Sustainable Airport Operations

Riyadh

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#TS310523

ATI alignment around a common goal - Net Zero 2050

NET ZERO by 2050: one of the only global sector-specific climate goals

194 Countries with NDCs

PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11

National contributions exclude international air travel

Airlines

IATA

FLY NET ZERO

Airports

ACI
AIRPORTS COUNCIL INTERNATIONAL

International Flights

ICAO · OACI · ИКАО

Americas

Federal Aviation Administration

Inflation Reduction Act

Sustainable Aviation Fuel Act

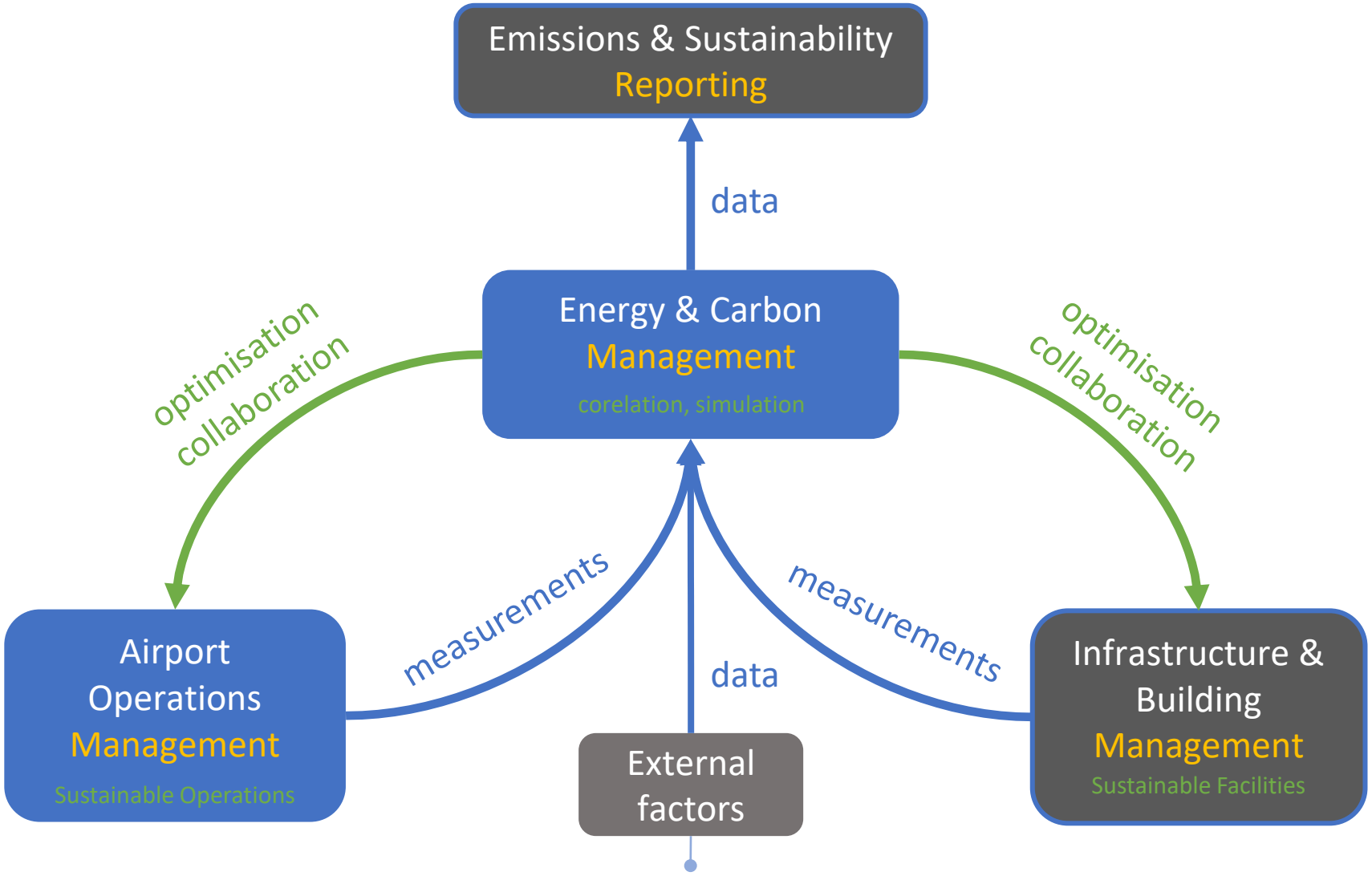
SAF Grand Challenge

C-SAF

SITA

SITA Sustainability Solutions

Framework



- e.g. weather, carbon pricing, …

SITA Sustainability Solutions

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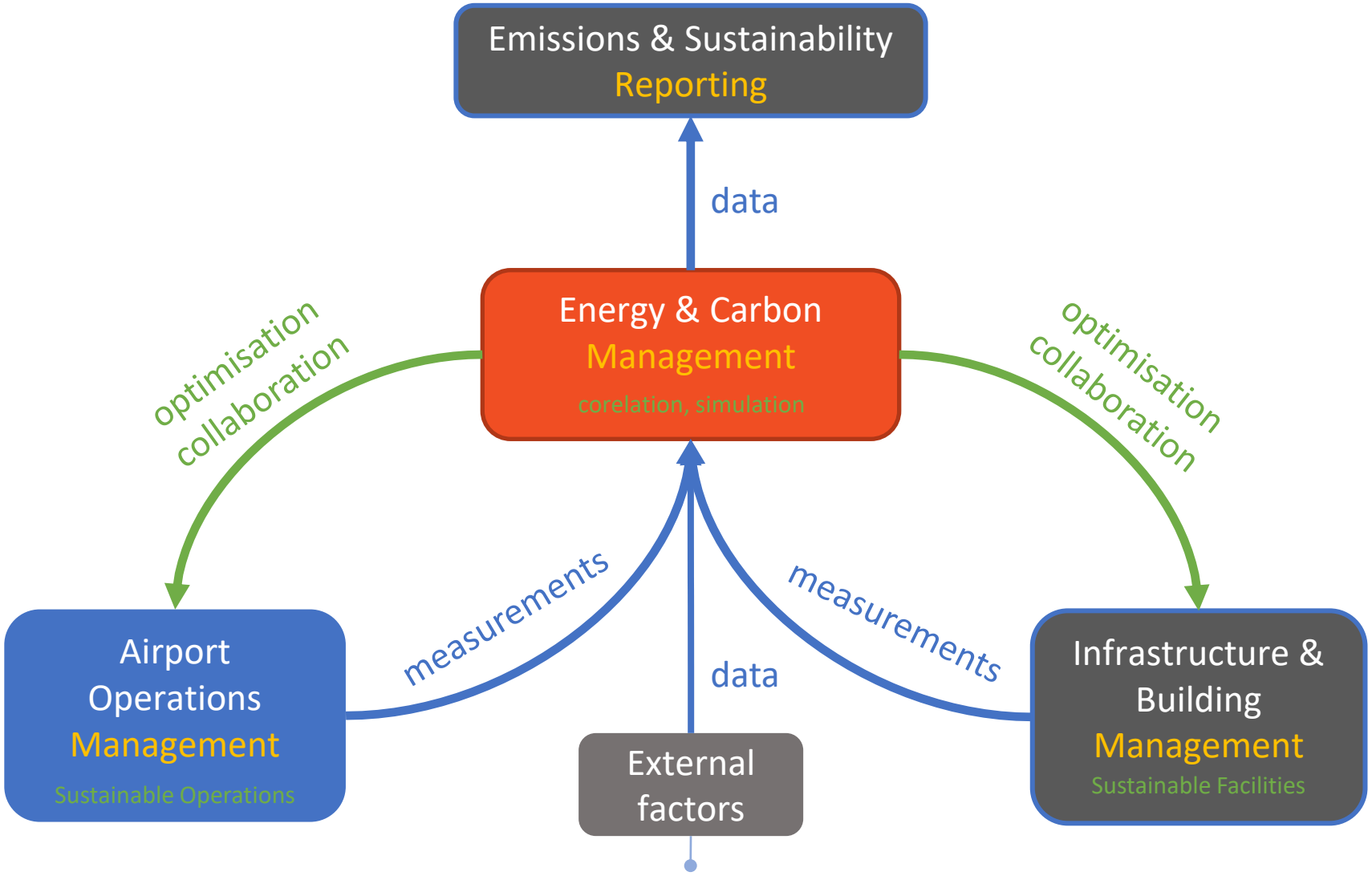

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Ground emissions | Yearly comparison

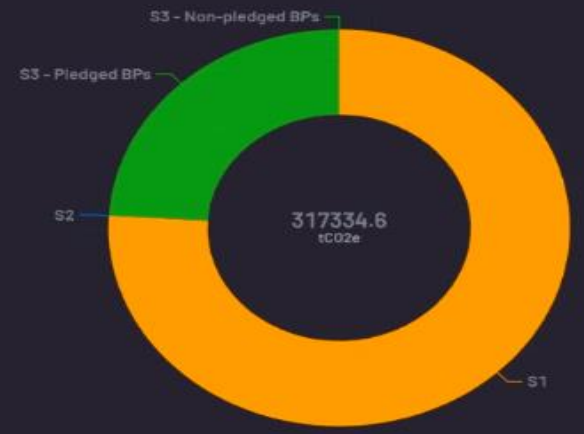
HKIA Ground Emissions In ${Year}

S1	4185.0	tCO2e	1.1 %
S2	89842.0	tCO2e	23.1 %
S3 - Pledg...	126042.0	tCO2e	32.3 %
S3 - Non-p...	19604.0	tCO2e	5.0 %
S3 - Other...	150029.0	tCO2e	38.5 %

HKIA 2050 Net Zero Carbon Pledge In ${Year}

S1 - Stati...	115.00	tCO2e	0.05 %
S1 - Mobil...	1226.00	tCO2e	0.56 %
S1 - Fugit...	2844.00	tCO2e	1.29 %
S2 - Elect...	89842.00	tCO2e	40.83 %
S3 - Pledg...	37350.00	tCO2e	16.97 %
S3 - Pledg...	88693.00	tCO2e	40.30 %

Ground emissions | Aircraft-related emissions | HKIA total emissions | 2050 Net Zero Carbon Pl...



S1	241245.4	tCO2e	76.0 %
S2	9.4	tCO2e	0.0 %
S3 - Pledg...	76283.7	tCO2e	24.0 %
S3 - Non-p...	5.3	tCO2e	0.0 %
S3 - Other...	-209.2	tCO2e	— %

ons | 2050 Net Zero Carbon Pl...

HKIA 2050 Net Zero Carbon Pledge

(including [57%] HKIA ground emissions in [2021])

[220,070] tCO2e- in [2021]

AAHK's stationary, mobile and fugitive emissions	Scope 1, 2%
AAHK's electricity	Scope 2, 42%
AAHK's business partners' operations	Scope 3, 57%

- BPs' Scope 1: [17%]
- BPs' Scope 2: [40%]

SITA Sustainability Solutions

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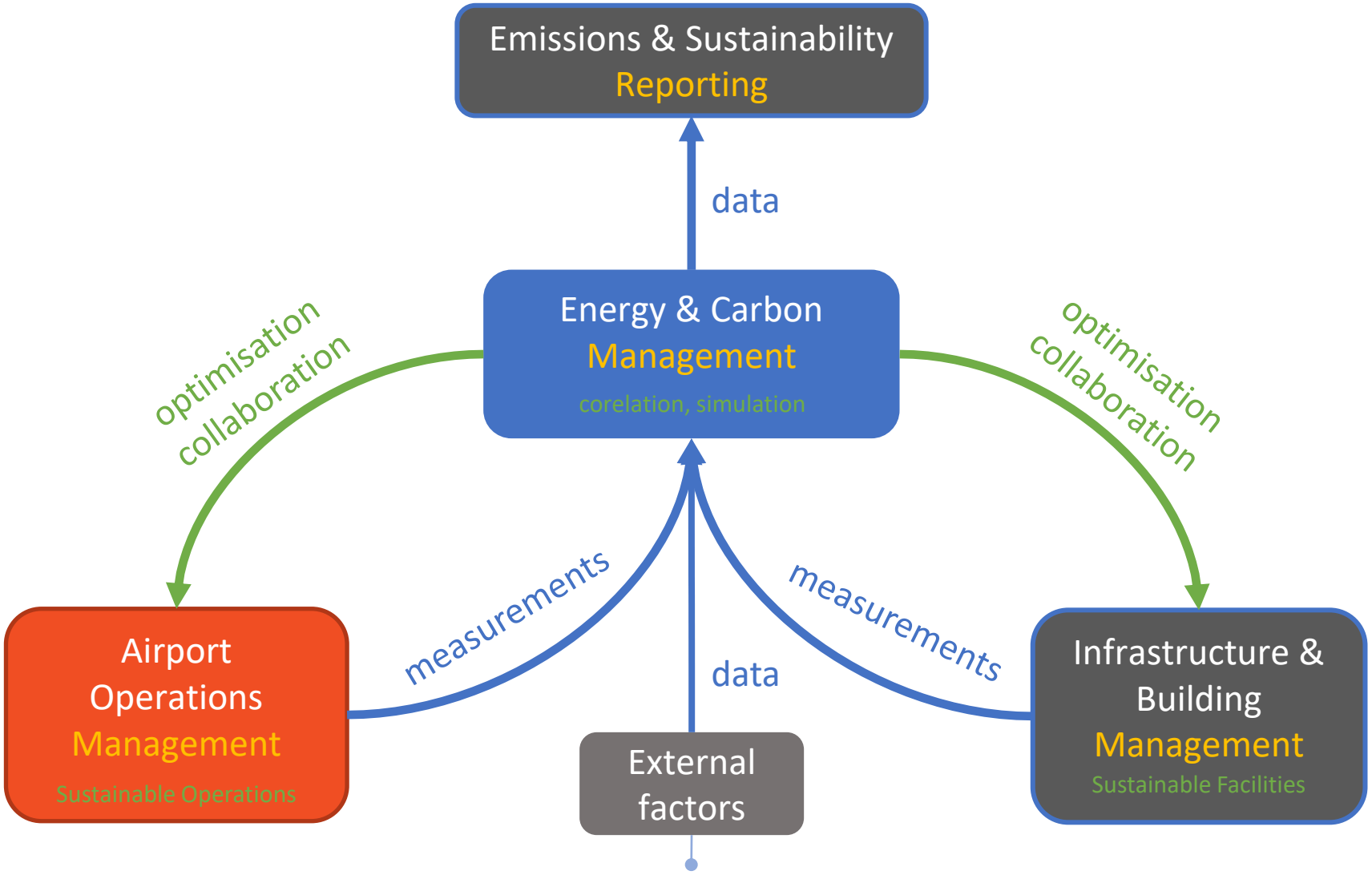
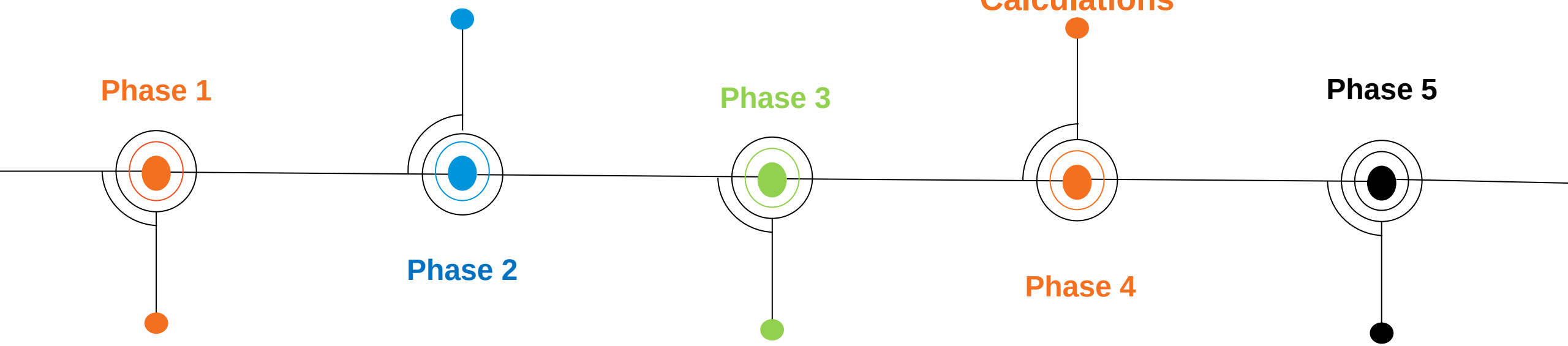


- e.g. weather, carbon pricing, …

Sustainable Airport Operations Management

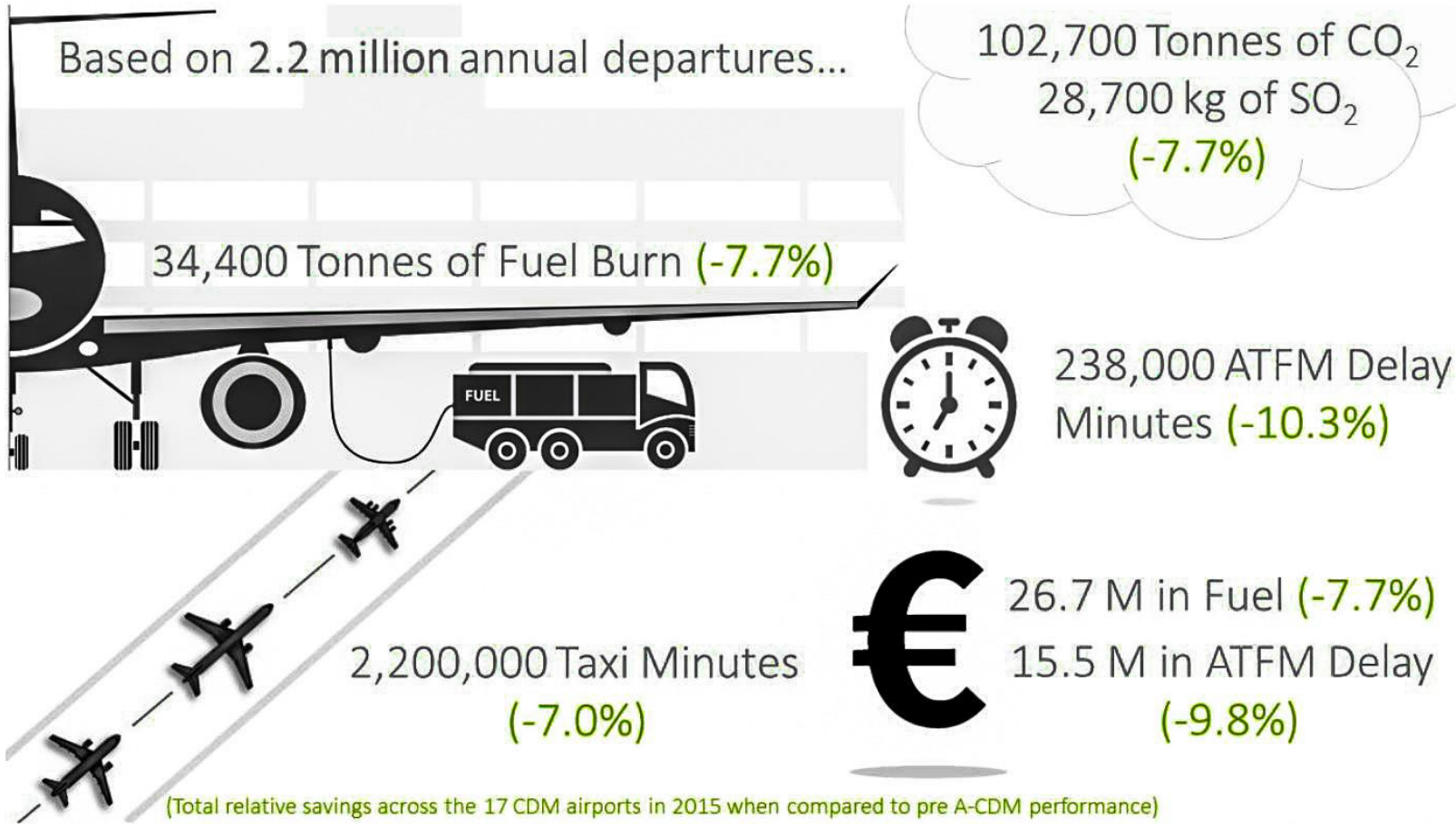


AIRPORT COLLABORATIVE DECISION MAKING

SITA

A-CDM - Objectives & Benefits

- Improve predictability
- Improved OTP
- Optimize GH resources
- Optimize use airport infrastructure
- Flexible pre-departure planning



Airside Optimizer* – Subscribe and use the components you need

Departure Stream

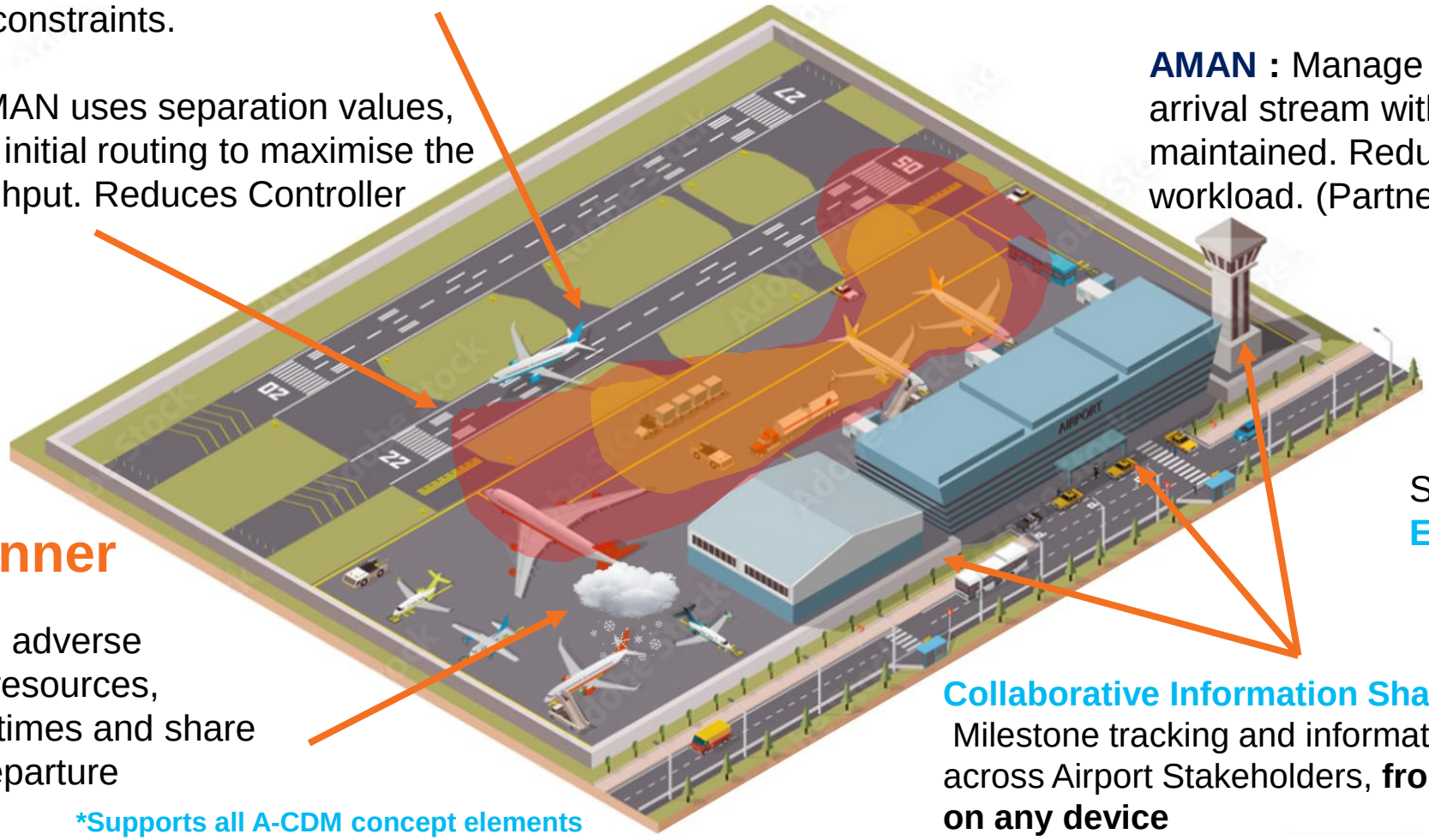
SITA PDS: With set runway capacity the pre-departure sequencer will sequence departures using rules and constraints.

SITA DMAN: DMAN uses separation values, aircraft type and initial routing to maximise the departure throughput. Reduces Controller workload.

Arrival Stream

AMAN : Manage and sequence arrival stream with separations maintained. Reduces Controller workload. (Partnership)

DFS Aviation Services



EUROCONTROL

Seamlessly **integrate to EUROCONTROL** network

De-Ice Planner

SITA DE-ICE: In adverse conditions plan resources, aircraft de-icing times and share real-time with departure sequencers.

*Supports all A-CDM concept elements

Collaborative Information Sharing Portal
Milestone tracking and information sharing across Airport Stakeholders, **from anywhere on any device**

SITA

Airport Operations Systems

SITA

SITA Fixed Asset Management

SITA is the only provider that facilitates the management of all fixed resources via a single integrated solution, from landing to takeoff

runway de-icing pads de-icing stands apron clearances

stands gates carousels chutes lounges Check-in desks arrival desks vehicles

Resource Allocation

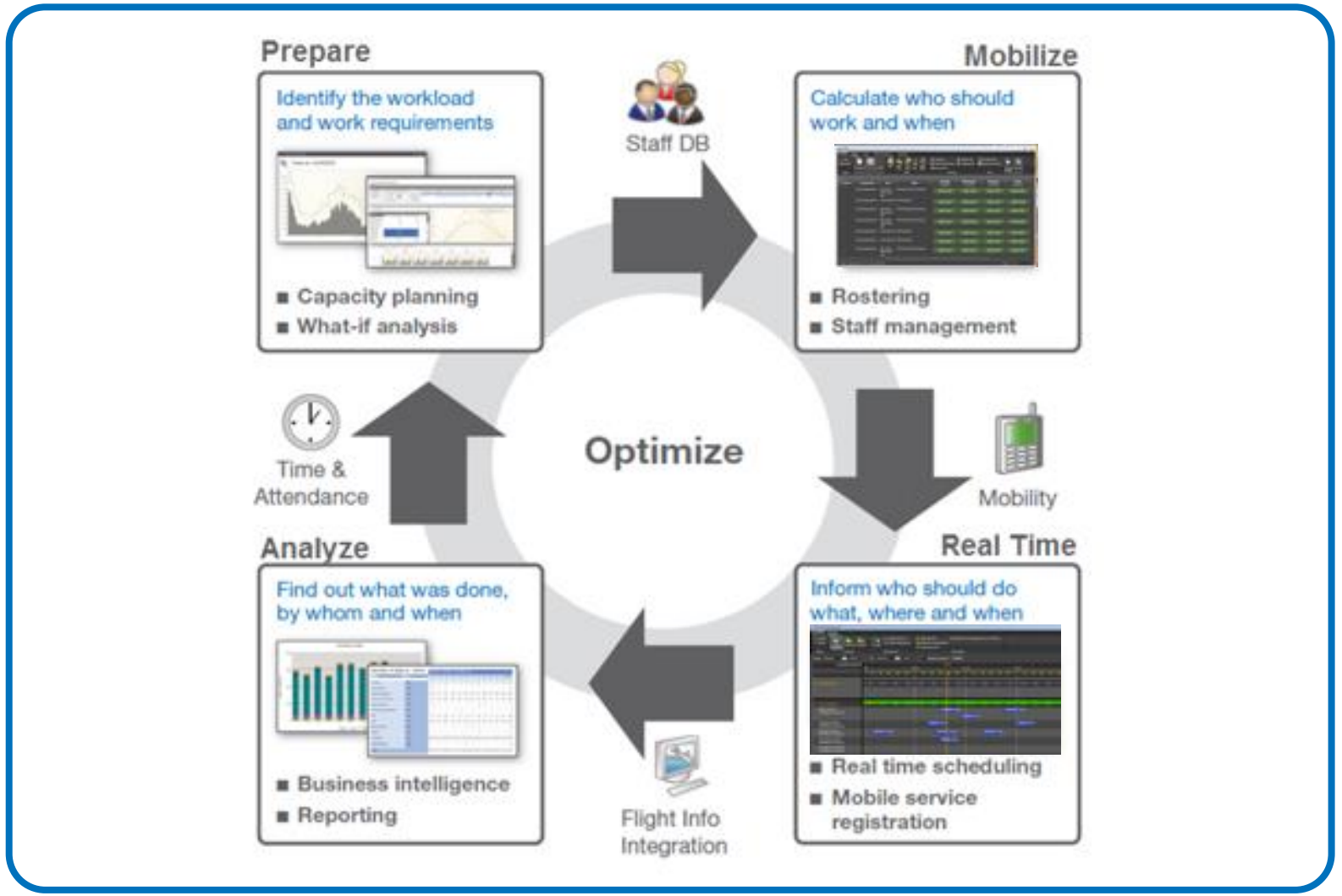
De-icing Resources

Fixed Resources

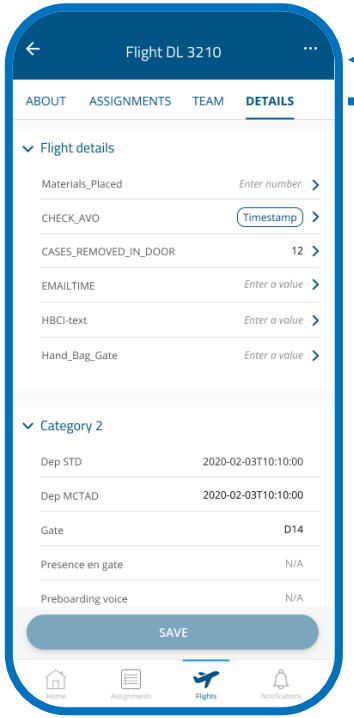
Mobile Resources

The Mobile Resource Management modules in AMS6

RESOURCE MANAGEMENT LIFECYCLE



How it works



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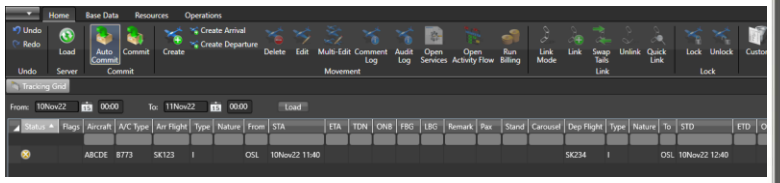

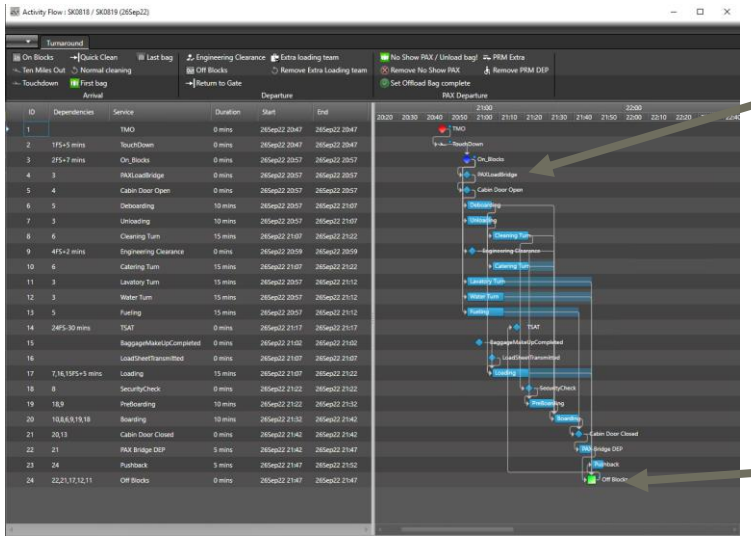

Cargo Door Open

TOBT