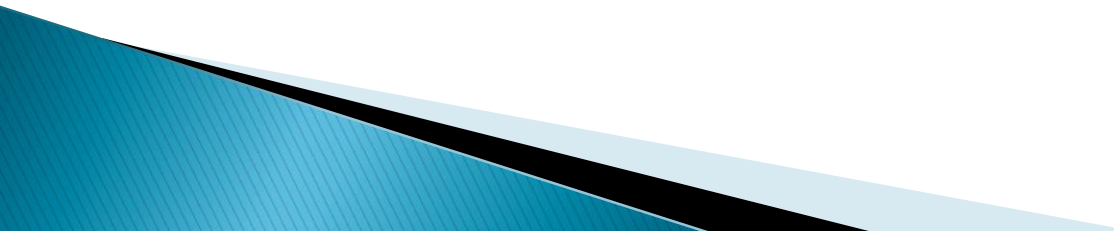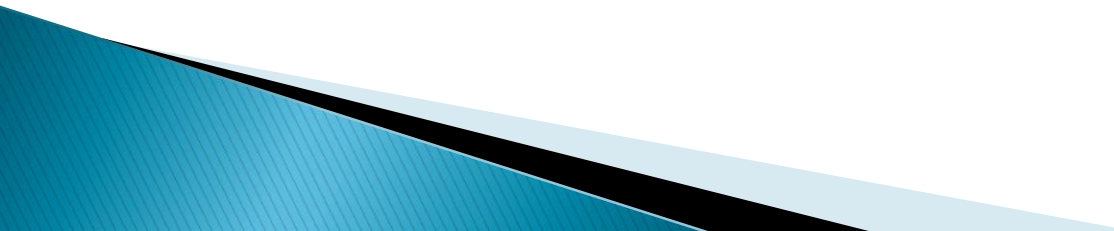# Updates on ISO 14001:2015

Philippine MSTQ
Coffee Empire, Quezon City
May 9, 2015

Contents

- Background
- Benefits
- History of ISO 14001
- Review: ISO 14001:2004
- Updates: Purpose, Timeline and Changes
- Recommendation

Background

- Provides the necessary requirements on managing environment issues and management tools for performance improvement
- Applies to all types and sizes of an organization
- Enhance environmental performance
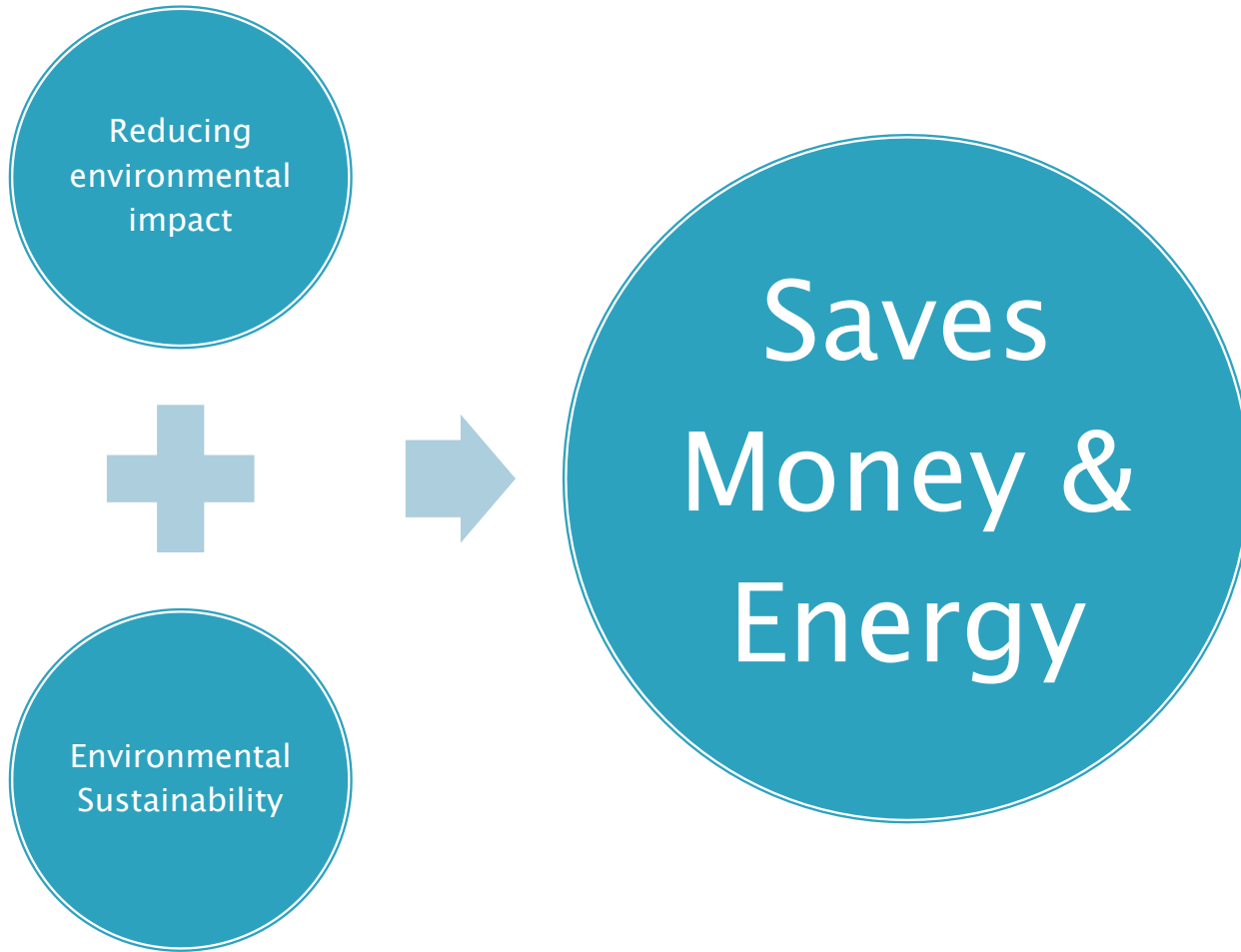
Environmental Performance

Energy Consumption

Waste Management

Regulatory Compliance

Supply Chain Requests

Resource Planning

Benefits

Reducing environmental impact

Environmental Sustainability

Saves Money & Energy
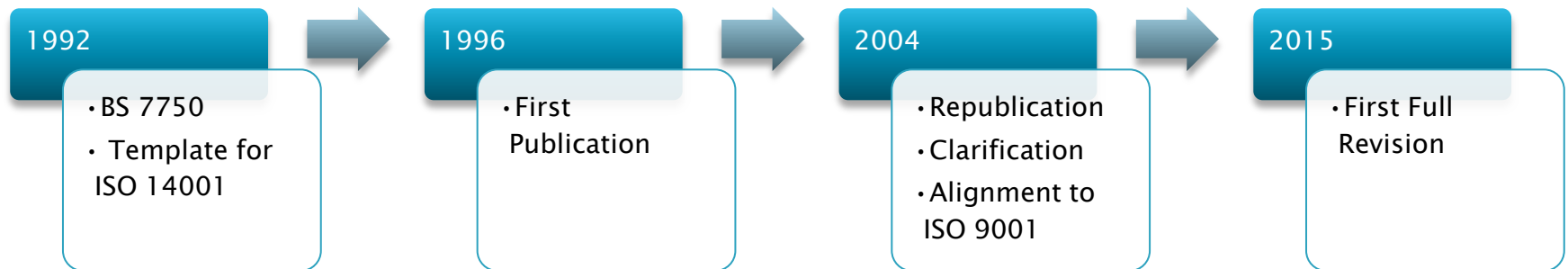
Benefits

Compliance with Legal and other requirements

Fines ⬇

Clean up Cost ⬇

Benefits

- assuring customers of commitment
- maintaining good public/community and industry-government relations
- satisfying investor criteria and improving access to capital
- obtaining insurance at reasonable cost
- enhancing image and market share
- improving cost control
- reducing incidents that result in liability
- conserving input materials and energy
- facilitating the attainment of permits and authorizations and meeting their requirements
- promoting environmental awareness among suppliers, contractors and all persons working
- fostering development and sharing of solutions to environmental problems

History of ISO 14001

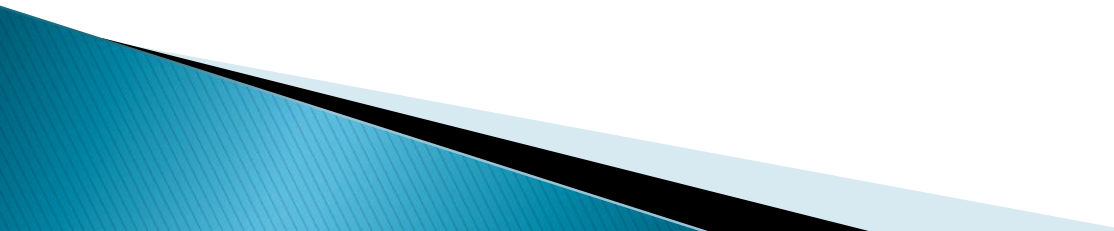**1992**
- BS 7750
- Template for ISO 14001

1996
- First Publication

2004
- Republication
- Clarification
- Alignment to ISO 9001

2015
- First Full Revision

ISO 14001:2004
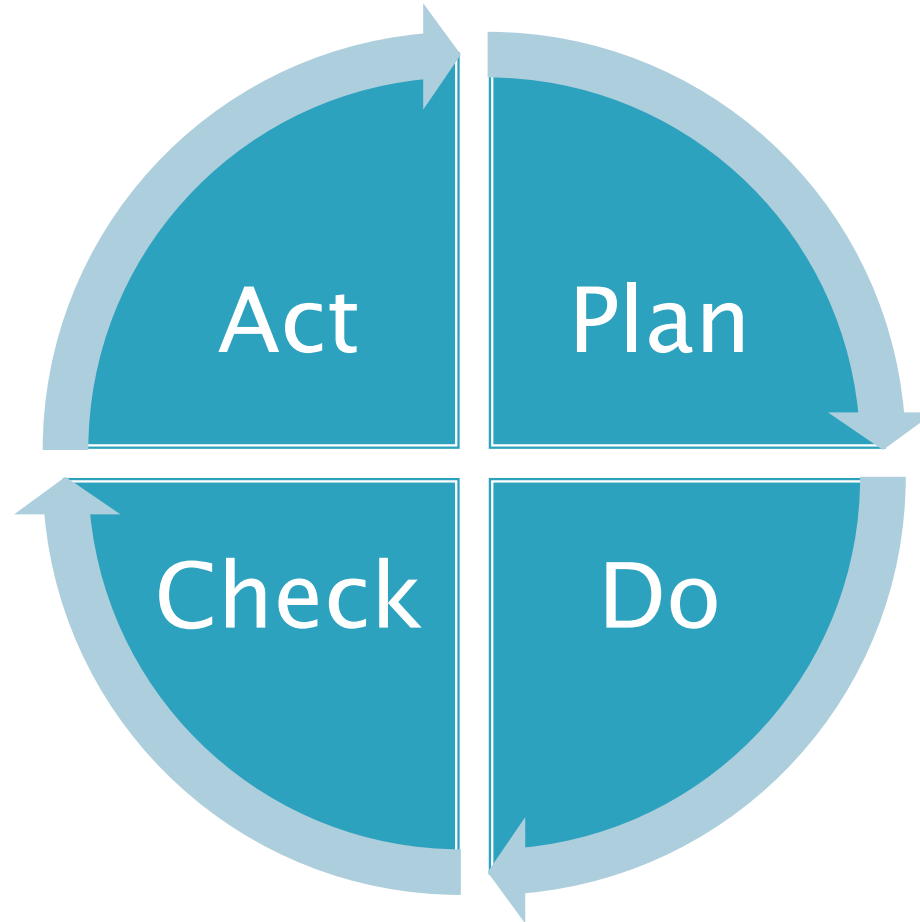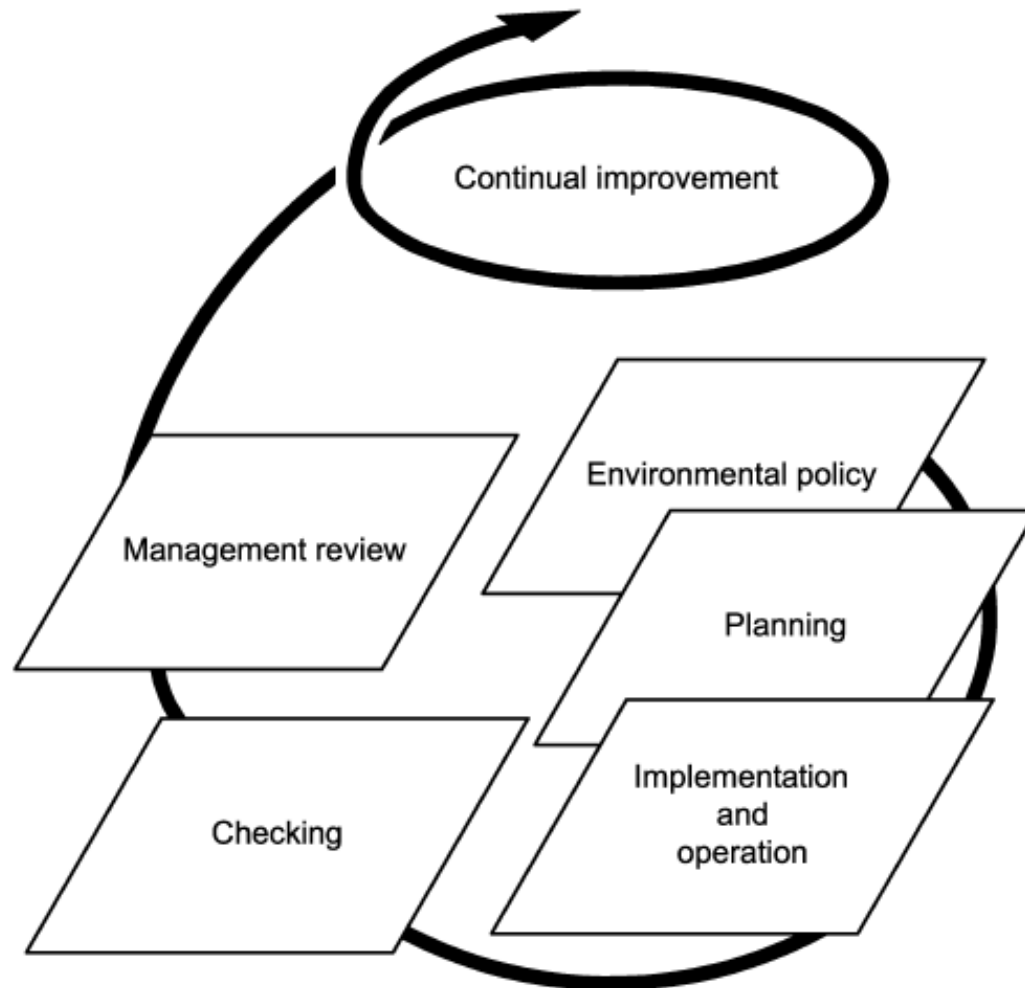
» Requirements, Highlights & Practices

ISO 14001:2004 Contents

1 Scope

2 Normative Reference

3 Terms and Definition

4 Environment Management System Requirements

4.1 General requirements

4.2 Environmental policy

4.3 Planning

4.4 Implementation and Operation

4.5 Checking

4.6 Management Review
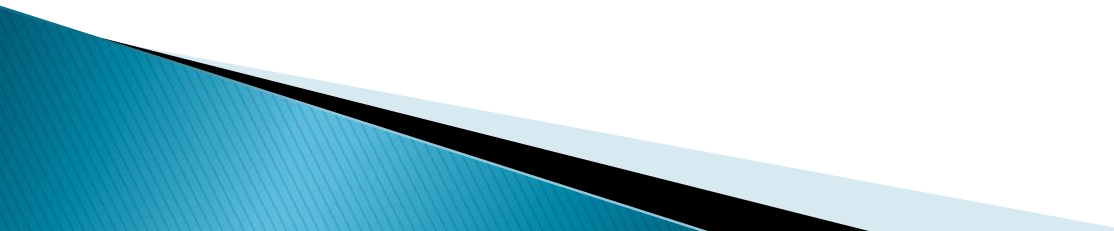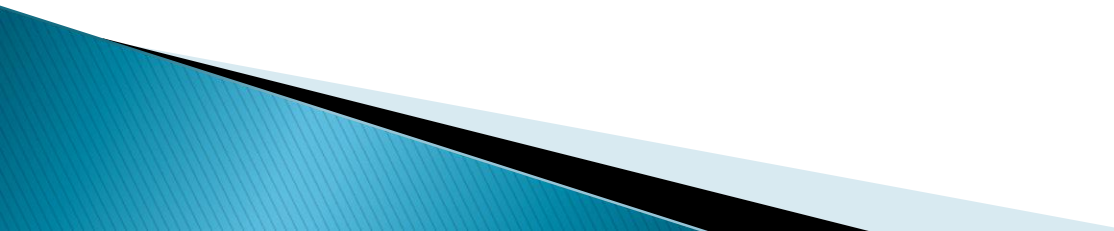
Summary

Environmental Management System Model

4.1 General requirements

- Establish, document, implement, maintain and continually improve an environmental management system
- Determine how it will fulfil these requirements.

4.2 Environmental policy

- Top management
  - define the organization's environmental policy
  - ensure that, within the defined scope

4.2 Environmental policy

- Appropriate to the nature, scale and environmental impacts of its activities, products and services
- Commitment to continual improvement and prevention of pollution
- Commitment to comply with applicable legal requirements and with other requirements
- Environmental aspects
- Framework for setting and reviewing environmental objectives and targets
- Documented, implemented and maintained
- Communicated to all persons working for or on behalf of the organization, and
- Available to the public

4.3 Planning

- **4.3.1 Environmental aspects**
- Establish, implement and maintain a procedure(s)
  - To identify the environmental aspects
    - activities, products and services within the defined scope of the environmental management system
  - To control and influence
    - taking into account planned or new developments, or new or modified activities, products and services

4.3 Planning

- ## 4.3.1 Environmental aspects
  - ◦ Establish, implement and maintain a procedure(s)
  - ◦ Determine those aspects that have or can have significant impact(s) on the environment (i.e. significant environmental aspects).
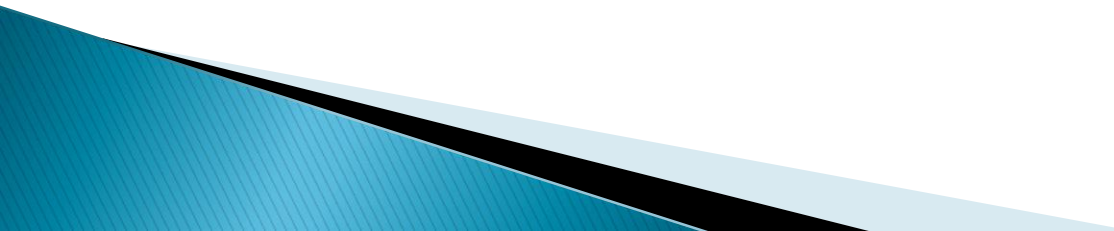
4.3.2 Legal and other requirements

- Establish, implement and maintain a procedure(s)
  - identify and have access to the applicable legal requirements and other requirements
  - determine how these requirements apply to its environmental aspects.

4.3.3 Objectives, targets and programme(s)

- Establish, implement and maintain documented environmental objectives and targets
  - relevant functions and levels within the organization.
- Objectives and targets
  - measurable, where practicable, and consistent
    - environmental policy
    - commitments to prevention of pollution
    - compliance with applicable legal requirements and with other requirements
    - continual improvement.

4.3.3 Objectives, targets and programme(s)

- Programme(s) shall include
  - designation of responsibility for achieving objectives and targets at relevant functions and levels of the organization
  - means and time-frame

4.4 Implementation and operation

- **4.4.1 Resources, roles, responsibility and authority**
- Ensure the availability of resources
  - establish, implement, maintain and improve the environmental management system.
    - human resources
    - specialized skills
    - organizational infrastructure
    - technology
    - financial resources

4.4 Implementation and operation

- **4.4.1 Resources, roles, responsibility and authority**
- Roles, responsibilities and authorities
  - defined, documented and communicated in order to facilitate effective environmental management.
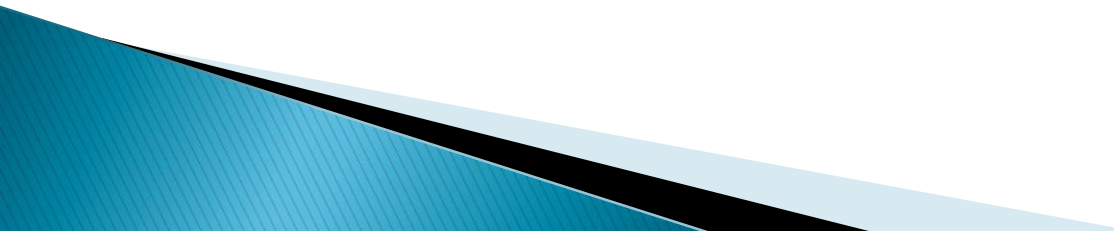
4.4 Implementation and operation

- **4.4.1 Resources, roles, responsibility and authority**
- Management Representative
  - ensuring that an environmental management system is established, implemented and maintained
  - reporting to top management on the performance
    - for review, including recommendations for improvement.

4.4.2 Competence, training and awareness

- Ensure that any person(s) performing tasks for it or on its behalf that have the potential to cause a significant environmental impact(s)
  - competent
    - Education
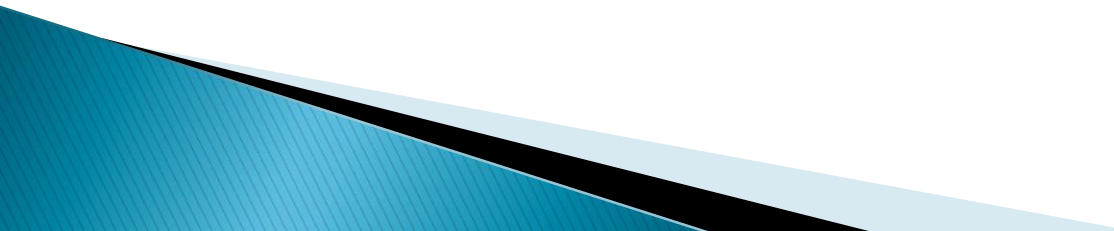   - training
    - Experience
  - retain associated records.

4.4.2 Competence, training and awareness

▸ Identify training needs associated with its environmental aspects and its environmental management system
▸ Provide training or take other action to meet these needs
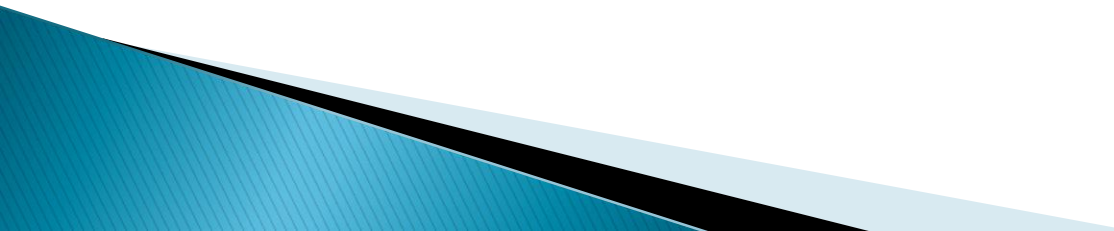▸ Retain associated records.

4.4.2 Competence, training and awareness

▸ Establish, implement and maintain a procedure(s)
  ◦ the importance of conformity with the environmental policy and procedures and with its requirements
  ◦ significant environmental aspects and related actual or potential impacts associated with their work, and the environmental benefits of improved personal performance
  ◦ roles and responsibilities in achieving conformity
  ◦ Potential consequences of departure from specified procedures

4.4.3 Communication

- Establish, implement and maintain a procedure(s) for
  - internal communication among the various levels and functions of the organization,
  - receiving, documenting and responding to relevant communication from external interested parties.
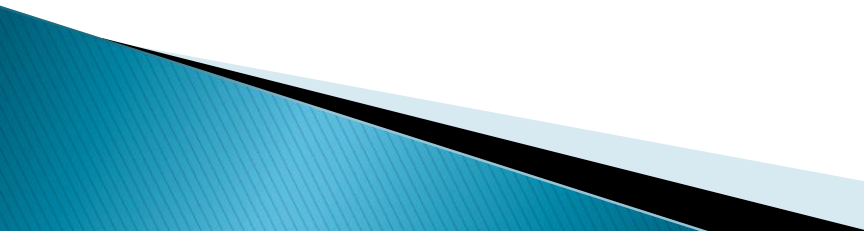
4.4.4 Documentation

- Environmental policy, objectives and targets
- Scope of the environmental management system
- Main elements of the environmental management system and their interaction
- Documents, including records
- Documents, including records
  - to ensure the effective planning, operation and control of processes that relate to its significant environmental aspects

4.4.5 Control of documents

- Establish, implement and maintain a procedure(s) to
  - approve documents for adequacy prior to issue
  - review and update as necessary and re-approve documents
  - ensure that changes and the current revision status of documents are identified
  - ensure that relevant versions of applicable documents are available at points of use
  - ensure that documents remain legible and readily identifiable

4.4.5 Control of documents

- Establish, implement and maintain a procedure(s) to
  - ensure that documents of external origin determined necessary for the planning and operation are identified and their distribution controlled
  - prevent the unintended use of obsolete documents
  - apply suitable identification to them if they are retained for any purpose

4.4.6 Operational control

- Identify and plan those operations associated with the identified significant environmental aspects consistent with its
  - environmental policy, objectives and targets
- Establishing, implementing and maintaining a documented procedure(s)
  - to control situations where their absence could lead to deviation from the environmental policy, objectives and targets

4.4.6 Operational control

- Stipulating the operating criteria in the procedure(s)
- Establishing, implementing and maintaining procedures
  - identified significant environmental aspects of goods and services
  - communicating applicable procedures and requirements to suppliers, including contractors

4.4.7 Emergency preparedness and response

- Establish, implement and maintain a procedure(s)
  - to identify potential emergency situations and potential accidents
  - respond to actual emergency situations and accidents
  - prevent or mitigate associated adverse environmental impacts
- Periodically review and revise its emergency preparedness and response procedures,
  - after the occurrence of accidents or emergency situations
- Periodically test such procedures where practicable

4.5 Checking

- **4.5.1 Monitoring and measurement**
- Establish, implement and maintain a procedure(s)
  - to monitor and measure, on a regular basis
  - key characteristics of its operations that can have a significant environmental impact

4.5 Checking

- **4.5.1 Monitoring and measurement**
- Documenting of information
  - ◦ to monitor performance, applicable operational controls and conformity with the organization's environmental objectives and targets.

4.5 Checking

- **4.5.1 Monitoring and measurement**
- Ensure that calibrated or verified monitoring and measurement equipment is used and maintained and shall retain associated records.

4.5.2 Evaluation of compliance

- **4.5.2.1** Consistent with its commitment to compliance
  - Establish, implement and maintain a procedure(s) for periodically evaluating compliance with applicable legal requirements.
  - Records of the results for periodic evaluation
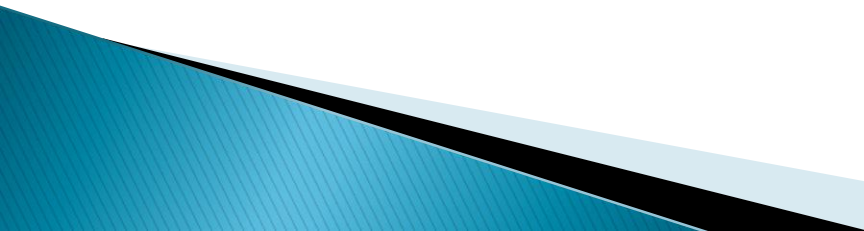
4.5.2 Evaluation of compliance

- **4.5.2.2** Evaluate compliance with other requirements to which it subscribes
  - ◦ Combine this evaluation with the evaluation of legal compliance referred to in 4.5.2.1 or to establish a separate procedure(s).
- Records of the results

4.5.3 Nonconformity, corrective action and preventive action

- Establish, implement and maintain a procedure(s)
  - dealing with actual and potential nonconformity(ies)
  - taking corrective action and preventive action. The procedure(s)

4.5.3 Nonconformity, corrective action and preventive action

- Requirements
  - identifying and correcting nonconformity(ies) and taking action(s) to mitigate their environmental impacts
  - investigating nonconformity(ies)
  - determining their cause(s) and taking actions in order to avoid their recurrence
  - evaluating the need for action(s) to prevent nonconformity(ies) and implementing appropriate actions designed to avoid their occurrence,
  - recording the results of corrective action(s) and preventive action(s) taken
  - reviewing the effectiveness of corrective action(s) and preventive action(s) taken.

4.5.3 Nonconformity, corrective action and preventive action

▸ Appropriate recommended action
  ◦ Magnitude of the problems
  ◦ environmental impacts encountered
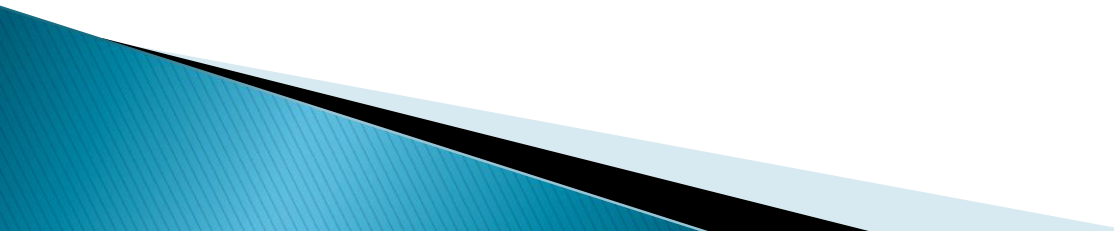▸ Ensure that any necessary changes are made to environmental management system documentation

4.5.4 Control of records

- Establish and maintain records as necessary
  - to demonstrate conformity to the requirements of its environmental management system
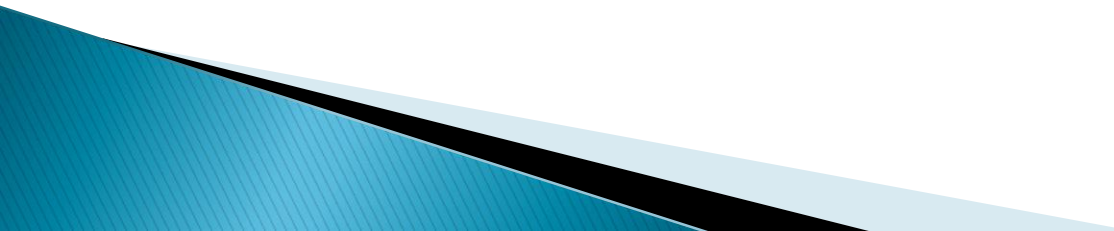 - results achieved

4.5.4 Control of records

- Establish, implement and maintain a procedure(s)
  - Identification
  - Storage
  - Protection
  - Retrieval
  - retention
  - Disposal of records
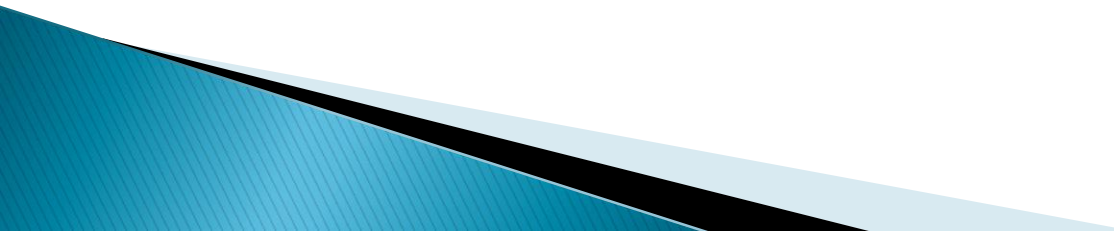- Records shall be and remain legible, identifiable and traceable

4.5.5 Internal audit

- Ensure that internal audits are conducted at planned intervals
  - conforms to planned arrangements for environmental management
  - properly implemented
  - maintained
  - provide information on the results of audits to management

4.5.5 Internal audit

- Audit programme(s) shall be planned, established, implemented and maintained taking into consideration
  - environmental importance of the operation(s) concerned
  - results of previous audits

4.5.5 Internal audit

- Audit procedure(s) shall be established, implemented and maintained that address:
  - Responsibilities and requirements for planning and conducting audits, reporting results and retaining associated records
  - Determination of audit criteria, scope, frequency and methods

4.5.5 Internal audit

- Selection of auditors and conduct of audits
  - objectivity
  - impartiality

4.6 Management review

- Top management
  - Review the organization's environmental management system
    - planned intervals
  - Ensure its continuing suitability, adequacy and effectiveness

4.6 Management review

- Inclusion of the review
  - assessing opportunities for improvement
  - need for changes
    - environmental policy
    - environmental objectives and targets.
- Records of the management reviews

4.6 Management review

▸ Input
  ◦ results of internal audits
  ◦ evaluations of compliance with legal requirements and with other requirements communication(s) from external interested parties including complaints
  ◦ environmental performance
  ◦ extent to which objectives and targets have been met
  ◦ status of corrective and preventive actions
  ◦ follow-up actions from previous management reviews
  ◦ changing circumstances
    • developments in legal and other requirements related to its environmental aspects
  ◦ recommendations for improvement.

4.6 Management review

- Outputs from management reviews
  - any decisions and actions possible changes
    - Environmental policy
    - Objectives
    - Targets
    - Elements of the environmental management system, consistent with the commitment to continual improvement.
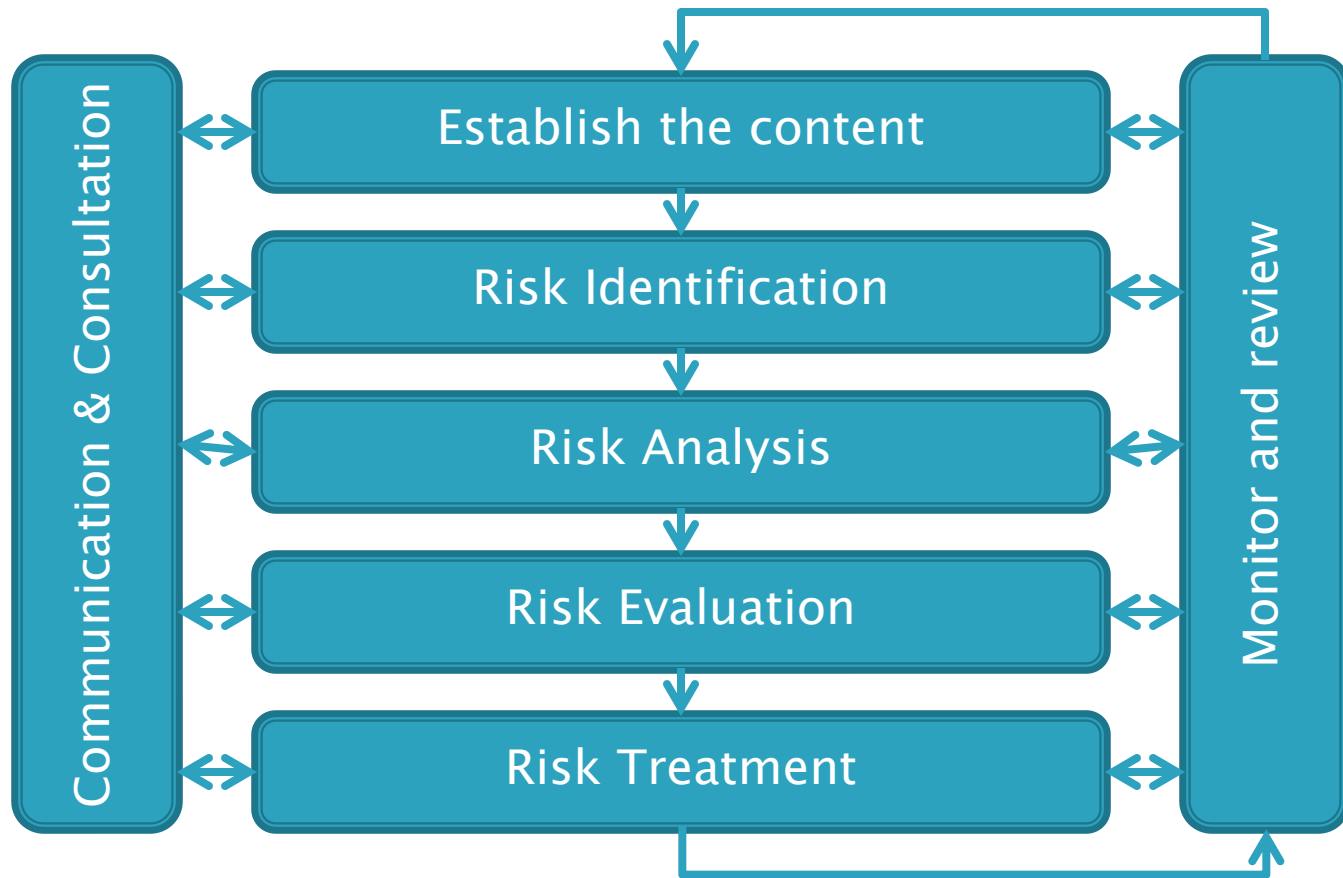
ISO 14001:2015

Purpose, Timeline, Changes

ISO 14001:2015 Timeline

2016 – 2018

- Transition Period

2015

- Final Draft International Standard
- Publication of IS0 14001:2015 (3rd/4th Quarter)

2014

- Draft International Standard

Core Concepts

- Process approach
- Plan–Do–Check–Act Cycle
- Risk–based thinking
  - Risk
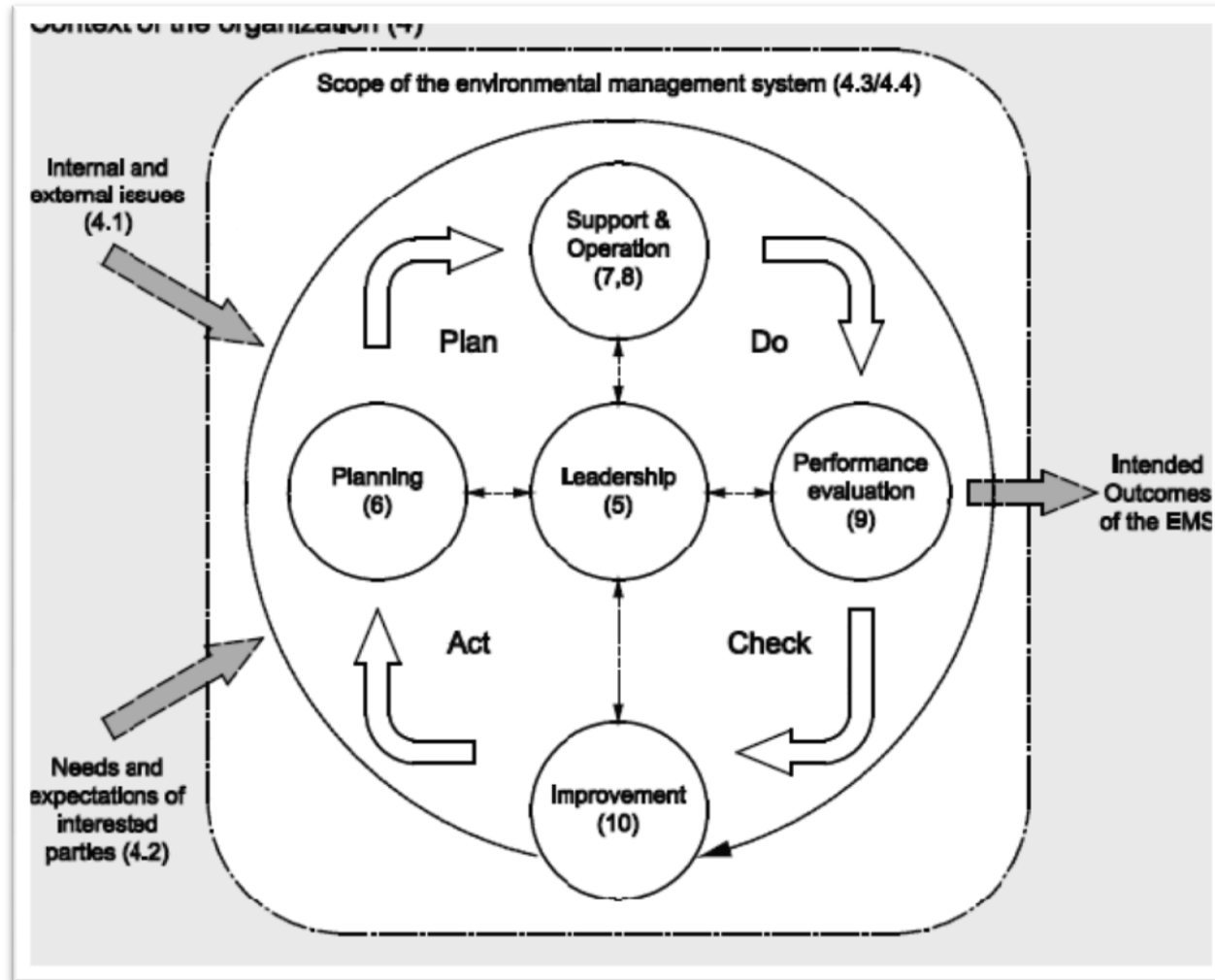   - Effect of uncertainty of an anticipated/expected result

Risk Management Process

Changes

» Clauses

Content of the Organization

Contents

ISO 14001:2004

ISO 14001:2015

Clause 4: Context of the Organization

- Consider external issues and impacts
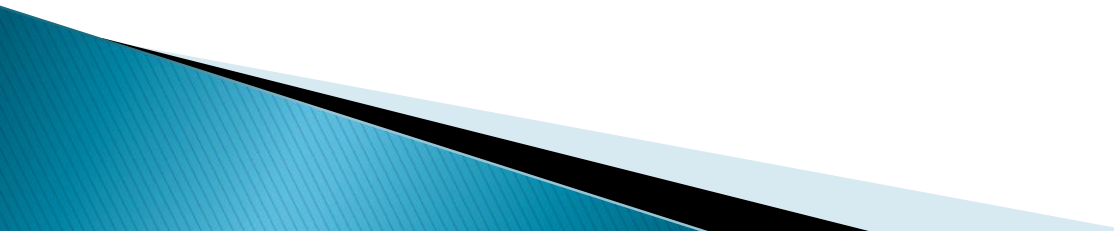- Needs and Expectations of interested parties
  - Align to the requirements

Clause 5: Leadership

- Top Management
  - Accountable on the effectiveness of environmental management system and its integration on business process
- Environmental Policy
  - Commitment to protect the environment on a larger scale
  - Proactive initiatives
  - Climate change, preservation of ecosystem, eco-restoration
- Management Representative
  - Not explicitly requested
  - Ensures adequate responsibility and authorities

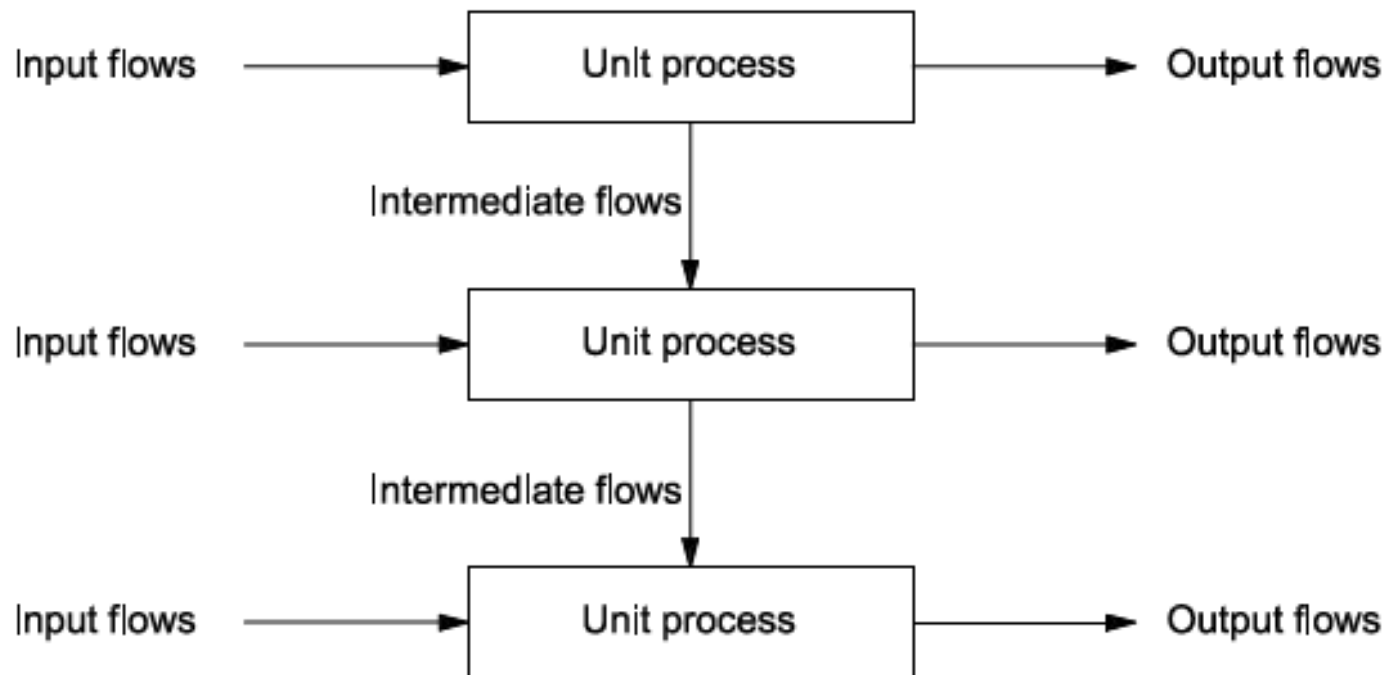# Clause 6: Planning

- Planning process
  - Life-cycle perspective
    - Consider environmental impacts of activities, products and services
    - Assess the significant environmental aspects in all required commitments
    - Legal, customer-specific requirements, risks associated with possible hazards
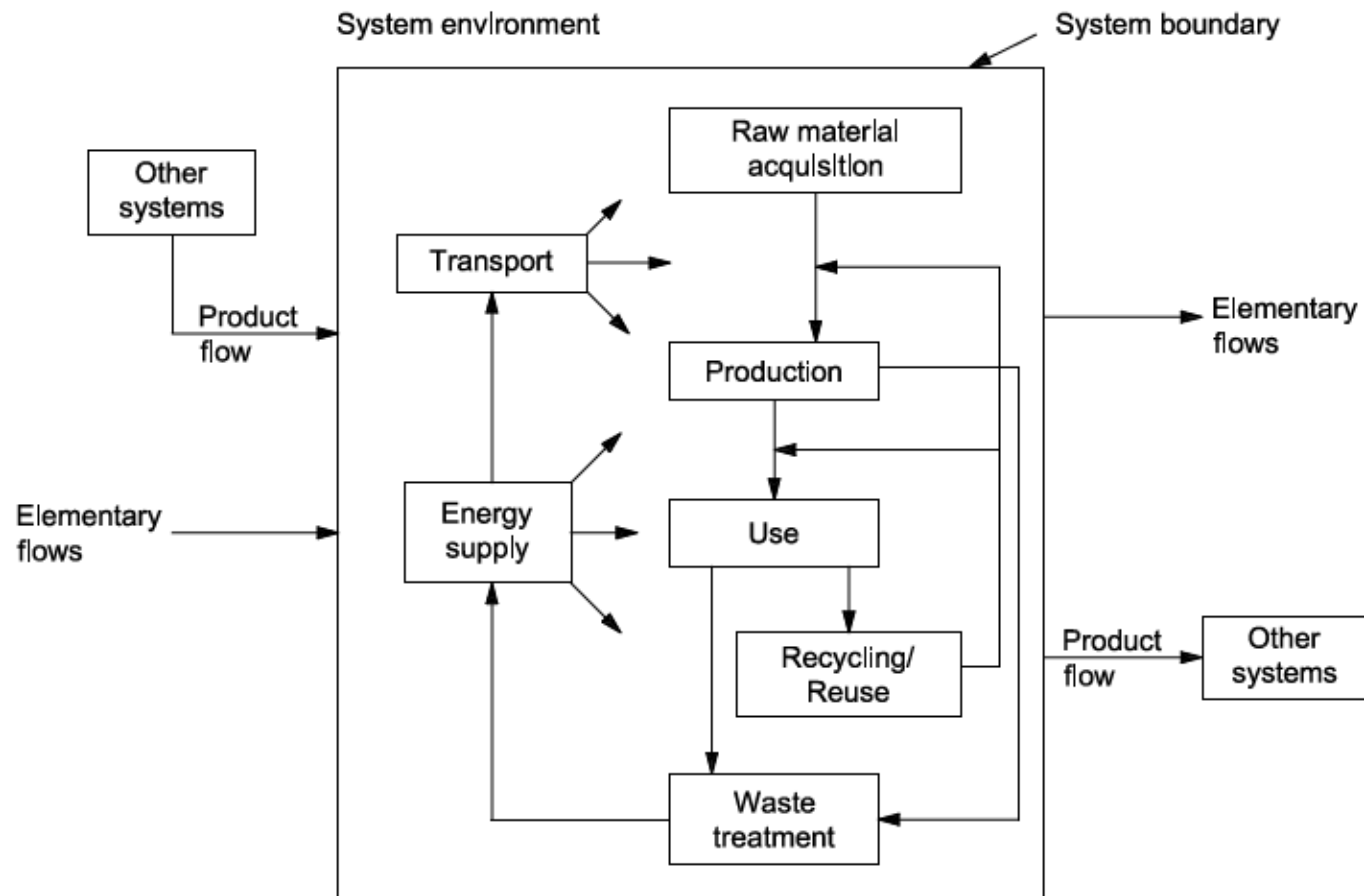
Life-Cycle Assessment

Life-Cycle Assessment

Figure 2 — Example of a product system for LCA

Reference: ISO 14040

Clause 7: Support

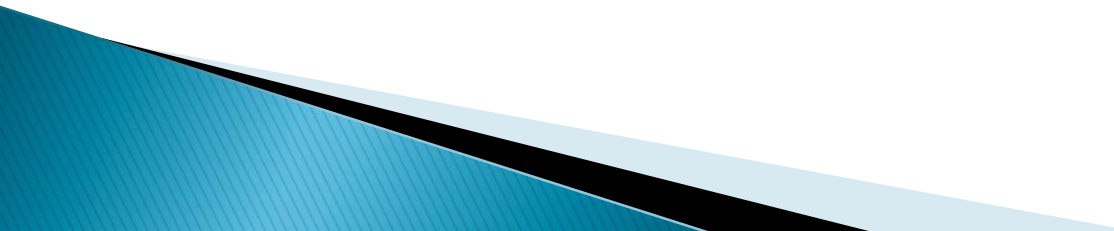- Communication
  - more transparent, appropriate, reliable and credible
    - What it will communicate?
    - When it will communicate?
    - With Whom it will communicate?
    - How it will communicate?
  - Document information
    - May consider modern (electronic) recording media
- External representation and reporting must be regulated

Clause 8: Operation

- Operational scheduling and control
  - Analyze its "rise" and "fall"
  - Outsource processes
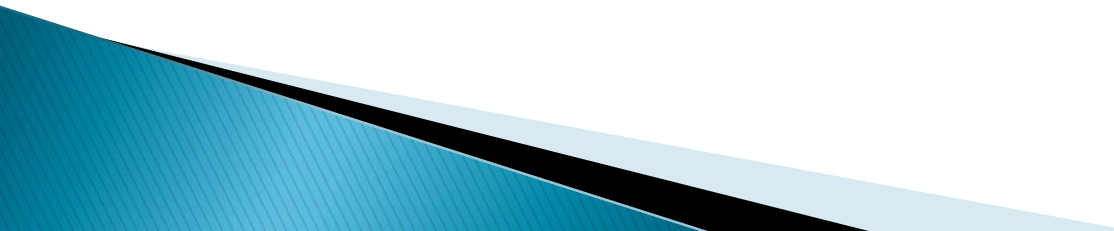- Environmental impacts on products and services at the end of utilization

Clause 9: Performance Evaluation

- Monitoring and Measurement of environmental performance shall be evident
  - corporate commitment
  - risks involved
- Align with environmental objectives

Clause 10: Improvement

- Focus on organization surroundings and improvement of environmental performance

Recommendations

- Coordinate with your certifying bodies on the update
- Make a gap analysis by identifying the necessary changes
- Assess the environmental impacts
  - Value chain of products, processes and services
  - Raw materials, suppliers, customers, interested parties, waste management
- Get involve in activities and events related to the revision

References

- ISO 14001, 2nd ed., Environmental management systems — Requirements with guidance for use
- Transition Planning Guidance for ISO 14001:2015, International Accreditation Forum Inc.
- ISO 14001:2015 Draft International Standard: Standard Proposed revisions to the environmental management and its progression towards final publication, SAI Global Assurance Services
- Revision of DIN EN ISO 14001 – Changes and Implications, TÜV Rheinland Cert GmbH
- Background and update to the 2015 revision: Approaching change, BSI Group