ΕΡΓΟ : **CLIMATE CHANGE ADAPTATION STUDY FOR ATHENS INTERNATIONAL AIRPORT "EL. VENIZELOS", 2019**

ΦΟΡΕΑΣ : ATHENS INTERNATIONAL AIRPORT

ΠΕΡΙΓΡΑΦΗ : This study includes a comprehensive risk assessment of Climate - related risks to the direct and indirect operations of A.I.A.

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The role of the Consultant was to:

- **perform** a comprehensive risk assessment of climate-related risks to the direct and indirect operations of Athens International Airport and to its assets, and,
- **collect and analyse** historical climate data as well as future climate scenarios for the region in which the airport operates.

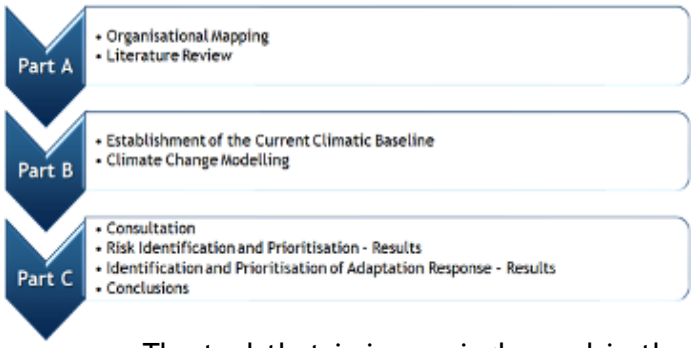
Decarbonizing aviation is arguably the greatest challenge facing the air transport industry. If decision-makers had to choose just five top things to do to achieve net zero carbon aviation by 2050, they should focus on the following:

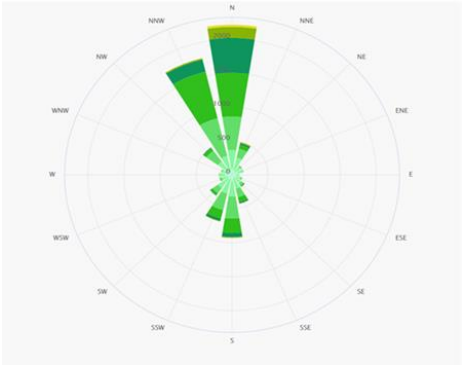
1	Change the European Air Traffic Management network, and encourage environmental improvements through provision of shorter and better routes.
2	Support the rapid transition to the widespread use of Sustainable Aviation Fuels for long-haul flights in particular. SAF is too expensive and we must incentivise its production and use.
3	Develop highly-efficient, large-capacity, short-haul aircraft to handle passenger throughput.
4	Undertake a total fleet renewal by 2050 so that aircraft only fly if they are wholly or partly electric, or for long-haul flights only use SAF.
5	Bridge the gap to electrification of short-haul passenger aircraft through hybridisation and improving battery energy densities, while developing hydrogen fuel-cell and electrofuel technology and infrastructure.

Steps and Methodology:

- Organizational Mapping
- Literature Review
- Establishment of the Current Climatic Baseline
- Climate Change Modelling
- Consultation

- Risk Identification and Prioritisation - Results
- Identification and Prioritization of Adaptation Response – Results & Conclusions





The tool that is increasingly used in the analysis and assessment of climatic hazards is the development of a risk matrix. The Risk Matrix is used to present the assessment process and climatic risks at major airports. The risk assessment has identified **27 risks in the short and medium** to longer term based on the central and high climate scenarios. The impact according to AIA's Business Impact Assessment Model is as follows:

IMPACT						
	Value	Human Health	Compliance	Image	Natural Environment	Local Communities
High	6	Critical risk to human life		Negative publicity severely damaging to AIA's public image	Irreversible damage to local flora, fauna (e.g. loss of life) & ecosystems	
	5		High legal. Imminent litigation or operational restrictions			Major unrest with demonstrations at the airport
	4	Significant health or safety hazard		Sustained negative publicity	Significant damage to local flora, fauna & ecosystems	
Medium	3	Moderate health or safety hazard	Moderate legal. Possible litigation	Significant impact		Moderate unrest with possibility of demonstrations at the airport
	2	Minor health or safety hazard	Minor legal. Not likely to lead to litigation	Moderate impact. Negative press	Limited damage to local flora, fauna & ecosystems	Minor unrest with no possibility of demonstrations at the airport
Low	1	None or negligible impact on health or safety	No legal or regulatory impact	No immediate impact outside AIA	No damage to local flora, fauna & ecosystems	No unrest
Relative weight		25%	20%	20%	25%	10%

Likelihood	0.1	0.3	0.5	0.7	0.9
	Remote	Not likely (no experience exists)	Occasional (possible occurrence - at least one occurrence exists)	Likely (more than one occurrence)	Probable (incident is expected to occur)

Σ_{IMPACT}					
5-6					
4-5					Unacceptable
3-4			Review		
2-3	Acceptable				
1-2					
Likelihood	0.1	0.3	0.5	0.7	0.9