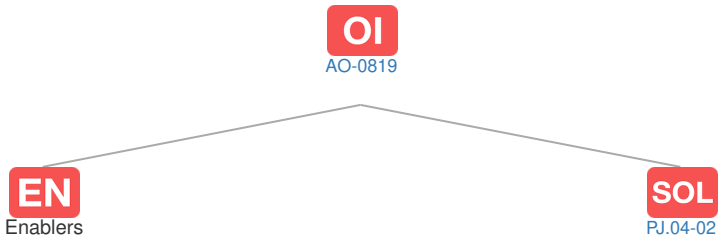
AO-0819 — Pro-active Management of Meteorological Impacts

Anticipation of impacts of a potential meteorological condition will allow to limit possible airport performance deterioration (i.e. limiting KPI degradation as best as possible).
The Pro-active Management of Meteorological Impacts is achieved thanks to:
- awareness on probability of occurrence intensity and time of various predicted meteorological conditions, especially potentially disruptive weather events
- traffic data including flight plan trajectory (with the help of big data and machine learning)
- impact assessment of those key predicted weather events on airport performance (through integrated models that forecast future performance, permitting stakeholders to possibly model what-if scenarios)
- evaluation of pre-defined solution scenarios (e.g specific runway-in-use scheme, rerouting strategy) possibly supported by previously-performed post-analysis activities and machine learning capabilities
- collaborative DCB decision-making between airport stakeholders for selection of the scenario that would best limit the overall airport performance deterioration.
Benefits are expected in Predictability, Efficiency, Capacity and Resilience (disruption duration shortened and number of cancelled flights reduced).

Rationale	Today, the capability of the airport to assess how future (forecast) meteorological conditions are going to affect performance, and decide how to react in advance, is limited. There is no indication with that weather forecast of what the impact might be on the operations of the airport. The limitation on ATM operations is that an airport is not able to prepare adequately to take mitigating actions as there is no connection between a forecast weather event and the associated operational risk. Currently different stakeholders interpret weather information separately, based on their own operations, not consolidated between each other. This compromises the overall airport performance.
Forecast V3 end date	31-12-2022
Benefits start date (IOC)	31-12-2028
Full benefits date (FOC)	31-12-2032
Current Maturity Level	V1 finalised
Solution Data Quality Index	-
Current Maturity Phase	R&D
Scope	-
Release	-
PCP Status	-

Context

Related Elements



EN Enablers

Code	Dates
	15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
AO-0819	
AIRPORT-03c	V4 V5 IOC - FOC
AIRPORT-10	V4 V5 IOC - FOC
PRO-249	V5 IOC
AERODROME-ATC-05	V4 V5 IOC - FOC
AERODROME-ATC-64	V4 V5 IOC - FOC
AERODROME-ATC-65	V4 V5 IOC - FOC
AIRPORT-03b	V4 V5 IOC - FOC
AIRPORT-07	V4 V5 IOC - FOC
AIRPORT-09	V4 V5 IOC - FOC
AIRPORT-11	V4 V5 IOC - FOC
AIRPORT-12	V4 V5 IOC - FOC
AIRPORT-31	
AIRPORT-35b	V4 V5 IOC - FOC
AIRPORT-41	V4 V5 IOC - FOC
AIRPORT-42	V4 V5 IOC - FOC
AIRPORT-54	V4 V5 IOC - FOC
HUM-008	V5 IOC
HUM-009	IOC - FOC
HUM-010	
HUM-011	IOC - FOC
HUM-012	IOC - FOC

OI Dependent OI Steps: No associated data

SOL SESAR Solutions

Code	Title	Program	Related Elements
PJ.04-02	Enhanced Collaborative Airport Performance Management	SESAR 2020 Wave 1	SOL PJ OI DS EOC

PCP PCP Elements: No associated data

OBJ Implementation Objectives: No associated data

ICAO Block Modules: No associated data