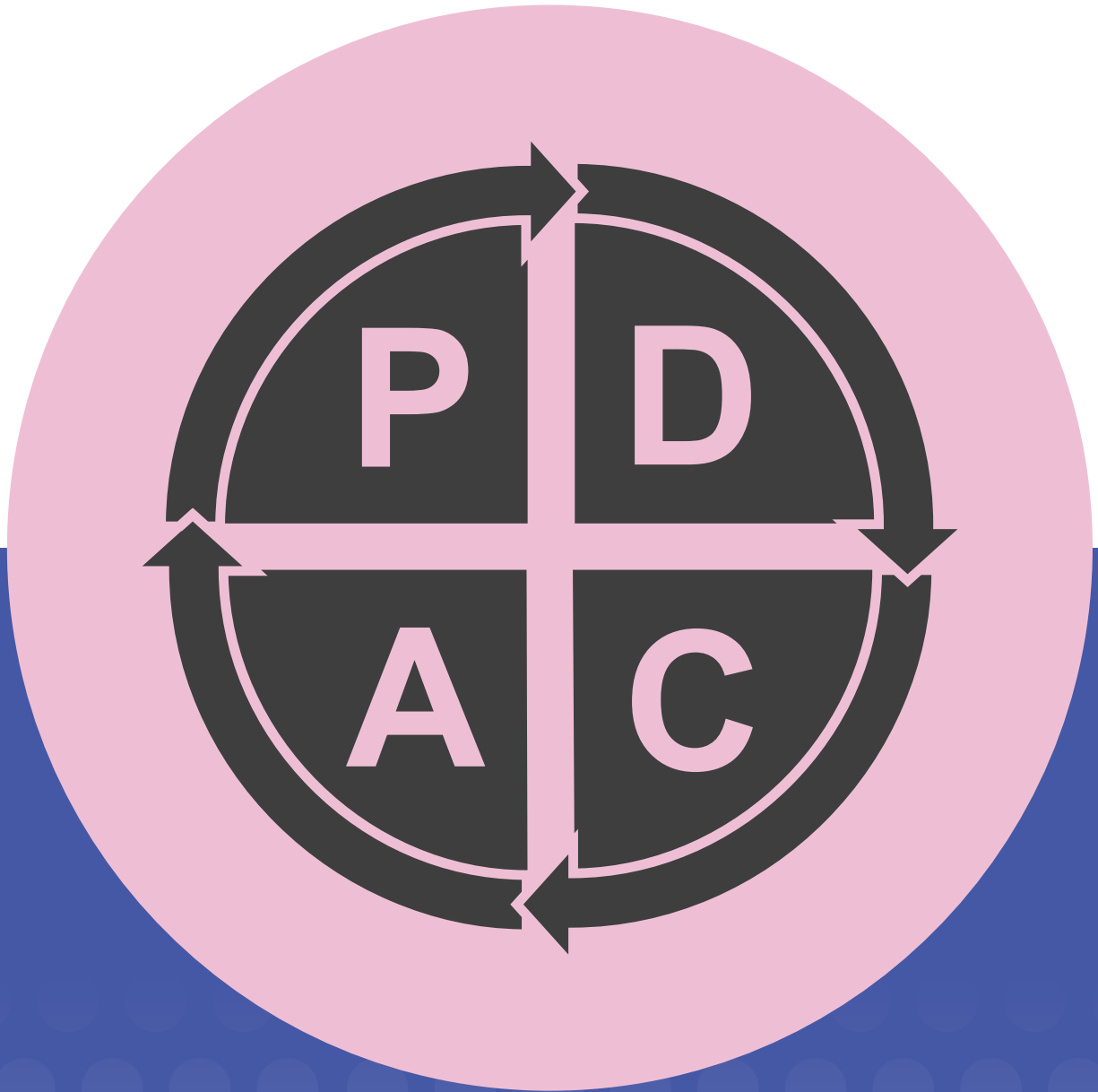




NEBOSH International General Certificate in Occupational Health and safety



Element 2

How health & safety management systems work & what they look like

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2.0 Learning outcomes and assessment criteria

The learner should be able to:

- Work within a health and safety management system, recognising what effective general policy, organisation and arrangements should look like.
 - 2.1 **Give** an overview of the elements of a health and safety management system and the benefits of having a formal/certified system
 - 2.2 **Discuss** the main ingredients of health and safety management systems that make it effective – policy, responsibilities, arrangements.

2.1 What they are and the benefits they bring

Health and safety is managed in the same way as any other aspect of business. Management control is typically exerted through a cycle of Planning, Doing, Checking and Acting (PDCA).

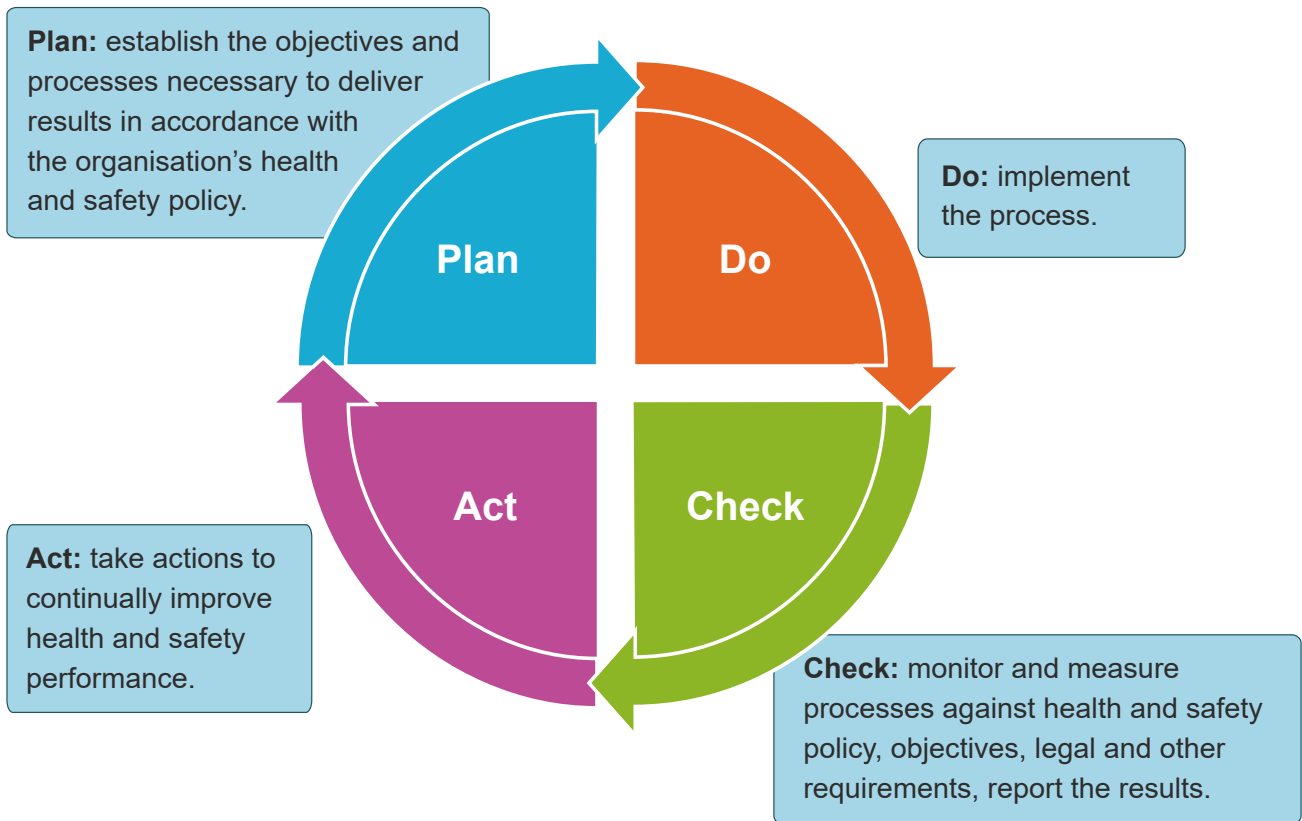


Figure 2.1: The PDCA cycle

There are a number of recognised health and safety management systems, notably:

- ILO-OSH 2001 (ILO) Guidelines on Occupational Safety and Health Management Systems.
- ISO 45001 (2018) Occupational Health and Safety Management System Requirements with Guidance for Use

These essentially follow a continual improvement cycle in accordance with the principles of planning, doing, checking and acting.

The IG syllabus requires an understanding of the key elements of ILO-OSH 2001 and ISO 45001 which are outlined in the following table.

ILO-OSH (2001)	ISO 45001 (2018)	
<ul style="list-style-type: none"> • Policy • Organising 	Plan	<ul style="list-style-type: none"> • Planning
<ul style="list-style-type: none"> • Planning and implementing 	Do	<ul style="list-style-type: none"> • Support and operations
<ul style="list-style-type: none"> • Evaluation • Auditing 	Check	<ul style="list-style-type: none"> • Performance evaluation
<ul style="list-style-type: none"> • Action for improvement 	Act	<ul style="list-style-type: none"> • Improvement

Table 2.1: An overview of the key elements of ILO-OSH and ISO 45001

ILO-OSH - Guidelines on OSHMS

Figure 2.3 below shows the structure of a health and safety management system designed in accordance with ILO-OSH (2001) “Guidelines on Occupational Safety and Health Management Systems.”



Figure 2.3: The Key Elements of ILO-OSH 2001

Policy

The employer, following consultation with workers and their representatives, should set out in writing their safety policy, which should be:

- Specific to the organisation and appropriate to its size and the nature of its activities;
- Concise, clearly written, dated and made effective by the signature or endorsement of the employer or the most senior accountable person in the organisation;
- Communicated and readily accessible to all persons at their place of work;
- Reviewed for continuing suitability;
- Made available to relevant external interested parties, as appropriate.

The policy should include, as a minimum, the following key principles and objectives and organisational commitments:

- Protecting the safety and health of all members of the organisation by preventing work-related injuries, ill health, diseases and incidents;
- Complying with relevant national laws and regulations, voluntary programmes, collective agreements on occupational safety and health (OSH) and other requirements to which the organisation subscribes;
- Ensuring that workers and their representatives are consulted and encouraged to participate actively in all elements of the OSH management system;
- Continually improving the performance of the OSH management system.

The OSH management system should be compatible with or integrated in other management systems in the organisation.

Organising

The employer has overall responsibility for the protection of workers' safety and health, and should provide leadership for OSH activities in the organisation.

The employer and senior management should allocate responsibility, accountability and authority for the development, implementation and performance of the OSH management system and the achievement of the relevant OSH objectives.

Structures and processes should be established to:

- Ensure that line-management responsibility for OSH is known and accepted at all levels;
- Define and communicate the responsibility, accountability and authority of persons who identify, evaluate or control OSH hazards and risks;

- Provide effective supervision, as necessary, to help ensure the protection of workers' safety and health;
- Promote cooperation and communication with; and the participation of workers and their representatives;
- Fulfil the principles of OSH management systems contained in relevant national guidelines, or other programmes, to which the organisation subscribes;
- Establish and implement a clear OSH policy and measurable objectives;
- Establish effective arrangements to identify and eliminate or control work-related hazards and risks, and to promote health at work;
- Establish prevention and health promotion programmes.

Planning and Implementing

The starting point of the planning phase is an evaluation (or initial review), by a competent person, of any existing management system and arrangements.

The initial review should:

- Identify all current legislation, guidelines, and other requirements to which the organisation subscribes;
- Identify, anticipate and assess hazards and risks to safety and health arising from the existing or proposed work environment and work organisation;
- Determine whether planned or existing controls are adequate to eliminate hazards or control risks; and
- Analyse the data provided from workers' health surveillance.

The outcome of the review provides a baseline from which an effective OHS management system (OHSMS) that assures legal compliance and continual improvement can be developed.

The planning, development, and implementation of the OSHMS should address the following components:

- Setting objectives;
- Hazard prevention and control;
- Management of change;
- Emergency prevention, preparedness and response;
- Procurement;
- Contracting.

Evaluation

Monitoring should provide:

- Feedback on OSH performance;
- Information to determine whether the day-to-day arrangements for hazard and risk identification, prevention and control are in place and operating effectively;
- The basis for decisions about improvement in hazard identification and risk control, and the OSH management system.

Active monitoring should include:

- Monitoring of the achievement of specific plans, performance criteria and objectives;
- The systematic inspection of work systems, premises, plant and equipment;
- Surveillance of the working environment, including work organisation;
- Surveillance of workers' health, where appropriate, through suitable medical monitoring and follow-up;
- Compliance with applicable legislation, agreements and other commitments on OSH to which the organisation subscribes.

Reactive monitoring should include the identification, reporting and investigation of:

- Work-related injuries, ill health, diseases and incidents;
- Other losses, such as damage to property;
- Deficient safety and health performance, and OSHMS failures;
- Workers' rehabilitation and health-restoration programmes.

Arrangements for conducting *periodic audits* should be established to determine whether the OSH management system and its elements are *in place, adequate, and effective* in protecting the safety and health of workers and preventing incidents.

Management reviews should be undertaken at various levels in the organisation, including board level. Performance should be assessed by:

- Internal reference to key performance indicators; and
- External comparison with the performance of business competitors and best practice, irrespective of employment sector.

Action for Improvement

Arrangements should be established and maintained for preventive and corrective actions arising from the monitoring and reviewing stages.

These arrangements should include:

- Identifying and analysing the root causes of any non-conformities;
- Undertaking, and checking the effectiveness of, any necessary corrective and preventive actions.

ISO 45001:2018 'Occupational Health and Safety Management System Requirements with Guidance for Use'

ISO 45001:2018 'Occupational Health and Safety Management System Requirements with Guidance for Use' is designed around a Plan-Do-Check-Act (PDCA) cycle, which requires leadership, commitment and participation of workers, and where they exist, workers' representatives, from all levels and functions of the organisation.

ISO 45001 uses the same new 'high level structure' as ISO9001:2015 (Quality) and ISO14001:2015 (Environment).

Figure 2.4 shows the new framework and is followed by a discussion of clauses 4 to 10.

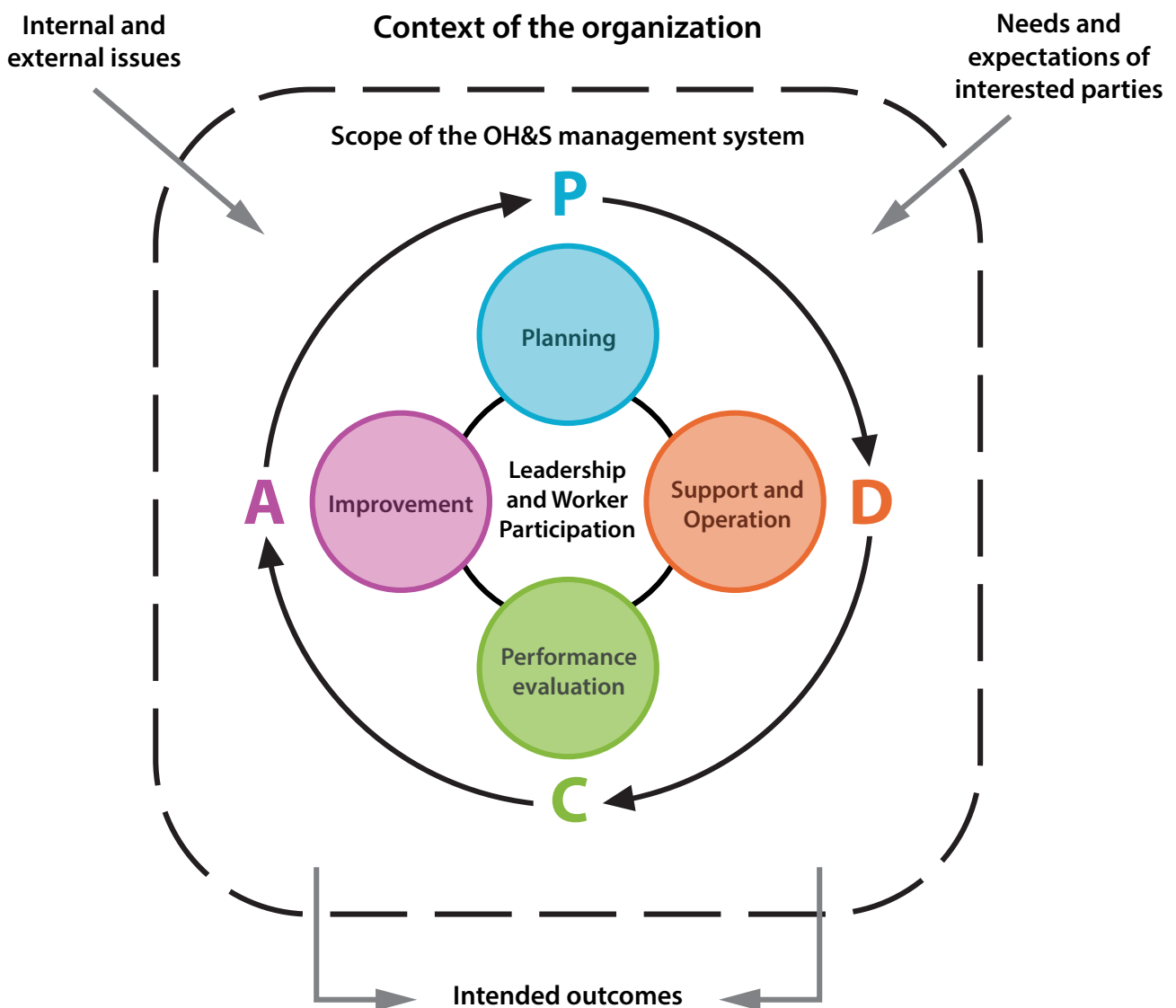


Figure 2.4: OHSMS model for ISO 45001 etc.

Context of the organisation

The organisation is required to determine external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended outcome of the management system. This includes:

- **Understanding the needs and expectations of workers and other interested parties**
- **Determining the scope of the management system** taking into account relevant external and internal issues and the work related activities performed.

Leadership and worker participation

Leadership and commitment

Top management is required to demonstrate leadership and commitment by:

- taking overall responsibility and accountability for workers' health and safety
- ensuring that safety management system processes and requirements are integrated into the organisation's business processes
- ensuring that the necessary resources are available
- developing, leading and promoting an appropriate health and safety culture
- establishing, implementing and maintaining an effective OHS policy and related objectives
- directing and supporting workers and managers
- ensuring the active participation of workers (or their representatives) through consultation and the removal of obstacles to participation
- communicating the importance of effective occupational health and safety (OHS) management and of conforming to the system requirements
- ensuring continual improvement of the occupational health and safety management system (OHSMS).

Participation and consultation

The organisation shall, establish, implement and maintain processes for participation (including consultation) in the development, planning, implementation, evaluation and actions for improvement of the OHSMS by workers at all applicable levels and functions, and where they exist, workers' representatives.

This includes provision of relevant information, training and the removal of barriers to participation.

Plan (planning)

The planning phase of ISO45001 is broken down into the following three sections:

Actions to address risks and opportunities

When addressing that broad range of risks and opportunities that face the organisation the following should be taken into account:

- health and safety hazards, risks and opportunities
- legal and other requirements
- planned changes
- record keeping.

Hazard identification and assessment of OHS risks

Processes are required to ensure the effective, on-going proactive identification of hazards arising, taking into account:

- routine and non-routine activities and situations
- emergency situations
- Actual or proposed change
- social factors, including workload, work hours, leadership and the culture in the organisation
- people, including workers, contractors, visitors and other persons who may be affected
- the design of work areas, processes, installations, machinery/ equipment etc.
- situations occurring in the vicinity of the workplace caused by work-related
- situations not controlled by the organisation and occurring in the vicinity of the workplace that can cause work-related injury and ill health to persons in the workplace.

OHS objectives and planning to achieve them OHS objectives must be established at relevant functions and levels to maintain and improve the safety management and to continually improve performance.

The OHS objectives must:

- take account of risk assessments, legal requirements and the views of workers or their representatives
- be consistent with the safety policy
- be SMART
- be clearly communicated
- be updated as appropriate.

Document records must be kept and maintained.

Do (support and operation)

The five main areas of **support services** identified are:

Resources Resources needed for the establishment, implementation, maintenance and continual improvement of the OHSMS must be determined and provided.

Competence The organisation is required to:

- determine the necessary competence of person(s) doing work under its control that can affect health and safety performance
- ensure competence on the basis of appropriate education, induction, training, or experience
- retain appropriate documented information as evidence of competence.

Awareness Workers must be made aware of:

- the safety policy, their contribution to it, and the implications of not conforming with the system requirements
- the outcomes of incident investigations
- hazards and risks that are relevant to them.

Information and communication The organisation must determine the need for communicating with and providing information to internal and external stakeholders. **What** needs to be communicated to **who**, **when**, and **how**.

Diversity aspects such as language, culture, literacy and disability must be taken into account.

Documented information The safety management system must include documented information necessary to:

- comply with the requirements of ISO45001
- maintain the ongoing effectiveness of the system.

Document control is required to ensure that information is not lost and is readily available when required.

Operational planning and control

Operational processes for meeting the requirements of the OHSMS, and implementing the actions arising should be determined by:

- establishing criteria for the processes
- adapting work to workers
- reducing risks by applying the hierarchy of control (see **Element 3**).

Systems are also required for

- management of change
- outsourcing
- procurement
- contractors
- emergency preparedness and response.

Check (performance evaluation)

The organisation is required to

- establish, implement and maintain a process for monitoring, measurement and evaluation of its OHS performance including legal compliance.
- conduct internal audits at planned intervals to provide information on whether the

safety management system conforms to the organisation's own requirements and the requirements of ISO45001

- conduct top management reviews of the organisation's OHSMS at planned intervals to ensure its continuing suitability, adequacy and effectiveness.

The management review should drive continual improvement and the review findings should be communicated to relevant workers, and/or their representatives

Act (improvement)

The organisation requires processes to manage incidents and non-conformities including reporting, investigating and taking action. The organisation should take direct action to take control of any incident or non-conformity, and, the action should be taken in a timely manner.

The organisation is required to continually improve the suitability, adequacy and effectiveness of the OHSMS to:

- a. prevent occurrence of incidents and nonconformities
- b. promote a positive occupational health and safety culture
- c. enhance OHS performance.

The benefits of having a formal/certified health and safety management system

A health and safety management system is designed to enable an organisation to fulfil its health and safety objectives whilst delivering continual improvement in the effectiveness and efficiency of the system itself.

The direct benefits of the system should be evident through reductions in the numbers and scale of loss outcomes such as occupational illnesses, injuries and property damage incidents.

Consequential benefits then include:

- A safer, healthier workplace.
- A reduction in the costs associated with accident investigation, legal action, compensation claims and reactive system improvements.
- Avoiding business disruption.
- The ability to verify occupational health and safety through validated monitoring systems.
- The ability to show an understanding of and compliance with legal requirements.
- Improved reputation.
- Improved business opportunities where systems (particularly with certified systems such as ISO 45001) are required by clients as part of the pre-qualification procedures when tendering for work.
- Access to more affordable employers liability insurance.

Research also shows clear links between good health and safety management systems and long-term business efficiency.

2.2 What good health and safety management systems look like

The health and safety policy requirement in the Health and Safety at Work Act, is intended to make employers think carefully about the nature of the hazards in the workplace, and about what precautions are necessary to make the workplace safe and healthy for their employees.

A health and safety policy, typically contains three distinct sections, providing a basic health and safety management system structure.

1. statement of general policy (statement of intent) – **the what**
2. organisation (people and their responsibilities) – **the who**
3. arrangements (systems and procedures) – **the how.**

The **statement of intent** should set out the employer's aims and objectives for improving health and safety at work and the **organisation** and **arrangements** in force for achieving those objectives.

Organisation means people and their responsibilities, and **arrangements** means systems and procedures.

Statement of General Policy

The purpose of the safety policy statement is to set out the employer's aims and objectives for improving health and safety at work after a careful consideration of the nature of the workplace hazards and the appropriate controls.

The written statement of policy should be shaped by the organisations:

- General intentions;
- Approach and objectives (or vision); and
- The criteria and principles upon which it bases its action.

Top management should formally express the organisation's overall intentions and direction for health and safety performance in the health and safety policy, which should also provide a framework for action and for the setting of health and safety objectives

ISO 45001 requires top management to establish, implement and maintain an occupational health and safety policy that:

- provides a framework for setting the occupational health and safety objectives (see later section)
- includes commitments to:
 - provide safe and healthy working conditions for the prevention of work-related injury and ill health, appropriate to the purpose, size and context of the organisation and its risks and opportunities
 - fulfil legal requirements and other requirements
 - eliminate hazards and reduce occupational health and safety risks
 - continual improvement of the occupational health and safety management system
 - consultation and participation of workers, and, where they exist, workers' representatives.

Better safety policy statements will attempt to capture the organisations basic philosophy for the management of health and safety and explain its importance relative to other organisational objectives, e.g.:

- *'Prevention is not only better, but cheaper than cure. There is no necessary conflict between humanitarianism and commercial considerations. Profits and safety are not in competition. On the contrary, safety is good business.'*
- *'The identification, assessment and control of health and safety and other risks is a managerial responsibility and of equal importance to production and quality.'*

In addition the health and safety policy should be:

- appropriate and proportionate to the needs, nature and scale of organisation's health and safety risks
- consistent with the organisation's overall business policies and with its policies for other management disciplines e.g. financial, operational etc.
- documented, implemented and maintained
- signed by the chief executive officer/managing director and dated
- communicated to all persons working under the control of the organisation
- available to all other interested parties
- periodically reviewed to ensure that it remains relevant and appropriate to the organisation.

Organisation – roles and responsibilities

The organisation section specifies health and safety responsibilities and accountabilities. It details who is responsible and for what they are responsible for.

Every employee in an organisation has legal and operational responsibilities to contribute towards the effective management of health and safety.

Leadership is the key to building an effective health and safety management system and developing a positive safety culture, and a top down approach is essential.

A senior board member should take direct responsibility for championing and coordinating the efforts. All directors and senior managers should actively support the development of the safety management system and be visible in practically demonstrating their commitment.

Managers at all levels should lead by example and consult and communicate effectively with the workforce the key values of the policy through their actions. All operational staff should 'buy in' to the importance of health and safety management in the organisation. The organisation section should therefore also detail the lines of health and safety communication and how information is feedback to employees.

In terms of practical allocation of roles and responsibilities it may be easier to recognise that everyone employed by the organisation is an employee and therefore has the same basic responsibilities, and that additional responsibilities are added as a result of seniority in the management structure or as a consequence of being appointed to a role with specific safety responsibilities.

All employees

All employees have to:

- take reasonable care of their own health and safety and the health and safety of others who may be affected by their work
- properly use and not interfere with anything provided to safeguard their health and safety
- co-operate with supervisors and managers on health and safety matters
- report all health and safety concerns to an appropriate person.

Supervisors and managers

In addition to the basic employees responsibilities supervisors and managers may well have responsibility for specific groups of workers or specific parts of the workplace. Additional responsibilities may include ensuring that:

- risk assessments are current and effective
- employees are working in accordance with safe systems of work
- the workplace is kept clean and tidy and free of obstructions
- adequate supplies of personal protective equipment (PPE) are available
- accidents and near misses are reported and properly investigated.

Directors/senior management team

The senior management team is responsible for:

- establishing effective '*downward*' communication systems and management structures
- considering health and safety implications of all business decisions
- setting targets for improving the organisations health and safety performance
- regularly reviewing the organisations health and safety performance at board level
- making provision for adequate resources, including competent health and safety advice.

Roles with specific health and safety responsibilities

Health and safety advisor/manager

The role needs to be clearly defined particularly regarding its advisory and management responsibilities. This may vary greatly depending on the size of the organisation and its hazard profile. Examples of typical responsibilities include:

- advising the board or senior management on strategic health and safety issues
- formulating and developing specific aspects of the health and safety management system, e.g. the practical arrangements for risk assessment
- day-to-day implementation and monitoring of policy and plans including accident and incident investigation, reporting and analysis
- reviewing performance and auditing of the health and safety management system.

First aider

First aiders' specific duties may include:

- provision of first aid treatment to employees
- recording of all treatment given
- liaison with emergency services
- maintenance of first-aid kit/first-aid room.

Fire warden/marshal

A fire warden may be allocated a range of duties relating to periodic checks of fire precautions or actions in case of fire, such as:

- sweeping an allocated area, encouraging people to leave via the nearest fire escape route and proceed to the assembly point
- turning off equipment and closing doors and windows as they go
- informing the person in charge of the evacuation that their area is clear.

To enable effective performance management it is important that allocated responsibilities are clearly defined, understood and accepted, and able to be monitored objectively.

People with specific responsibilities for health and safety should be held accountable. This may involve the use of existing personnel systems such as:

- individual job descriptions containing references to health and safety responsibilities
- performance review and appraisal systems measuring and rewarding individual performance in health and safety activities
- disciplinary procedures for acting upon serious failures in health and safety performance.

Arrangements – making it work

The arrangements lay out how the organisation is intending to implement the policy and is made up of systems, procedures and processes. It includes how the organisation is intending to identify and manage its risks as well as how health and safety performance will be monitored.

The breadth and depth of the systems and procedures contained in the arrangements section should be proportionate to the size of the organisation and its hazard profile. A typical arrangements section should include procedures for the effective planning, organising, control, monitoring and review of the following:

1. Health and safety risk management
 - Identification of hazards and risk
 - Specifying preventive and protective measures
 - Action planning with priorities and responsibilities
 - Periodic review
2. Consultation with employees
 - Trade union safety representatives and safety committees
 - Representatives of Employee Safety
 - Other arrangements for consultation
3. Safe plant and equipment
 - Purchasing of new equipment
 - Preventative maintenance
 - Defect reporting
4. Safe handling and use of substances
 - Purchasing of hazardous substances
 - Undertaking COSHH assessments
 - Informing employees
 - Reviewing assessments
5. Information, instruction and supervision
 - provision of relevant health and safety information
 - supervision and training of new recruits and young workers.

6. Competency for tasks and training

- Induction training
- Job specific training
- Training records

7. Accidents, first aid and work related ill-health

- Undertaking health surveillance
- Health surveillance records
- First-aid equipment stored
- Appointed person/first-aider
- Record keeping and reporting under RIDDOR

8. Monitoring

- Proactive monitoring of work conditions and working practices
- Investigation of accidents and work related sickness

9. Emergency procedures

- Fire risk assessments
- Checks of escape routes, fire extinguishers and alarms
- Evacuation drills

Review of health and safety policy – keeping it current

The health and safety policy should be regularly reviewed to ensure that it is still relevant to the organisation and remains effective in managing risks and maintaining health and safety performance.

The policy should be updated or reviewed:

- if it is no longer valid
- if there is a significant change, such as:
 - organisation structure
 - procedures or systems of work
 - new technology or changes in processes
 - legislation changes
 - new work premises
- following monitoring and reviewing performance, such as:
 - findings from audits and inspections
 - visits from enforcement bodies
 - consultation with the workforce
 - accident and incident investigations
- after a reasonable length of time.

Health and safety objectives

When setting health and safety objectives, consideration should be made of:

- who is going to set the objectives – ideally these should be set by the board/senior management based upon accurate information on health and safety performance
- how they are to be documented and set at each functional level as well corporately
- legal and other requirements
- the types of hazards and level of risks in the organisation
- various technological options available in reducing and managing risk
- financial, operational, and business requirements
- views of interested parties (public, employees, customers, other stakeholders).

Health and safety objectives need to be specific, measurable, achievable, reasonable and time bound (SMART).

Both short-term and long-term objectives should be set and prioritised against business needs. Objectives at different levels or within different parts of an organisation should be aligned so they support the overall policy objectives. Personal targets can also be agreed with individuals to secure the attainment of objectives.

The nature of the objectives will depend upon the size of the gap between the current system and good practise.

If what exists is poor the early emphasis will be placed on training people. If all of the management system components are in place the emphasis would be on maintaining and developing the system. In the final stages of development the focus is on continual improvement and the development of a positive safety culture (Figure 2.5).

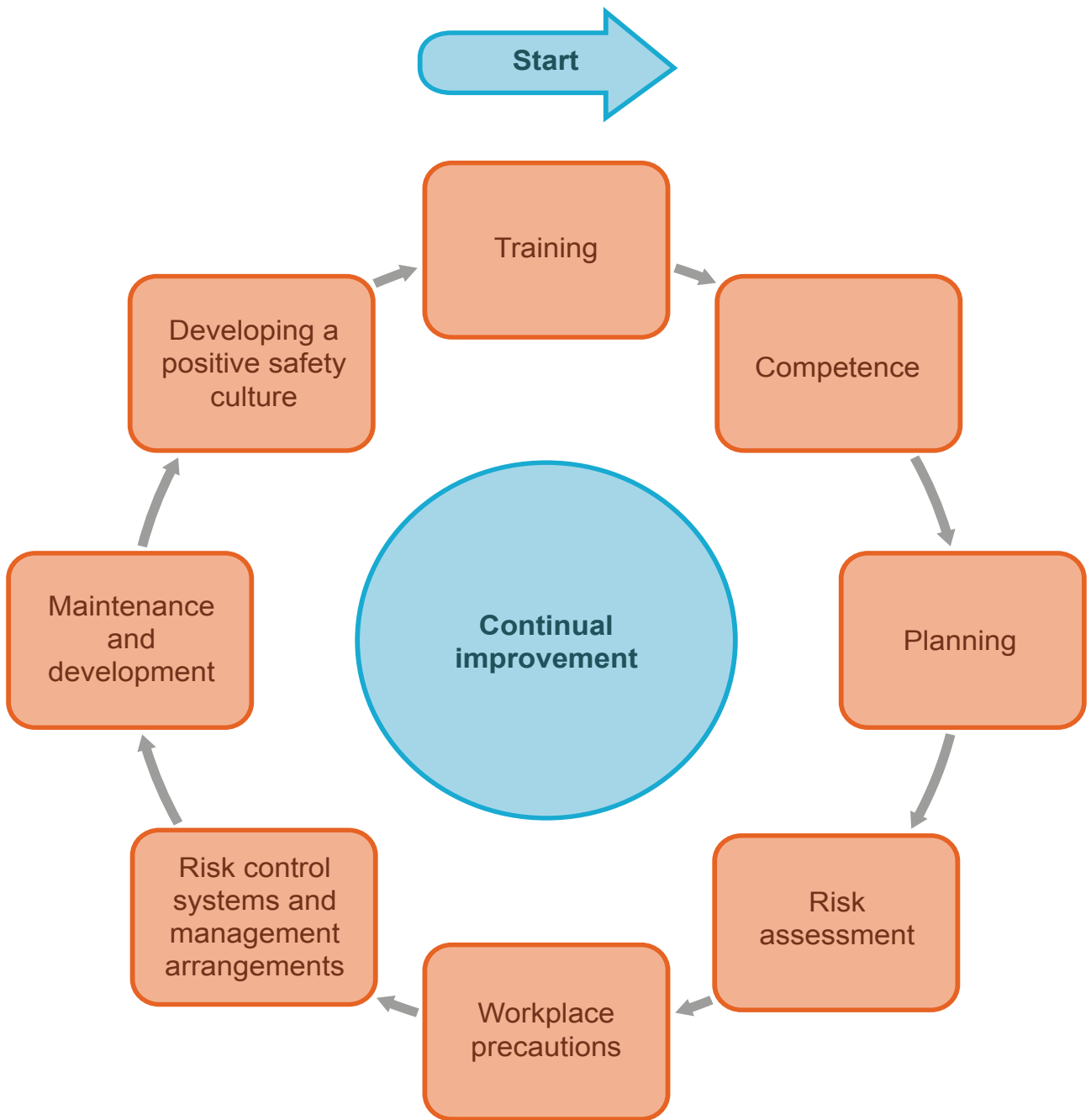


Figure 2.5: The nature of objectives

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