Workshop on Process Mapping and Risk-Based Quality Planning

Development of a QMS Certifiable to ISO 9001:2015 for the Department of Energy

May 11 & 15, 2018

DOE Bldg., Bonifacio Global City, Taguig City

Tell me and I forget, teach me and I may remember, involve me and I learn.

-Benjamin Franklin

Session Objectives

- Draft the process map
- Develop an in-depth understanding of the Agency's mission, vision, commitment to quality, and relevant issues that it may need to address through risk-based quality planning
- Identify risks and opportunities related to organizational context, i.e. internal and external issues, and issues of the relevant interested parties
- Formulate action plans to address risks and take advantage of opportunities
- Review the existing quality objectives

Target Outputs

1) Finalized Process Map
2) Finalized Quality Policy
3) Draft Risk Register and Action Plans
4) Reference Matrix

The Organization and its Context

4.3 Determining the scope of the QMS

The QMS scope defines the boundaries and applicability of the QMS taking into consideration:

- the context of the organization,
- requirements of relevant interested parties, and,
- products and services.

What to do?

- Determine the QMS scope and provide justification (if any) if a specific requirement of the ISO 9001 standard is not applicable.
- Maintain and ensure availability of documented information on these.

(per ISO 9000:2015)

Scope of the QMS

- Consider **issues**, **requirements of interested parties**, and **products and services**
- Maintain as documented information
- Type of products and services covered
- **Justification** for any ISO 9001:2015 requirement that is claimed to be "**not applicable**" to the organization

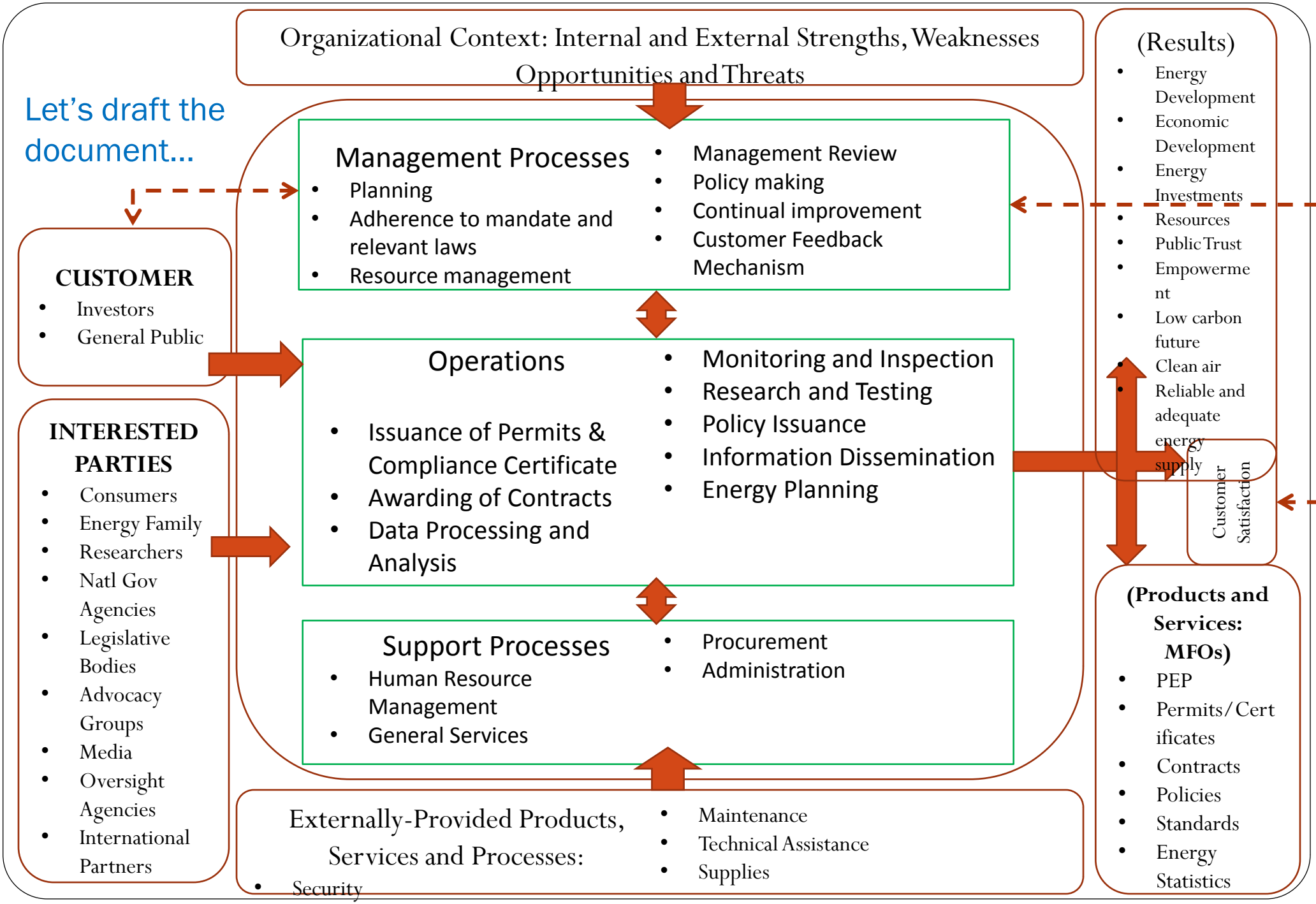
Scope – boundaries and applicability

4.4 QMS and its Processes

- **determine the processes** needed for the QMS and their application;
- determine the **inputs** required and the outputs expected from these processes;
- determine the **sequence and interaction** of these processes;
- determine and apply criteria and methods, including monitoring, measurement, and related performance indicators to ensure effective operation and control of these processes;

4.4 QMS and its Processes

- determine the resources needed for these processes and ensure their availability;
- assign responsibilities and authorities for these processes;
- address determined risks and opportunities
- evaluate these processes and implement any change to ensure achievement of intended results; and,
- improve the processes and the QMS.


Organizational Context: Internal and External Strengths, Weaknesses Opportunities and Threats
Let's draft the document...
Management Processes
Planning
Adherence to mandate and relevant laws
Resource management
Management Review
Policy making
Continual improvement
Customer Feedback Mechanism
CUSTOMER
Investors
General Public
Operations
Issuance of Permits & Compliance Certificate
Awarding of Contracts
Data Processing and Analysis
Monitoring and Inspection
Research and Testing
Policy Issuance
Information Dissemination
Energy Planning
INTERESTED PARTIES
Consumers
Energy Family
Researchers
Natl Gov Agencies
Legislative Bodies
Advocacy Groups
Media
Oversight Agencies
International Partners
Support Processes
Human Resource Management
General Services
Procurement
Administration
Externally-Provided Products, Services and Processes:
Security
Maintenance
Technical Assistance
Supplies
(Results)
Energy Development
Economic Development
Energy Investments
Resources
Public Trust
Empowerment
Low carbon future
Clean air
Reliable and adequate energy supply
Customer Satisfaction
(Products and Services: MFOs)
PEP
Permits/Certificates
Contracts
Policies
Standards
Energy Statistics

The Organization and its Context

4.2 Understanding the needs and expectations of interested parties

- Interested party refers to stakeholders*
- Relevant interested parties provide significant risk to organizational sustainability if their needs and expectations are not met

*__Stakeholder__ - A person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity

(per ISO 9000:2015)

4.2 Understanding the needs and expectations of interested parties

- Determine relevant interested parties and their requirements relevant to the QMS

What to do?

Monitor and review information on these relevant interested parties and their relevant requirements

(ISO 9000:2015)

Figure 2.1 Examples of Interested Parties

Interested party	Requirements	QMS processes
Customers	• Orders accurately taken • Products arrive on time • All product specifications met	• Sales and customer service process • Shipping and logistics process • Inspection process
Suppliers	• Accurate purchase orders • Timely payment of invoices*	• Purchasing process • Accounts payable process*
Employees	• Clear instructions and training • Paychecks accurate and on time* • Resolution of grievances*	• Training process • Payroll process* • Human resources process*
Managers	• Current information for decision making	• Management review process

Figure 2.1 Examples of Interested Parties

Interested party	Requirements	QMS processes
Community	• No excessive truck traffic*	• Shipping and logistics process
Schools and colleges	• Consideration of graduates as employees*	• Recruiting and hiring process* • Training process
Regulatory bodies	• Regulatory compliance*	• Listing of applicable regulations* • Regulatory compliance process*
Law enforcement	• Compliance with all laws • Reporting of illegal activities*	• Human resources process*
Emergency responders	• Reporting of dangerous substances* • Planned approach to emergencies*	• Emergency response process* • Emergency maps and contact lists*
News media	• Response to requests for information*	• Public relations process*

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Logo	Name of Agency **Quality Management System** List of Interested Parties and their Requirements	Doc Ref No.:	AGC-QMS-02
		Effective Date:	
		Revision No.:	
		Page No.:	1 of 1

Interested Parties	Needs	Expectations
LGUs	Statistical data	• Timely release • Reliable data
Employees	Direction and instructions Compensation and benefits Training and development	• Clearly defined policies and procedures • Open communication • Timely release of salary • Improved employee benefits • Relevant training • Defined career path
Management	Feedback Performance monitoring and accomplishment reports	• Fact-based feedback • Timely submission of reports • Reliable reports
Suppliers	Purchase information (e.g. TOR, specifications) Contract	• Clear and specific information • Timely communication

QMS Planning: Addressing Risks

ISO 9001:2015 Clauses 4.3 and 4.4.1

You cannot always control what goes on outside. But you can always control what goes on inside.

-Wayne Dyer

6.1 Actions to Address Risks and Opportunities

When planning for the QMS,

- **issues** and **relevant interested parties' requirements** are considered, and
- risks and opportunities are determined and addressed.

Give assurance that the QMS can achieve its intended results

Enhance desirable effects

Prevent, or reduce, undesired effects

Achieve improvement

Risk in ISO 9001

Risk in the context of ISO 9001 relates to the **uncertainty in achieving** the following:

- Providing confidence in the organization's ability to **consistently provide customers with conforming & quality goods and services**
- **Improving customer confidence** and satisfaction
- Establishing a **proactive culture of prevention and improvement**

Risk-based thinking

Clause 4.4 The organization shall determine the **processes** needed for the quality management system and their application throughout the organization and shall determine:

f) the risks and opportunities in accordance with the requirements of 6.1, and plan and implement the **appropriate actions to address them**;

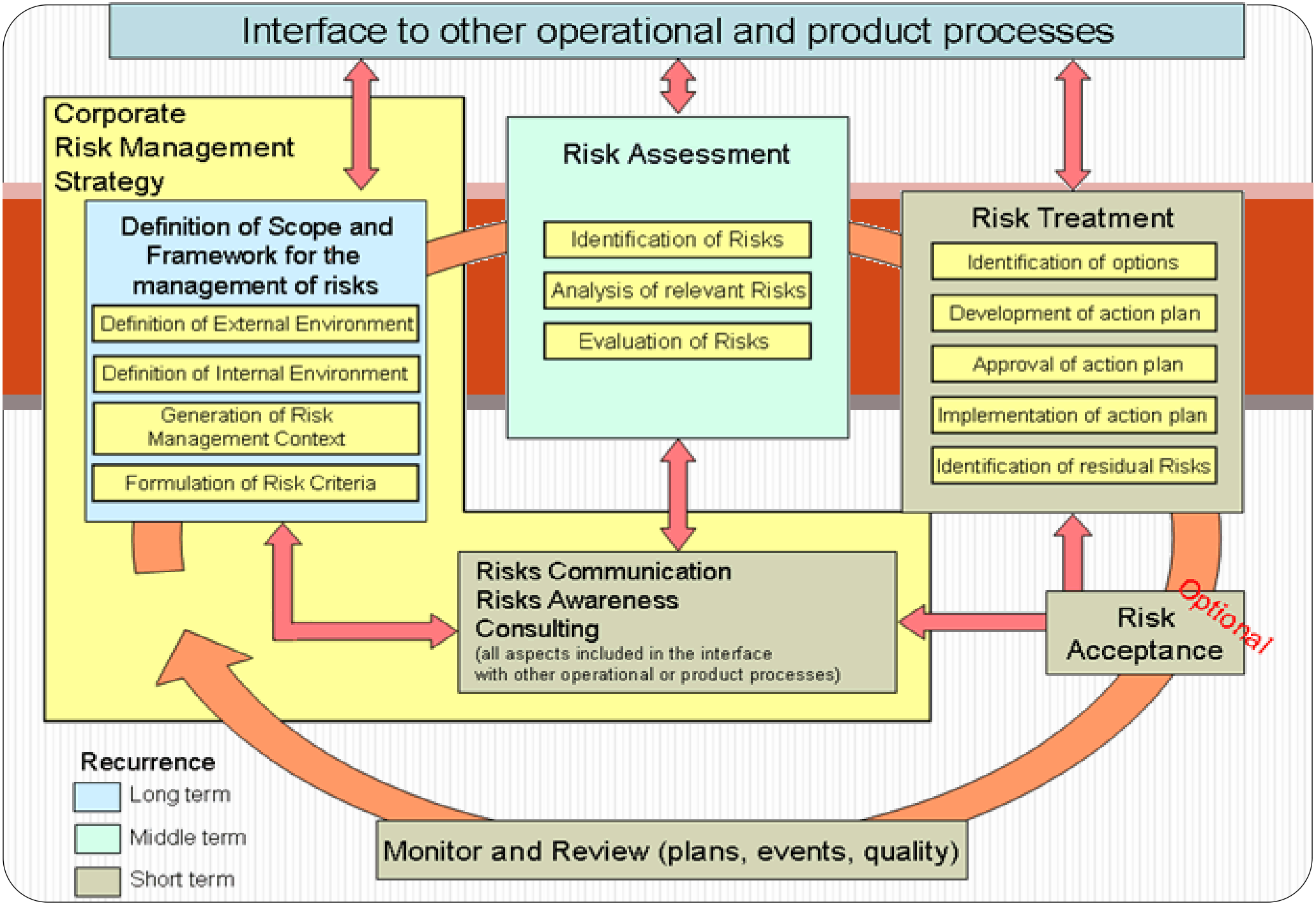
Risk-based thinking is something we all do automatically and often sub-consciously

6.1 Actions to Address Risks and Opportunities

Plan :

- actions to address these risks and opportunities and
- how to integrate and implement the actions into QMS processes and to **evaluate the effectiveness** of these actions.

Actions taken to address risks and opportunities shall be ***proportionate to the potential impact*** *on the conformity of products and services*


Interface to other operational and product processes
Corporate Risk Management Strategy
Definition of Scope and Framework for the management of risks
Definition of External Environment
Definition of Internal Environment
Generation of Risk Management Context
Formulation of Risk Criteria
Risk Assessment
Identification of Risks
Analysis of relevant Risks
Evaluation of Risks
Risk Treatment
Identification of options
Development of action plan
Approval of action plan
Implementation of action plan
Identification of residual Risks
Risks Communication
Risks Awareness
Consulting
(all aspects included in the interface with other operational or product processes)
Risk Acceptance
Optional
Monitor and Review (plans, events, quality)
Recurrence
Long term
Middle term
Short term

What To Do?

1. Identify what the risks and opportunities are in your organization – depending on context
2. Analyze and prioritize the risks and opportunities in your organization – *what is acceptable/unacceptable?*
3. Plan actions to address the risks – *how can I avoid or eliminate the risk?/mitigate the risk?*
4. Implement the plan – *take action*
5. Check the effectiveness of the actions – *does it work?*
6. Learn from experience – *continual improvement*

Documented Information Structure

- DOE wide DIs – Volume 1
  - Quality Policy
  - Quality Procedures
  - High Level Process Map
  - Risk Registry
- Bureau Specific DIs – Volume 2
  - Citizens Charter
  - Process Flowcharts
  - Risk Registry
  - Master list of Procedures, Work Instructions and Standards, Internal & External
  - Records Matrix
  - NC Matrix

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Related internal/ external issue	Description of Risk/Opportunity	Source/Cause	R / O	Consequence to QMS outputs or non-compliance to requirements	Current Control/ Current Situation	Consequence Rating	Likelihood Rating	Risk/ Opportunity Rating	Action Priority	Action plan (with Responsible Office)	Timelines
Committed and highly trained workforce	Retained competent workforce to perform functions	Good rewards and recognition	O	Sustained effectiveness and efficiency in operations	Only government-approved incentives are implemented	2	3	6	Med	HR to look for possible additional incentives for high performing staff and review the promotions process	Jan – Jun 2017
	Competent workforce are pirated by private companies	Better compensation package of the industry	R	Higher cost for training new employees	SG is based on government laws	4	3	12	High		
Faster change of technology	Not being able to cope up with the trend	Budget constraint/ redtape	R	Failure to deliver accurate and reliable data; Failure to meet targets	Annual Budget/Procurement Plan delayed by 6 months	4	5	20	High	ICTD to analyze trends in cost of technology as input for annual budget increment and propose new technologies that may be adopted	Jan – Jun 2017
	Faster delivery of data and services	Adoption of new and effective technology	O	Targets to be exceeded	Annual Budget	4	2	8	Med		

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A. Definition of Terms

Issues	Internal and external issues, as well as issues of interested parties; should be stated with adjective
Risk	Effect of uncertainty
Opportunity	Can lead to the adoption of new practices, launching new products, opening new markets, addressing new clients, building partnerships, using new technology and other desirable and viable possibilities to address the organization's or its customers' needs
Consequence to Outputs	Possible impact to the quality of outputs
Consequence Rating	Measures of impact of the consequence; Refer to criteria for consequence
Likelihood Rating	Measures the probability of occurrence of the consequence
Risk/Opportunity Rating	Measures the need for action using the criteria for action matrix
Action Priority	Measures whether the risk should be treated or not; whether opportunity should be pursued or not
Action Plan	Plan of activities that will prevent the occurrence of the risk or that will maximize the benefits of the opportunity
Timelines	Period covered that the action plan shall be implemented

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B. Criteria for Consequence

	Rate	Risk (Negative consequence)	Opportunity
Insignificant	1	Minimal (no customer complaint) or no impact	No perceived value for improvement and sustainability
Minor	2	Minor impact (noticeable effect, minor customer complaint)	Pursuing the opportunity will slightly improve QMS and sustainability
Significant	3	Moderate impact (customer complaints resulting in claim)	Pursuing the opportunity will considerably improve QMS and sustainability
Major	4	Major impact (catastrophic, recall, fatality, costly compensation, legal action) alternatives available	Pursuing the opportunity will highly improve QMS and sustainability
Catastrophic	5	Major impact (catastrophic, recall, fatality, costly compensation, legal action) no alternatives available	Pursuing the opportunity will greatly improve QMS and sustainability

Let’s draft the document…

C. Criteria for Likelihood

	Rate	Likelihood – Risk	Likelihood - Opportunity
Rare	1	Not known to happen	No chance of success within the next 12 months
Low	2	Low occurrence of 1 x a year	1-25% chance of success within the next 12 months
Medium	3	Known to happen, occurrence of 1 per quarter	26-50% of success within the next 12 months
High	4	Very likely to happen, occurrence of more than 1 time per quarter	51-75% of success within the next 12 months
Very High	5	Highly likely to happen, occurrence of 1 time per month.	>75% success within the next 12 months

Let's draft the document…

D. Risk Rating Matrix

LIKELIHOOD	Rare	1	2	3	4	5
	Unlikely	2	4	6	8	10
	Possible	3	6	9	12	15
	Likely	4	8	12	16	20
	Certain	5	10	15	20	25
		Insignificant	Minor	Significant	Major	Catastrophic
	IMPACT					

E. Criteria for Action

Risk/Opportunity Rating	PRIORITY	MANAGEMENT'S DECISION	
		RISK	OPPORTUNITY
10-25	HIGH	Take immediate appropriate action to eliminate the risk	Pursue the opportunity
5-9	MEDIUM	More frequent monitoring of performance/complaints	May consider pursuing the opportunity
1-4	LOW	No action required	No action required

Let’s draft the document…

	Name of Agency **Quality Management System** Risk Registry and Action Plan	Doc Ref No.:	AGY-QMS-06
		Effective Date:	
		Revision No.:	
		Page No.:	1 of 1

Related internal/ external issue	Description of Risk/Opportunity	Source/Cause	R / O	Consequence to QMS outputs or non-compliance to requirements	Current Control/ Current Situation	Consequence Rating	Likelihood Rating	Risk/ Opportunity Rating	Action Priority	Action plan (with Responsible Office)	Timelines

Quality Policy

ISO 9001:2015 Clauses 5.2

5.2 Policy

A. Establishing the Quality Policy

- appropriate to the purpose and context of the organization and supports its strategic direction;
- provides a framework for setting quality objectives; and,
- includes a commitment to satisfy applicable requirements and to the QMS' continual improvement

5.2 Policy

B. Communicating the Quality Policy

- Be available and be maintained as documented information;
- Communicated, understood, and applied within the Organization; and,
- Made available to relevant interested parties, as appropriate.

Ask the following questions:

- As an organization, what do we really believe in?
- What role does the customer play in our success formula?
- What does the word “quality” really mean to us?
- What makes our services better than similar services?
- What words would you use to summarize our organizational culture?

Let’s revise/draft the Quality Policy…

Logo	Agency Name **Quality Management System** Quality Policy	Doc Ref No.:	AGC-QMS-04
		Effective Date:	
		Revision No.:	
		Page No.:	1 of 1

Signature
NAME
Head of Agency

QMS Objectives

ISO 9001:2015 Clauses 6.2

6.2 Quality Objectives and planning to achieve them

- established at relevant functions, levels and processes;
- consistent with the quality policy;
- measurable;
- take into account applicable requirements;
- **relevant to** conformity of products and services and to **enhance customer satisfaction**; and
- monitored, communicated, and updated as appropriate.

Formulating and Evaluating Quality Objectives

Considerations and alignment

- Balanced Score Card
- Major Final Output (MFO)
- Defined Key Result Area/Key Performance Indicator (KRA/KPI)
- Results-Based Performance Management System (RBPMS)
- Office Performance Commitment and Review (OPCR)
- Division Performance Commitment and Review (DPCR)

Let’s review your existing document…

Insert or refer to existing documents that lay down their targets and objectives, e.g. BSC, OPCR, DPCR, etc.

Gather inputs and comments. Make necessary recommendations.

Let's draft the document...

	Name of Agency **Quality Management System** Improvement Plan	Doc Ref No.:	AGY-QMS-07
		Effective Date:	
		Revision No.:	
		Page No.:	1 of 1

Objective	Key Performance Indicator	Baseline Data	Target	Action Plan	Responsible Unit	Completion Date	Monitoring Method
Reduce the processing time of approval and release of permits	% decrease in the processing time	10 days	4)% decrease (6 days)	1. Conduct time and study motion 2. Identify bottlenecks 3.Redesign the process to reduce processing time	Licensing and Permits Division	November 30, 2017	Logbook of application and released permits