



# STAY ENVIRONMENT-SAVVY WITH ASPECTS & IMPACTS



**Richard Walsh** MIEMA CEnv

**5th October 2023**



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- **2-day** Internal Auditor – NQA or IRCA
- **5-day** Lead Auditor – NQA or IRCA





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## KEY INFO

- 30 minute webinar
- Questions in the chat box
- Q&A at the end
- Recording of webinar circulated shortly

# YOUR PRESENTER



## Richard Walsh

CEnv MIEMA, ISO 9001, ISO 14001,  
ISO 50001, NHSS 18, Eco-Campus

**NQA Principal Assessor**  
**Environment & Energy**

Richard is NQA's Principal Assessor for ISO 14001 and ISO 50001 management system standards. As a Principal Assessor his role is to lead and develop the technical knowledge and skill base of NQA staff and Assessors, whilst ensuring technical knowledge and changes within the industry are cascaded appropriately and accordingly to clients and external stakeholders.



# ENVIRONMENTAL MANAGEMENT

- What exactly is the 'environment'?
- What does it mean to your business?
- Why do we need to develop our interest in the environment?

Surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationships.

**(ISO 14001:2015 ss 3.2.1)**



# DRIVERS FOR EnMS



# ENVIRONMENTAL PRESSURES ON BUSINESS



- Public concerns (resources, pollution, climate change, etc.)



- Legislation (UK, EU & international protocols)



- Environmental taxes (climate change levy, landfill tax, plastic tax etc.)



- Sustainability (resources, energy, water, biodiversity)



# CLAUSE 6.1.2 – ENVIRONMENTAL ASPECTS



## Environmental aspects (s 3.2.2)

- An element of an organisation's activities, products or services that can interact with the environment.

## Environmental impacts (s 3.2.4)

- Any changes to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
  - The significance needs to be assessed.



## CLAUSE 6.1.2 – ENVIRONMENTAL ASPECTS

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Within the defined scope of the environmental management system, the organization shall determine the environmental aspects of its activities, products and services:

- That it can control
- Those that it can influence
- ...and their associated environmental impacts, considering a life cycle perspective.

When determining environmental aspects, the organization shall take into account:

- a) Change, including planned or new developments, and new or modified activities, products and services;
  - b) Abnormal conditions and reasonably foreseeable emergency situations.
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## CLAUSE 6.1.2 – ENVIRONMENTAL ASPECTS

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The organization shall determine those aspects that have or can have a significant environmental impact, i.e. significant environmental aspects, by using established criteria.

The organization shall communicate its significant environmental aspects among the various levels and functions of the organization, as appropriate.

The organization shall maintain documented information of its:

- Environmental aspects and associated environmental impacts;
  - Criteria used to determine its significant environmental aspects;
  - Significant environmental aspects.
-

# SCOPE OF ENVIRONMENTAL ASPECTS



## Environmental aspects (s 3.2.2)

- An element of an organisation's activities, products or services that can interact with the environment.
- **E.g. energy usage**

## Environmental impacts (s 3.2.4)

- Any changes to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
- **E.g. climate change**
  - The significance needs to be assessed.

# SCOPE OF ENVIRONMENTAL ASPECTS



- A significant aspect could have or can have a significant environmental impact.
- Those that it can control and can influence (direct and indirect impacts).

# ASPECT/THREATS IDENTIFICATION EVERYTHING TO BE CONSIDERED

## Inputs

### Raw materials

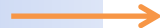
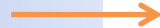
- Wood
- Metal
- Water

### Energy

- Electricity/gas
- Fuel – oil, petrol, diesel

### Components

- Castings
- Electrical parts



## Process

### Normal conditions

- Everyday activities

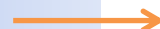
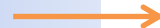
### Abnormal conditions

- Maintenance
- Sub-contractors on site

### Emergency situations

- Fire, spills, floods

(Also consider people, machinery, methods/procedures)



## Outputs

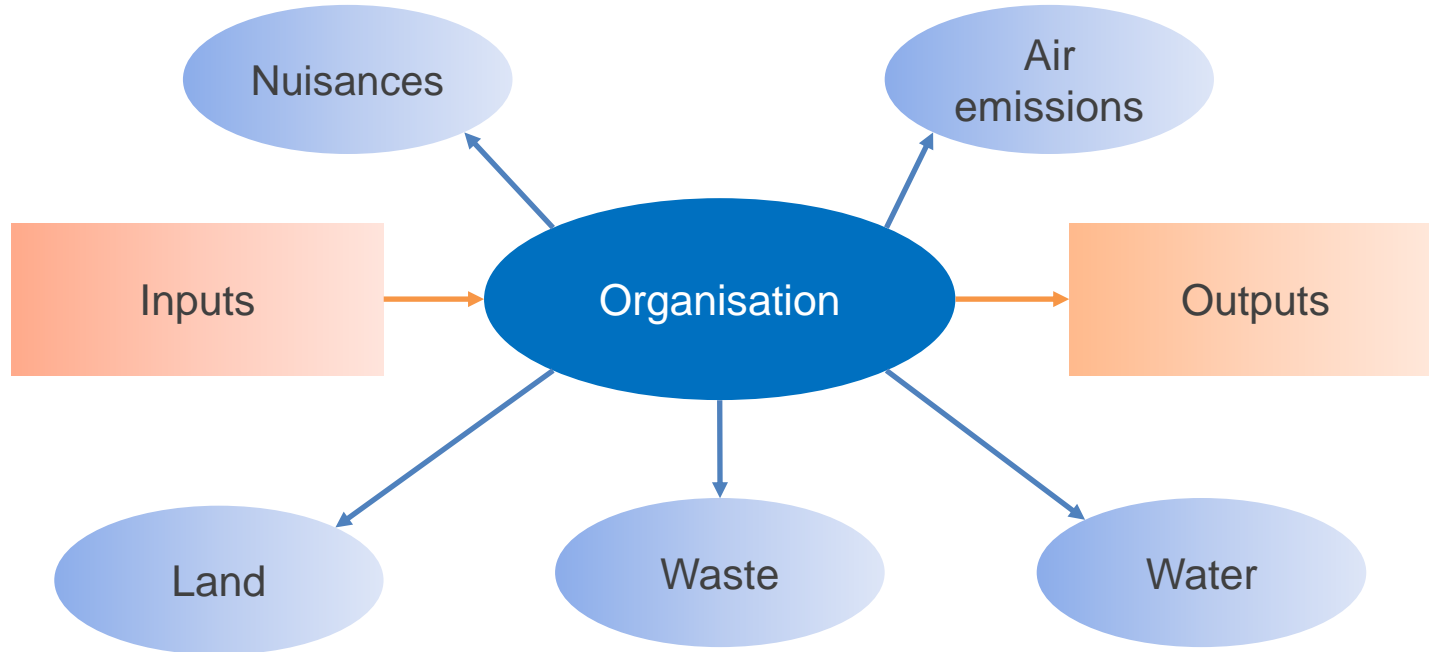
### Intended outputs

- The product
- The service

### Unintended outputs

- Scrap
- Emissions to:
  - Air
  - Land
  - Water

# ENVIRONMENTAL ASPECTS



# ENVIRONMENTAL ASPECTS & IMPACTS: AN EXAMPLE

Consider a manufacturing company with the following “areas”:

- Financial, commercial and business
- Quality
- Health and safety
- Employment and social
- Legal
- Environmental



## Environmental aspects

- Atmospheric emissions
- Effluent disposal
- Waste disposal on land
- Energy/water consumption
- Packaging
- Road transport



## Environmental impacts

- Noise and vibration
- Congestion
- Exhaust fumes contributing to:
  - Local air quality
  - Smog formation
  - Global warming
  - Depletion of natural resources



# EXAMPLES OF ASPECTS WORTH CONSIDERING

## Activity, product, or service:

➤ Office work

## Environmental aspects:

- Electricity consumption
- Water consumption
- Waste water generation
- Release of ozone depleting substances in air cooling units (potential)
- Solid waste generation
- Heavy metals “use” in computers



# EXAMPLES OF ASPECTS WORTH CONSIDERING

## Activity, product, or service:

- Vehicle maintenance

## Environmental aspects:

- Hazardous waste generation
- Solid waste generation
- Petrol/diesel consumption
- Water consumption
- Noise generation
- Wastewater generation
- Electricity consumption
- Release of volatiles



# LINKING ASPECTS TO IMPACTS

Aspects	Examples of potential impacts
Air emissions	Air pollution (smog, acid rain, dust, visual impairment), ozone depletion, GHG contribution
Energy/fuel consumption	GHG contribution, air pollution
Noise emissions	Noise damage, vibration damage
Oil spills	Habitat alteration, ecological damage, hazardous material dispersal
Wastewater discharge	Groundwater contamination, sedimentation of water courses
Waste generation	Solid material dispersal, hazardous material dispersal, human health impacts

# ASPECTS & IMPACTS REGISTER



- Register of environmental aspects/impacts developed.
- Identification carried out in a number of different ways:
  - Initial review
  - Process flow diagrams
  - Observations
  - Knowledge of the process

# DETERMINING SIGNIFICANCE CRITERIA

- To determine whether those environmental impacts are significant.
- Define criteria to be used to assess significance.
- This may include:
  - Likelihood of environmental impact occurring
  - Severity of environmental impact
  - Legislative requirement
  - Views of interested party
  - Cost savings



# DETERMINING SIGNIFICANCE CRITERIA

## Methodologies



- There is no standard methodology for determining significance. However it must be...
  - Systematic
  - Logical
  - Consistent
  - Accurate
  - Objective
- Potential methods include:
  - Scoring mechanisms
  - Scenario or questionnaires

# LIFE CYCLE

- In addition to the current requirement to manage environmental aspects associated with procured goods and service...
  - Organizations will need to extend their control and influence of the environmental impacts associated with product use and end-of-life treatment or disposal.
- This does not imply a requirement to do a life cycle assessment. A life cycle approach should be considered.





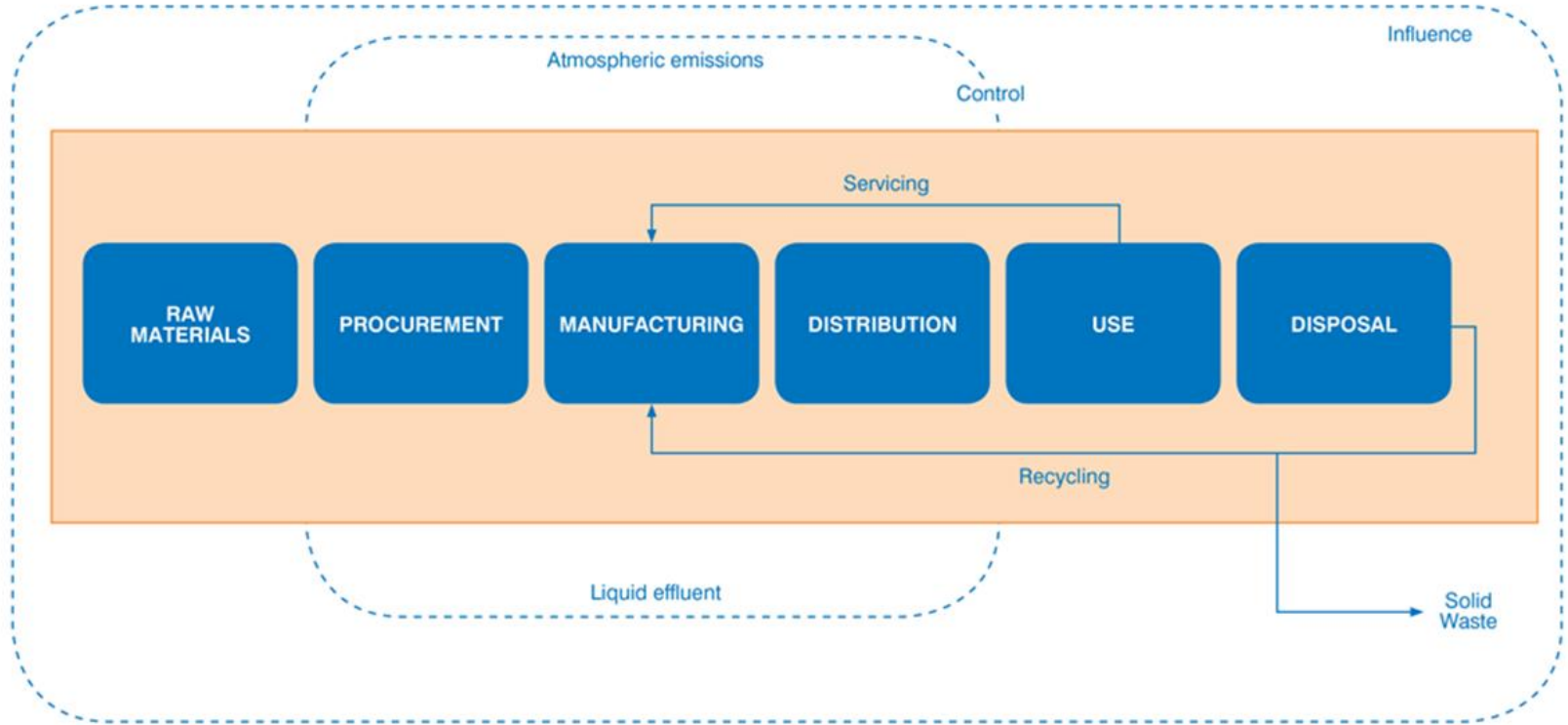
The standard specifies that organisations should consider a life cycle perspective in relation to:

- Determining appropriate controls for procurement of goods and services;
  - Considering environmental requirements in the design process for the development, delivery, use and end of life treatment of its products and services;
  - Communicating relevant environmental requirements to external providers, including contractors;
  - Providing information about potential significant environmental impacts during the delivery of the goods or services and during the use and end of life treatment of the product.
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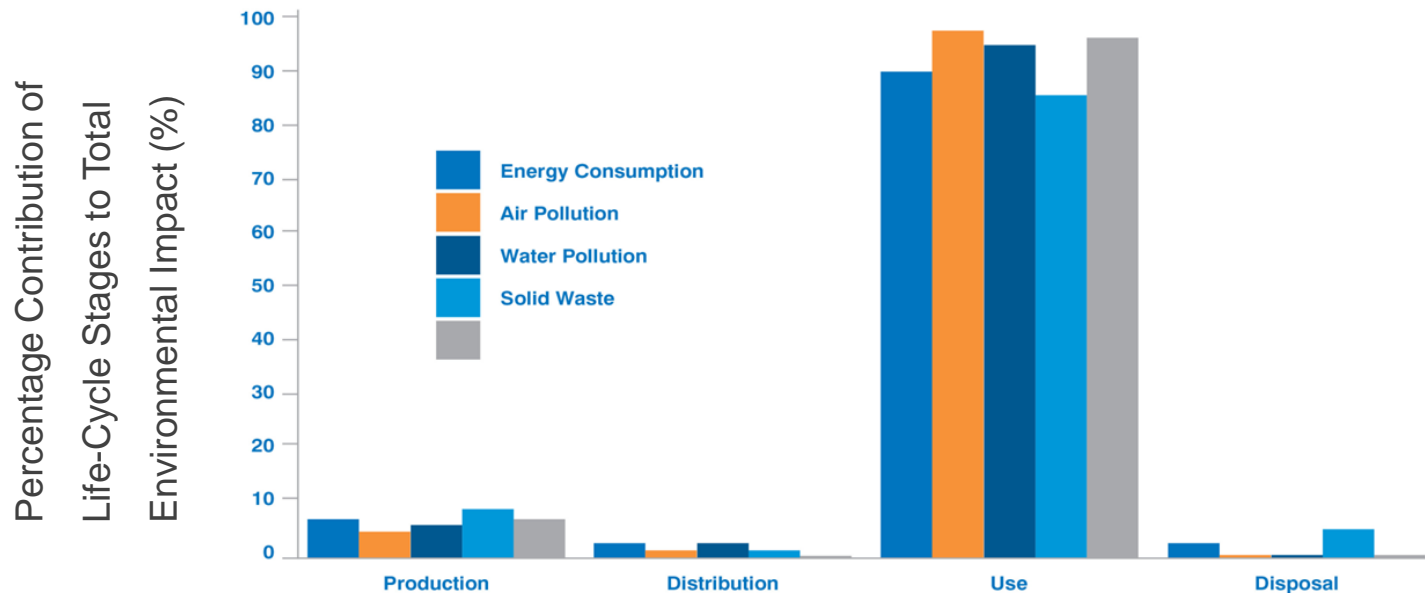
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# LIFE CYCLE PERSPECTIVE



# LIFE CYCLE

Consecutive and interlinked stages of a product or service, from raw material acquisition or generation from natural resources to final disposal – (ISO 14044:2006 3.1).





# FURTHER SUPPORT

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we offer.**

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# SUSTAINABILITY COMMITMENT

NQA is committed to leading by example in our industry by channelling sustainability and improving environmental performance throughout the business.

- Operating as carbon neutral under the internationally-recognised standard PAS 2060:2014
  - *Inclusive of all relevant scope 1, 2 and 3 emissions*
- An ambitious goal to become net zero by 2035
- A sustainability promise to address wider sustainability topics
- Driving down service delivery-related emissions to support clients on their net zero journeys



The delivery of NQA services, including training, will be carbon neutral.





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# Q&A



# THANK YOU!

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