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# The challenge of Sustainable Aviation Fuels development

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# Introduction & presentation outline

- I. French strategic views on SAF
- II. The challenge of SAF policies implementation
- III. The importance of the cooperation with the private sector





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# I. French strategic views on SAF





# 5 fundamental principles

- Maintain an **optimal level of security**: *the importance of technical certification*
- The business model should promote a **competitive and lasting market**: *ensure the economic viability of all players along the commercial chain*
- SAF should be firstly produced from **sustainable feedstocks**: *advanced biofuels and circular economy to achieve significant emissions reductions*





# 5 fundamental principles

- Supply chains should be economical: *base the logistic chains on existing infrastructures*
- Ensure a coherence between French policies and supra-national initiatives and policies: *avoid distortion of competition*



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## Substitution objectives: short-term

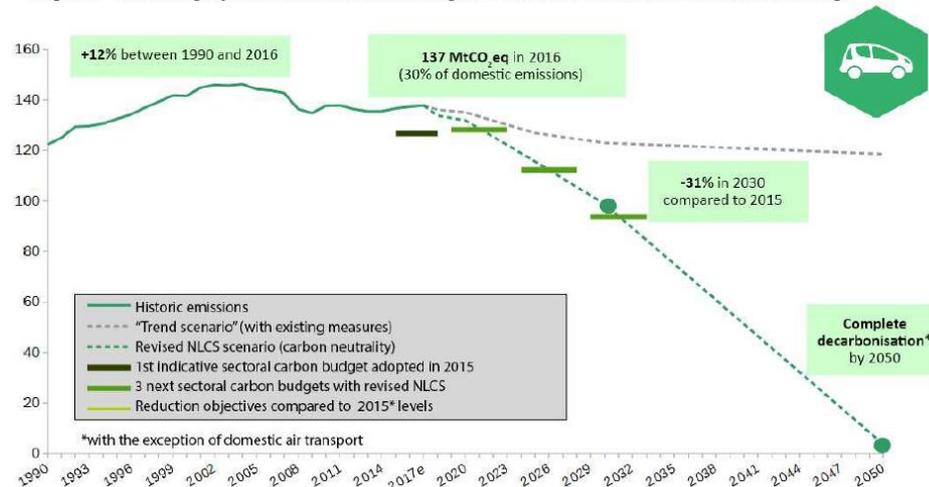
- A pragmatic and reasonable short –term objective
- **2%** of fossil aviation fuels by sustainable aviation fuels **in 2025** (approximately 180 000 tonnes)



# Substitution objectives: long term

- Context: the **National Low Carbon Strategy** to reach carbon neutrality by 2050
- An ambitious objective of **50% of SAF in 2050**

Figure 9 - Past and projected emissions in the transport sector between 1990 and 2050 (in MtCO<sub>2</sub>eq)



Source : Ministry of Environment, France



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## II. The challenge of SAF policies implementation





# A number of challenges to overcome

- **How to initiate the production on the national territory?**
  - *competition with the road transport*
  - *promote investments in production facilities*
  - *access to feedstock from the circular economy*
- **How to limit the impacts on air transport competitiveness?**
  - *ensure the economic viability of all players along the commercial chain*
  - *limit extra-costs for air transport operators*

→ **Public policy design requires considerable coordination efforts from various administrations with different priorities**

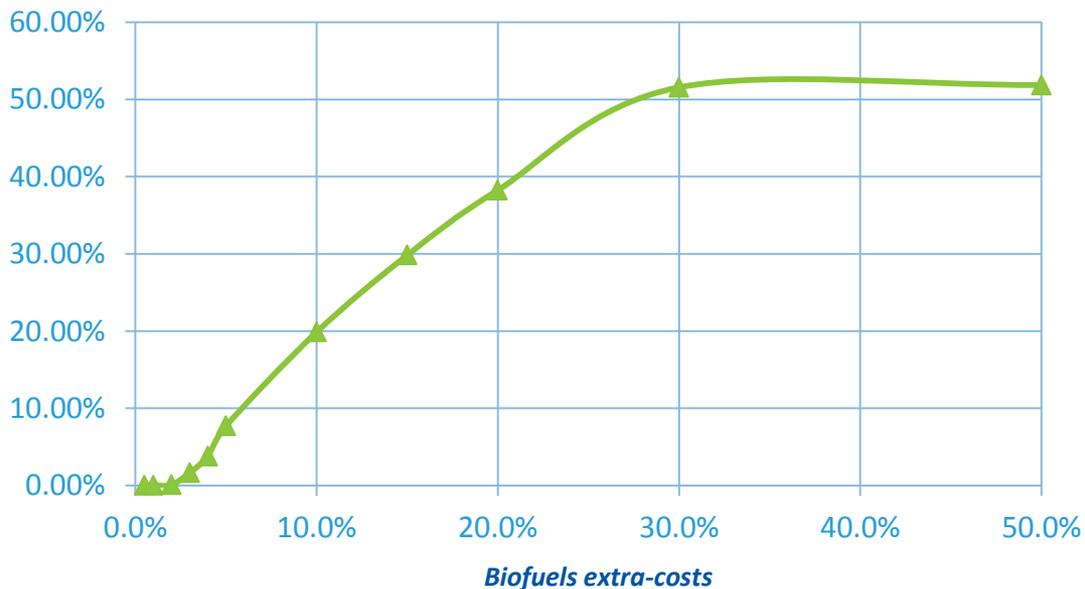


# Risks of fuel tankering & carbon leakages

- Fuel tankering is correlated with the incorporation rate and SAF prices

→ Seeking coherence between national and supra-national initiatives is key

### Substitution of fuel departing France





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# III. The importance of the cooperation with the private sector

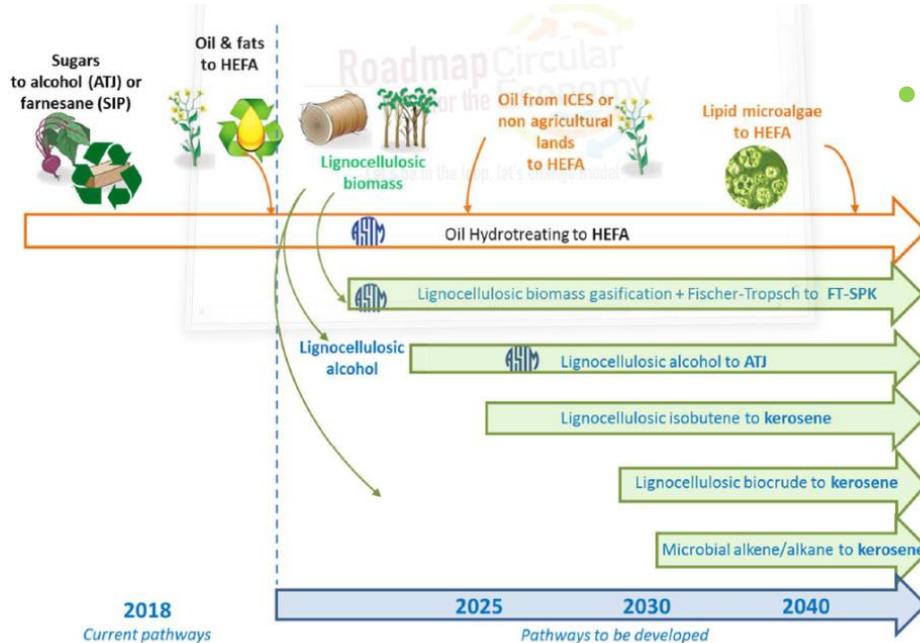




# Examples of cooperation



FEEDSTOCKS  
CONVERSION PROCESSES



- A cooperative technical study coordinated by research institutions:
  - 23 contributing entities from the public and private sectors
  - A comprehensive evaluation of the potential of various SAF production pathway in the context of France



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# Examples of cooperation

- **Engagement for Green Growth:**

- *A **public-private partnership** between French administrations and Air France, Airbus, Safran, Total and Suez*
- *A feasibility study*
- *Conclusions will be published in June 2019*



**AIRFRANCE** 

 **SAFRAN**

**AIRBUS**

 **TOTAL**

 **suez**



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# Conclusion

- An interesting challenge that requires extensive cooperation
- Potential huge savings of carbon emissions





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THANK YOU



# References

- **Roadmap for the circular economy:** <https://www.ecologique-solidaire.gouv.fr/feuille-route-economie-circulaire-frec>
- **National low carbon strategy:** <https://www.ecologique-solidaire.gouv.fr/strategie-nationale-bas-carbone-snbc>
- **ANCRE Roadmap:** <https://www.allianceenergie.fr/ancre-feuille-de-route-biocarburants-aeronautiques-france/>
- **Green Deal on SAF:** <https://www.ecologique-solidaire.gouv.fr/engagements-croissance-verte>