Integrated Management Systems

QMS, EMS and OHSAS

EMS and OHSAS Plan

- What is needed?
- Where to start?
- What is the strategy?
- How to Implement?
- Internal or external?
- What tools and techniques to use?

EMS and OHSAS Plan

- iCT-M implementation module
  - Toolkit
  - Document Control
  - Audit
- iCT-M Standards modules
  - QMS
  - EMS
  - OSH
- Manage
  - 3 Standards
  - 3 Utilities
  - 1 software!

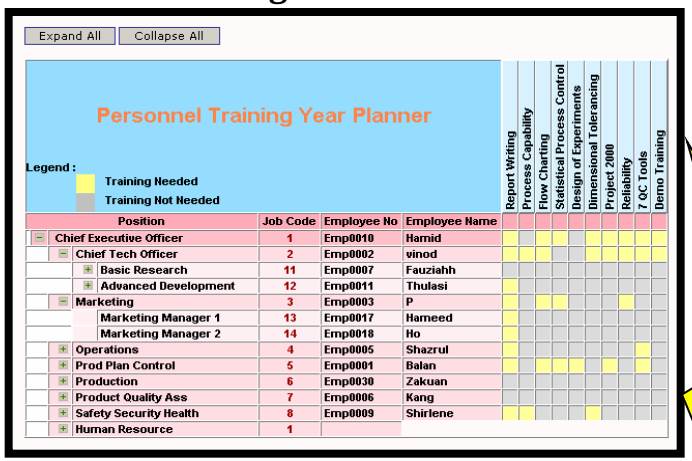
With CAPA Corrective & Preventive Action

	Toolkit	DocCon	Audit
QMS	√	√	√
EMS	√	√	√
OSH	√	√	√

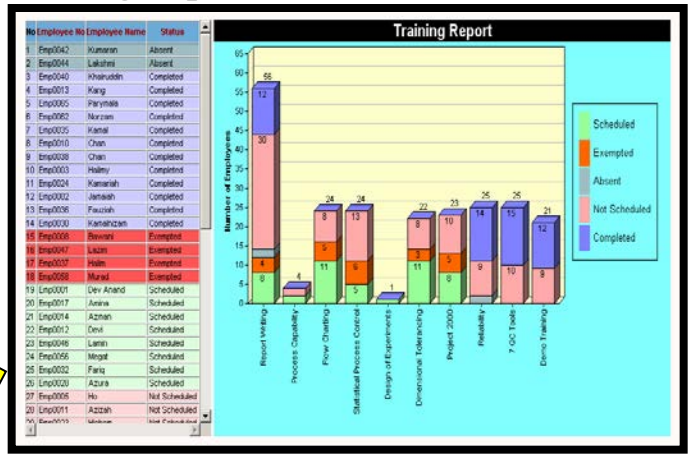
Training Needs Analysis

Belmah Strategies

Personal Training Year Planner



Training Report

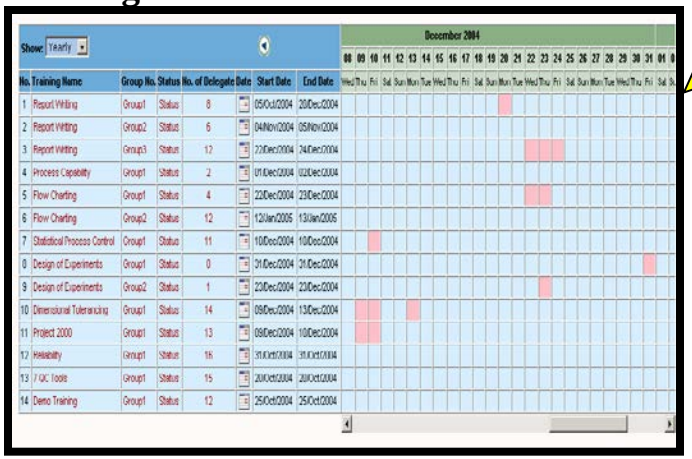


QMS

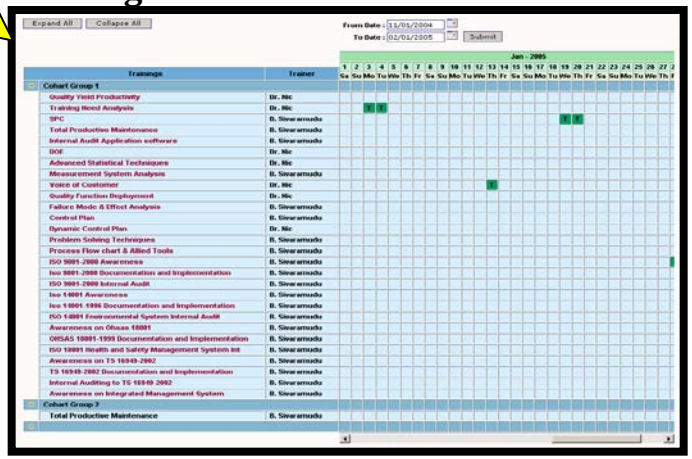
EMS

OHSAS

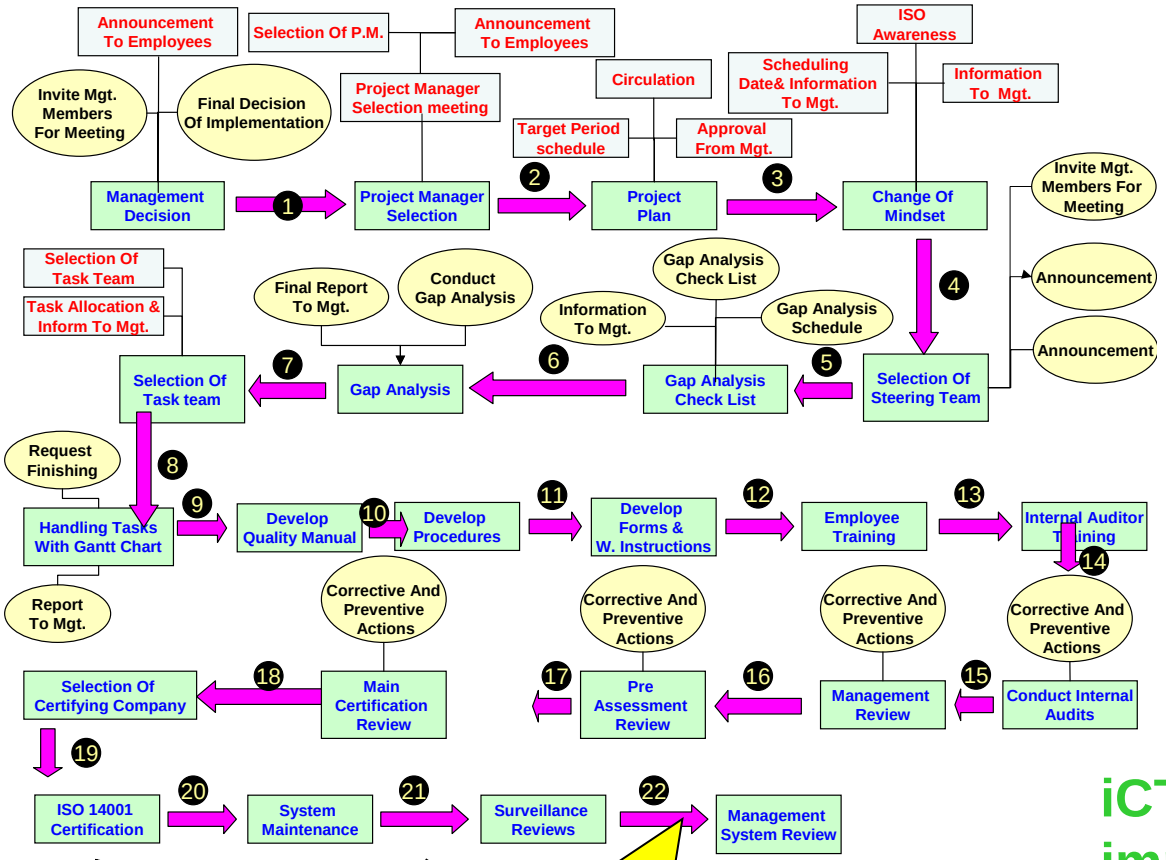
Training Schedule



Training Planner



Toolkit



EMS, QMS, OHSAS

Link to Project Section!

Conduct Improvement

Implement crucial tools:

- FMEA
- SPC
- MSA
- Etc.

iCT-M provides a toolkit for implementing ISO 14001 and OHSAS

Step-by-Step

Templates available

Step by step Toolkit

Steps

Edit Selected

No.	Description	Template	Documents
1	Introduction		View
2	Management Decision		View
3	Project Manager Selection		View
4	Project Plan		View
5	Change Of Mindset		View
6	Selection Of Steering Team		View
7	Gap Analysis Check List		View
8	Gap Analysis		View
9	Selection Of Task Team		View
10	Handling Tasks with Gantt Char		View
11	Develop Quality Manual		View
12	Develop Procedures		View
13	Develop Forms		View
14	Document Control		View
15	Employee Training		View
16	Auditor Selection and Training		View
17	Internal Auditing		View
18	Management Review		View
19	Selection Of Certifying Compan		View
20	Certification		View
21	System Maintenance		View
22	Surveillance Audit		View

Steps

Close Save Clear All

No.	Description	Status
1	Introduction	☑
2	Management Decision	☑
3	Project Manager Selection	☑
4	Project Plan	☑
5	Change Of Mindset	☑
6	Selection Of Steering Team	☑
7	Gap Analysis Check List	☑
8	Gap Analysis	☑
9	Selection Of Task Team	☑
10	Handling Tasks with Gantt Char	☐
11	Develop Quality Manual	☐
12	Develop Procedures	☑
13	Develop Forms	☑
14	Document Control	☐
15	Employee Training	☑
16	Auditor Selection and Training	☑
17	Internal Auditing	☑
18	Management Review	☑
19	Selection Of Certifying Compan	☐
20	Certification	☑
21	System Maintenance	☐
22	Surveillance Audit	☐

Document Control for EMS and OHSAS

Menu Link	Create	Draft Status	Verified Status	Approved Status	Circulation	Distribution
Create (or Modify)	Create Document or Modify Document					
Authenticate	Authenticate Document by Mgmt. Rep.	Document in Draft Status				
Verify	Verify Document by Verify List		Document in Verified Status			
Approve	Approve Document by Approve List			Document in Approved Status		
Circulation	Circulate Document by Circulate List				Document in Circulation	
Distribution	Distribute Document by Distribute List					Document in Distribution

Menu Link	Purpose
Register	Upload existing Documents View all Document
Active Documents	View all Active Documents
Obsolete Documents	View all Obsolete Documents
Master Documents	View all Active or Obsolete Documents
Search	Search for a particular Document
Document History	View all activities associated with a Document
Document Members	View who is involved in which Document

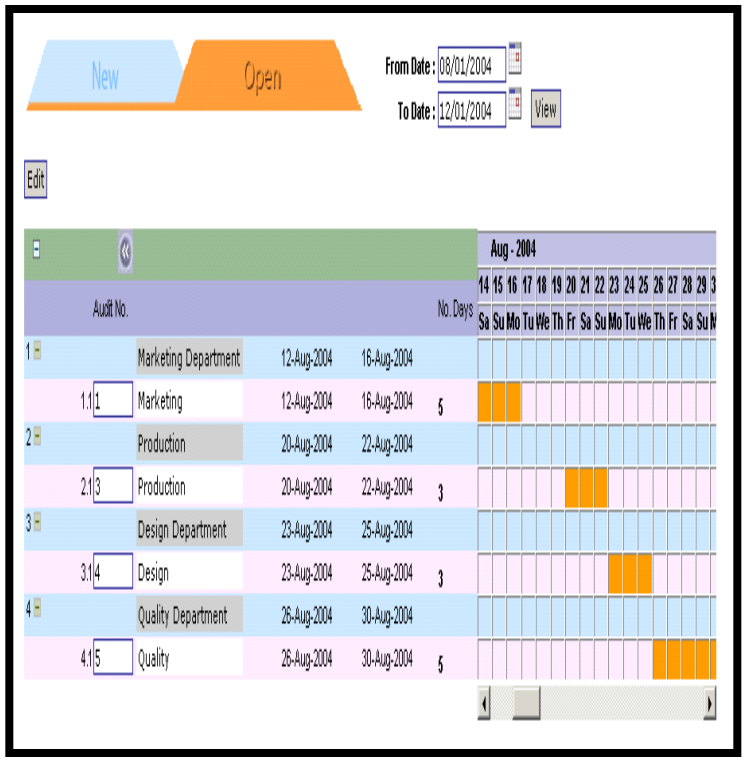
Remember running round the organization before every audit?

Simplify your documents with Document Control

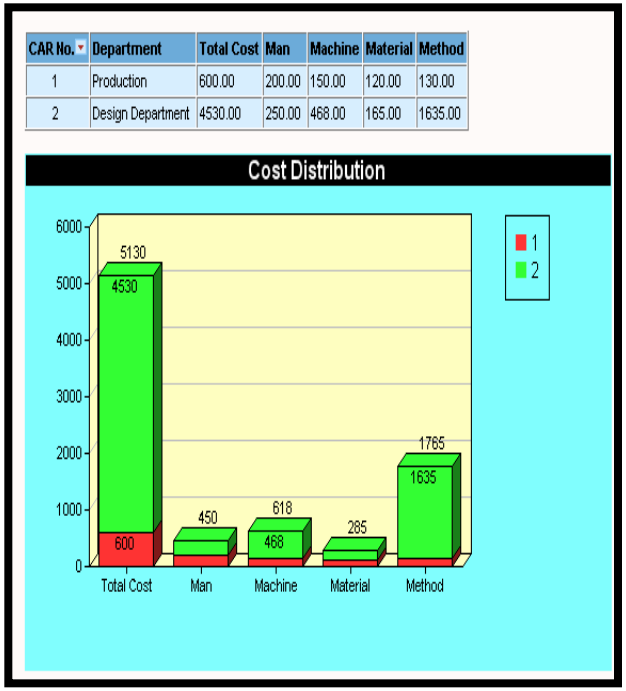
QMS, EMS, OHSAS

Audit for QMS, EMS and OHSAS

Belmah Strategies



Audit Name
Audit Plan
Element Matrix
Auditor List
Audit Schedule
Check List
Audit Status
Audit Improvement
Audit Effectiveness
Corrective Action Status
Corrective Action
Summary
Cost Distribution
Audit Summary
Auditor Report
Audit No. Report
Department Report



CAR No.	Department	Total Cost	Man	Machine	Material	Method
1	Production	600.00	200.00	150.00	120.00	130.00
2	Design Department	4530.00	250.00	468.00	165.00	1635.00

Audit No.	Department	Section	Date		Delay	Non Conformance					NC Status	Notes
			Planned	Conducted		Major Qty	NC Nos.	Minor Qty	NC Nos.	Total		
1	Marketing Department	Marketing	12-Aug-04	15-Sep-04	34							
3	Production	Production	20-Aug-04	23-Aug-04	3	1	View			1		oduction Dept
4	Design Department	Design	23-Aug-04	25-Aug-04	2			1	View	1	1 Open	Design Dept
5	Quality Department	Quality	26-Aug-04	Not Conducted								

NCR

CAR

Link to Project Section!
Conduct Improvement

Audits

Belmah Strategies

Audit Status as on Date 20/Nov/04

Audit No.	Department	Section	Date		Delay	Non Conformance					NC Status	Notes
			Planned	Conducted		Major Qty	NC Nos.	Minor Qty	NC Nos.	Total		
1	Marketing Department	Marketing	12-Aug-04	15-Sep-04	34	1	View			1	1 Open	
3	Production	Production	20-Aug-04	23-Aug-04	3	1	View			1	1 Open	Production Dept
4	Design Department	Design	23-Aug-04	25-Aug-04	2			1	View	1	1 Open	Design Dept
5	Quality Department	Quality	26-Aug-04	27-Aug-04	1			1	View	1	1 Close	Quality Dept

Audit Summary

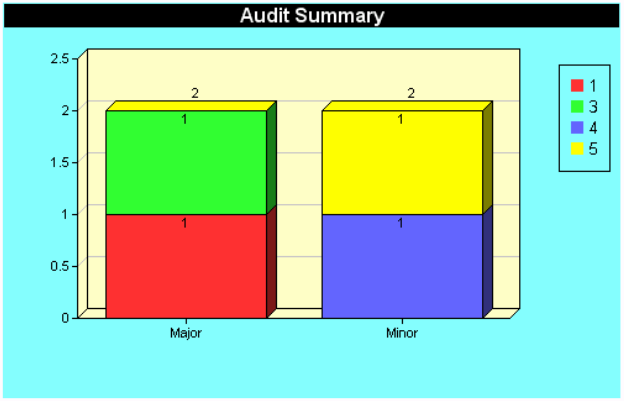
Start_Date 12-Aug-04

End_Date 30-Aug-04

Department All

Submit

Audit No.	Department	Section	Non Conformance		
			Major Qty	Minor Qty	Total
1	Marketing Department	Marketing	1		1
3	Production	Production	1		1
4	Design Department	Design		1	1
5	Quality Department	Quality		1	1



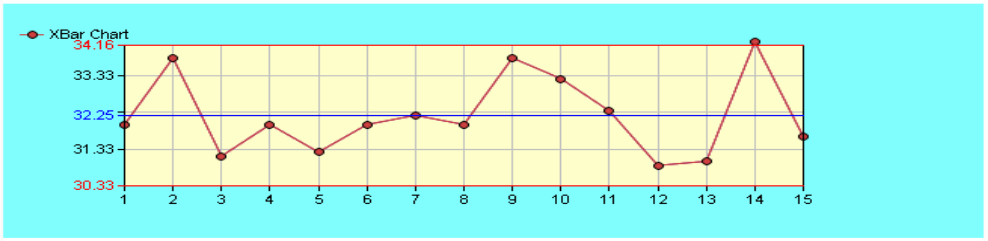
- ISO EMS/OHSAS
  - Auditor Performance
  - Generate Reports by
    - Department
    - Auditor
    - Audit No.
  - Track
    - Corrective actions
    - Preventive actions
    - Improvement actions
  - Non Conformances
    - Major
    - Minor

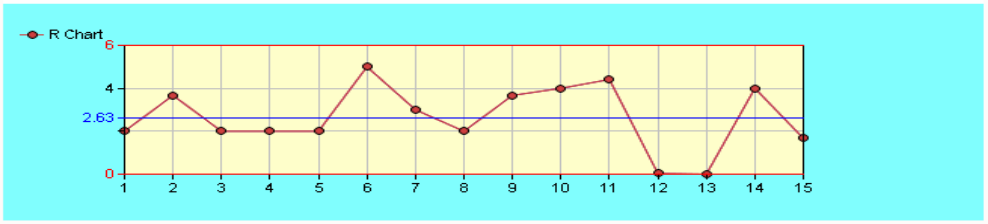
Statistical Process Control

Name of the Study	Molding Process					**XBar Chart**		**R Chart**		**Spec Spread**	68	**Process Capability**	
Name of the Machine	Atkinson Molding Machine	**Specification**	34.00	**USL**	71	**UCL (X)**	34.16	**UCL (R)**	6	**s =**	1.277	**cp**	8.873
Type of Data Collected	Cavity dimension	**Upper Limit (+)**	37.00	**LSL**	3	**CL (X)**	32.25	**CL (R)**	2.63	**Process Spread**	7.664	**Process Capability Index**	
Unit of Measurement	Millimeter	**Lower Limit (-)**	31.00	**Tolerance**	68	**LCL (X)**	30.33	**LCL (R)**	0	**Half Process Spread**	3.832	**cpk**	7.632

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Year	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2004
Date	10/11	10/11	10/11	10/11	10/11	10/11	10/11	10/11	10/11	10/11	10/11	10/11	10/11	10/11	10/21
Hours	11:41	11:41	11:41	11:41	11:41	11:41	11:41	11:41	11:41	11:41	11:41	11:41	11:41	11:41	02:33
Shift															1
Employee Name															Vinod
Sample 1	31.00	34.56	30.00	31.00	32.00	30.00	31.00	31.00	34.56	32.00	35.00	30.89	31.00	32.00	31.89
Sample 2	32.00	35.56	31.00	33.00	31.00	35.00	34.00	32.00	35.56	35.00	32.00	30.88	31.00	35.00	30.89
Sample 3	33.00	33.25	32.00	32.00	30.00	31.00	33.00	33.00	33.25	31.00	31.89	30.87	31.00	36.00	32.56
Sample 4	32.00	31.89	31.56	32.00	32.00	32.00	31.00	32.00	31.89	35.00	30.59	30.90	31.00	34.00	31.33
SubGroup Average	32.00	33.81	31.14	32.00	31.25	32.00	32.25	32.00	33.81	33.25	32.37	30.89	31.00	34.25	31.67
SubGroup Range	02.00	03.67	02.00	02.00	02.00	05.00	03.00	02.00	03.67	04.00	04.41	00.03	00.00	04.00	01.67

XBar R Chart





Monitor Variations in the process

Even minor variations are detected for immediate analysis

FMEA

Failure Mode And Effect Analysis

Edit | Hide Column

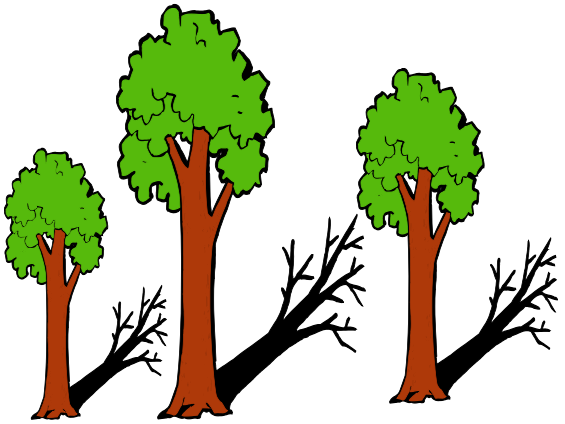
No	Part	Function	Potential Effects of Failure	Potential Causes of Failure	S	Potential Failure Mode	O	C	Current Controls Prevention	Current Controls Detection	D	RPN
1	Imported from F-Matrix	New Function										
1.1		Ink flow rate	Ink drip	Stain on paper	5	Low viscosity	7	35	viscosity medium	Viscosity test	7	245
1.2		Lead hardness	To dry	Breaks tip	6	Not enough wax	3	18	QA Inspection	QA Inspection	3	54
1.3		Mechanical eject time	Tight spring	Nip not ejected	8	Spring hardness	5	40	Vendor quality control	Batch sampling	8	320
1.4		Mechanism slowage clearance	Barell tip size small	Jammed lead	8	Squashed barell tip	4	32	Load single stand	100% inspection	6	192
1.5		Case strength	case collapses	Pen damaged	3	Sheet thickness low	1	3	Use standard sheet	Incoming QA Inspection	5	15
1.6		Surface tackiness	Rubber Handle	Tacky pen	4	Low vulcanization	5	20	Batch test	Visual look	3	60
1.7		Clip point clearance	Not enough spring	Pen drops from pocket	6	Clip tension low	7	42	Heat temper clip	Hand pull test	4	168
1.8		Auxillary attach flatness			0		0	0			0	0
1.9		Top surface smoothness			0		0	0			0	0
1.10		Retract mechanism force			0		0	0			0	0
1.11		Writing point finish			0		0	0			0	0
1.12		Ink drying time			0		0	0			0	0
1.13		Lead antismudge			0		0	0			0	0
1.14		Shape aspect ratio			0		0	0			0	0

Import from QFD ! !

- FMEA
  - Follows the criteria for FMEA application
- Import data
  - From previous QFD
  - Set criteria for import

EMS

- Find out about ISO 14001
- What ISO 14001 means for you
- Top management commitment
- Select assessment body
- Develop project plan
- Explain ISO 14001 to your personnel



OHSAS

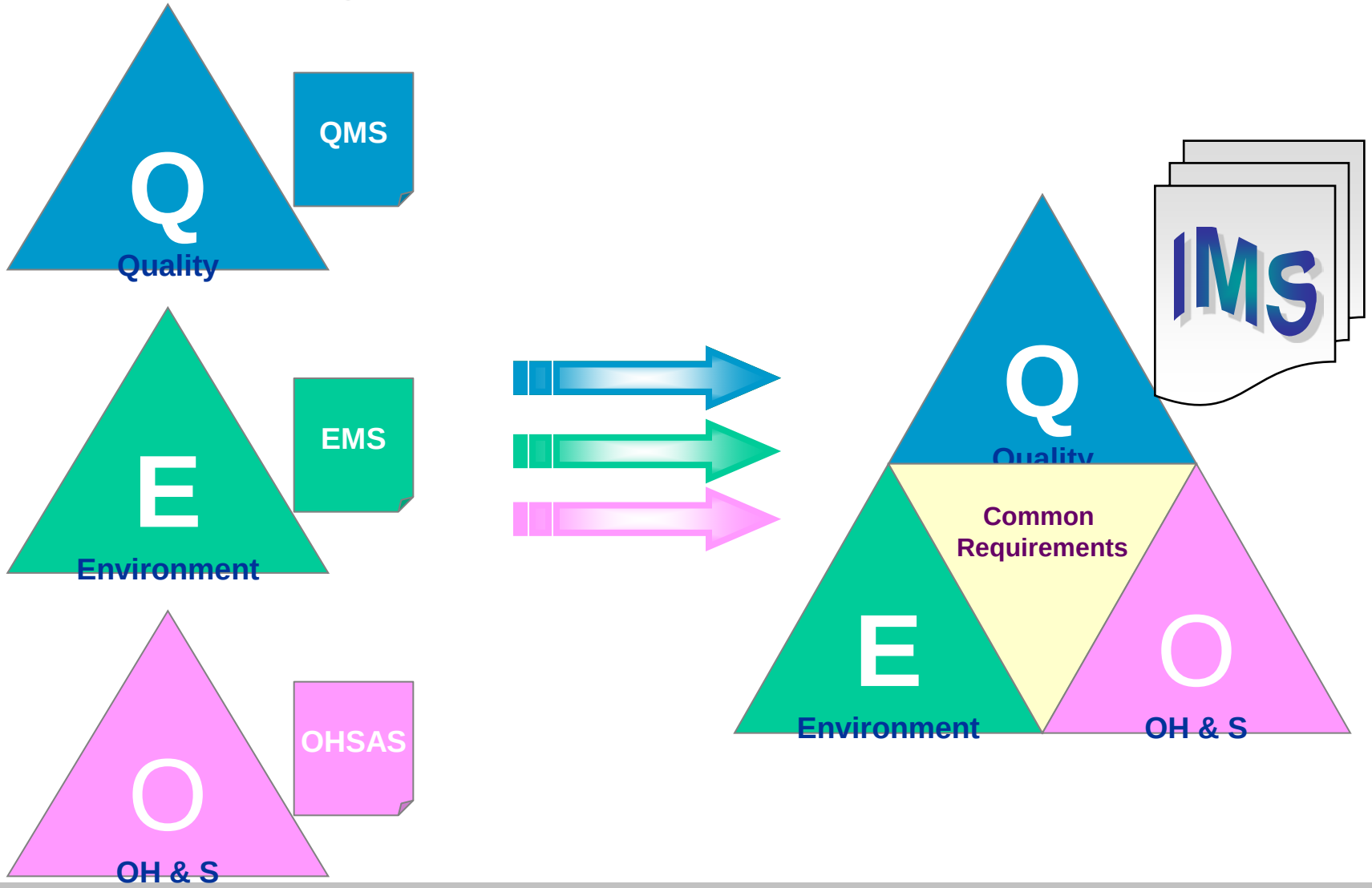
- Find out about OHSAS 18000
- What OHSAS 18000 means for you
- Top management commitment
- Select assessment body
- Develop project plan
- Awareness of OHSAS 18000

IMS

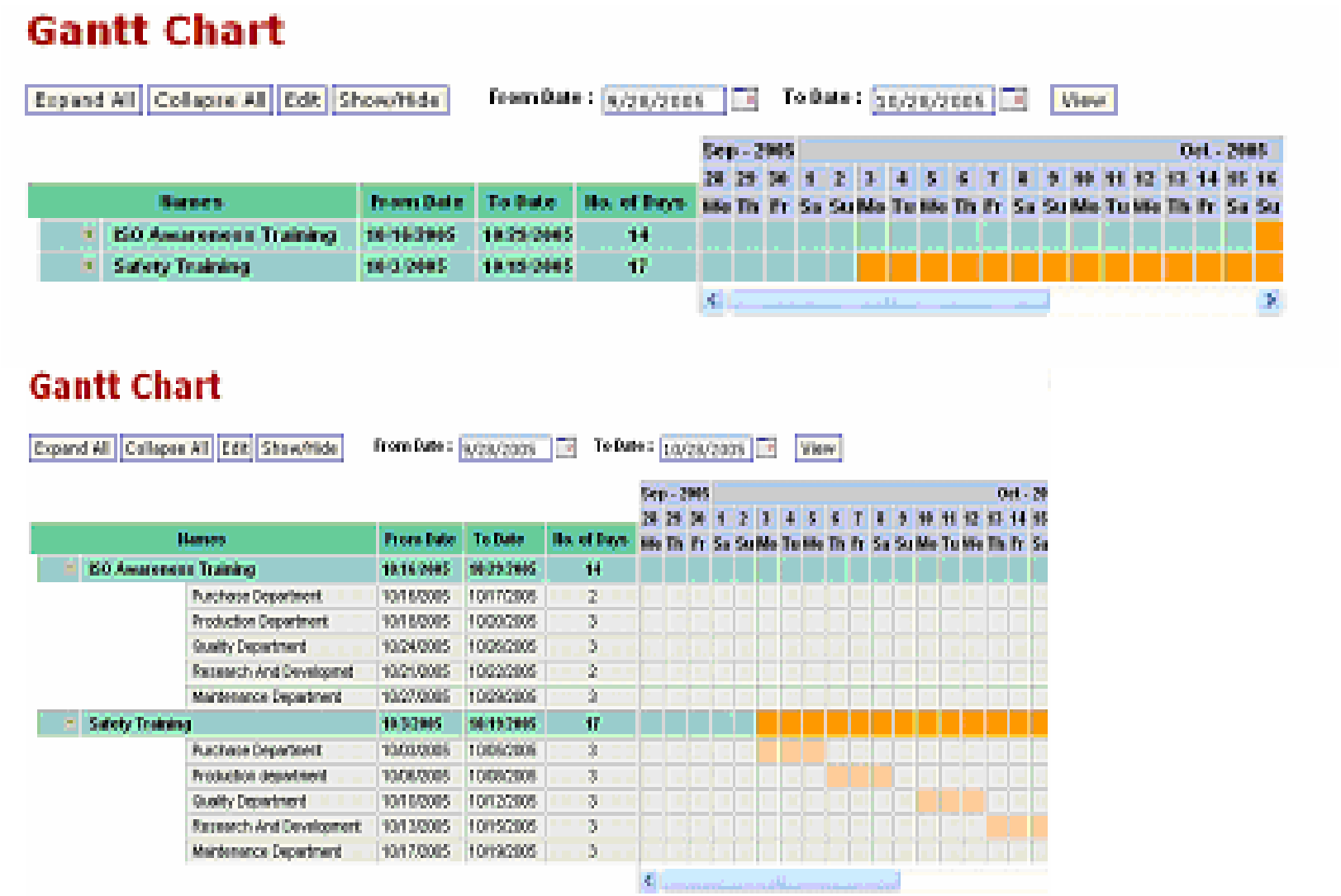
- Quality Management System +
- Environment Management System +
- Occupational Health & Safety =
- Integrated Management System
  - It follows the Plan, Do, Check, Act
  - Approach of all the major management systems requirements standards.

Integrated Management System

- Structured Progression



Gantt Chart for IMS Implementation



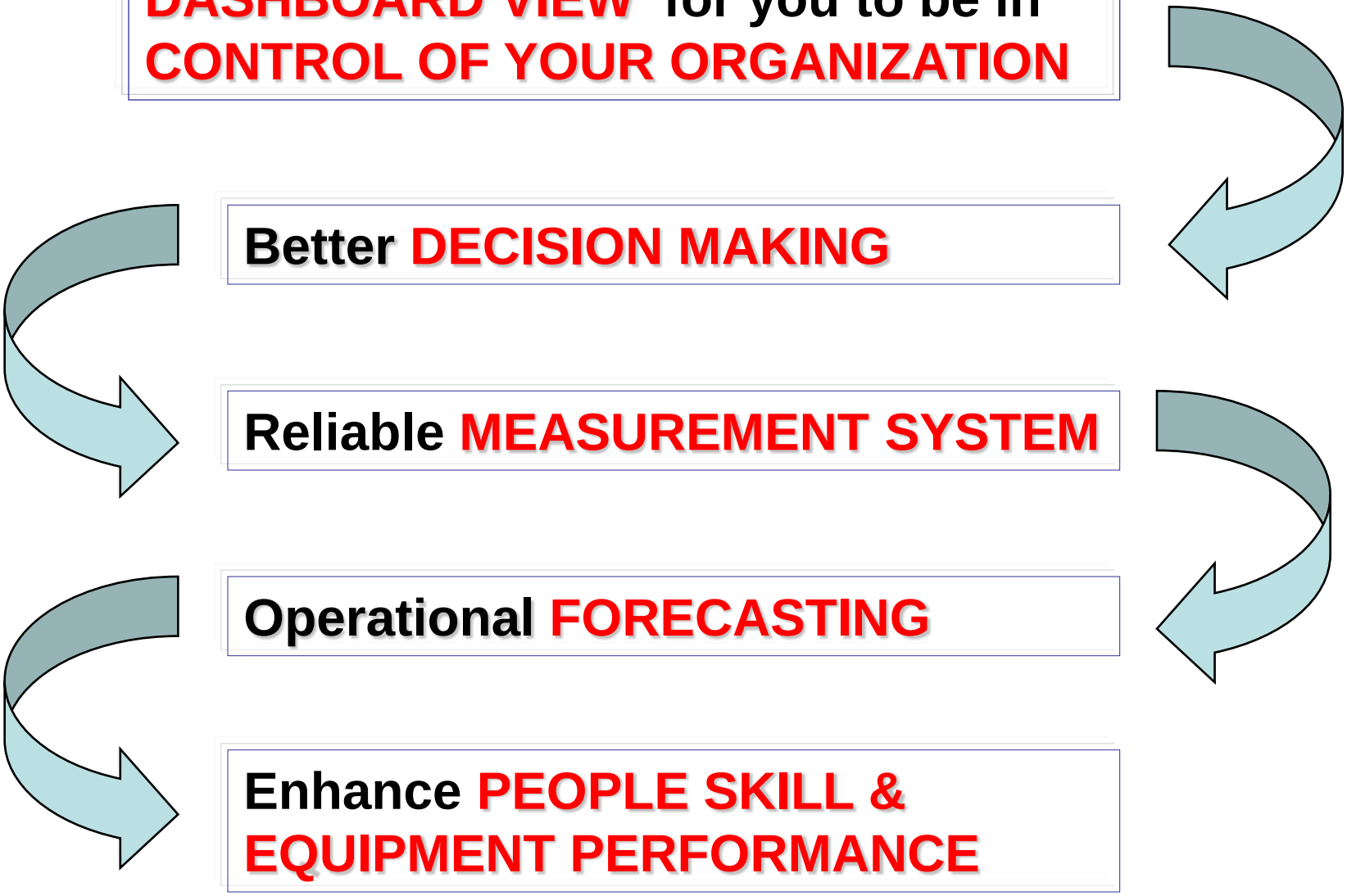
Compatibility

- Minimize paper in your organization
  - On your table
  - In your office
  - At your shop floor
- Store safely in computers
  - Easy to store
  - Easy to retrieve
- Easy to find
  - Display required documents
  - Print audit documents

All tools are supported by iCT-M® software

Smart IMS Management

DASHBOARD VIEW for you to be in **CONTROL OF YOUR ORGANIZATION**

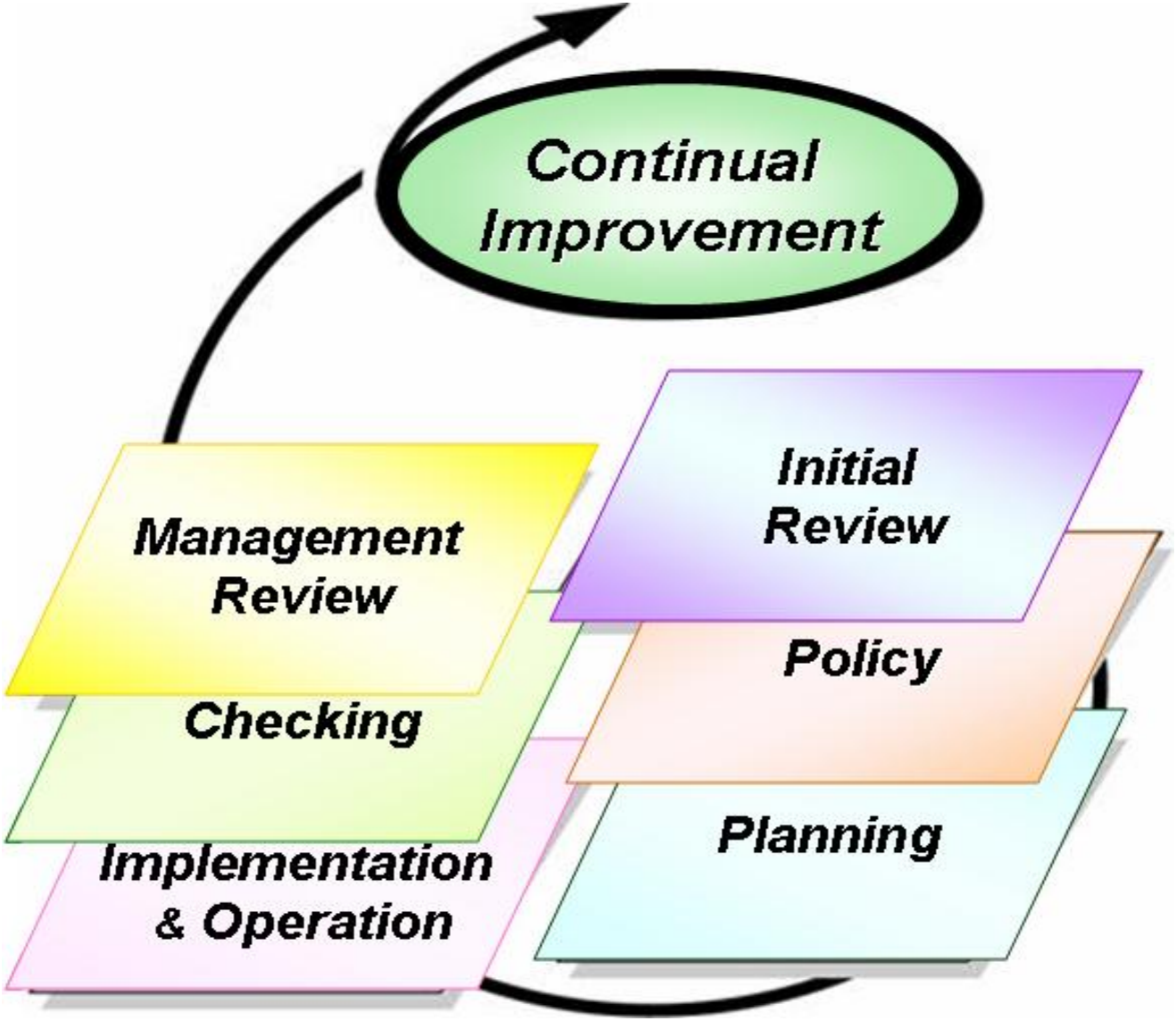


IMS Implementation

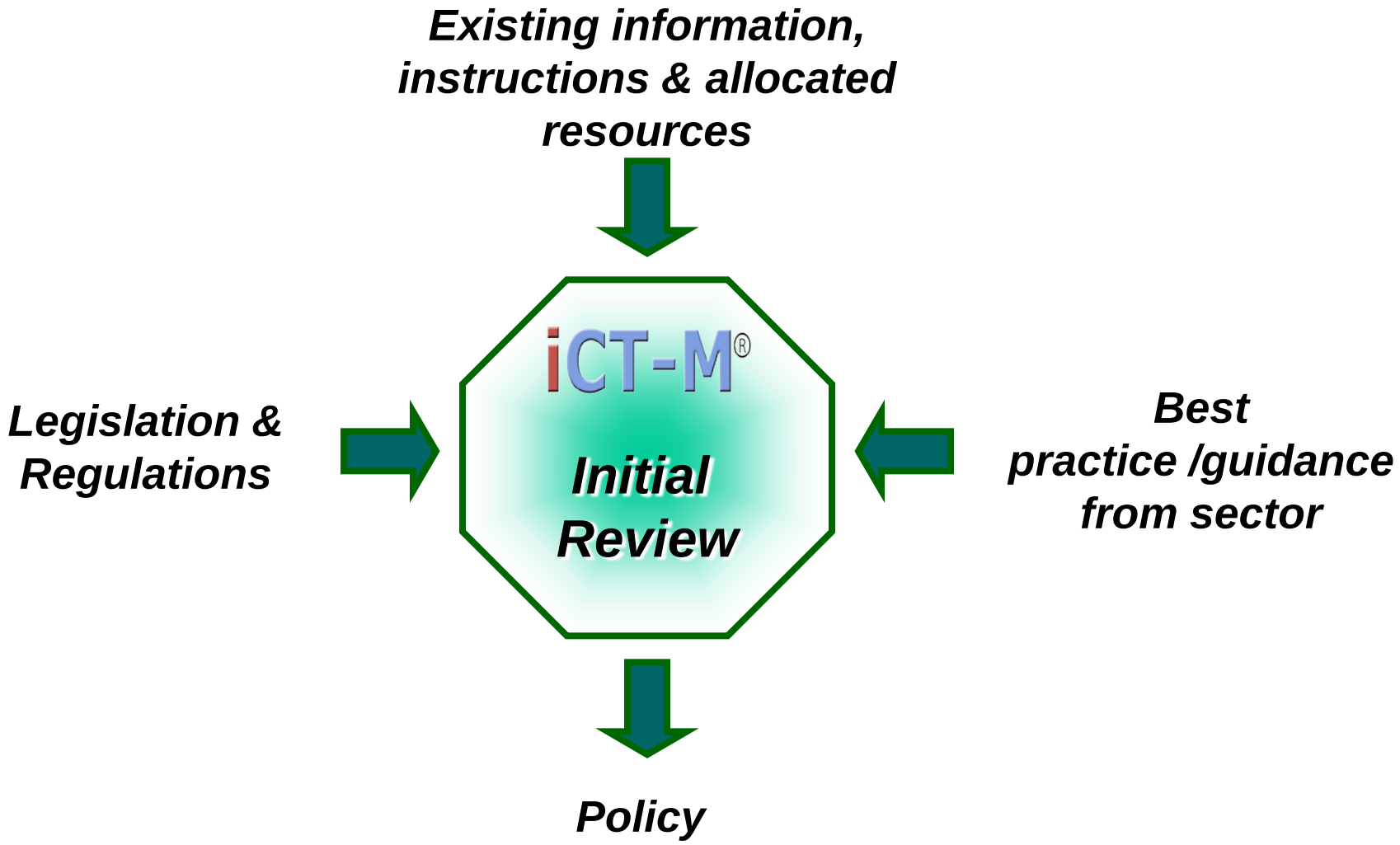
- Initial Review
  - Where are we now?
- Policy
  - Where do we want to be?
- Planning
  - How do we get to where we want to be?
- Implementation and operation
  - Planning
- Performance assessment
- Management Review
- Continual Improvement

All tools are supported by iCT-M® software

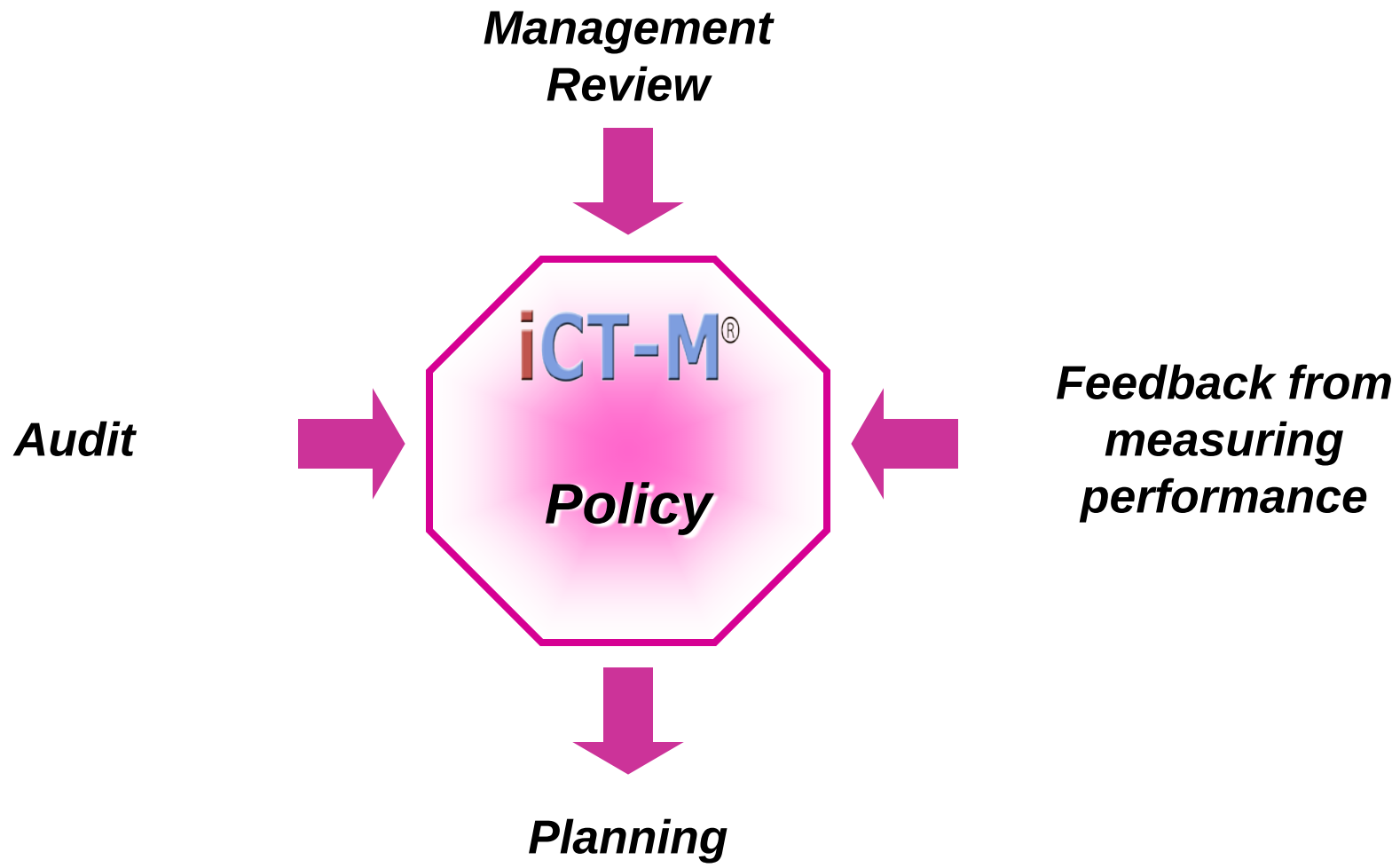
EMS and OHSAS 18001 Approach



Where are we now?



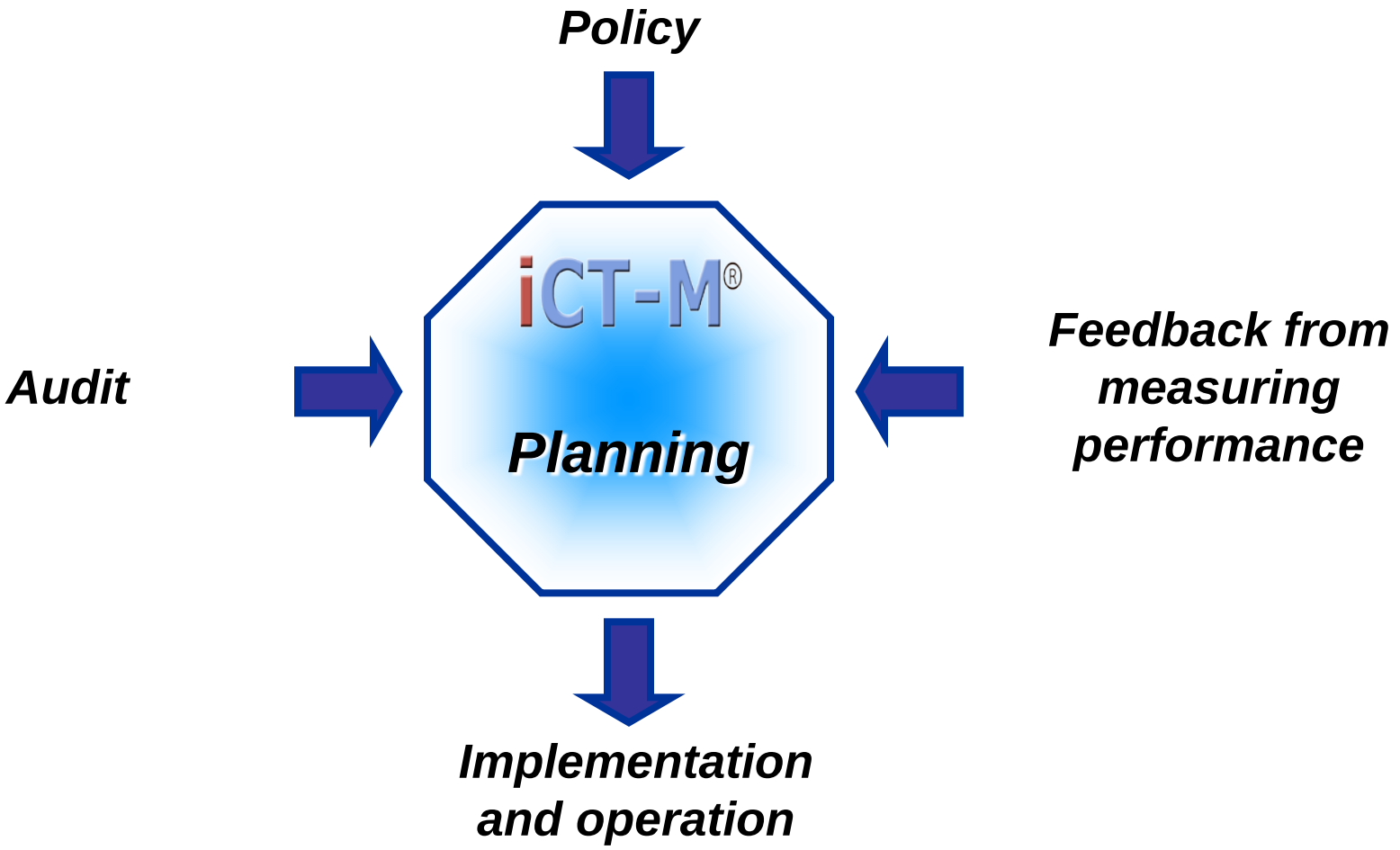
Where do we want to be?



EMS and OH&S Policy

- Must :
  - Commensurate to nature and scale of an organization's risks
  - State commitment to continual improvement
  - Commit to comply with current EMS & OH&S legislation
  - Be communicated to all employees
  - Be available to all interested parties
  - Be reviewed by senior management
  - Be signed by senior management

How do we get to where we want to be?



Planning

- ***Hazard identification, risk assessment and determining controls***
- Legal and other requirements
- Objectives and programmes

- Routine and non-routine activities
- Activities of all persons having access to the workplace
- Human behavior, capabilities and other human factors
- Infrastructure, equipment and materials
- Changes in the organization and modifications to the management system
- Determine controls according to a hierarchy:
  - Elimination
  - Substitution
  - Engineering controls
  - Signage/ warnings and/or administrative controls
  - Personal protective equipment

Planning

- Hazard identification, risk assessment and determining controls
- ***Legal and other requirements***
- Objectives and programmes

- Procedure for identifying and accessing legal and other applicable OH&S requirements

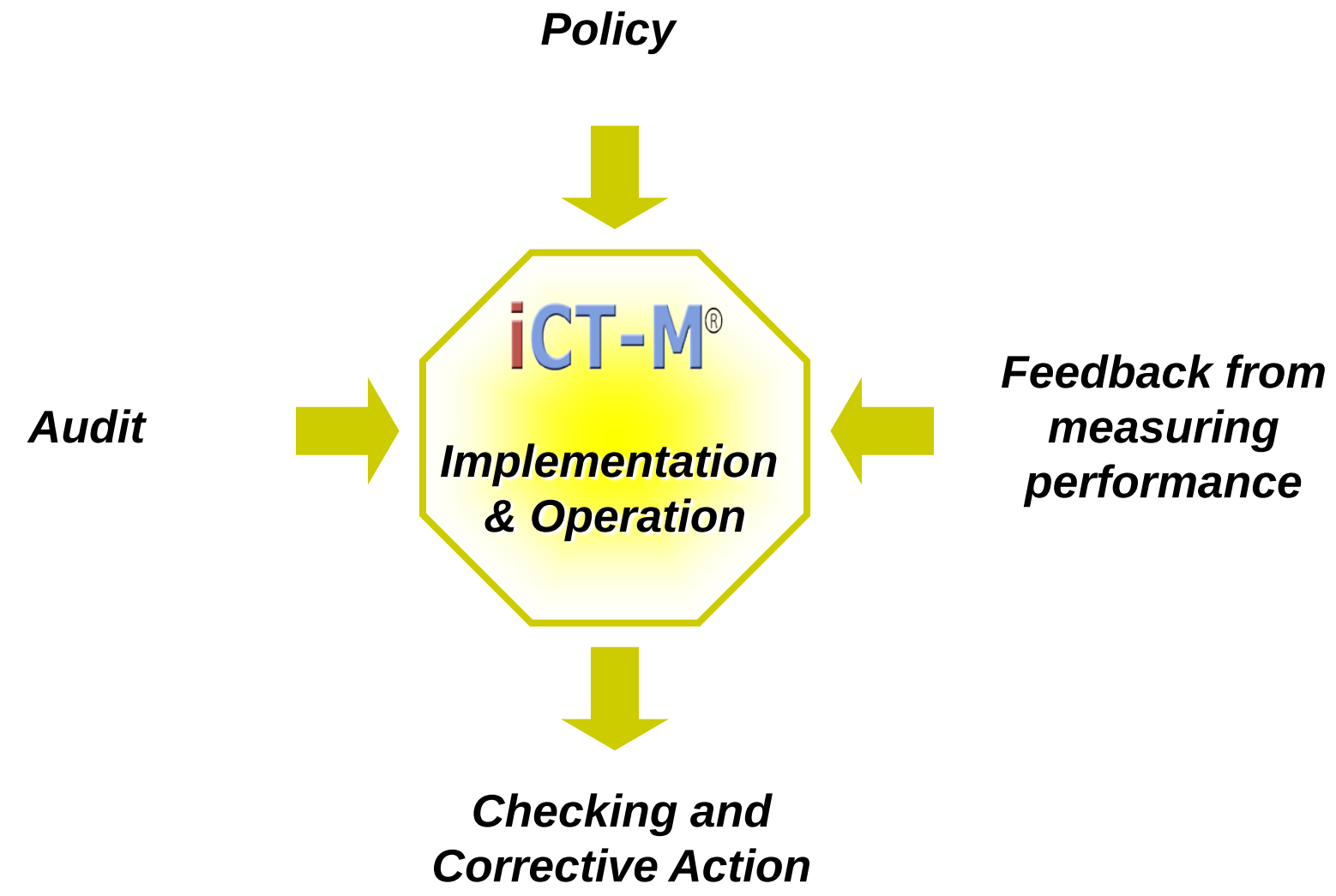
How to get where we want to be?

- Hazard identification, risk assessment and determining controls
- Legal and other requirements
- ***Objectives and programmes***

- Objectives & Targets:
  - Measurable
  - Consistent with the OH&S policy
  - Support compliance with legal requirements and continual improvement
  - Set targets for performance against the OH&S programme and operational criteria
- Programme:
  - Define responsibilities and authorities for activities

iCT-M®
Planning

Implementation & Operation



Implementation & Operation

- Resources, roles, responsibility, accountability and authority
- ***Competence, training and awareness***
- Communication, participation and consultation
- Documentation
- Control of documents
- Operational Control
- Emergency preparedness and response

- Any personnel working under its control are competent to:
  - Perform tasks safely
  - Understand importance of conformance to the OH&S policy and procedures
  - Know roles and responsibilities of others
  - Knows potential consequences of departure from policy
  - Take account of risk, literacy, ability etc.

Implementation & Operation

- Resources, roles, responsibility, accountability and authority
- Competence, training and awareness
- ***Communication, participation and consultation***
- Documentation
- Control of documents
- Operational Control
- Emergency preparedness and response

- Procedures for:
  - Communication both internally and externally
  - Participation of employees in the OH&S system development and operation
  - Consultation with contractors
  - Consultation with external interested parties where pertinent

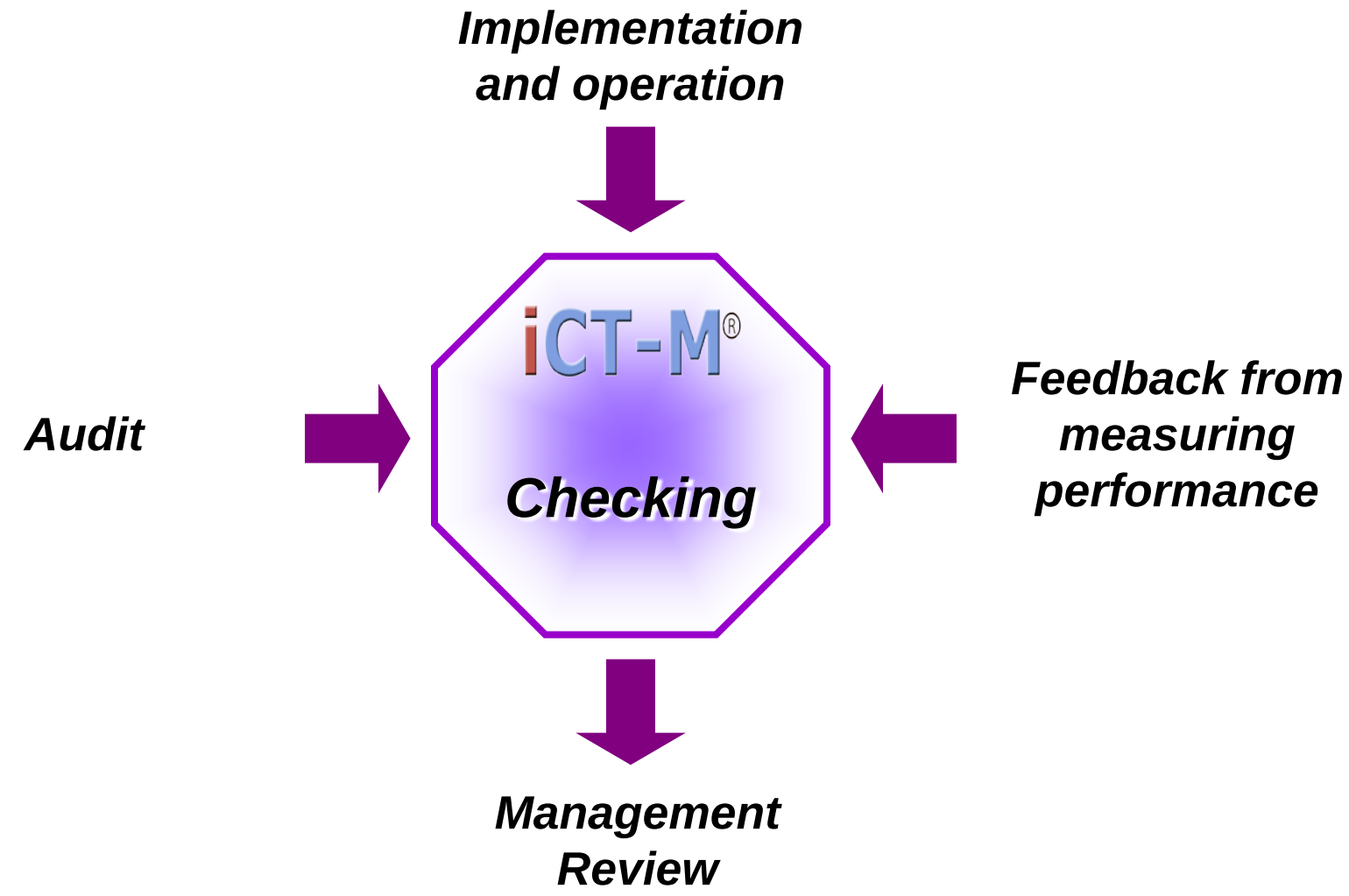
Implementation & Operation

- Resources, roles, responsibility, accountability and authority
- Competence, training and awareness
- Communication, participation and consultation
- Documentation
- Control of documents
- Operational Control
- ***Emergency preparedness and response***

- Identify potential for incidents / emergencies (eg disaster recovery plan)
- Deal with emergency responses
- Test emergency procedures, where practicable
- Ensure interested parties are involved in development of plans
- Provide information to visitors, contractors etc
- Review emergency arrangements

iCT-M®
Implementation & Operation

Checking


Implementation and operation
Audit
iCT-M®
Checking
Feedback from measuring performance
Management Review

Checking

- ***Performance measurement and monitoring***
- Evaluation of compliance
- Incident investigation, nonconformity, corrective action and preventive action
- Control of records
- Internal audit

- Procedures must be in place to:
- Measure performance on a regular basis
- Monitor the extent to which OH&S objectives are being met
- Implement proactive monitoring measures
- Implement reactive monitoring measures
- Ensure monitoring equipment is calibrated/maintained
- Records of the above to be kept

Checking

- Performance measurement and monitoring
- ***Evaluation of compliance***
- Incident investigation, nonconformity, corrective action and preventive action
- Control of records
- Internal audit

- Establish, implement and maintain a procedure for periodically evaluating compliance with applicable legal requirements
- Establish, implement and maintain a procedure for periodically evaluating compliance with other requirements to which it subscribes

Checking

- Performance measurement and monitoring
- Evaluation of compliance
- ***Incident investigation, nonconformity, corrective action and preventive action***
- Control of records
- Internal audit

- Procedures need to define responsibility and authority for:
  - Recording, investigating and analyzing incidents
  - Determining underlying OH&S deficiencies
  - Dealing with breaches in procedures that resulted in an incident
  - Actions to mitigate consequences arising from incidents
  - Initiation / completion of preventive / corrective actions
  - Reviewing effectiveness of corrective and preventive actions

Checking

- Performance measurement and monitoring
- Evaluation of compliance
- Incident investigation, nonconformity, corrective action and preventive action
- ***Control of records***
- Internal audit

- Procedures needed for identification, maintenance and disposition of OH&S records:
  - To include audit reports and reviews
  - Legible
  - Identifiable and traceable to activities
  - Stored and maintained to be readily retrievable
  - Protected against damage
  - Maintained to demonstrate conformance to OHSAS

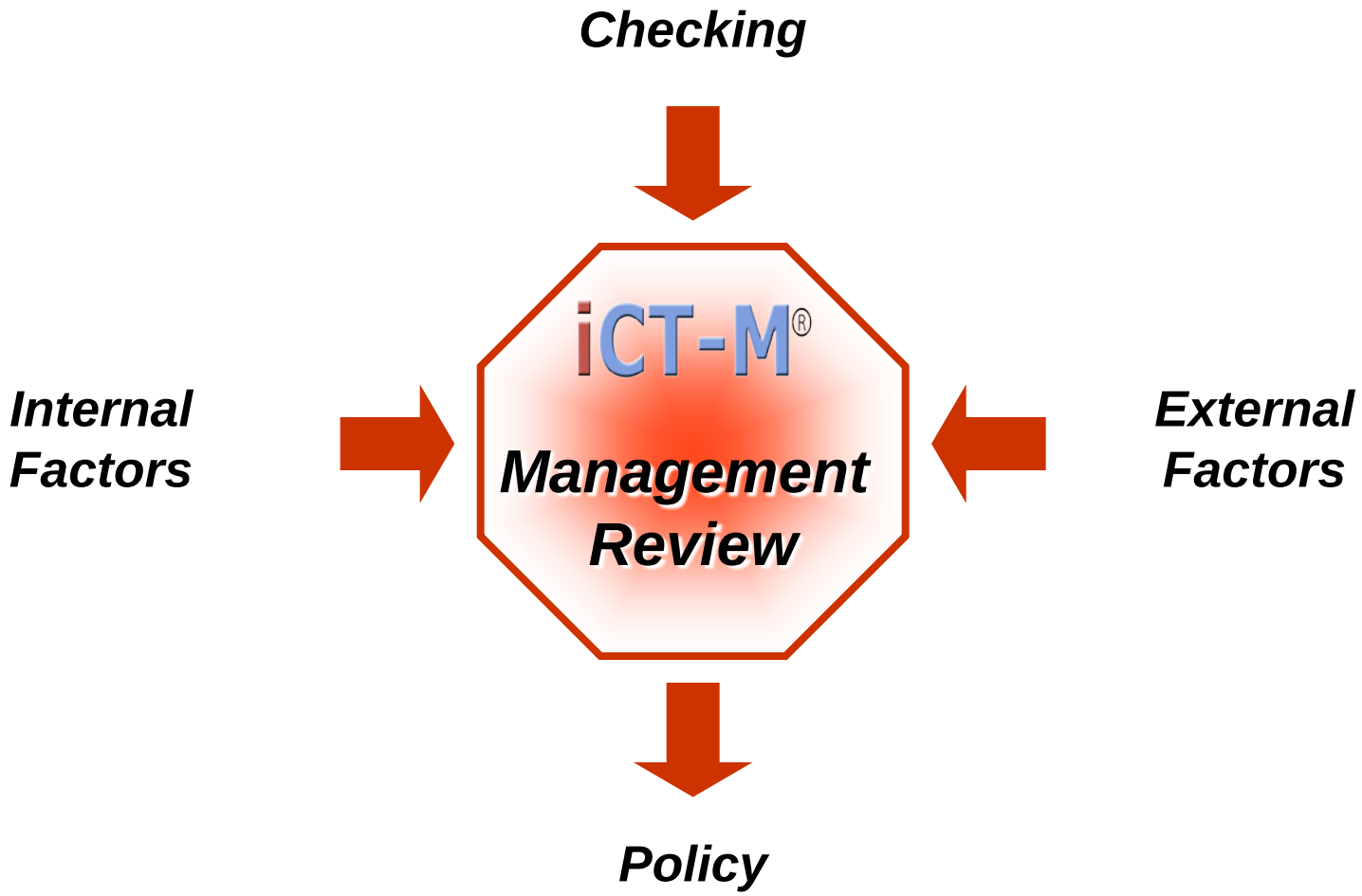
Checking

- Performance measurement and monitoring
- Evaluation of compliance
- Incident investigation, nonconformity, corrective action and preventive action
- Control of records
- ***Internal audit***

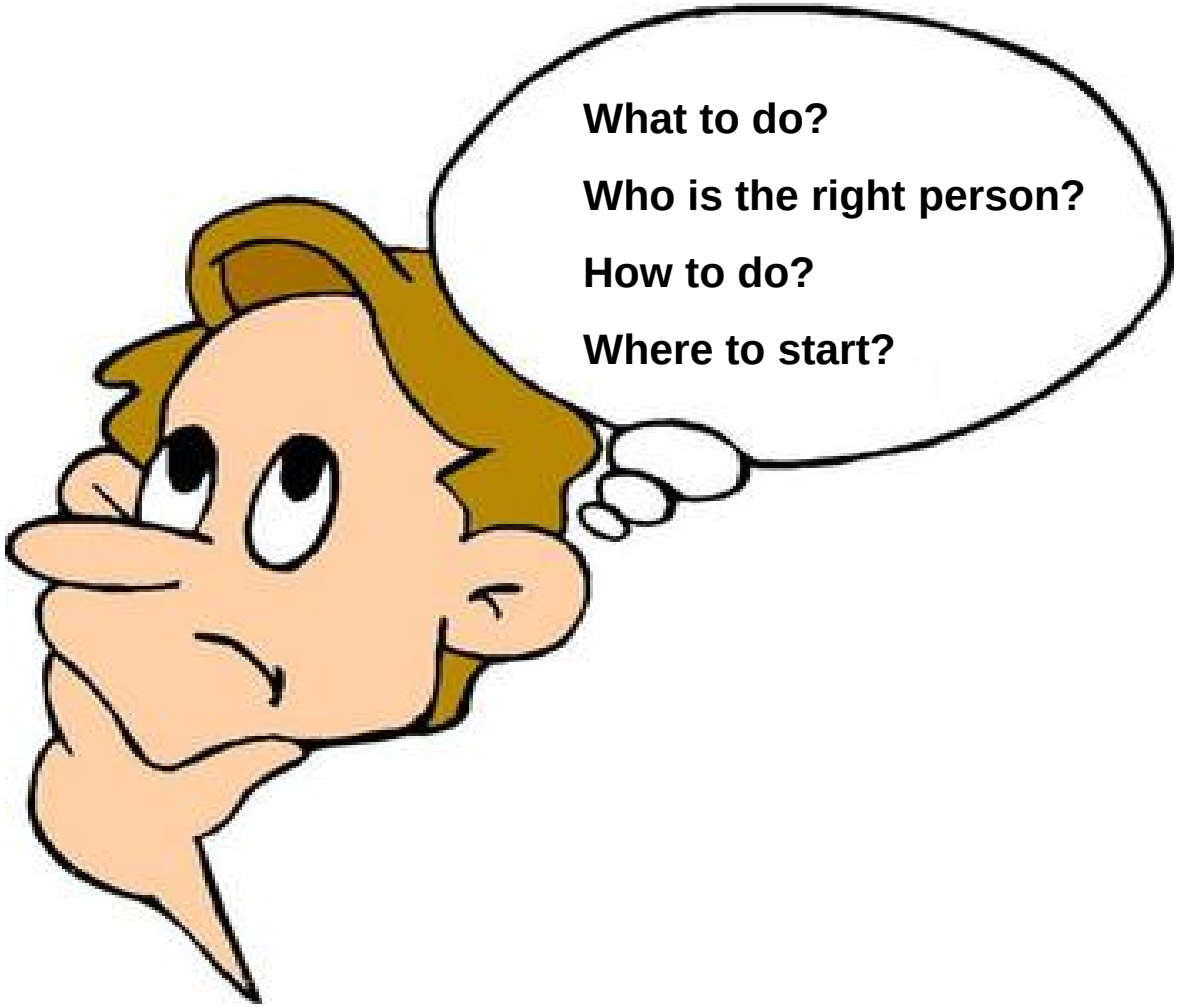
- Auditing needed to establish:
  - Conformance with management system
  - Whether systems are properly implemented
  - Proper maintenance of systems / procedures
  - Review of previous audits
  - Audit results to be informed to senior management

iCT-M®
Checking

Management Review



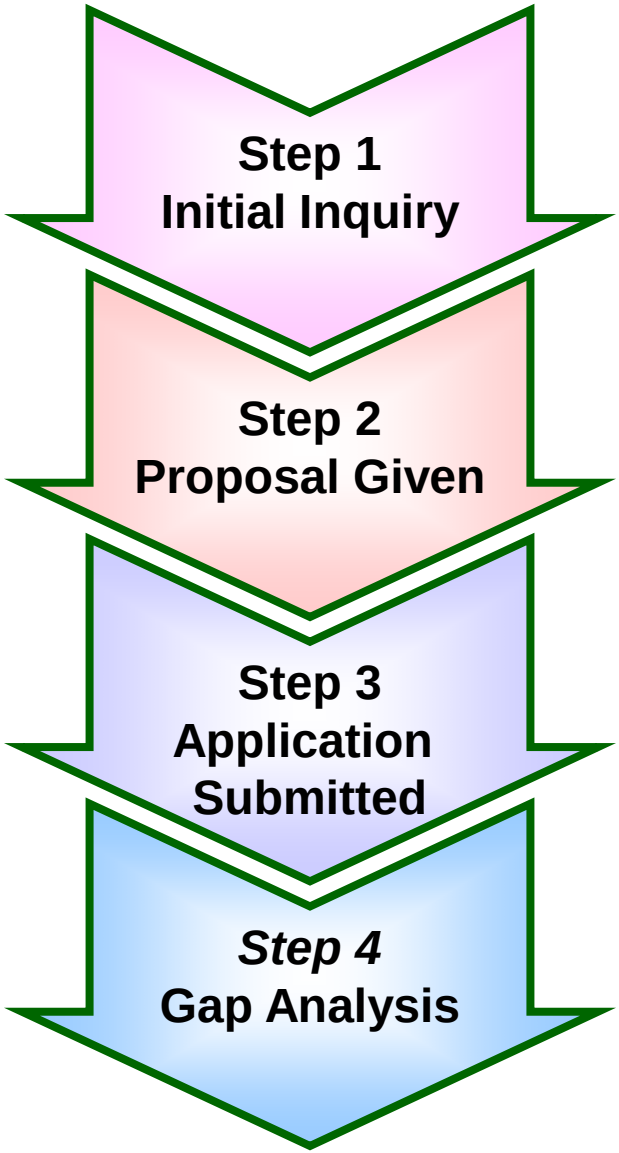
How To Get Started?



How to get started

- Preparing a Business Case
  - Establish current OH&S Performance
  - Present your vision and mission
  - Explain your motivation
  - Outline an implementation plan
  - Identify the external support
  - Estimate financial costs, savings and benefits
  - Establish true cost of not complying
  - Support your case with evidence
  - Present your case to senior management

The Registration Process



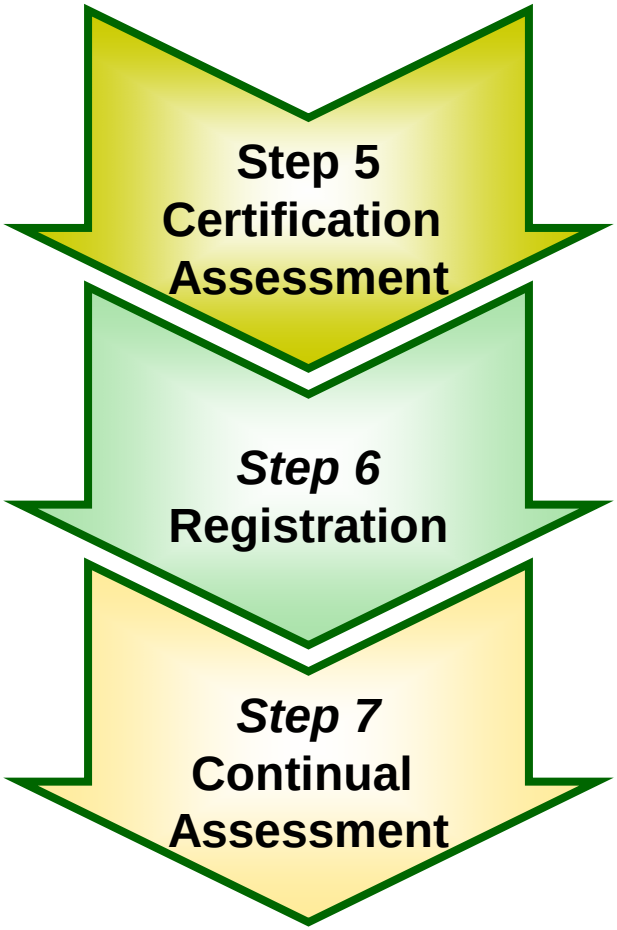
Site visit by Belmah Strategies (Malaysia)

Full proposal with costs for the certification process and training

Formal application to Certification body for registration.

Initial evaluation of existing OHS arrangements compared with OHSAS 18001:2007

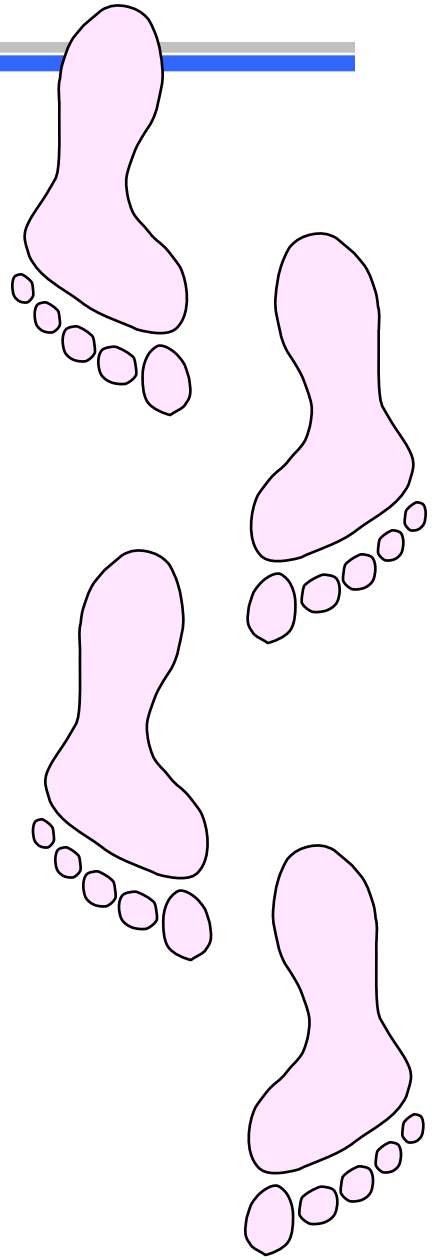
The Registration Process



Planning and
Implementation & Effectiveness

Reports reviewed.
Certificate issued.

Maintenance of certificate and
periodical strategic review



Integrated Management Registration

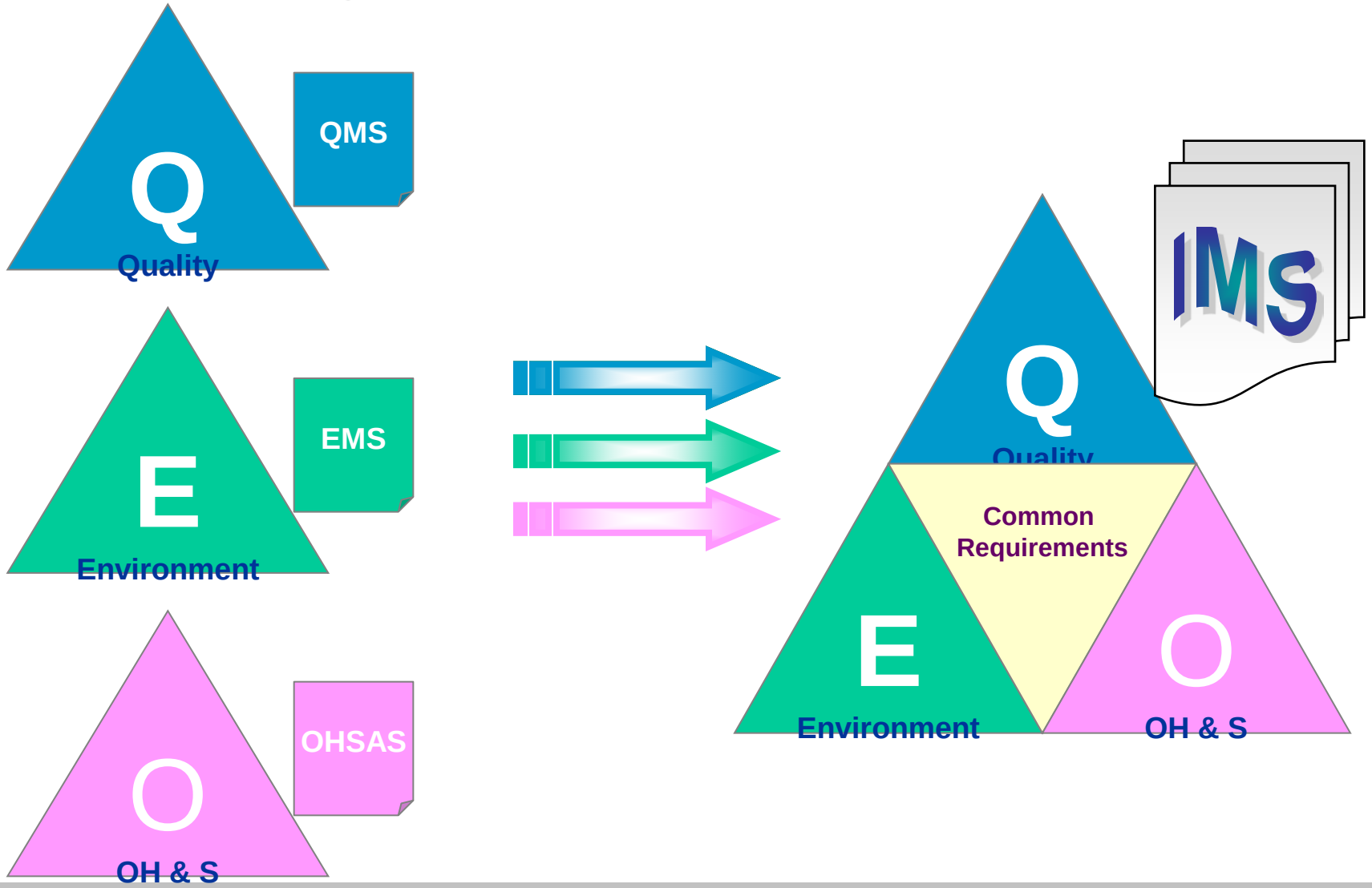
- Requirements standard
  - For Integrating Management Systems
- Seeks to follow
  - Plan, Do, Check, Act approach
  - Of all the major management systems requirements standards
- It is intended to
  - Encourage organizations with more than one management system
  - See these as one holistic management system
  - Enable them to manage their operations more effectively

ISO Guide

- Common management system requirements:
  - Policy
  - Planning
  - Implementation and operation
  - Performance assessment
  - Improvement
  - Management review

Integrated Management System

- Structured Progression



Business Growth

EMS

Increased Revenue

OHSAS

Trainings

- Introduction to EMS System
- Introduction to OH&S Management System
- Documentation of EMS
- Documentation of OHSAS
- Managing EMS
- Managing OHSAS
- Implementing an Integrated System
- Internal Auditor training for EMS
- ISO Internal Audit
- ISO Toolkit
- Document Control
- Developing Internal Audit Program for EMS
- Developing Internal Audit Program for OHSAS
- Internal Auditor training for OHSAS

These trainings are supported by iCT-M®