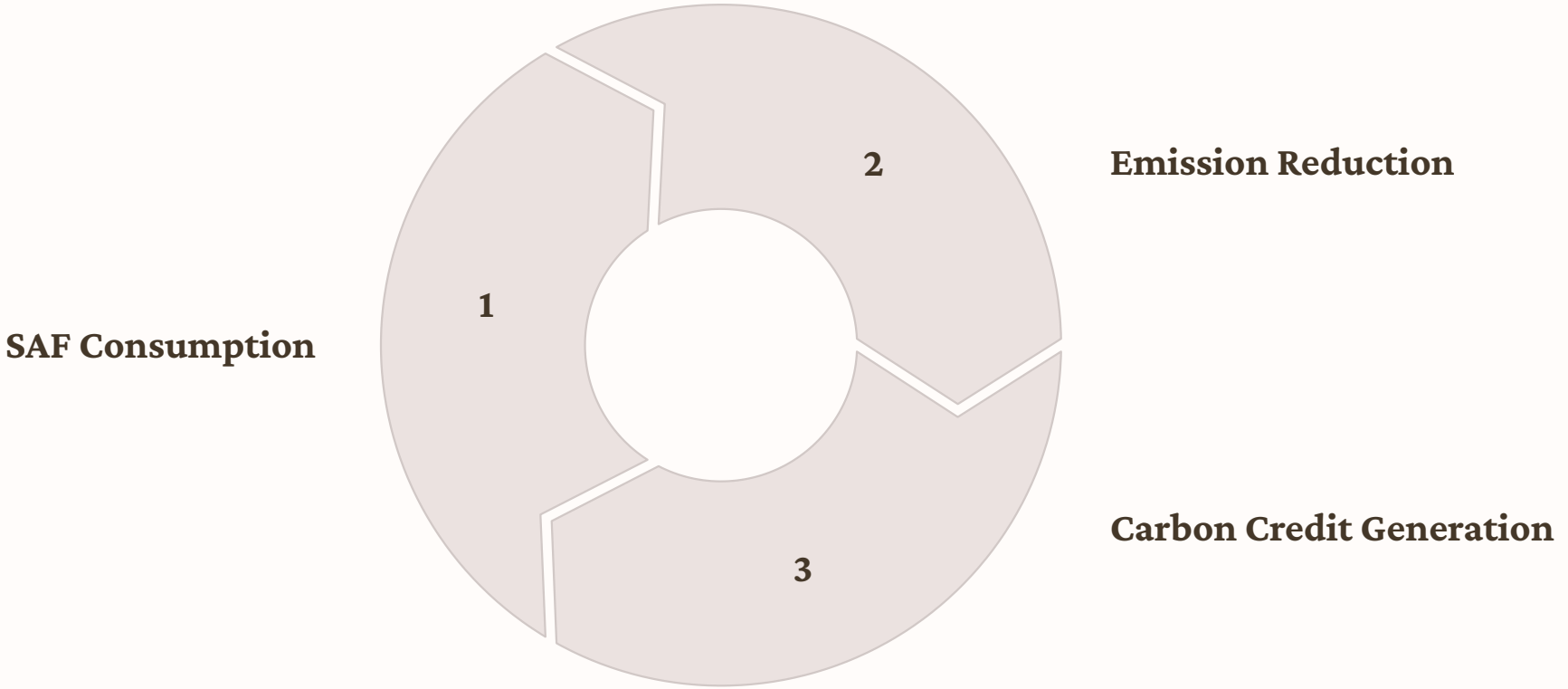
Compared to traditional fuels.

3

Lifecycle Impact

It has a positive impact from production to use.

SAF and Carbon Credit Generation



Airlines generate carbon credits by using SAF. Credit amount depends on SAF quantity and emission reductions. For example, 100,000 tons of SAF may generate credits for the equivalent CO2 not emitted.

Expanding Carbon Markets

Trillions

Market Size

Global carbon market may reach trillions by 2030.

Transport

Sector Integration

Transportation seeks to offset its emissions.

Aviation

Offsetting

Airlines offset emissions through carbon reduction.

Industry Leaders in Action

Airline	Initiative
Delta Air Lines	Significant investment in SAF, partnerships with producers.
United Airlines	Plans to purchase 1.5 billion gallons of SAF, aiming for 30% emission reduction by 2030.
IATA	Promoting SAF use and integration, encouraging supportive policies.

Delta's SAF Investment

Significant Investment

Delta is investing heavily in SAF development.

Producer Partnerships

They have partnered with SAF producers.

Securing Supply

Delta is working to secure a reliable SAF supply.

United's Ambitious SAF Goals

1

SAF Purchase

United plans to buy 1.5B gallons of SAF.

2

Emission Cut

Aims to reduce emissions by 30% by 2030.

3

Sustainability

A commitment to future environmental health.

Challenges and Opportunities

Cost

SAF production is more expensive.

This limits widespread adoption.

Infrastructure

SAF infrastructure is still developing.

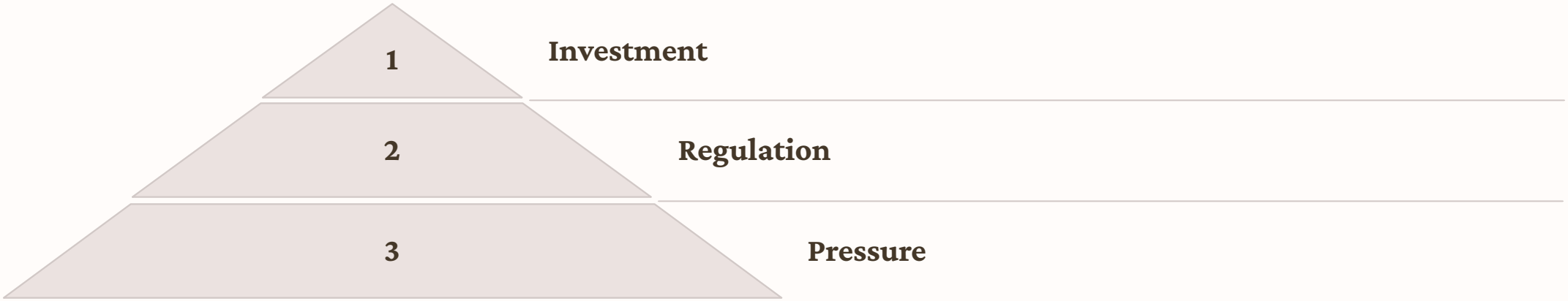
It requires significant investment.

Scalability

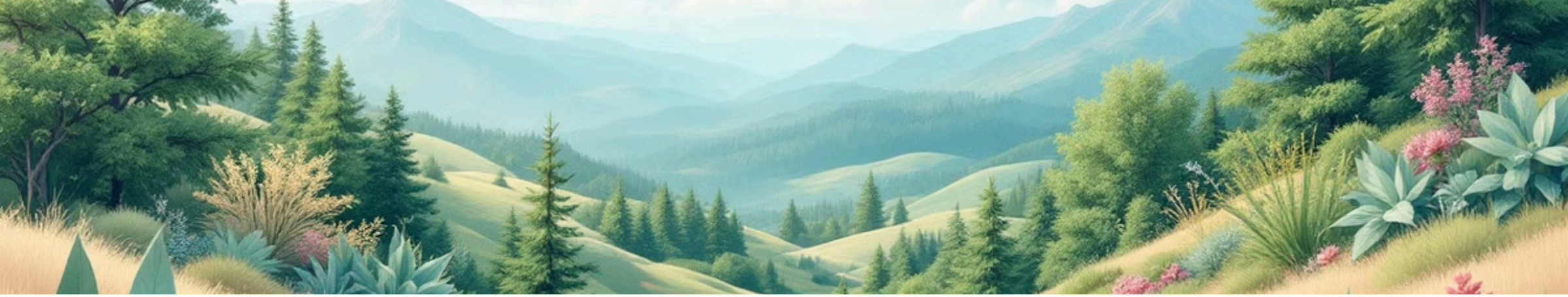
SAF production must rapidly scale up.

To meet aviation's growing demand.

Overcoming Obstacles



Increasing pressure for sustainable solutions exists. Favorable government regulations can help. This creates significant opportunities for investment in SAF and carbon markets.



A Sustainable Future

SAF and carbon credits offer a path to reduce emissions.

Integration can transform aviation.

It can become more sustainable.

The sector can be environmentally responsible.