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INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY

Module 6 – Performance Based Approach



Performance Based Approach

Module 6

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1

Introduction

Reference Material

ICAO Doc Manual on Global Performance of the Air Navigation System (Doc 9883).

ICAO SAM Office Key Performance Indicators Workshop 2021, by Javier Puente (ICAO).

Global Air Navigation Plan (GANP).

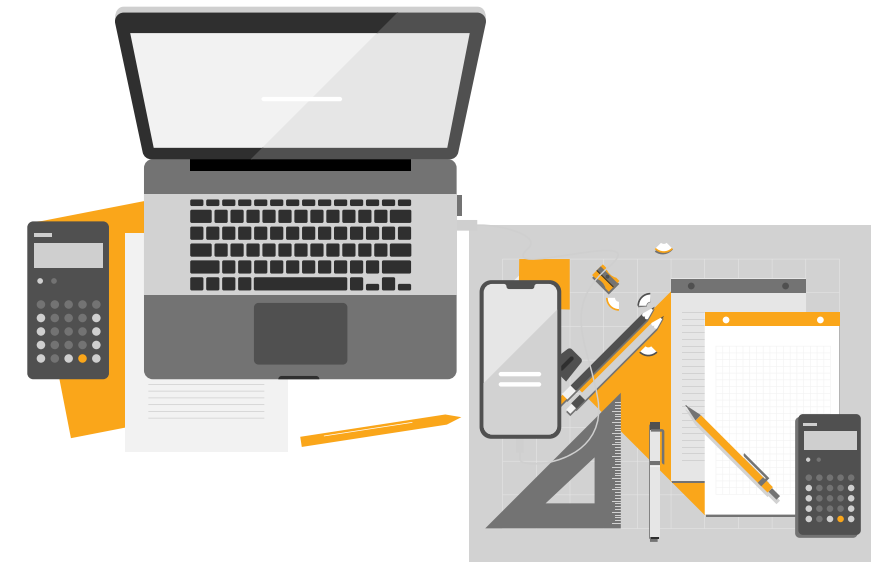
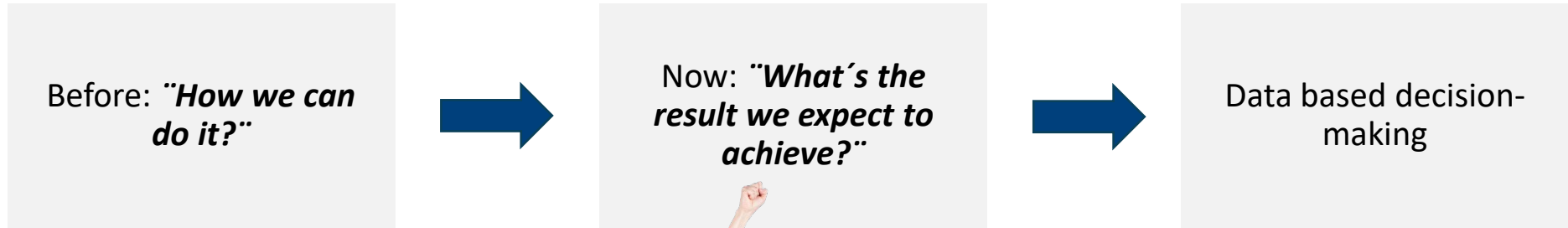
ICAO Global Air Navigation Plan and Aviation System Block Upgrades (ASBU)

2

Performance
- Based
Approach

Performance Based Approach

Paradigm Shift



Performance Based Approach

If it can't be measured, it can't be managed

Principles

- Focus on results
- Informed decision making, based on facts and data

Advantages

- Results oriented
- Promotes transparency
- Freedom in choosing solutions
- Scientific approach (end of “anecdotal evidence”)
- Prioritization and resource allocation

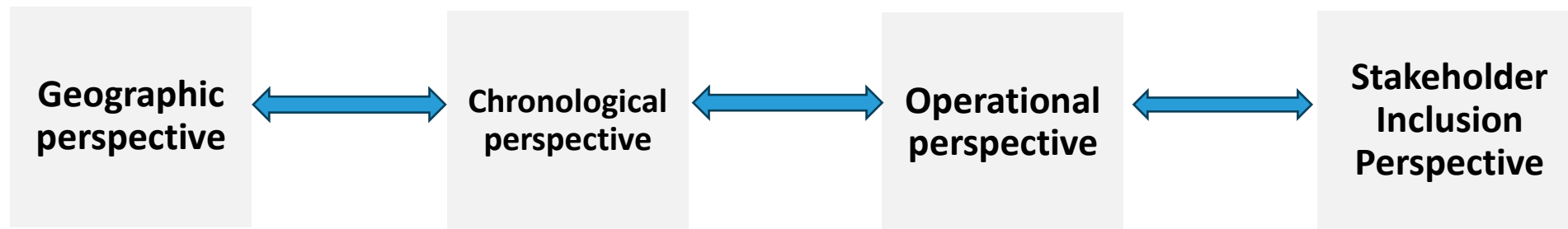
Purpose

- Policy formulation
- Regulation
- Transition planning
- System design and validation
- Management (economic and operational)
- Continuous improvement (system optimization).

Balanced Total System Approach

Performance Based Approach

Interdependencies and need for collaboration



All members of the ATM community must cooperate based on performance across geographic boundaries, operational boundaries (e.g., flight phases), across subject areas, and across planning and management activity boundaries.

Path to success



Commitment



Agreement based in objectives



Organization



Recursos humanos y conocimiento/expertos



Data collection, processing, storage and reporting



Collaboration and Coordination

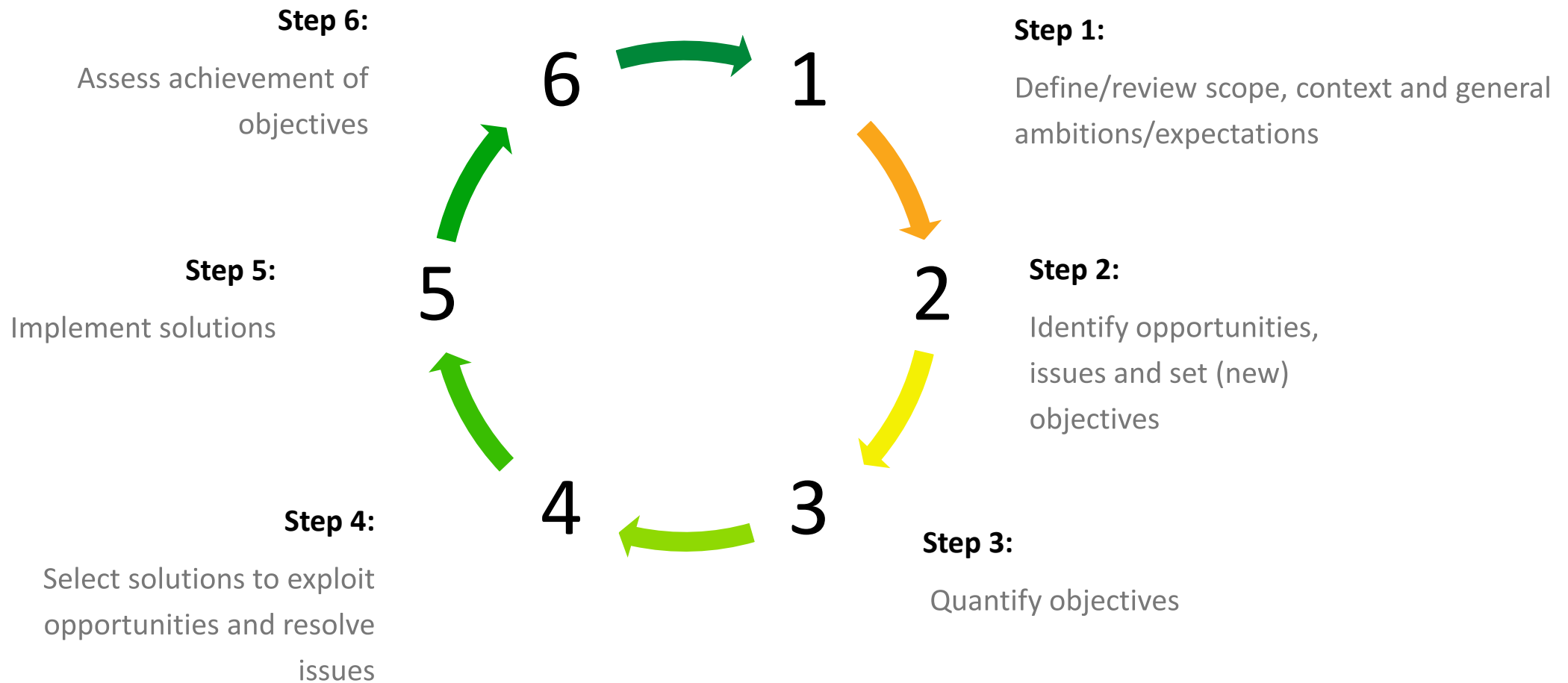


Costs repercussions

3
Six-Steps
Method



Six-Steps Method



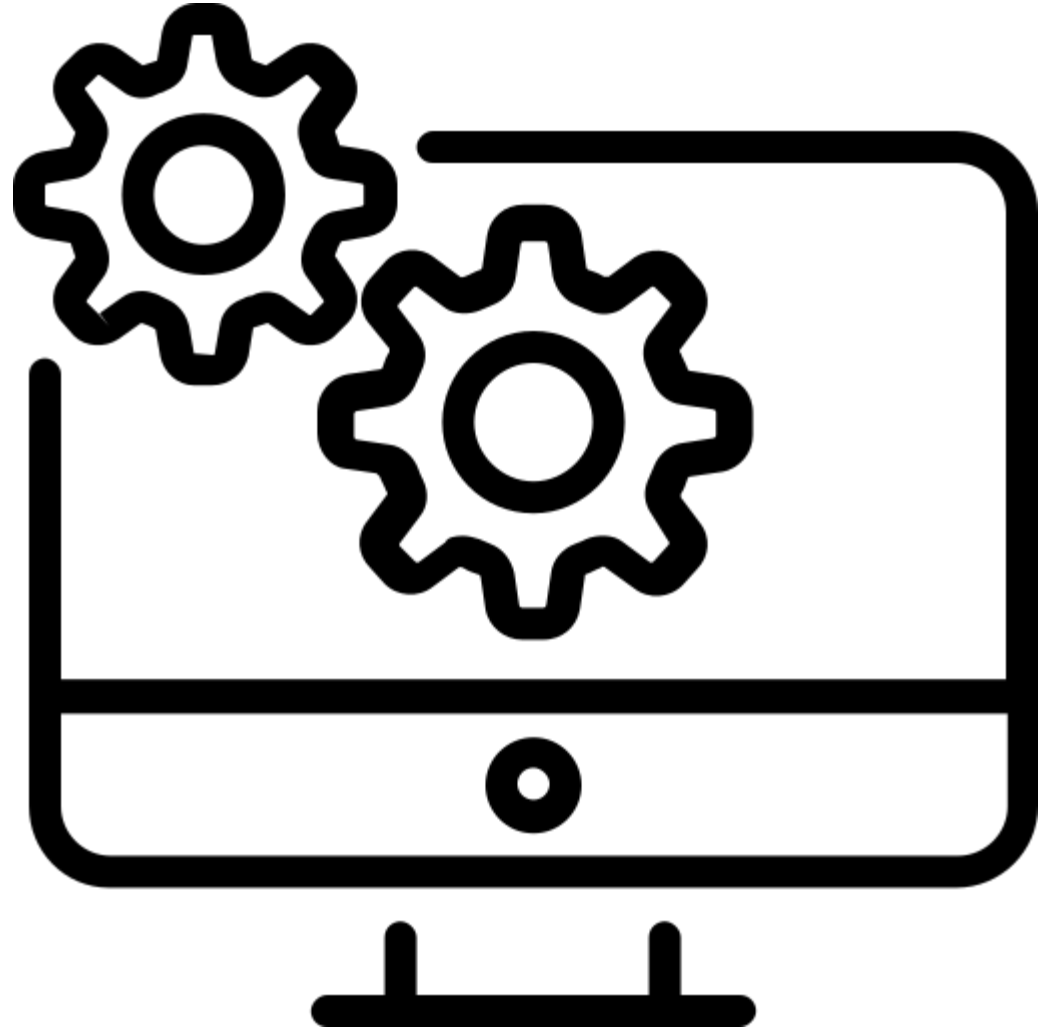
Where to start?

- Developing a good understanding of the performance-based approach
- Evaluation of currently used approaches
- Definition of execution priorities
- Initiation with limited scope
- Establishment of commitments and collaboration.
- It is very important to develop a sufficient level of practical knowledge, which will give greater experience and solidity when starting a larger project.

For a bigger project:

- Ensure that the project has a core team
- Within the core team, establish a technical support group
- Develop and execute a plan to establish basic acceptance and understanding of the PBA among the broadest group of participants

4
Practical
examples





Case presentation

EANA (Empresa Argentina de Navegación Aérea) - ANSP Argentina

Context – Year 2016

- Prior to the beginning of the provision of air navigation services by EANA, there were no robust statistics on the sector in Argentina. Only data on movements and transported passengers was published by the airport regulatory body.
- At EANA, the challenge arises of beginning to measure all aspects related to air navigation services.

Initial Actions

- The Statistics Department was recently established, with no experience in the industry.
- Quantitative information needs were identified with different areas.
- Different surveys were carried out at the central level and airports, to investigate the existence of manual and automatic records.
- Contact was established with the aeronautical authority, organizations and airlines.

EANA (Empresa Argentina de Navegación Aérea) - ANSP Argentina



First Results (2016-2018)

- Online monthly report with movements and passengers
- ATC Delay Measurement
- Internal provision of quantitative information

Permanent Actions

- Local, regional and international contacts
- Permanent training in air navigation
- Multidisciplinary work with technical areas
- Radar data collection.

New challenge

One of the objectives set at that time was to have traceability of each flight to which EANA provided its services in order to better understand how the airspace was managed and find both good practices and opportunities for improvement. Likewise, it was hoped to have a better understanding of flight planning to be able to manage them efficiently.

Example – Centralized data project

ATM System EANA Argentina (2018- 2022)

Starting Year 2016	Automation Project (2018-2022)
“Billing” System	CDAE Project (Consolidation of statistical data)
ATM systems from 5 FIRs	ATM systems from 5 FIRs
Flight information and use of flight reporting points. For each FIR	Input all the information from ATM system recorded from system log, from flight records to ATFM messages.
Information pre-processed by the provider	Information with no process, free text
Daily reception	Daily reception
Bi-weekly/weekly manual consolidation	Automated-daily consolidation

Example – Centralized data project (cont.)

ATM System EANA Argentina (2018- 2022)

Previous actions

- Validation of the initial need
- Formation of a basic team (Statistics – IT)
- Identification of technical references (CNS) of each region
- Creation of internal processes for the automatic obtaining of daily data
- Project Presentation (Part 1 and 2)
- Evaluation and hiring of an external provider

Validations

- Partial deliveries by the supplier
- Validations of basic equipment and technical support
- Go to production

Final Result

ATM System EANA Argentina (2018- 2022)

Product

- Centralized database updated daily.

Roles

- IT: Database administration and technical support.
- Statistics: Generation of indicators, creation of dashboards, provision of statistical information to planning areas.
- Internal consumers: different areas of EANA.
- External consumers: general public for non-sensitive data, through web publications, local and international aviation organizations.

5 Questions





Thank You!