



# Planning and designing the QMS

## ICAO Secretariat

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# Outline

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02

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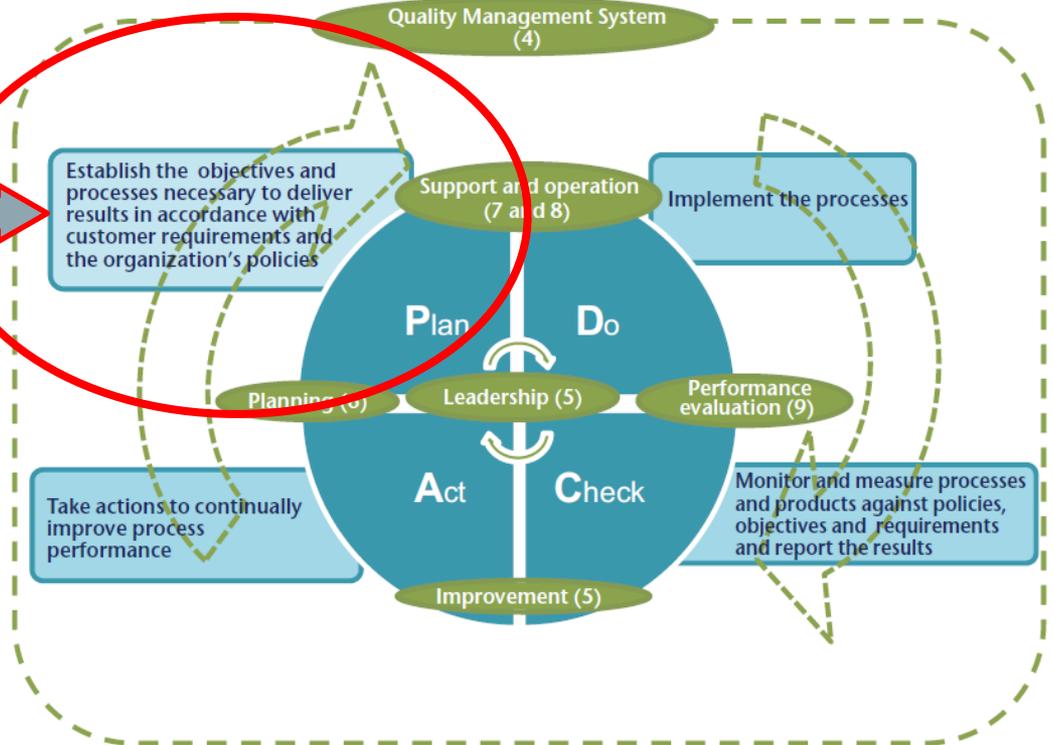
The Policy

06

Planning

## PLAN

Focus of this presentation





- Identify the internal and external factors that affect, or have the potential to affect, the QMS
  - The external context considers issues from:
    - local, regional, national and international perspectives: legal, technological, competitive, market, cultural, social and economic.
  - The internal context considers:
    - the values, culture, knowledge and performance of the organization.
  - Done using the environmental scanning tool:
    - based on the traditional strengths, weaknesses, opportunities and threats (**SWOT**) analysis;
      - a process that can be used to identify an organization's strengths, weaknesses, opportunities and threats.
    - The environmental scan will assist in determining the QMS scope
  - Appendix 1 to the **WMO-No. 1100 Guide** should be used (*Environmental Scanning Tool*).



## Strengths

Characteristics of the MET authority that allow it to operate more efficiently and effectively



## Opportunities

Trends, circumstances or opportunities that may be taken advantage of.  
E.g. are there any changes in technology such as new software?/ local and global requirements?

# 1. SWOT Analysis



## Weaknesses

Areas within the MET Authority that are recognised as needing improvement.  
E.g. what causes problems or complains from the users of MET info/ What needs to be modified?



## Threats

Can be external or internal, -E.g. what are the obstacles? Any potential changes to staffing/technology that can threaten the supply of information?

## 2. Categorize the factors

- from the following national, international, regional and local perspectives



### Legal

- Possible changes in regulation/legislation
- Government bureaucracy



### Technological

Development of new MET products



### Competitive

Customer problems and complaints with current MET products and services



### Market

Needs for the MET Authority's products and services



### Cultural/social

Demands by the users



### Economic

National and internal financial trends that can affect provision of MET information.



## 3. Prioritise

- Once the SWOT analysis is completed,
  - use a prioritization process **to identify the top four or five items in each section**. Consider:
    - What must be addressed immediately?
    - What can be handled now?
    - What needs researching further?
- **Develop and document:**
  - Realistic strategies to address each item
  - Resources required – human and costs, if known

**WMO-No. 1100 Guide** App. 1 (Environmental Scanning Tool) provides guidance for scanning MET Service Provider's Context.



## Understanding the needs and expectations of the users of MET information

- The first task:
  - identify all the users to be supplied with MET information.
- A simple but comprehensive stakeholder analysis should be performed.
  - template provided in Appendix 2 to the **WMO-No. 1100 Guide** (Stakeholder Analysis Template)

Stakeholder/interested party name	Community sector/industry	Relationship/requirements/ interaction with the organization	Comments (if applicable)

### Users:

- Operators;
- flight crew members;
- air traffic services units,
- search and rescue services units;
- airport managements; and
- others concerned with the conduct or development of international air navigation.



- Define the scope:
  - Provides the boundaries as to what is covered when developing, implementing and auditing the MET QMS.
  - Usually meticulously articulated on the certification of compliance
    - to ensure there is absolutely no confusion as to what sections and activities of the QMS are certified as being in compliance with ISO 9001:2015.
- The environmental scanning activity will provide useful input into defining the scope of the QMS:
  - Avoid ambiguity;
  - If there are changes to the scope
    - should be subject to the requirements under the standard and
    - subject to audit by the conformity assessment/certification body who would confirm, or otherwise, the inclusion of the change under the certification.

- The high-level requirements for the design of a process-based management system:
  - focus on the QMS processes and the associated documentation
- Process matrix template in Appendix 3 to the **WMO-No. 1100 Guide 3** provides a useful tool for identifying and addressing the requirements.

Objectives				Key performance indicators			
[Insert QMS objectives here]				[Insert KPIs associated with QMS objectives here]			
Core process	Purpose	Inputs	Outputs	Process owner	Process risks	Controls/resources	Monitors/measures
1. [Insert identified core process here]	[Provide a detailed description of the process purpose]	[Detail the inputs and dependencies for the process here]	[Detail the outputs (products and services) of the process here]	[Officer responsible for the process]	[Detail the identified risks associated with the process]	[Provide details of any controls applicable to the process and specific resources that are required for the process]	[Detail any monitors and measures applicable to the process]
2.							
3.							

- Provides useful evidence for demonstrating the processes that underpin QMS activities.
- It is also a useful planning tool in terms of providing input into the requirements of other clauses including those associated with risk, planning, resources, and the monitoring and measuring of outputs of the QMS.



# Leadership and commitment

## Top management

Endorsement of the policy;  
Must be made aware and must fully understand their roles pertaining to the policy.



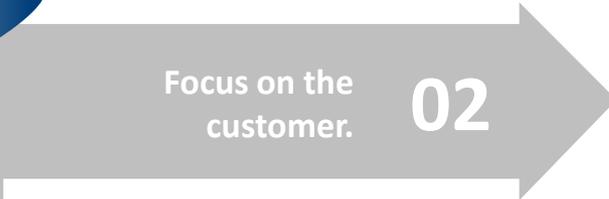
## Top management

Allocation of the resources necessary to support the implementation of the QMS



## Top management

This is not a once-off activity for top management:  
but one that will underpin ongoing levels of customer satisfaction and continuous improvement.



Focus on the customer.

02

The key to addressing the requirements identifying and meeting customer needs, and, wherever possible, exceeding their expectations.

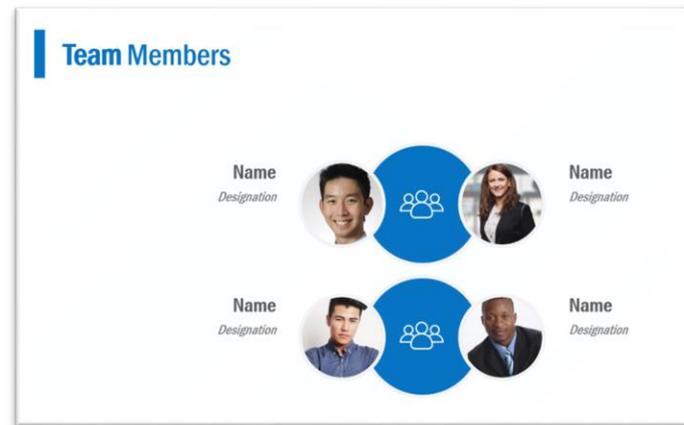
- Establishing the Quality policy
  - can be reviewed as appropriate,
- Communicating the policy
  - Availability to the users of MET information



Responsibilities and authorities are defined and communicated within the QMS

## QM representative:

- no longer a requirement for one
- there is a new requirement for top management to ensure that someone is tasked with preserving the integrity of the QMS while planning and undergoing change.
- Providing a QM duty in job descriptions and duty statements
  - an effective way of achieving this.



## Job descriptions

- Scheduled reviews of job descriptions should be clearly articulated, in particular, when a position is advertised as a vacancy
- illustrating reporting lines- such as an organisational chart



## Risks and opportunities

Determining the risks and opportunities

- a formal risk management process is not a requirement , but is encouraged

1

2

## Setting objectives and planning to achieve them

- Setting quality objectives and associated key performance indicators (KPIs)
- consistent with the quality policy
- Determine required resources

## Planning for changes to the QMS

It is very important to document planned changes.

3

# Questions??

01

Answer 1

02

Answer 2

03

Answer 3





ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



ICAO

North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montréal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Sub-office  
Beijing

Asia and Pacific  
(APAC) Office  
Bangkok



THANK YOU