

SUSTAINABLE FLYING?

HOW BIOFUELS CAN REDUCE CO₂ EMISSIONS FROM FLYING

Summary for lazy executives

CAN'T WAIT TO TAKE A BREAK!

I WAS WONDERING, THEY SAY FLYING EMITS A LOT OF CO₂. BUT HOW MUCH ACTUALLY?

I JUST READ AVIATION IS RESPONSIBLE FOR AROUND 2% OF GLOBAL EMISSIONS.

THE BIG PROBLEM IS THAT EMISSIONS ARE GROWING RAPIDLY BECAUSE PEOPLE - LIKE OURSELVES - TEND TO FLY MORE OFTEN.

DURING THIS 7-HOUR FLIGHT ALONE WE'LL EMIT AROUND 600 KG OF CO₂ EACH. WHICH IS AS MUCH AS WE SAVE EACH YEAR BY BEING VEGETARIANS.

600 KILO

THIS IS YOUR CAPTAIN SPEAKING!

I AM PROUD TO SAY WE ARE FLYING ON BIOFUELS TODAY. DON'T WORRY, IT'S THE SAME AS NORMAL JET FUEL.

DID YOU HEAR THAT?

MORE THAN 100.000 FLIGHTS HAVE USED BIOFUELS OVER THE LAST 10 YEARS.

OUR BIOFUEL IS PRODUCED FROM USED COOKING OIL, A WASTE MATERIAL OF BIOLOGICAL ORIGIN. THIS FUEL REDUCES CO₂ EMISSIONS BY 70% COMPARED TO FOSSIL FUEL.

WOULD YOU HAPPEN TO KNOW WHY ALL FLIGHTS AREN'T POWERED BY BIOFUEL YET?

I IMAGINE THERE IS NOT ENOUGH USED COOKING OIL TO HAVE EVERYONE FLY ON BIOFUEL, RIGHT?

YES, THE LIMITED SUPPLY OF WASTE OILS IS PART OF THE PROBLEM.

WE NEED TO DEVELOP NEW PRODUCTION PROCESSES TO USE WIDELY AVAILABLE AND SUSTAINABLE SOURCES OF BIOMASS SUCH AS STRAW OR EVEN MUNICIPAL WASTE!

BUT I'D SAY THE COSTS ARE THE MAIN ISSUE CURRENTLY. THE PRICE OF BIOFUEL IS ABOUT 2 TO 3 TIMES HIGHER THAN FOSSIL JET FUEL.

SO, WHAT NEEDS TO CHANGE SO THAT ALL AIRPLANES USE BIOFUEL?

FIRST, WE NEED TO GUARANTEE THAT BIOFUELS REDUCE CO₂ EMISSIONS AND AVOID ADVERSE SUSTAINABILITY IMPACTS, SUCH AS DEFORESTATION.

SECOND, THE COST OF BIOFUEL NEEDS TO DROP BY GAINING MORE EXPERIENCE WITH THE PRODUCTION OF BIOFUELS AND SUPPORTING THE DEVELOPMENT OF NEW CONVERSION PROCESSES.

AND THIRDLY, WE NEED MONEY TO SUPPORT THE PRODUCTION OF BIOFUELS.

IF WE DO THAT, I AM CONFIDENT THAT WE COULD HAVE THIS PLANE FLY ON 10% BIOFUEL FOR ABOUT €10,- PER PASSENGER.

IN THE SHORT TERM, THIS PROBABLY REQUIRES GOVERNMENT SUPPORT.

IN THE LONGER TERM, YOU WOULD IDEALLY INTEGRATE THIS COST INTO THE PRICE OF ALL FLIGHT TICKETS.

BIO

THANKS FOR FLYING WITH US TODAY. DID YOU HAVE A PLEASANT FLIGHT?

YES, AND IT DID NOT SMELL LIKE FRENCH FRIES AT ALL! BIOFUELS SEEM TO BE A GOOD SOLUTION TO REDUCE CO₂ EMISSIONS OF FLYING, PROVIDED THEY ARE PRODUCED SUSTAINABLY. AT LEAST UNTIL WE FLY ALL-ELECTRIC.

YOU'RE RIGHT! I HAVE A GREAT BOOK FOR YOU IN CASE YOU WANT TO KNOW MORE ABOUT THE PRODUCTION COST, CLIMATE IMPACT AND FUTURE SUPPLY OF BIOFUELS. ENJOY YOUR STAY!