There are multiple roadmaps which detail possible pathways for the air transport industry to achieve its Net Zero carbon emissions goal by 2050. They all have one element in common: the reliance on Sustainable Aviation Fuel (SAF) to achieve this ambitious target. An estimated 65% or more of the industry’s emission abatement will likely come from SAF. Last week’s ICAO Conference on Aviation Alternative Fuels underlined the key role of SAF, as States agreed on a Global Vision to deliver a reduction of 5% in the carbon intensity of international air transportation by 2030 using SAF and LCAF (lower carbon aviation fuel).

The current production of SAF remains very limited. We estimate that around 0.5 Mt of SAF will be produced this year. That equates to less than 0.2% of air transport’s total fuel consumption of approximately 250 Mt. See related information here.

Clearly, the need for scaling up the volumes of SAF production required to achieve air transport’s Net Zero carbon emissions goal by 2050 is as urgent as it is vast. Encouragingly, the number of publicly announced SAF offtake agreements globally continues to increase. Offtake agreements are long-term commitments by airlines to purchase a given volume of SAF. The rising number of such agreements illustrates the strong demand for SAF among airlines. Since the start of 2022 the cumulative number has risen to almost 70.

Oftake agreements provide certainty of supply and demand respectively for the airlines and SAF producers concerned and help to reduce the risk associated with investing in new technology and infrastructure. Other necessary actions for a proper global SAF market to emerge include the implementation of a global SAF accounting mechanism based on trusted chain of custody models, the certification of additional production pathways, policies which incentivize SAF production and investment, and energy policies that are less skewed in favor of fossil fuels.