



| ICAO

CAPACITY & EFFICIENCY

# A-CDM Basic Principles

Bahrain A-CDM Seminar

Nicolas Hinchliffe



# *Overview*

*Understand the basic principles of A-CDM and who can be involved.*

# Plan

- **A-CDM ?**
- Objectives
- Uses
- Benefits
- Players

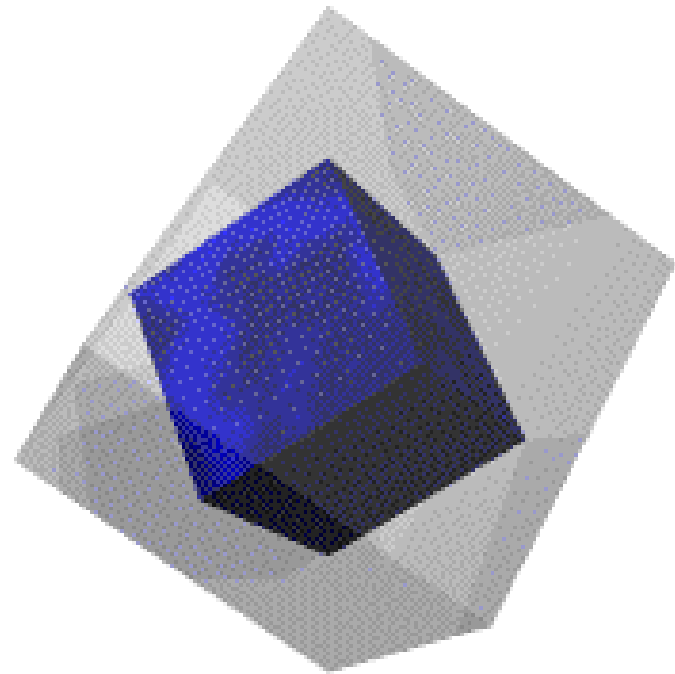
# A-CDM ?

What do you know ?



# A-CDM

A-CDM C CDM





# CDM

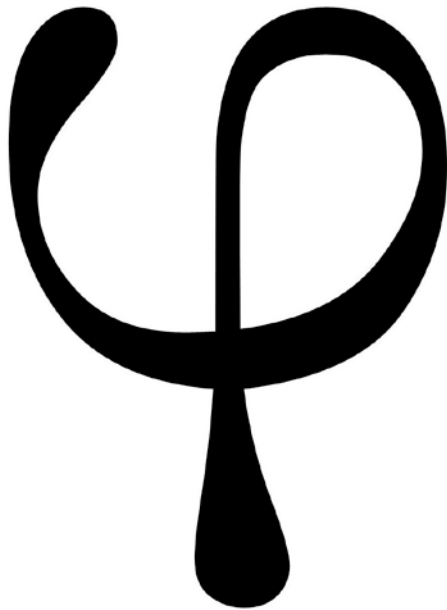
*Collaborative decision-making (CDM) is defined as a process focused on how to decide on a course of action articulated between two or more community members. Through this process, ATM community members share information related to that decision and agree on and apply the decision-making approach and principles.*

***Foreword***

***ICAO DOC 9971, Manual on collaborative air traffic flow management***

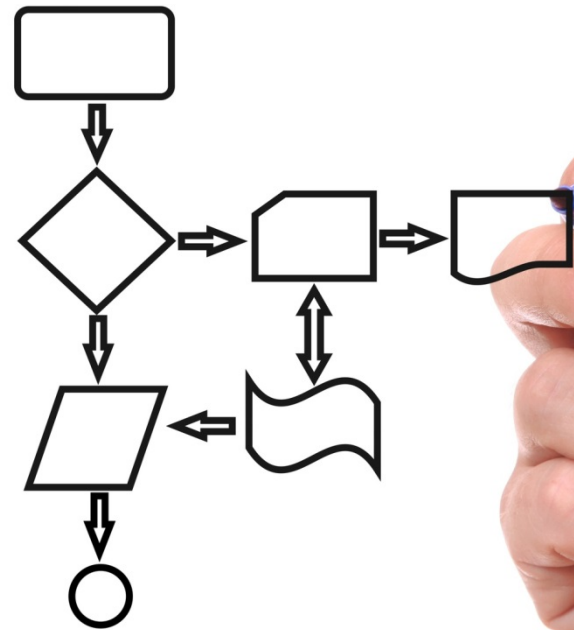


# A-CDM ?



Philosophy

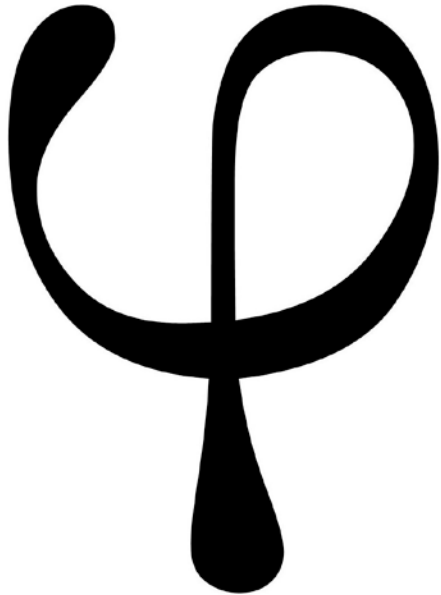
Process





# A-CDM ?

State of mind



*I need to talk to the others*





Why are there so many birds now ?!?

Where is that firetruck ?!?

Those en route controllers are never happy anyway !

Where is DLH 0743 ???

**WHAT ?!?! If only I had known !**

*If only they could tell me how many departures they plan...*

Where is my fuel ?!?

What is this tractor doing ?!?!

Now ?!?! A runway inspection now ?!?!

When can they load the rest of the luggage ?

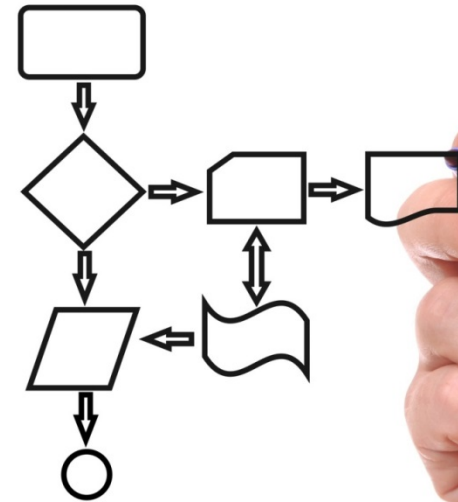
They could have told us 5 minutes ago !!!

**You could have told me !!!**

# A-CDM?



...and a process  
(philosophy alone does  
not deliver a result)



# A-CDM?

- AIRPORT CENTERED
  - No need for any major structure
  - Small scale project before anything else
  - Can be linked to ATFM (Not compulsory)



A-CDM

A-CDM

A-CDM

A-CDM

A piece of white paper is torn at the top and bottom edges, revealing a bright blue background. The word "simple." is written in a bold, dark grey, sans-serif font on the white paper. To the right of the white paper, there is a vertical strip of blue paper that appears to be a piece of tape or a sticker, partially overlapping the white paper and the blue background.

**simple.**



# Plan

- A-CDM ?
- **Objectives**
- Uses
- Benefits
- Players

# Objectives

- Predictability
- On time performance



- Gate / Stand usage
- Taxiway Apron Congestion





# Plan

- A-CDM ?
- Objectives
- **Uses**
- Benefits
- Players



# Uses



Irregular Operations



Normal Operations

# Plan

- A-CDM ?
- Objectives
- Uses
- **Benefits**
- Players

# Benefits

## Measurable – Demonstrable



- CO2 / NOx
- Fuel Saving
  - Taxi time
- Punctuality

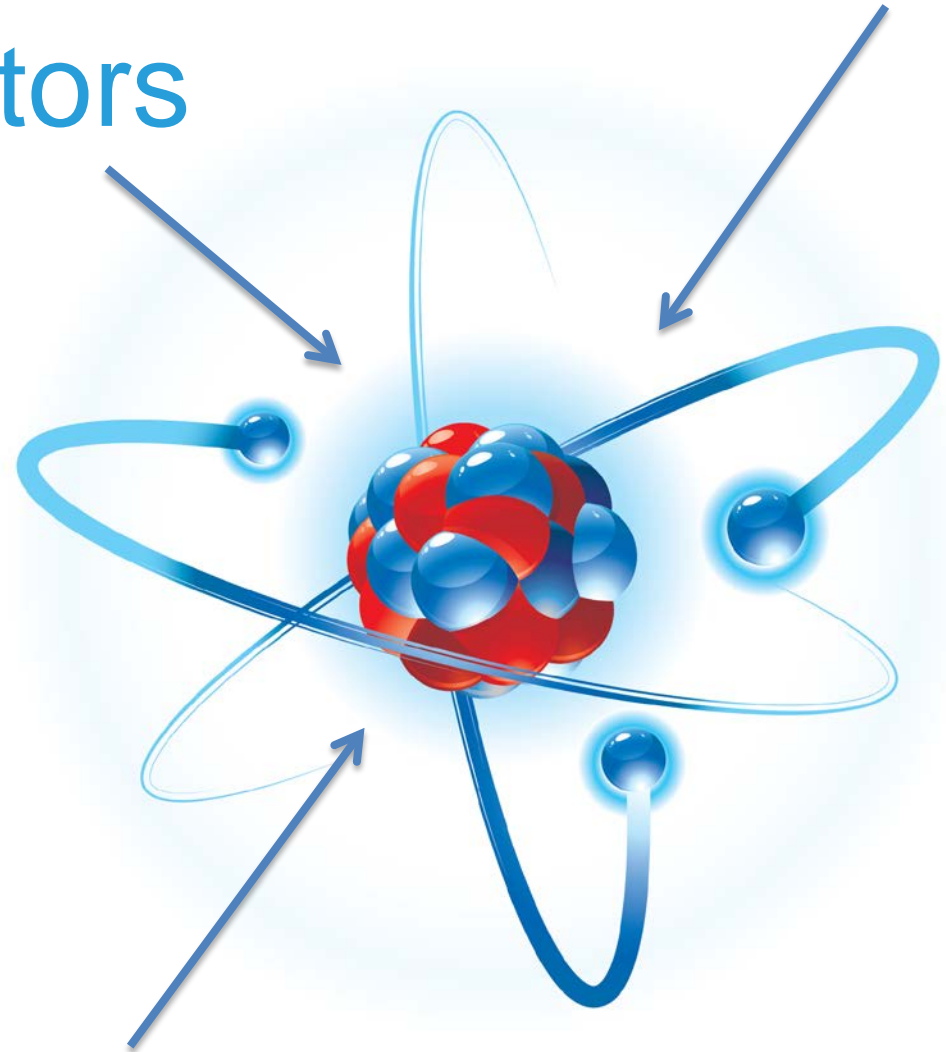


# Plan

- A-CDM ?
- Objectives
- Uses
- Benefits
- **Players**

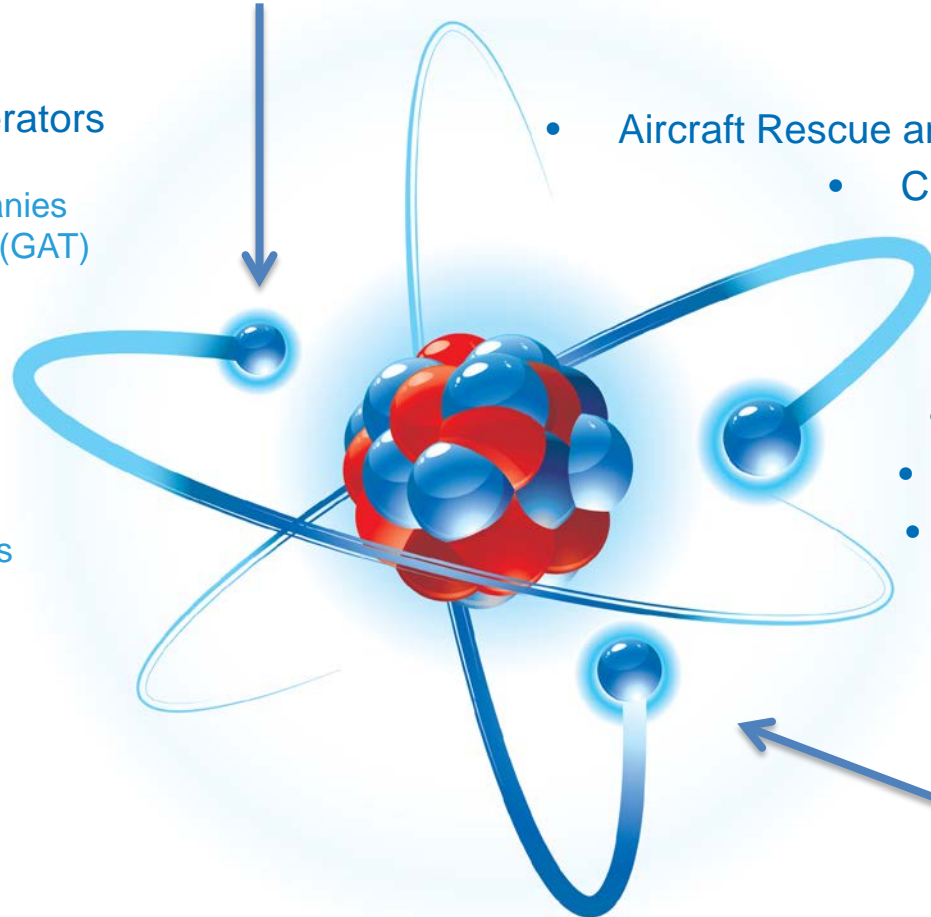
# Actors

- ATC
  - Tower
  - App
  - En route
- Aircraft operators
- Aerodrome Operators
- ATFM Network Operators



# Stakeholders

- Other aircraft operators
  - Airlines
  - Charter companies
  - Executive jets (GAT)
  - ...
- ATS
- Airport Authority
  - APOC
  - Handlers
  - Gate Managers
  - ...
- Fuel
- De-icing
- Weather Service
- AIS



- Aircraft Rescue and Firefighting (RFF)
  - Civil Aviation Authority

And ...

- Local authorities
- Military authorities
- Security agencies
- ...







| ICAO

CAPACITY & EFFICIENCY

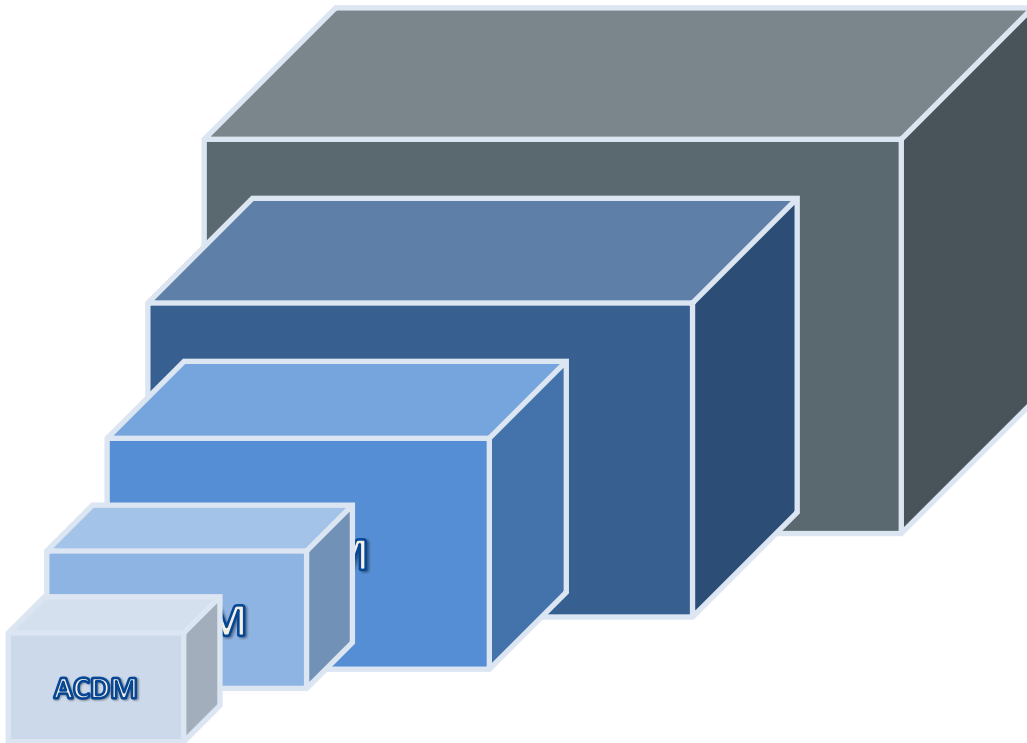
# THANK YOU

**Nicolas Hinchliffe**

Nhinchliffe@icao.int

+1 514 954 8219 #8026

# A-CDM ?



keep it **simple.**

