# 25 years of ISO 14001 and what the future holds

1 November 2021

By Royal Charter

# Welcome and introduction

Nele Zgavc
International Lead Programme Manager
BSI



By Royal Charter

# Housekeeping

- This is a listen only webinar that is being recorded
- However, we welcome your questions via the Q&A function
- The Q&A session will follow the main presentation, simply click on the Q&A button in the side panel and post your question
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- Copy of the presentation slides will be made available by email in due course

# Opening message

Neil Musk
Director of standards development
BSI



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# ISO 14001 since 1996: 25 years of environmental improvement

Dick Hortensius

Senior Standardization Consultant Management Systems

NEN



By Royal Charter

# ISO 14001 since 1996
## (and even before….)

**Dick Hortensius**

1 November 2021

Standaard voor vooruitgang

25 years anniversary ISO 14001

# Contents



# 1991 – 1993 Inception


BRITISH STANDARD BS 7750 : 1992

Specification for

**Environmental management systems**

BSI STANDARDS

Rio Earth Summit 1992

Local, national and international action


Annex 3 to ISO/IEC SAGE 82

Document: ISO/IEC /SAGE N55

Our ref: ISO/IEC SAGE/SG1

Date: 11 May 1993

Secretariat of ISO/IEC

ISO/IEC SAGE SG1,
Environmental Management Systems

**STANDARDISATION OF ENVIRONMENTAL MANAGEMENT SYSTEMS**

**A MODEL FOR DISCUSSION**

Author: ISO/IEC SAGE Sub-Group 1

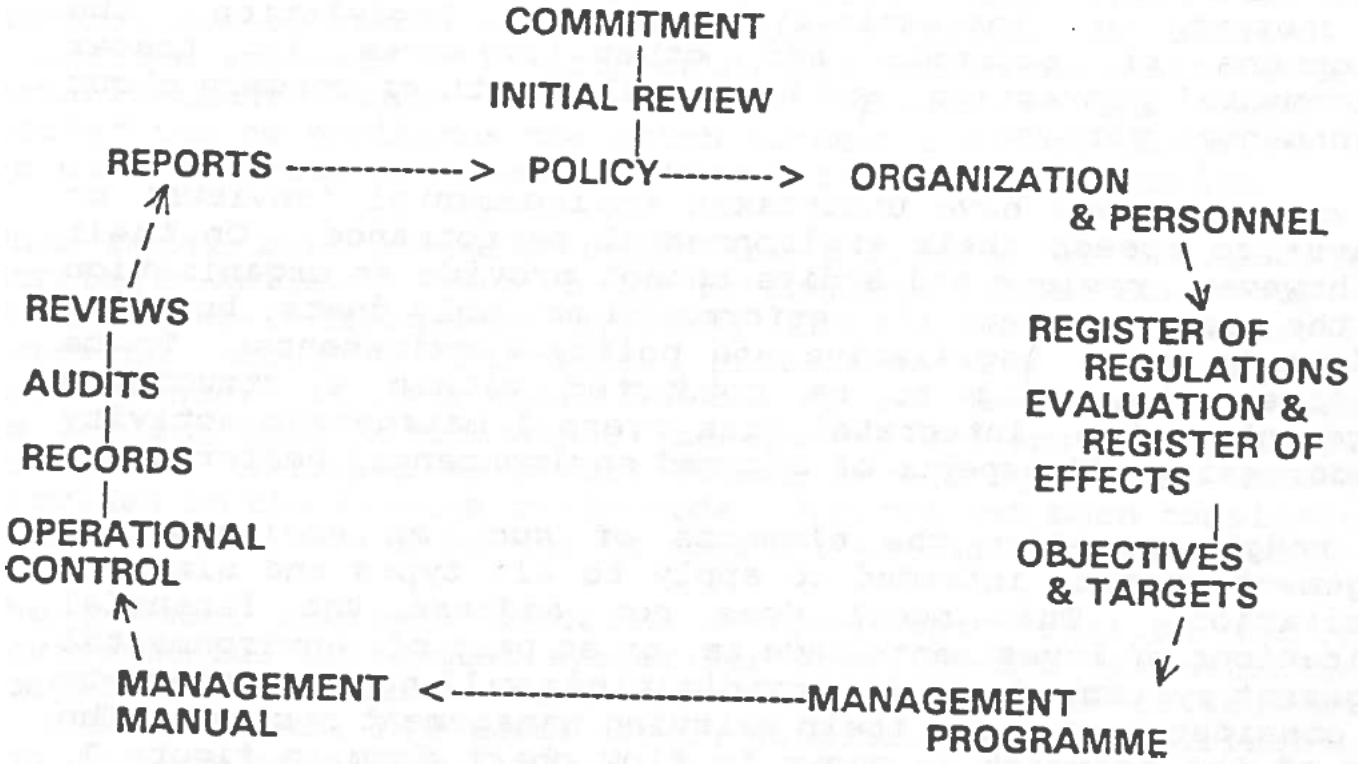
FEBRUARY 1993

This document, although not fully agreed, is nevertheless a reflection of the latest thinking on the matter within the Sub-group.

1991 – 1993 Inception

# The SAGE EMS Model

Figure 1. Schematic diagram of the stages in the implementation of an environmental management system



1993 – 1996 Innovative ideas

# Amsterdam 1993

No laptops
No beamers
Thousands of copies
Consecutive and parallel translations

1993 – 1996 Innovative ideas

# Amsterdam 1993




# Introduction of PDCA

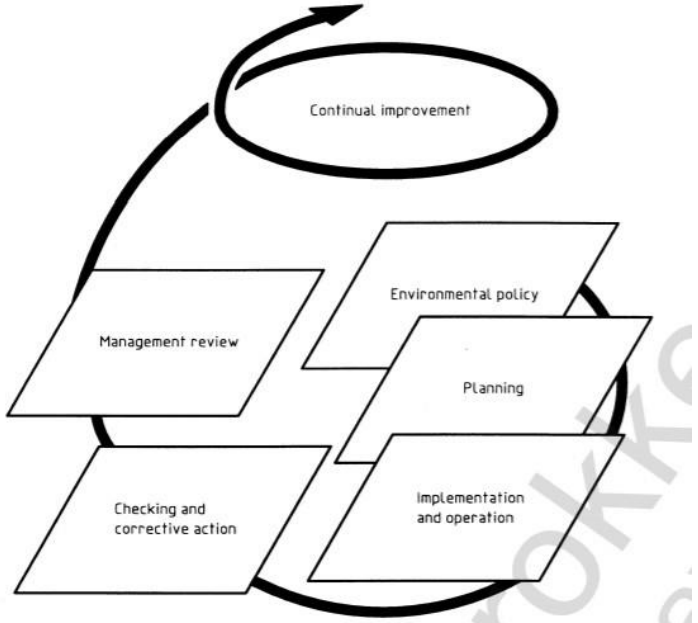



**Figure 1 — Environmental management system model for this International Standard**

ISO 14001:1996

**Contents**

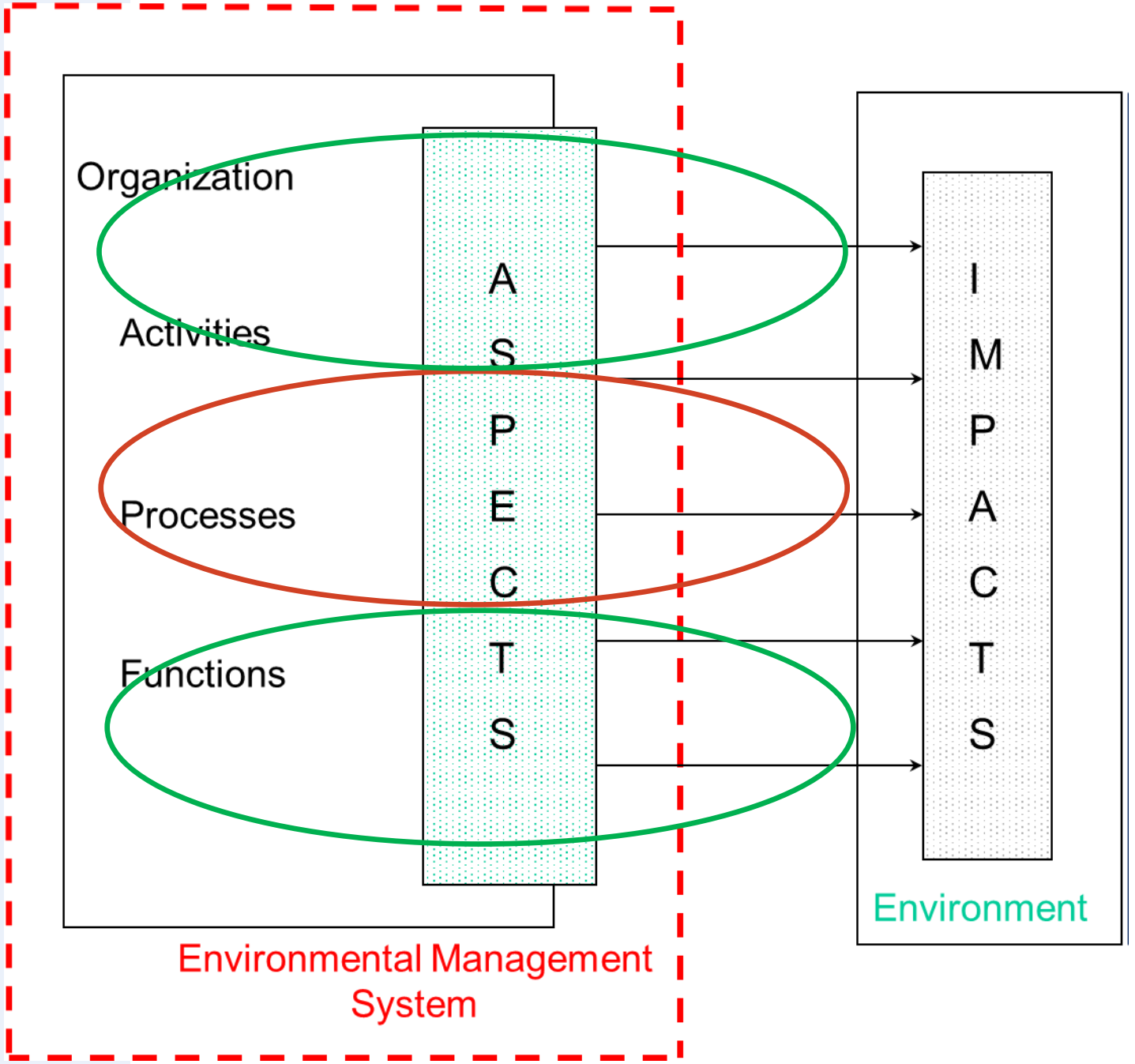


ISO 9001:1994

1993 – 1996 Innovative ideas

# Essential concepts
**(in ISO 14001:1996)**

Environmental aspects versus environmental impacts



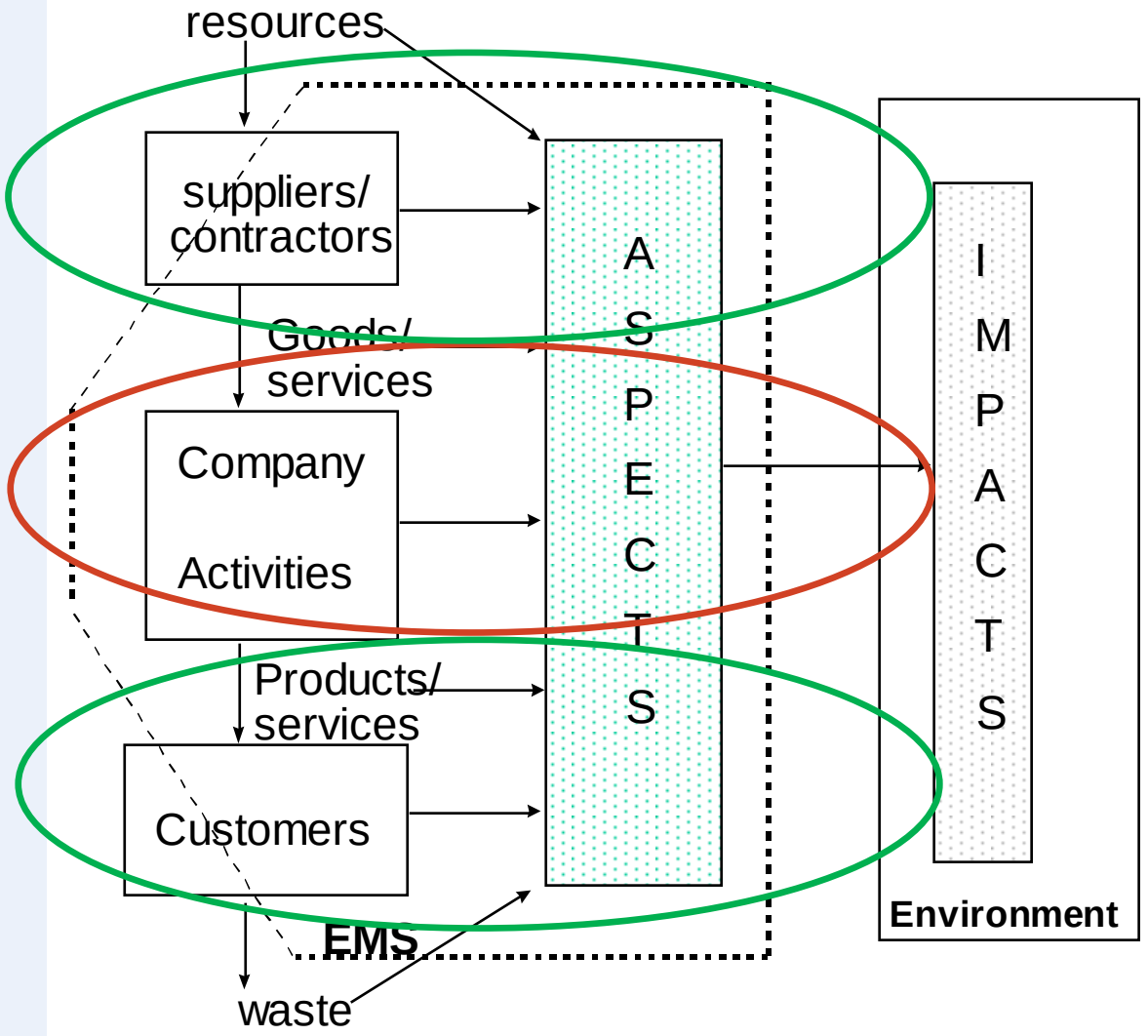
1993 – 1996 Innovative ideas

# Essential concepts
## (in ISO 14001:1996)

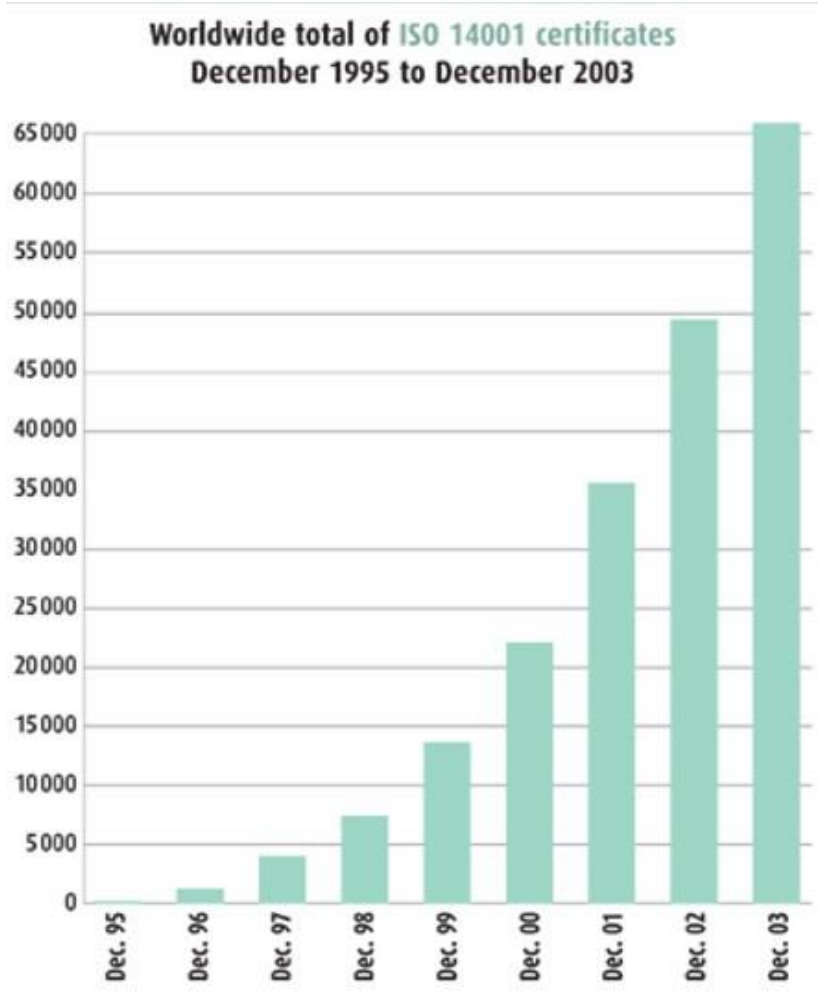
Environmental aspects versus environmental impacts

Control & influence

Legal and other requirements



# Steady growth of ISO 14001 certifications

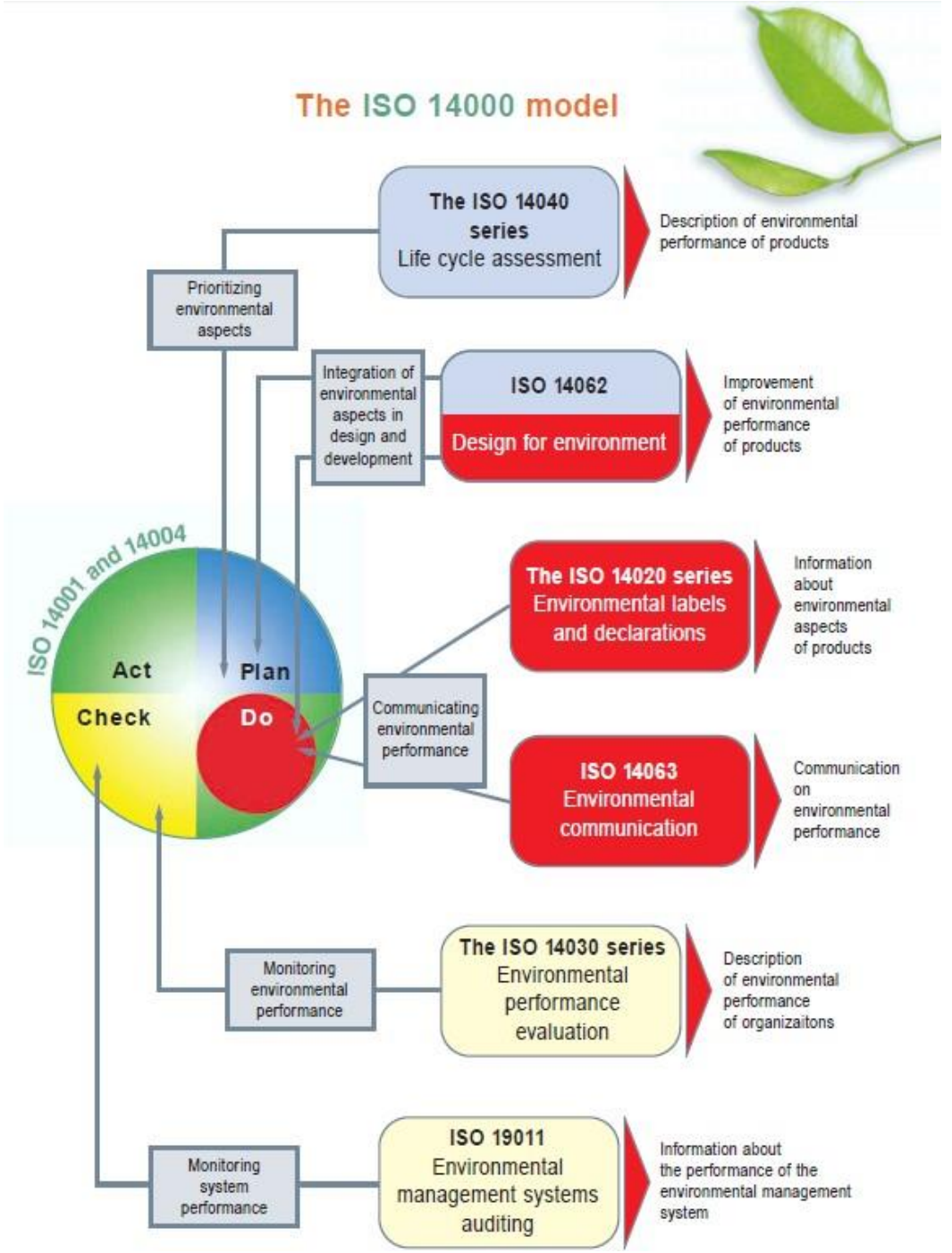



ISO Survey 2020:

348.218 certificates
568.518 sites
194 countries

1996 – 2004 Maturity

# The ISO 14000 series

1996 – 2004 Maturity

# Synergy with ISO 9001

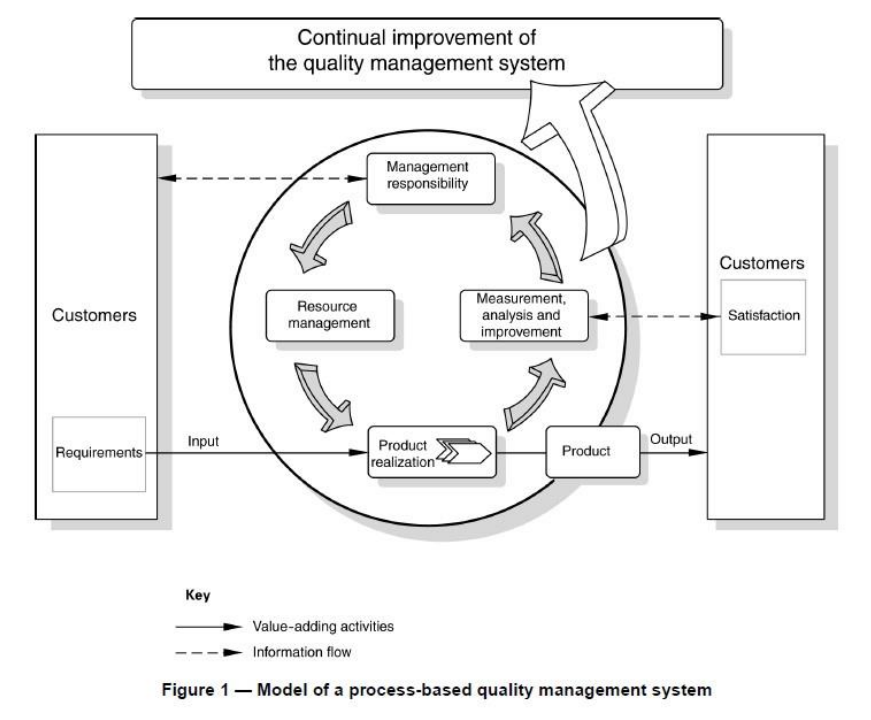
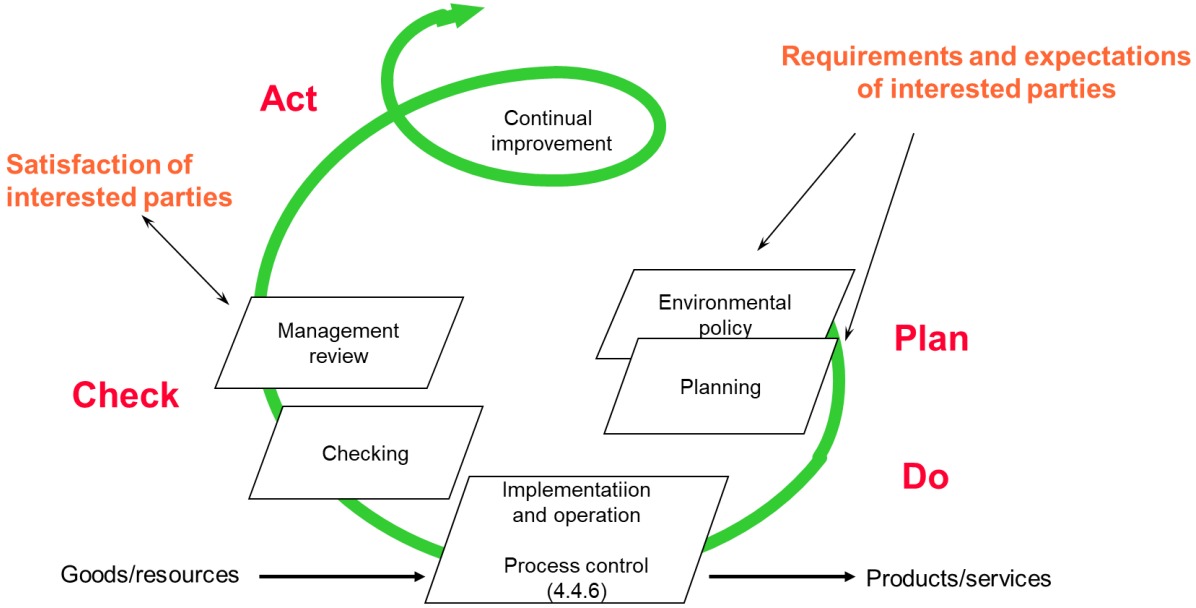


Figure 1 — Model of a process-based quality management system

ISO 9001:2000

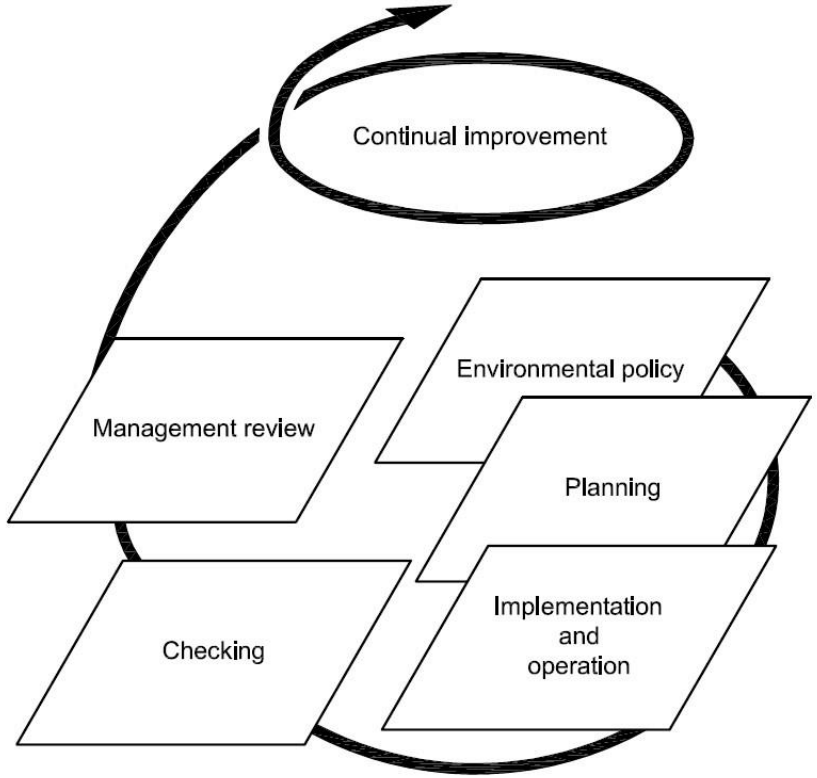



Collaboration to enhance compatibility and alignment

# ISO 14001:2004

- Limited revision:
  - Clarification of existing requirements
  - Improvement of compatibility with ISO 9001

- Clear distinction between environmental aspects that can be controlled **and those** that can be influenced
- Identification of legal and other requirements **and how these requirements apply to its environmental aspects**
- The organization **shall decide whether to communicate externally** about its significant environmental aspects….



2004 – 2015 Integration

**ISO 14001:2004**
**Environmental management**

**PAS 55:2008**
**Asset management**

**ISO 9001:2000**
**Quality management**

**OHSAS 18001**
**OH&S management**

**ISO 27001**
**Information security**

**BS 25999**
**Business Continuity**

**ISO 30301**
**Records management**

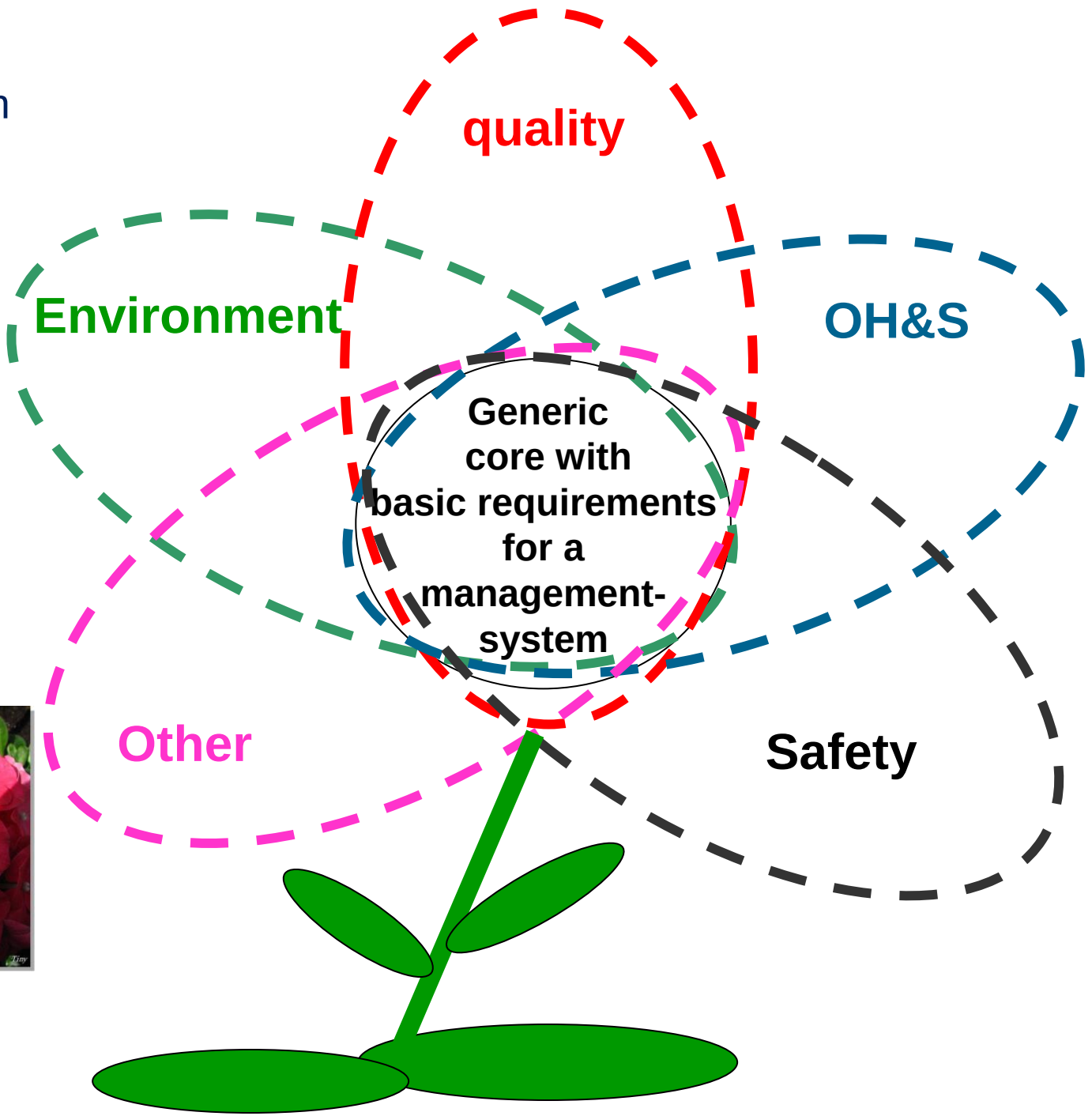
**ISO 22000**
**Food safety**

**ISO 28000**
**Supply chain security**

**ISO 50001**
**energy management**

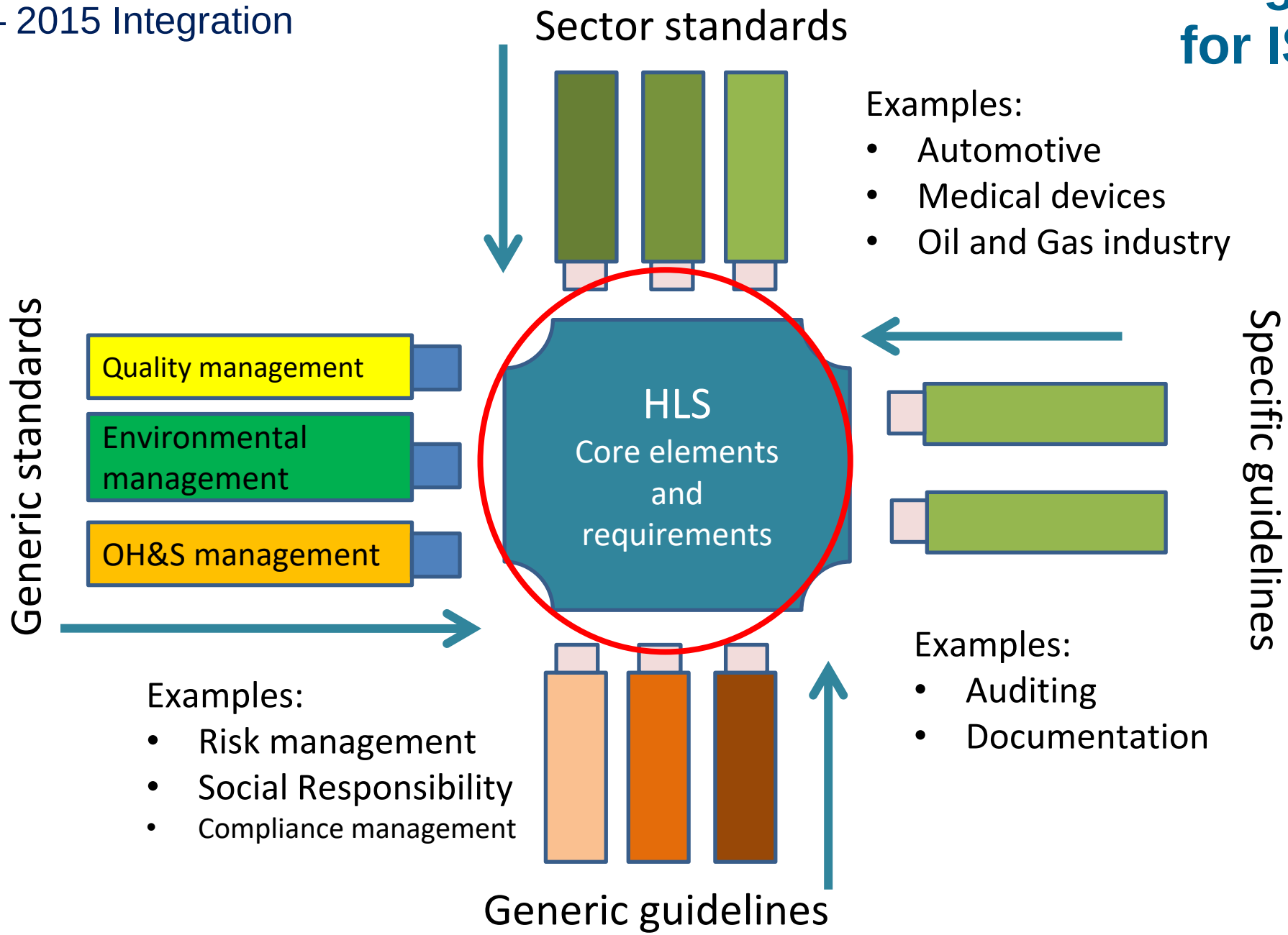
2004 – 2015 Integration

# Flowermodel Van NEN

2004 – 2015 Integration

# Plug-in model for ISO MSS



2004 – 2015 Integration

# New situation
**fully aligned standards**

**ISO 14001:2015**
Environmental management

**ISO 55001:2014**
Asset management

**ISO 9001:2015**
Quality management

**ISO 45001:2018**
OHS management

**ISO 27001:2013**
Information security

**ISO 22301:2018**
Business Continuity

**ISO 37001**
Anti-bribery management

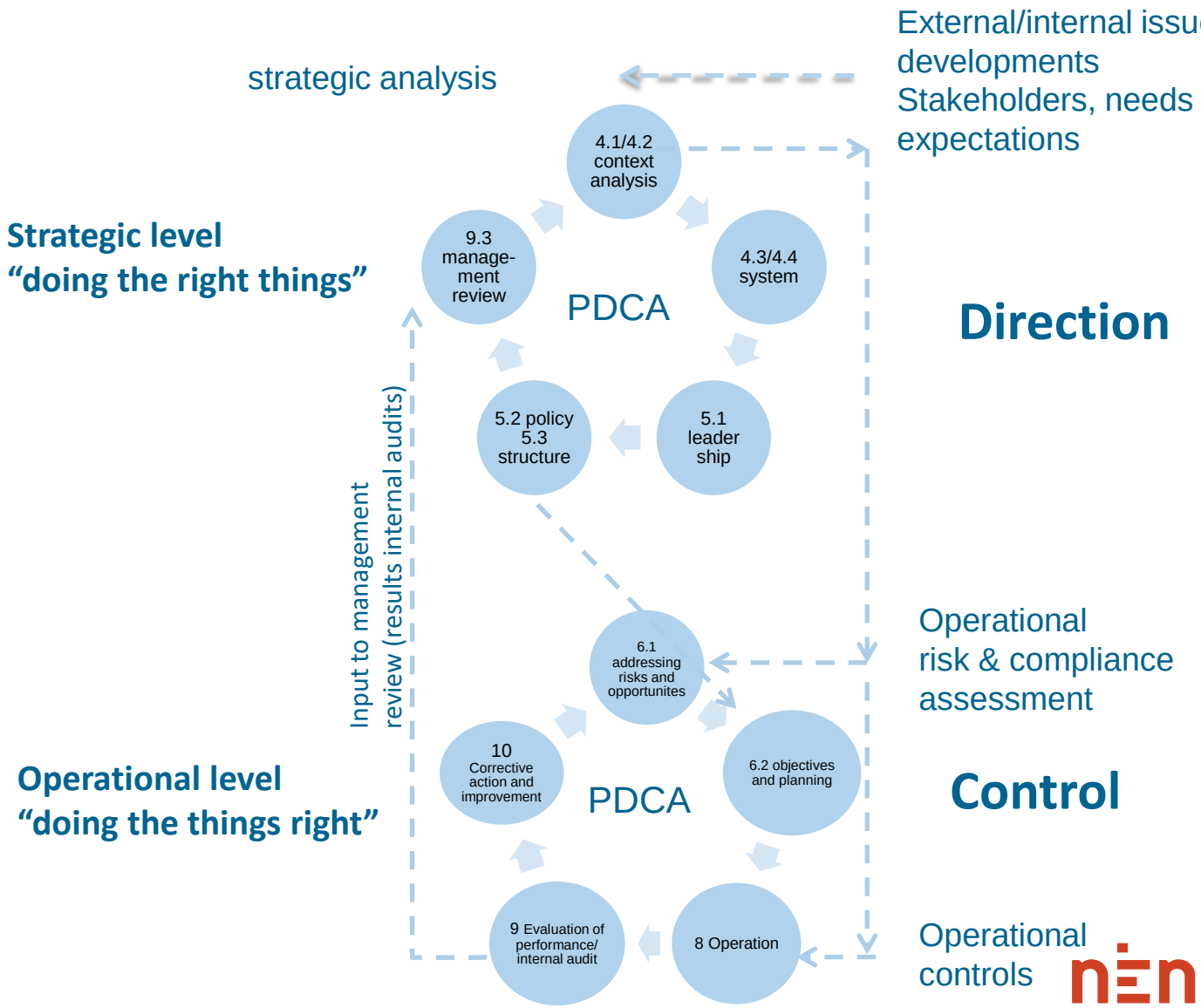
**ISO 22000:2018**
Food safety

**ISO 50001:2019**
energy management

**ISO 37301:2021**
Compliance management

# 2004 – 2015 Integration

| HLS Clauses |
| --- |
| Context of the organization |
| Leadership |
| Planning |
| Resources |
| Operation |
| Evaluation of performance |
| Improvement |

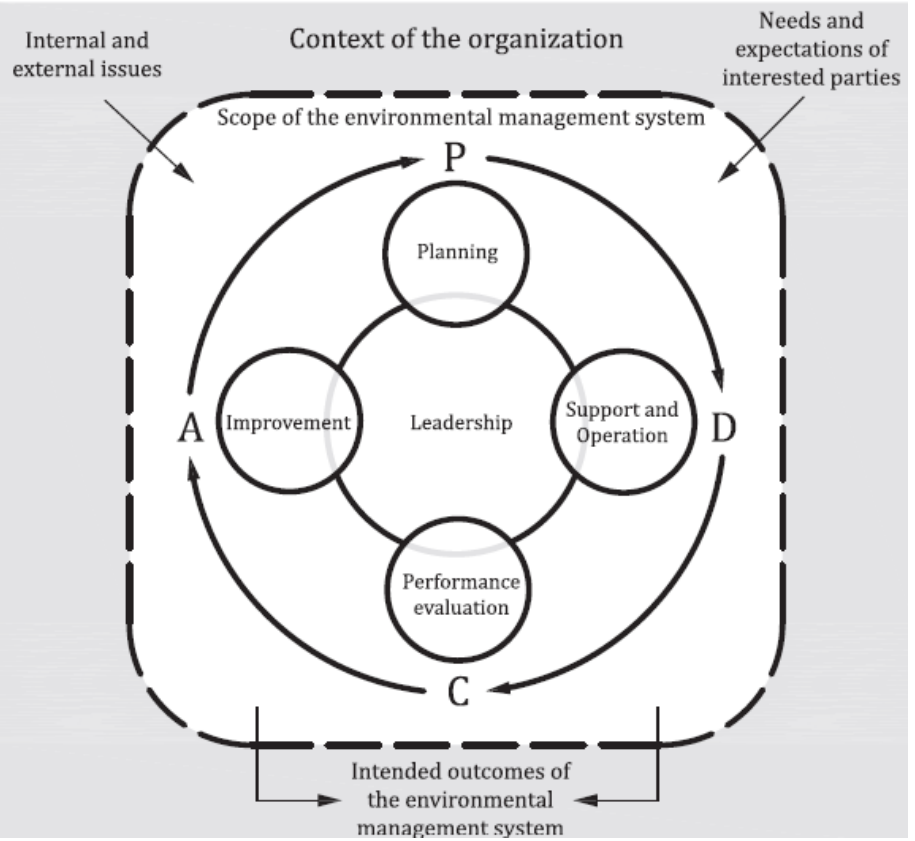


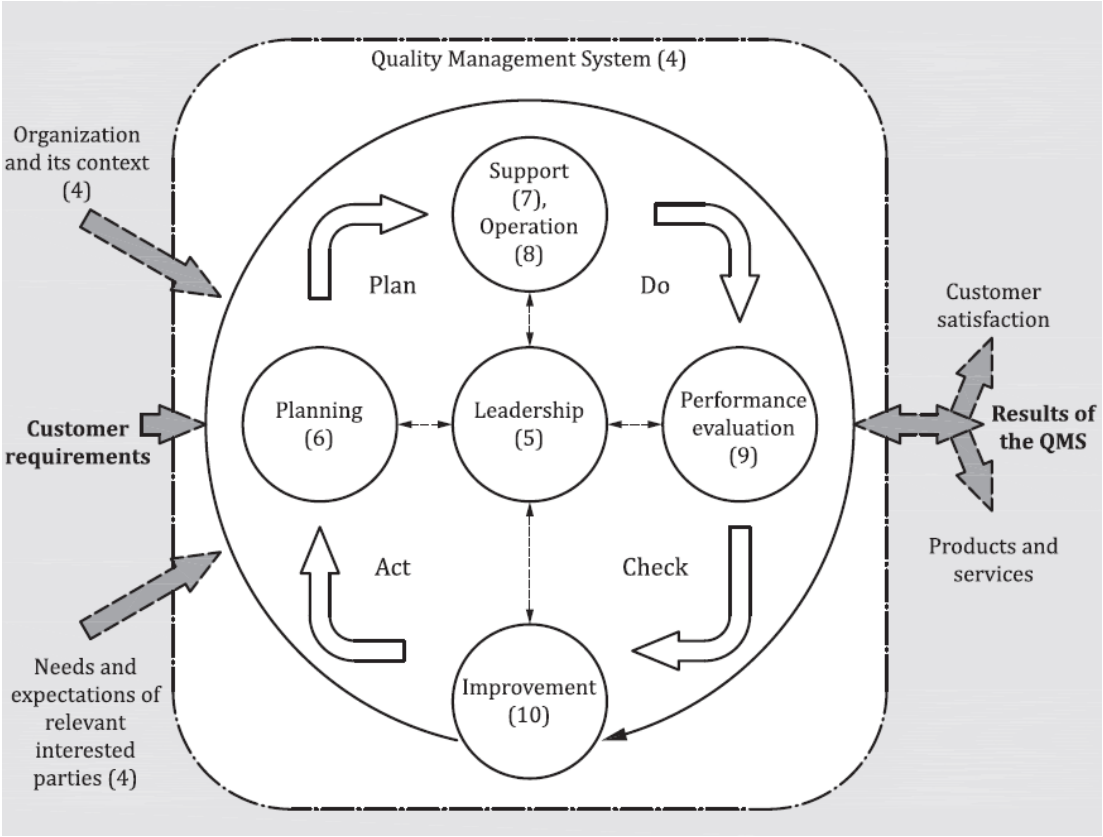
2004 – 2015 Integration

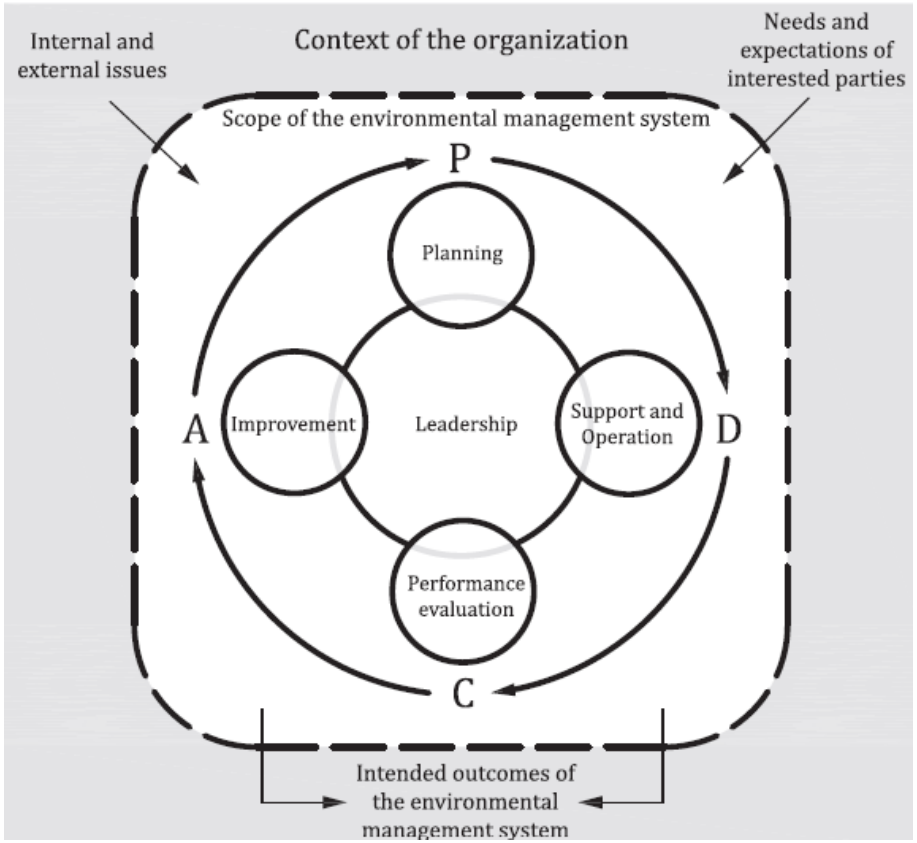
# ISO 14001:2015

- Full revision:
  - Based on HLS
  - Taking into account the user survey and recommendations of the Future Challenges SG

- Full alignment with other MSS
- Organizational context is leading
- More focus on leadership and link with strategy
- Adressing risks and opportunities
- Life cycle perspective
- Less emphasis on documentation and procedures






- Full alignment with other MSS



2004 – 2015 Integration

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- Full revision:
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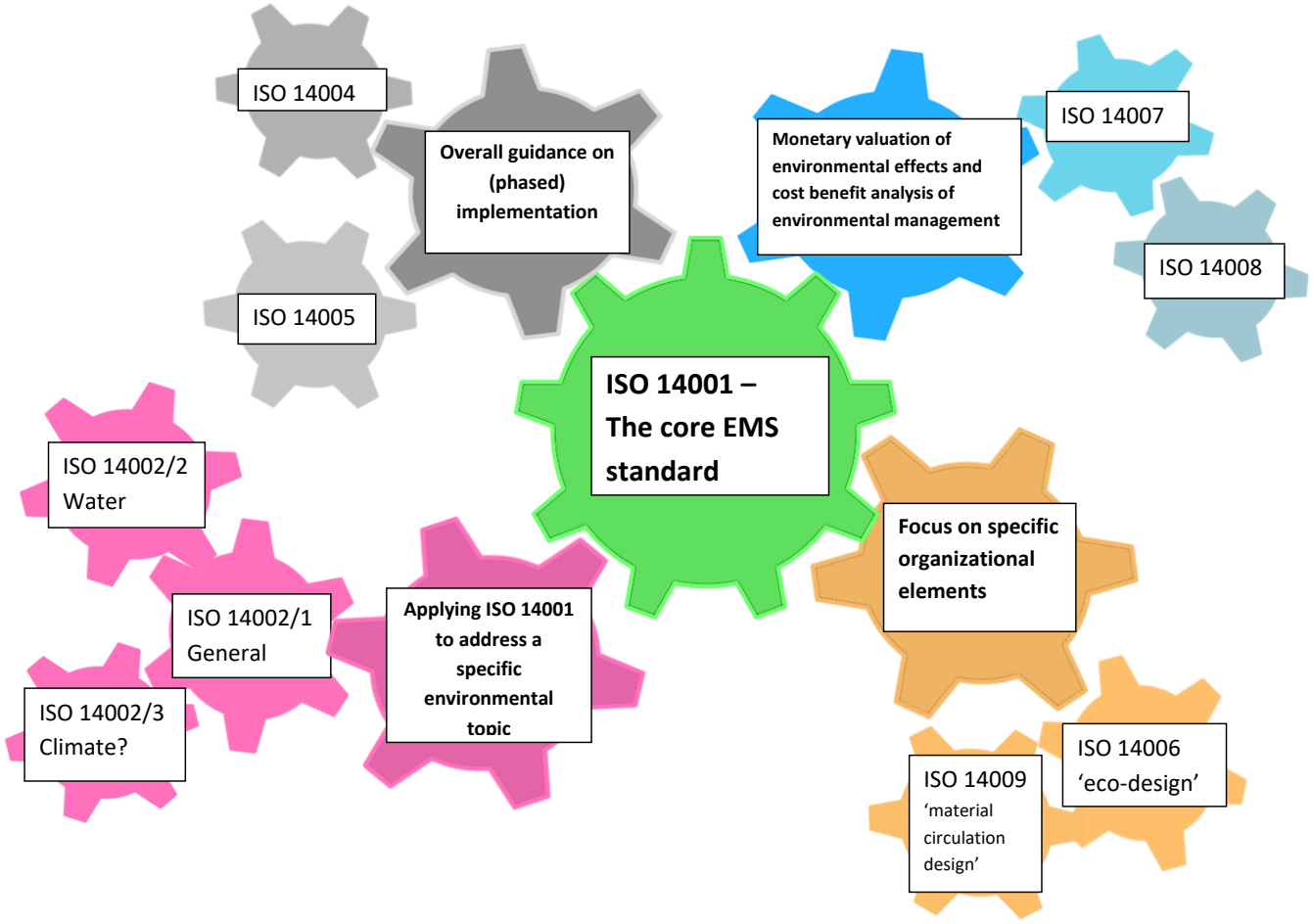
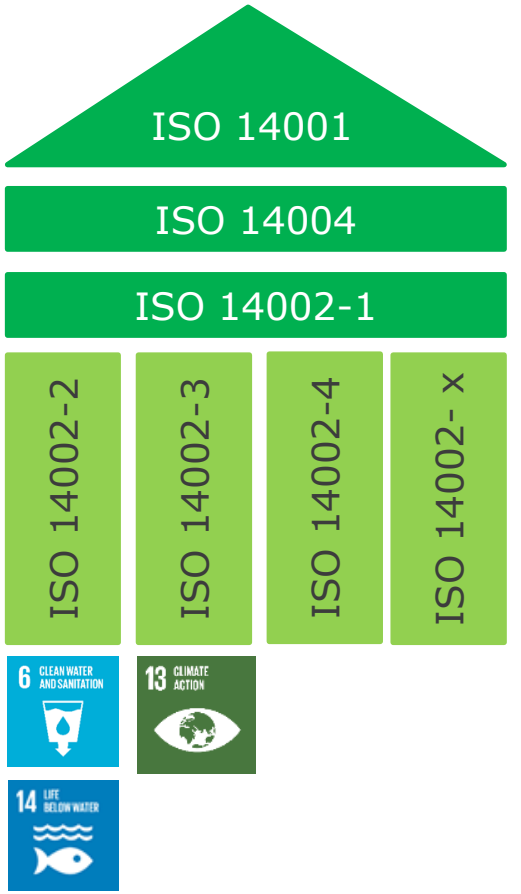
# Futher development of the series



2015 – 2021 Expansion

# ISO 14001 and SDG’s

# Some personal observations for the future

**environmental management system**

**part of the management system used to manage** environmental aspects, fulfil compliance obligations, and address risks and opportunities

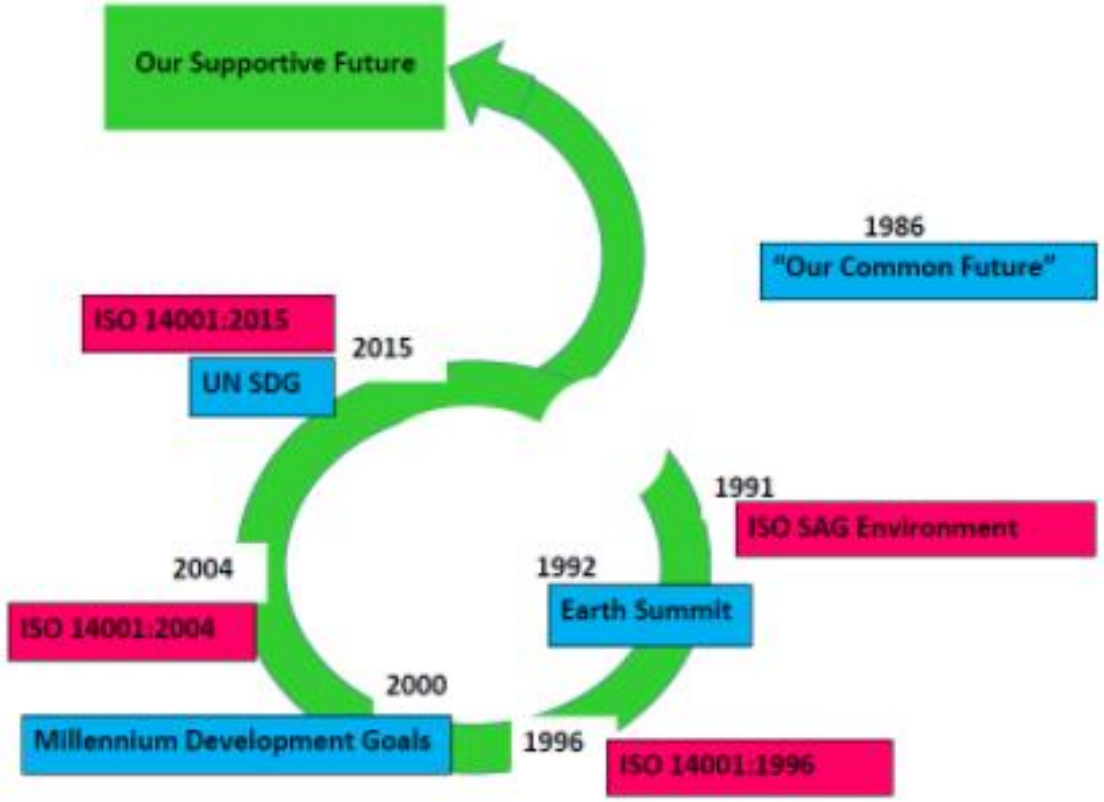
This International Standard is intended for use by an organization seeking to manage its environmental responsibilities in a systematic manner **that contributes to the environmental pillar of sustainability**

**Organization**

person or group of people that has its own functions ……to achieve its objectives

Note 1 to entry: The concept of organization includes, but is not limited to ….**partnership,** ……public or private.

# The journey continues….we are not there yet.



Standaard voor
vooruitgang

# The possible future of ISO 14001

Martin Baxter
Director of Policy and External Affairs, IEMA and
Chair of ISO TC 207/SC1

Fred Wenke
Head of Certification Body, TÜV SÜD, and
German expert that is leading the future challenges taskgroup in ISO/TC 207/SC 1



By Royal Charter

IEMA Transforming the world to sustainability

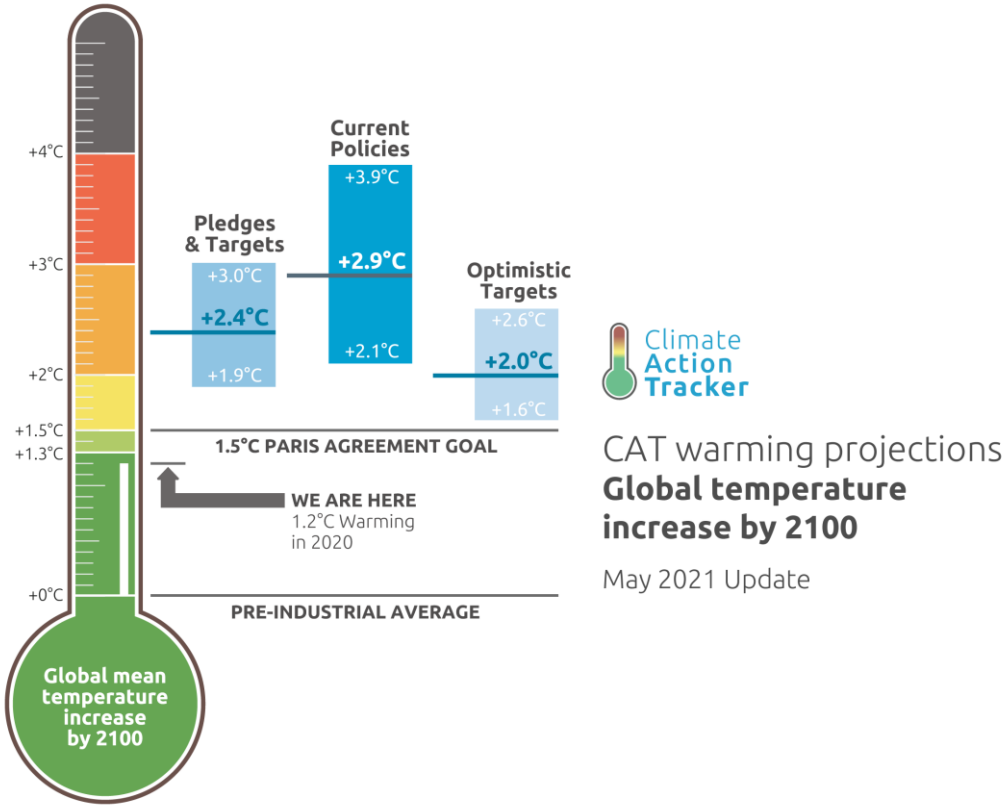
# The Possible Future of ISO 14001

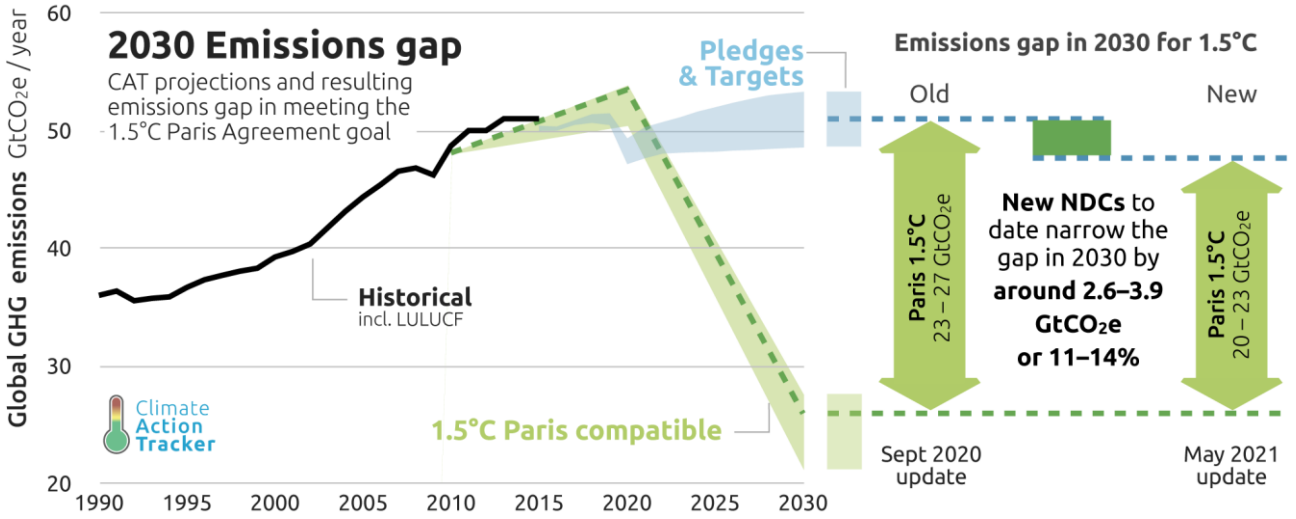
Martin Baxter
IEMA

Fred Wenke
TÜV SÜD

# Introduction and Context

# Nature and Climate in Crisis

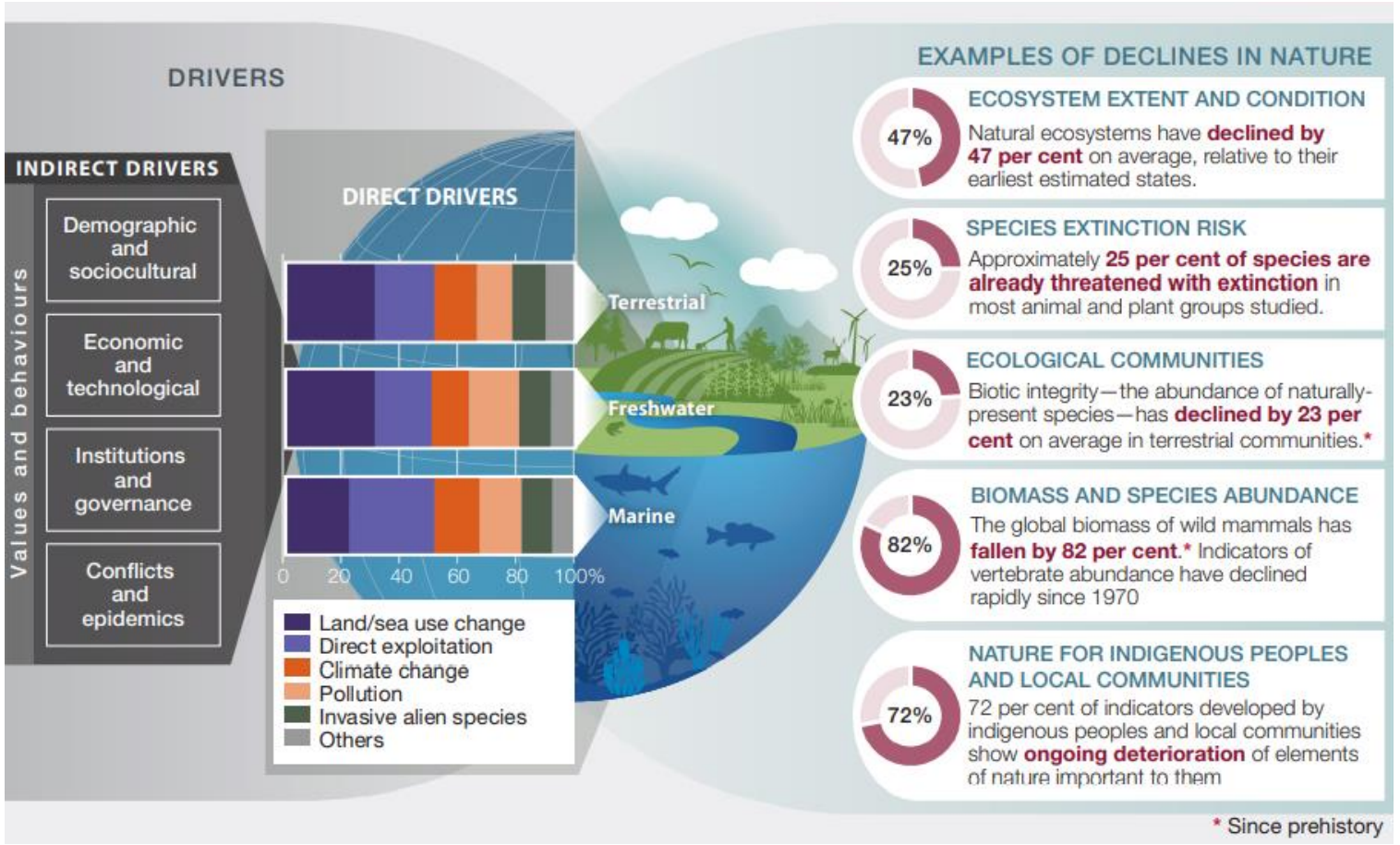



Source: Climate Action Tracker (2021) Climate summit momentum: Paris commitments improved warming estimate to 2.4°C https://climateactiontracker.org/

# Nature and Climate in Crisis

"The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever. We are eroding the very foundations of our economies, livelihoods, food security, health and quality of life worldwide."
Sir Robert Watson




Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

# EMS Future Challenges

# EMS Future Challenges

1. Visibility & positioning of the standards
2. Value to Users
3. Value chain, business models, network approaches, innovation in tech
4. Development Challenges
5. Context and change management
6. EMS and engaging stakeholders
7. Organizational Culture and Capabilities
8. EMS Implementation and Conformity Assessment

# ISO 14001 as a business tool for the UN Sustainable Development Goals

# ISO 14001 – Environmental Underpinning

**Risk-based thinking underpins:**

- the identification and evaluation process in environmental management systems
- life-cycle perspective (i.e. beyond direct operations and into supply chains and product-use phase)
- prevent or reduce undesired effects, including the *potential for external environmental conditions to affect the organization*

**Integrated**


**Inter-related**

# ISO 14001 – Organisational Improvement

**Application of ISO 14001 needs to help organisations to:**

- Break the link between economic activity and environmental impact (doing more with less)
- Enhance products and services through the application of eco-design
- Deliver multiple-benefits creating win-wins (e.g. reducing waste can help to improve resource productivity, cut material consumption and costs, and reduce GHG emissions)
- Enhance resilience and reduce vulnerability to changing environmental conditions

# ISO 14001 – Engagement

- 98 participating & observer countries
- Stakeholder engagement & consensus building
- Supporting standards provide more technical depth on specific topic areas (e.g. ISO 14002, ISO 14090, 14064, 50001)
- Organisational-level understanding of the needs & expectations of interested parties



IEMA Transforming the world to sustainability

# Key inputs into ISO 14001 202X

1) EMS Future Challenges
2) Feedback from the global user survey
3) Updated version of the ISO harmonised structure for management system standards
4) Timescale – to commence in 2022 (tbc)

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# Thanks!


Martin Baxter

Director of Policy and External Affairs, Deputy CEO

TC207/SC1 Chair

m.baxter@iema.net

@mbaxteriema


# The role of ISO 14001 in tackling climate change

Anya Ledwith
Founder
Eshcon Ltd



By Royal Charter

ESHCON

EFFECTIVE ENVIRONMENTAL MANAGEMENT

# The role of ISO 14001 in tackling climate change


**Anya Ledwith**

**@Eshcon**

**www.eshcon.co.uk**

# Anya Ledwith CEnv FIEMA - Eshcon

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- ISO 14001
Environmental Management Systems
- SECR Carbon Reporting
- Net Zero
- ESOS Energy Audits

Vice-Chair of SES/1/1
BSI Committee on Environmental Management Systems Standards

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# #ShowYourStripes

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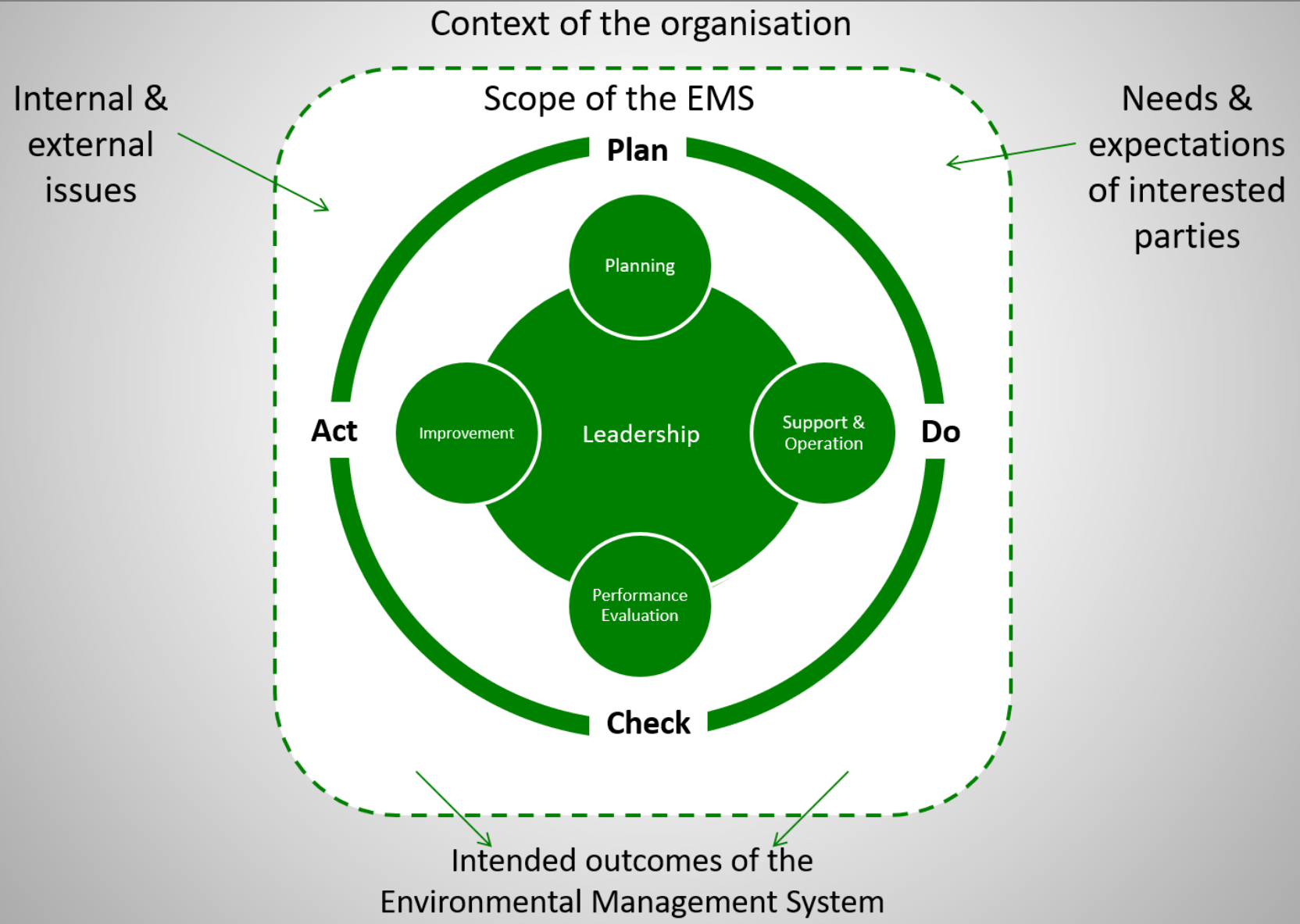
# ISO 14001 framework for delivering climate action



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# Context & Leadership

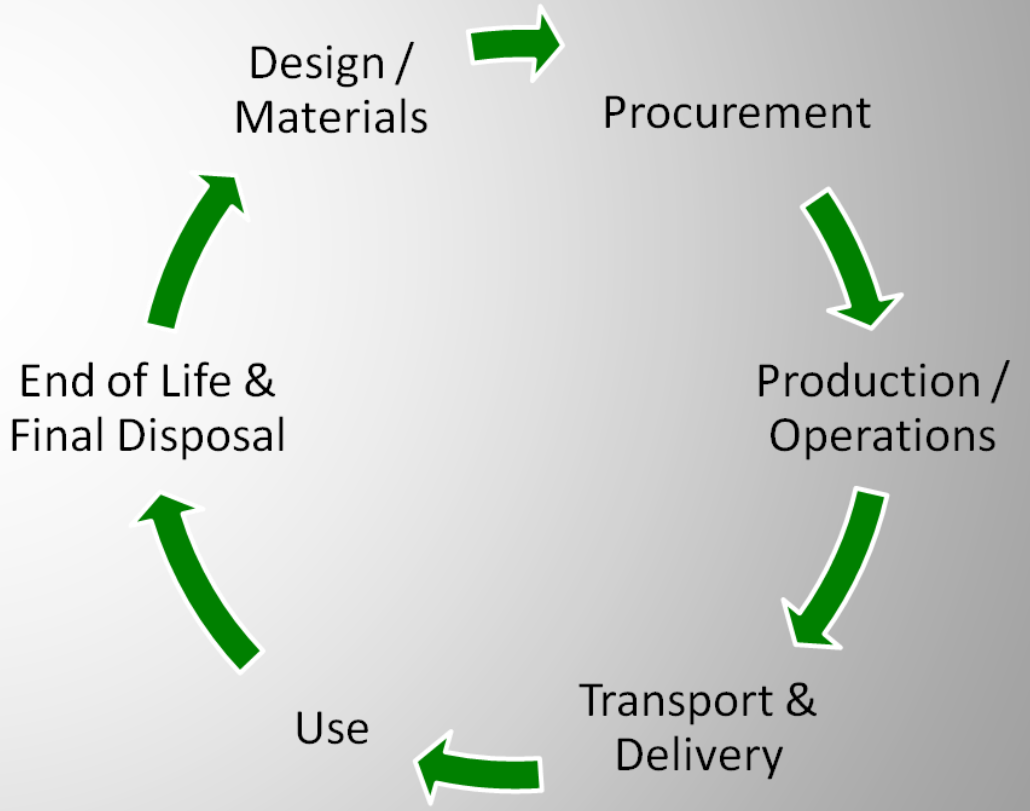
- Understand the context of the organisation
  - Two-way relationship with the environment
- Critical that top management understand the wider risks & opportunities properly & guide the organisation strategically
- Promotes of ownership & leadership
  - Executive sponsorship of targets

# Interested parties

- Identify your interested parties & communicate with them
- Business strategy should recognise changing customer expectations
- Plan how & when you engage.

# Lifecycle

- Not just operations – think about other stages of the lifecycle
- Opportunity to go down & up the supply chain
- Think about current situation & different climate scenarios



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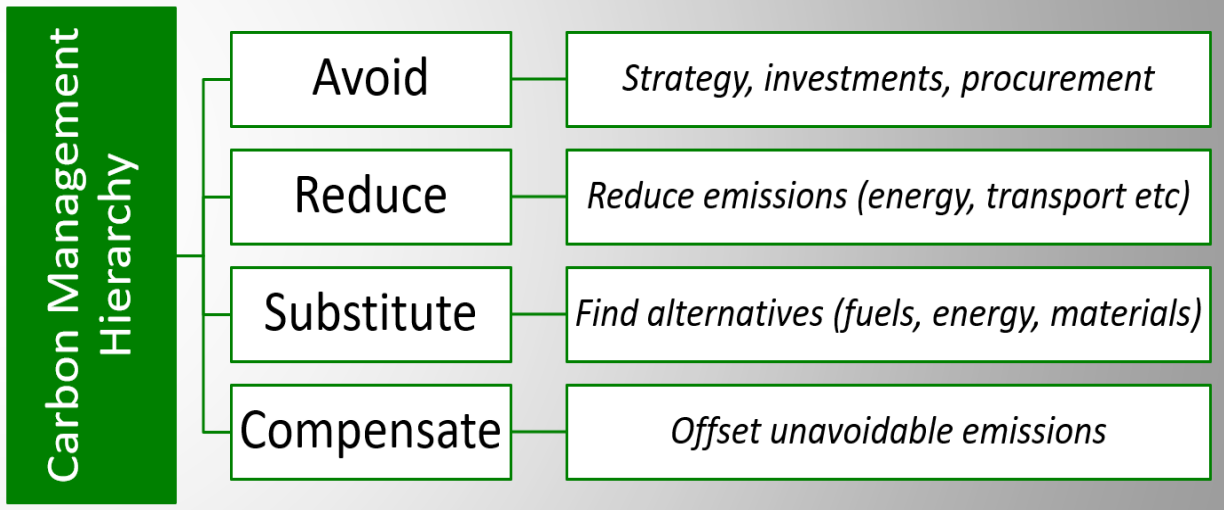
# Objectives & Operations

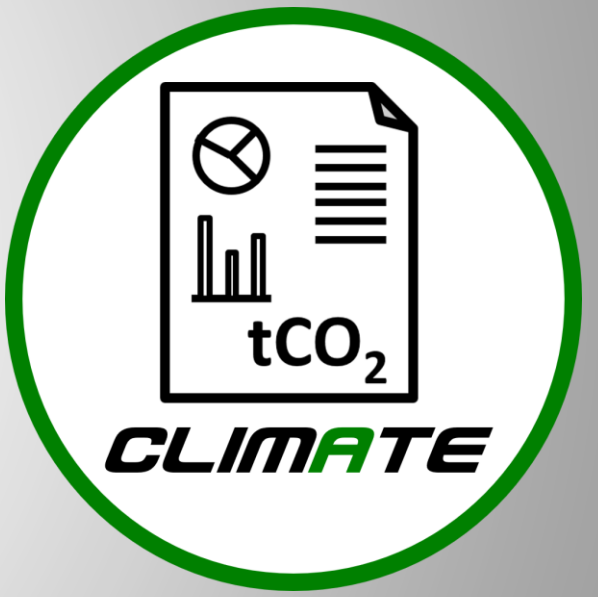
- Objectives & targets – carbon is easily understood (good for buy in)
- What you'll do to deliver the objectives
  - Mitigation –
    ISO 14064 GHG quantification
    Carbon Management Hierarchy
  - Adaptation –
    ISO 14090
    Assessing climate change impacts;
    Adaptation planning & implementation




*simplification of IEMA's GHG management hierarchy*

# Performance Evaluation & Continual Improvement

- Monitor, measure & evaluate environmental performance
- Overall objective & top level target
  - Supporting targets & KPIs
  - Good data quality
- Checked by audit
- Management Review – keeps the focus
- Drives change & continual improvement



# Example – electronics company

- Risks and opportunities
- Mitigation and adaptation
- Longer-term thinking
- Benefits

# Standards and guidance

- ISO 14001 and ISO 14004
  - ISO 14005 – phased implementation
- ISO 14064 - quantification of GHG emissions and removals
  - ISO 14067 - Carbon footprint of products
  - ISO 14080 – GHG management
- ISO 14090 – Adaptation to climate change and supporting standards
  - BS 8631 – Climate adaptation pathways
  - White paper on 14001 & 14090
- The Global Goals – UN SDGs
- IEMA Guide – Driving climate actions through EMS

# Thank you

The role of ISO 14001 in tackling climate change

**Anya Ledwith, Eshcon Ltd**

**Reducing Impacts - Cutting Costs - Saving Time - Winning Business**

**This is Effective Environmental Management**

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# The ISO 14001 User Survey 2021

Lisa Greenwood, Ph.D.

Assistant Professor in Environmental Sustainability, Health and Safety

RIT

ISO Technical Committee 207 - Environmental Management

# ISO 14001 User Survey 2021

## PRELIMINARY REPORT

## 25 YEARS OF ISO 14001 AND WHAT THE FUTURE HOLDS

1 NOVEMBER 2021

LISA GREENWOOD, PHD

Image source: https://cdn.pixabay.com/photo/2017/02/19/23/09/success-2081167_1280.jpg

# Background

- ISO TC 207 SC1 conducted first continual improvement survey of ISO 14001 users in 2013
  - Over 5000 responses worldwide
  - Informed the 2015 revision of ISO 14001

Image source: https://cdn.pixabay.com/photo/2017/02/19/23/09/success-2081167_1280.jpg

# Purpose

- Develop an understanding of current and future needs of ISO 14001 users and other interested parties in relation to environmental management system standards
- Inform the revision of ISO 14001 - as well as that of ISO 14004
- Inform potential development of additional parts of ISO 14002

Intended Audience:

- Individuals in organizations that have implemented ISO 14001 and/or ISO 14004 (users)
- Other individuals with working knowledge or interest in ISO 14001 (e.g., certification bodies, regulatory agencies, academia, research institutions, trade associations)

# Inputs to the Survey

- Recommendations of the Future Challenges Study Group
  - 8 themes
  - Set of recommendations specific to ISO 14001 content
- Recommendations of the TC 207 SC1 “Measuring Success” Group
- Structure of the 2013 ISO  14001 User Survey

# Survey Design

- Available in 9 languages
- Survey path determined by nature of response –
  - “user” vs. consultant or auditor vs. other knowledgeable interested parties
- Question sets:
  - Implementation-related questions
  - Value for environmental management and business management
  - Value of ISO 14001 guidance, resources and related supporting standards
  - Future challenges for ISO 14001 and EMS

# Timeline

**Survey Opens**
- 13 Sept 2021

**Survey Promotion**
- Sept – Nov 2021

**Survey Closes**
- 13 Nov 2021

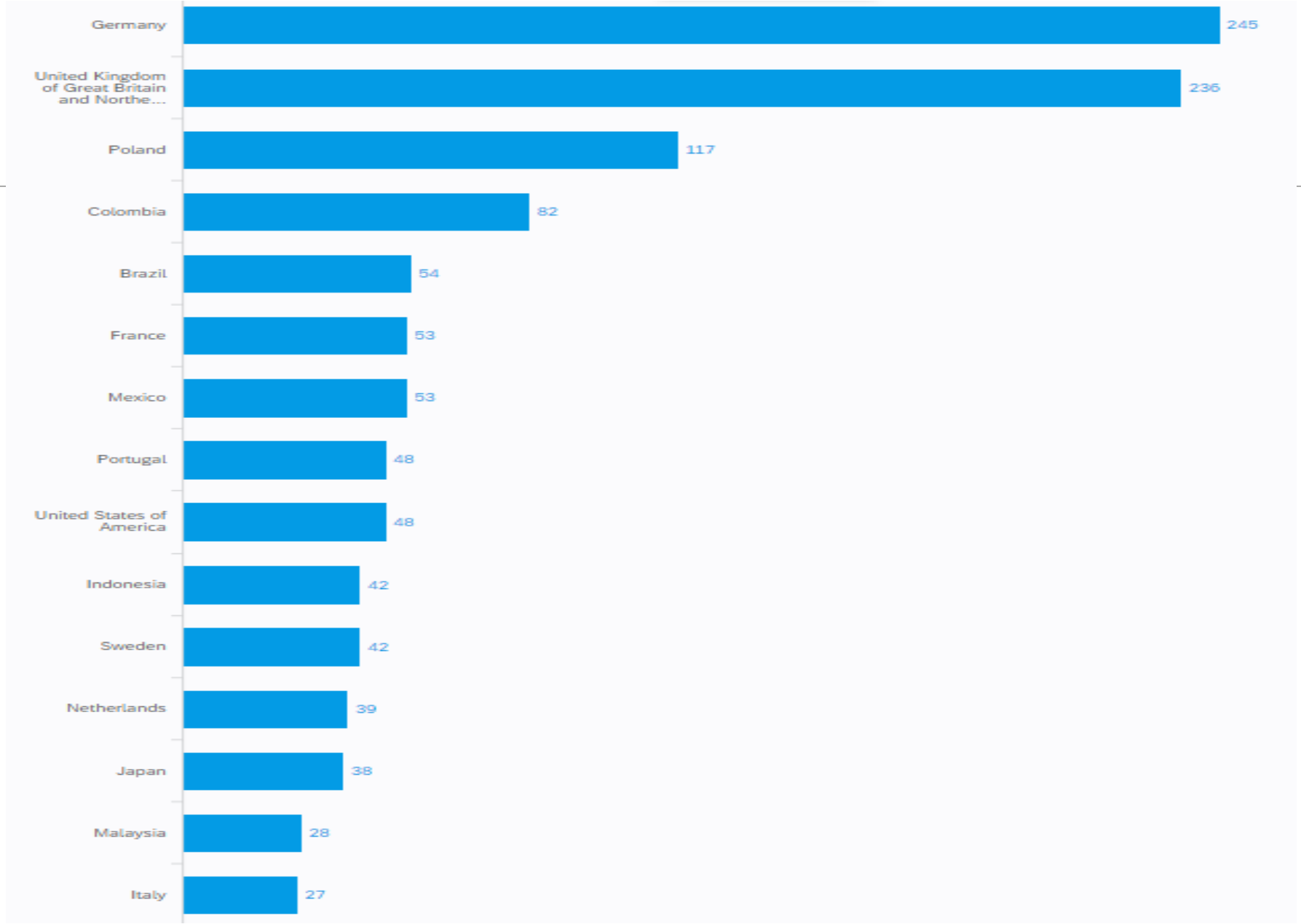
**Data Analysis**
- Nov-Dec 2021

**Report to TC 207 SC1**
- January 2022

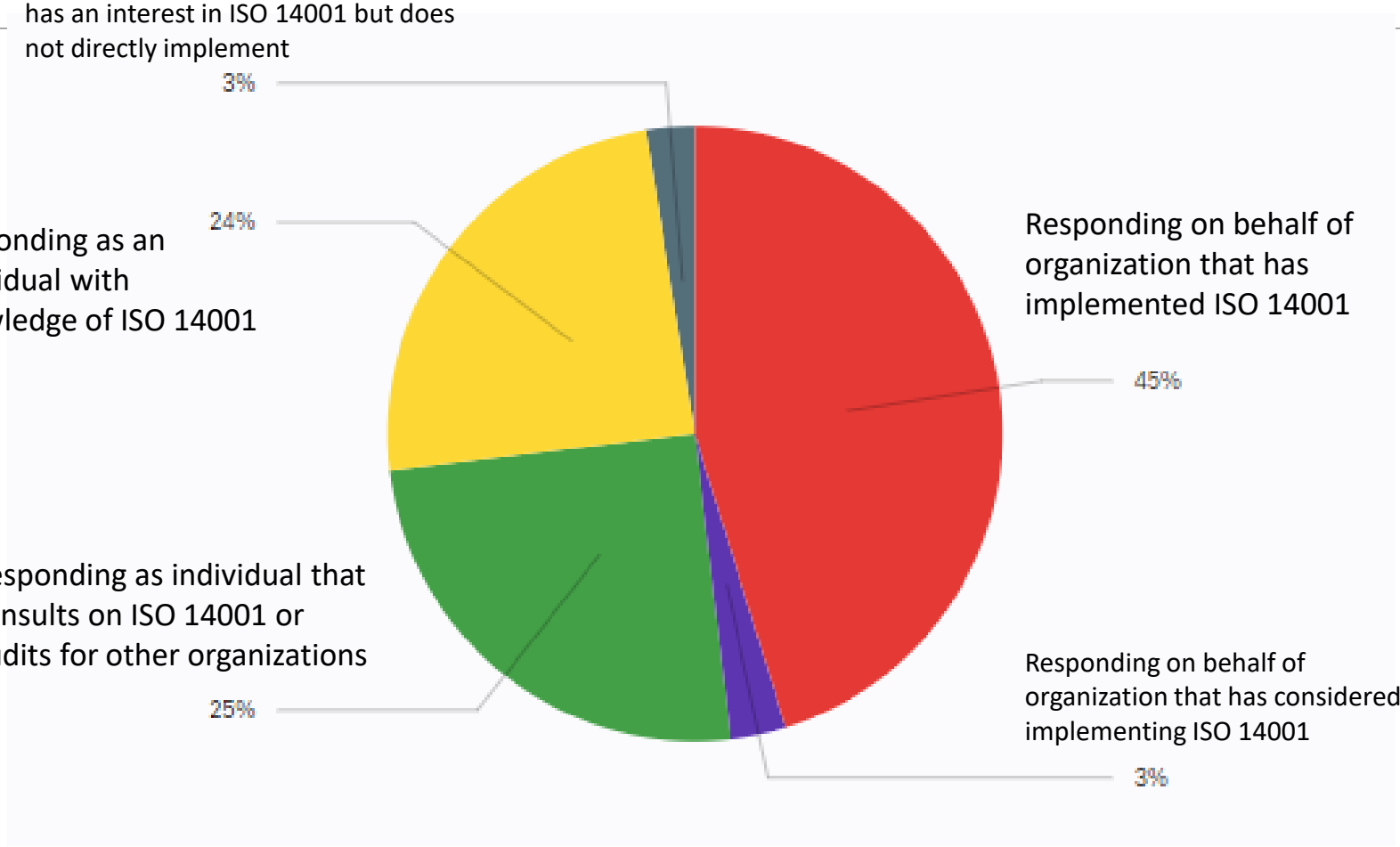
Image adapted from https://cdn.pixabay.com/photo/2017/06/26/00/46/flat-2442462_960_720.png

# Preliminary Results

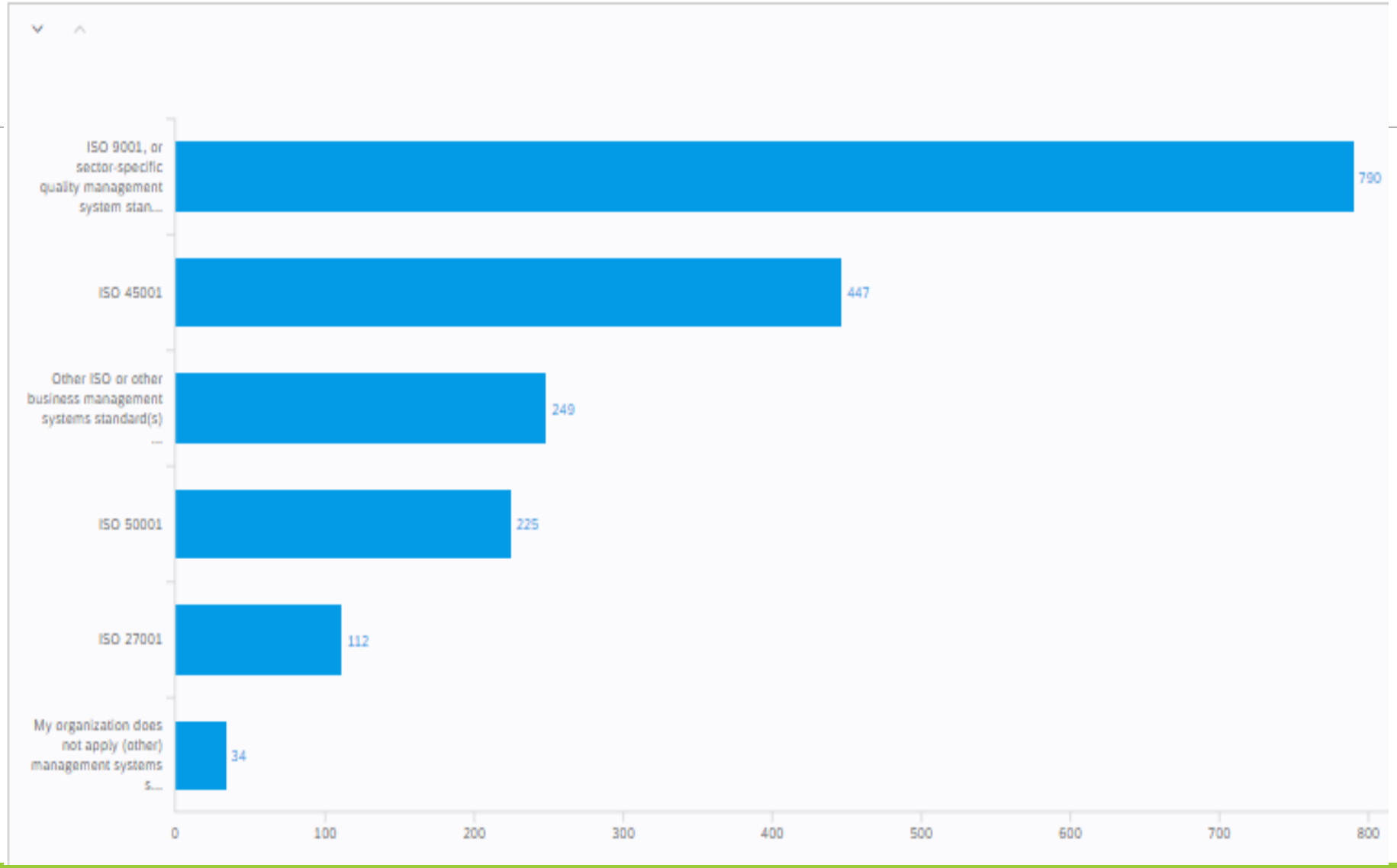
# Responses by Country



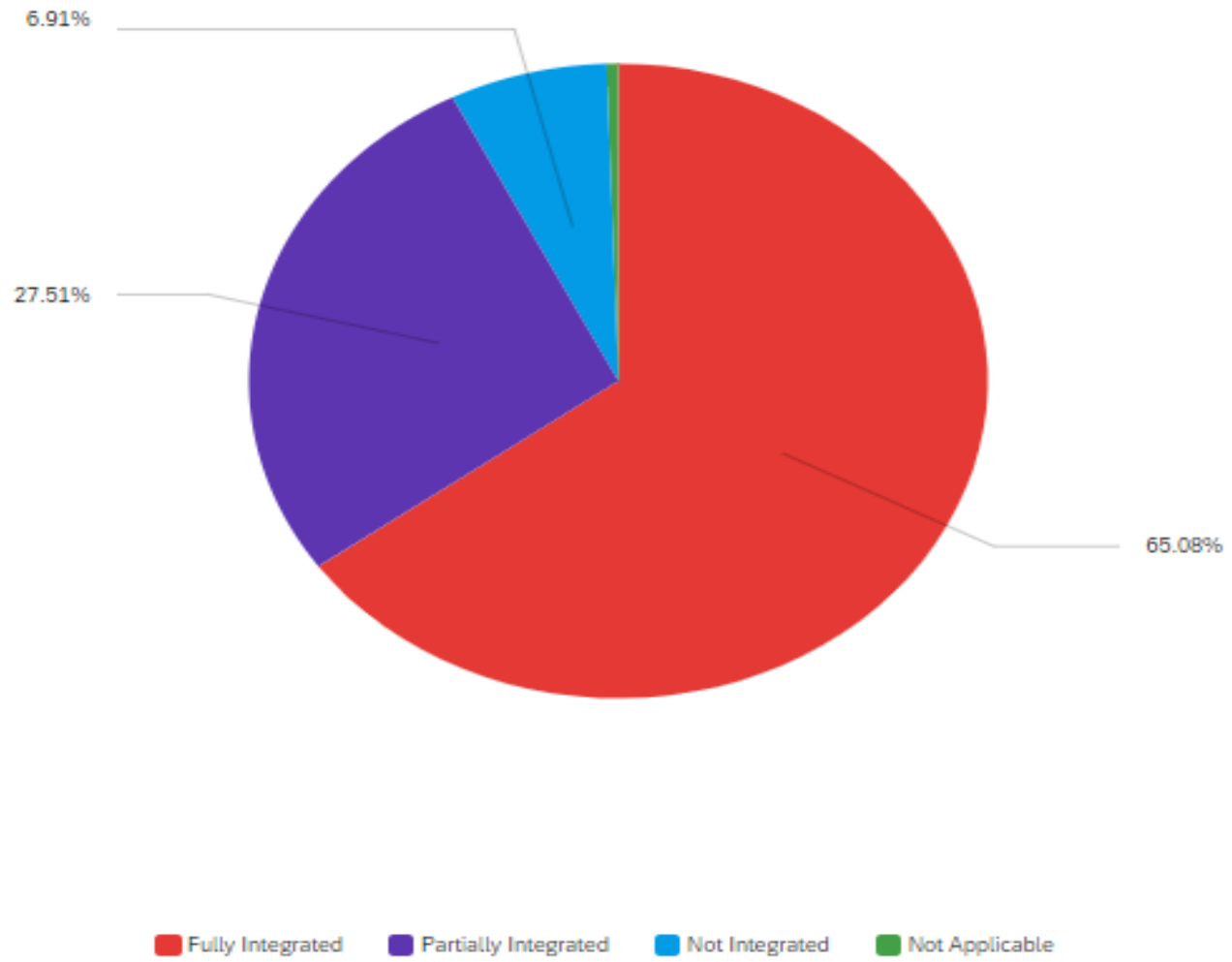
## Which of the following best describes the nature of your responses to this survey?



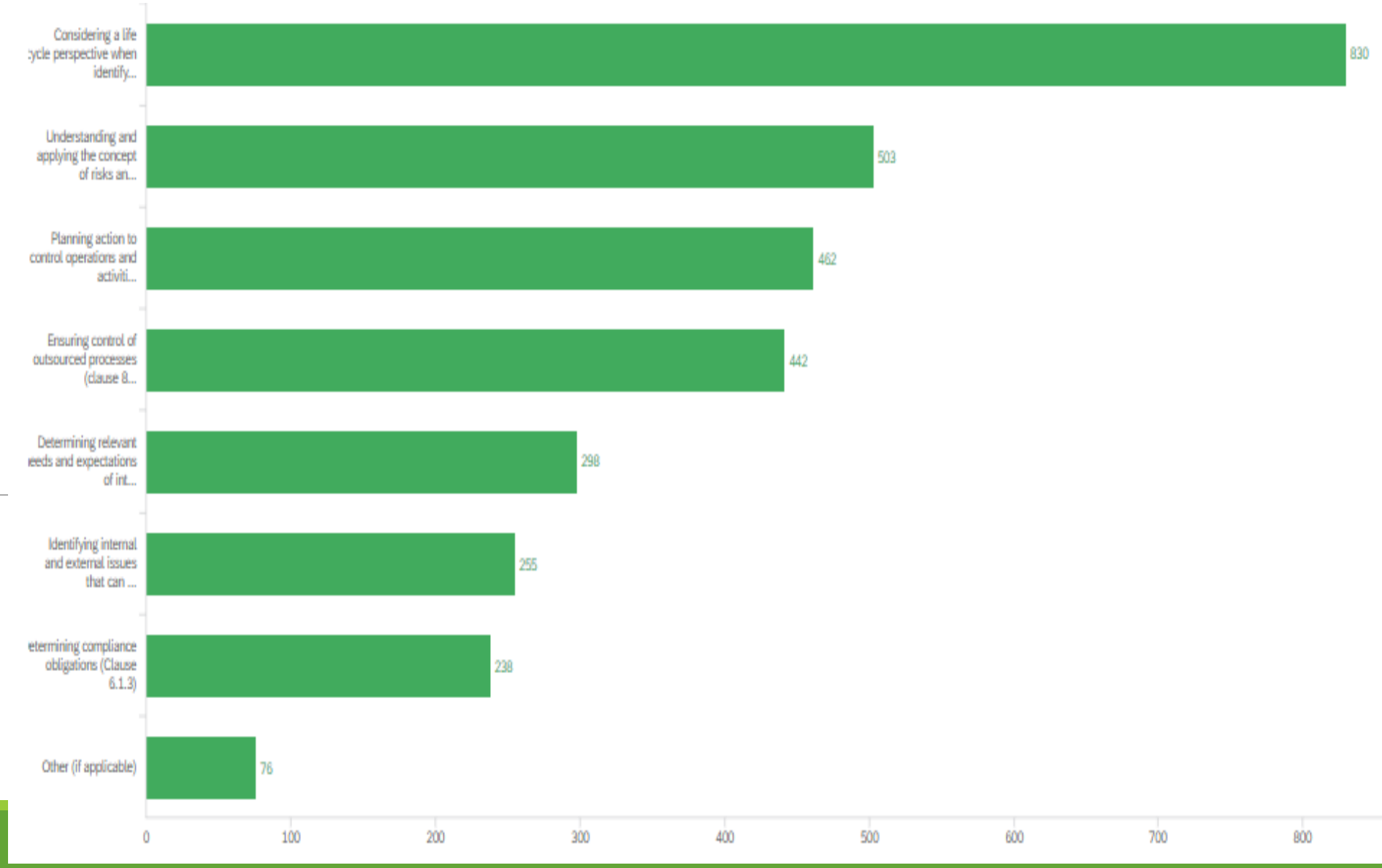
Q2.4 - Does your organization apply other management systems standards? Select all that apply:



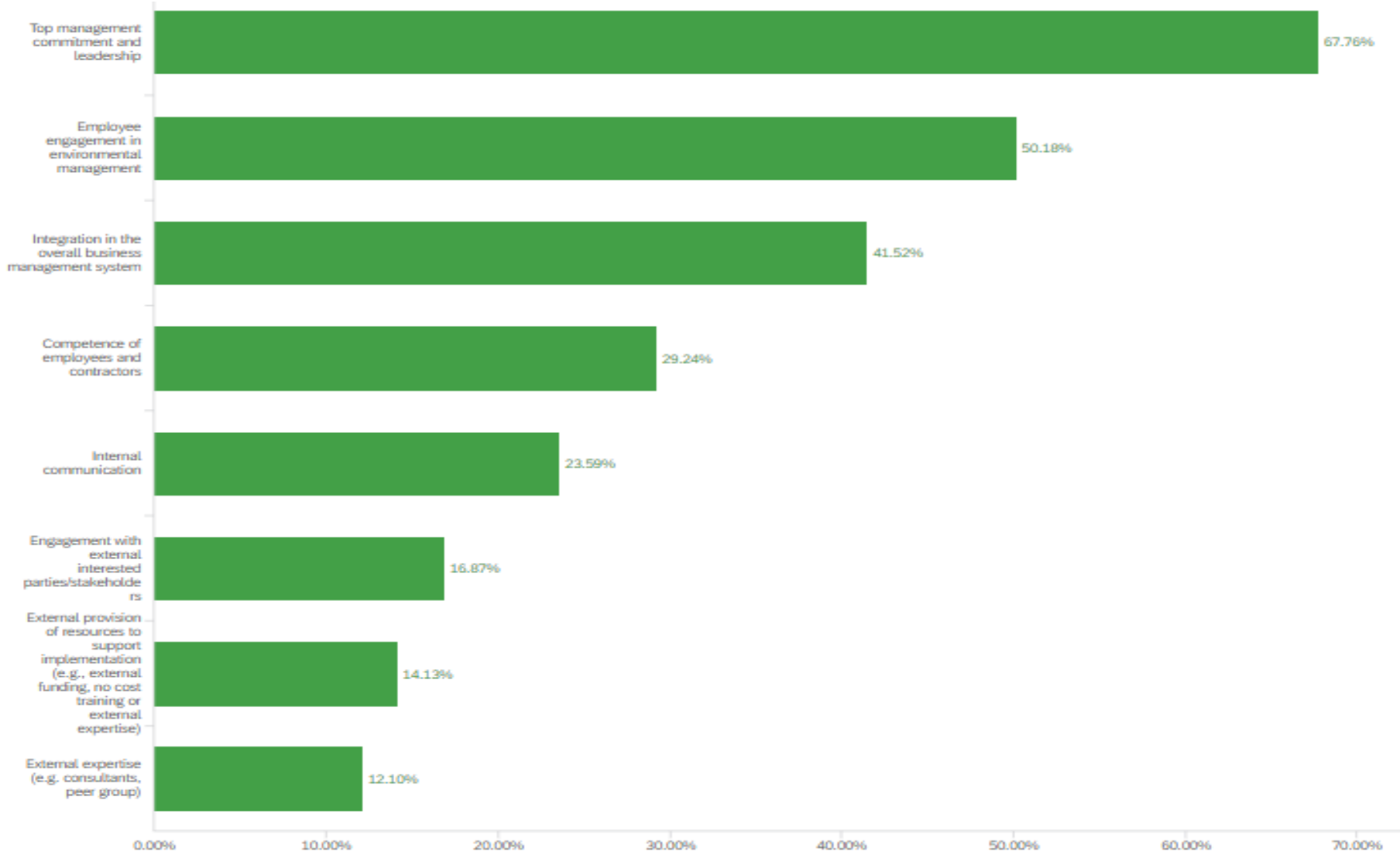
## How does your organization apply multiple management systems standards?



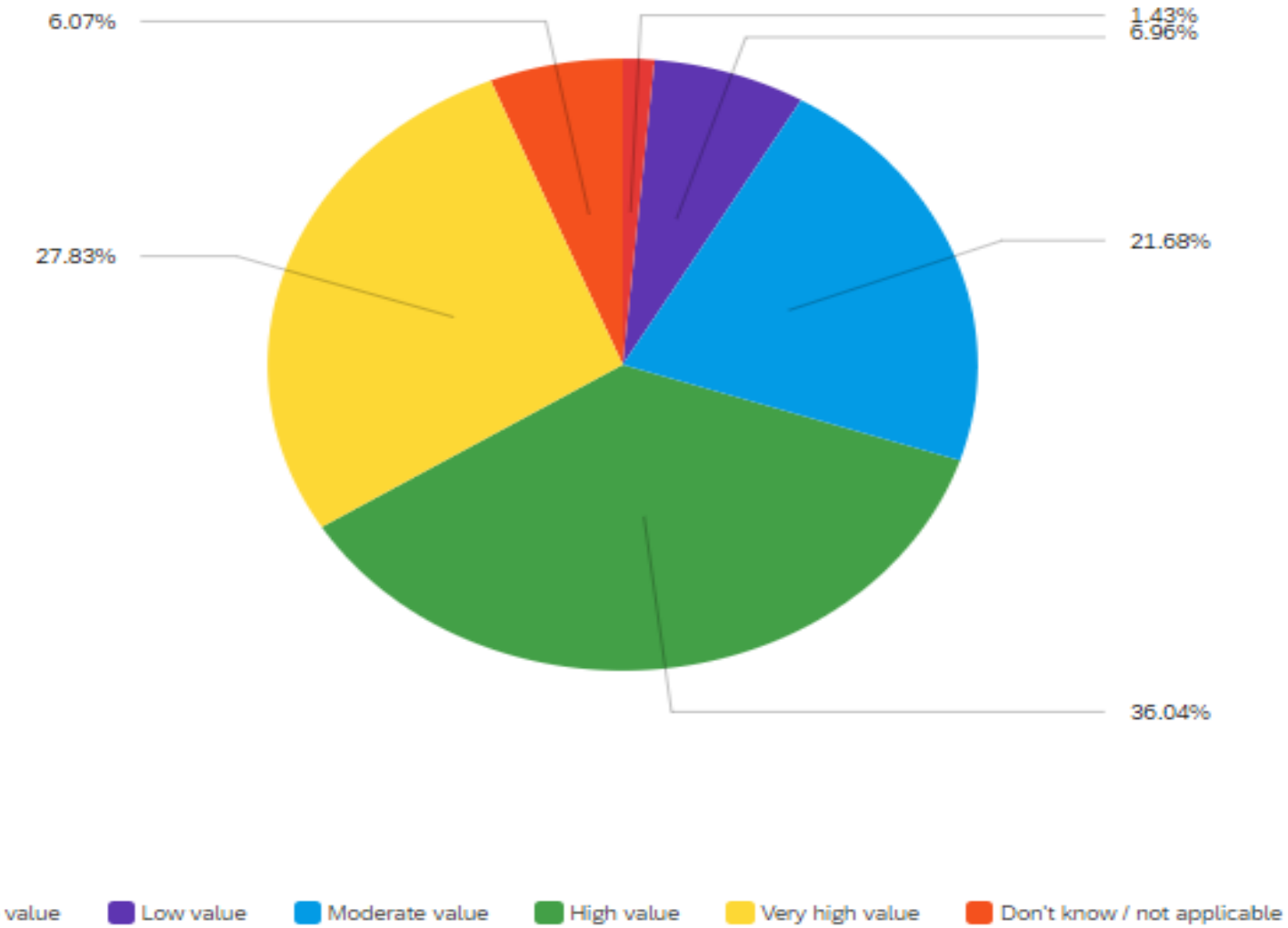
Are there concepts or requirements introduced in ISO 14001:2015 that you found particularly challenging to understand and/or implement? Please select all that apply.



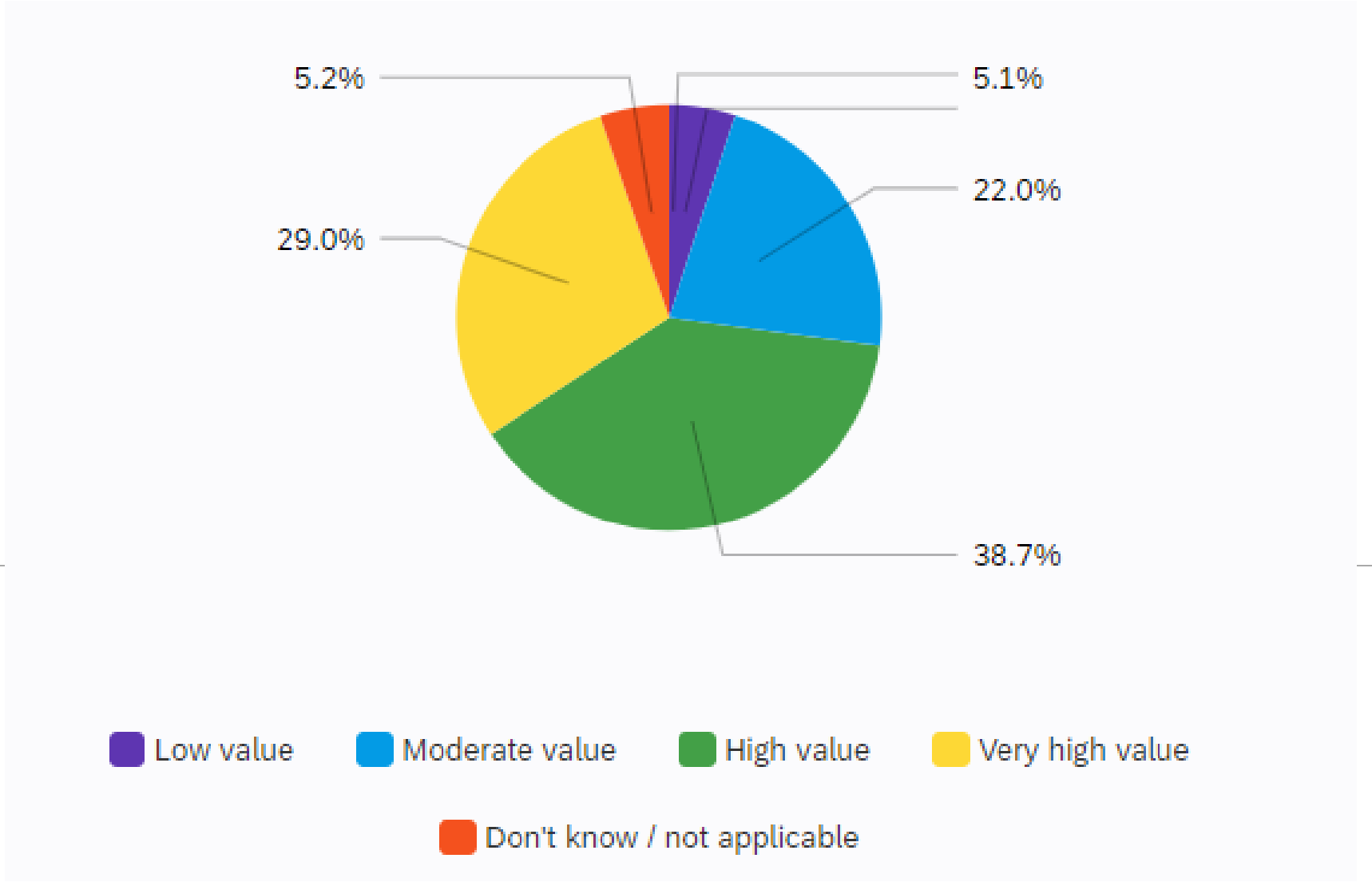
# Are there any particular factors that have been critical for successful implementation of ISO 14001 in your organization?



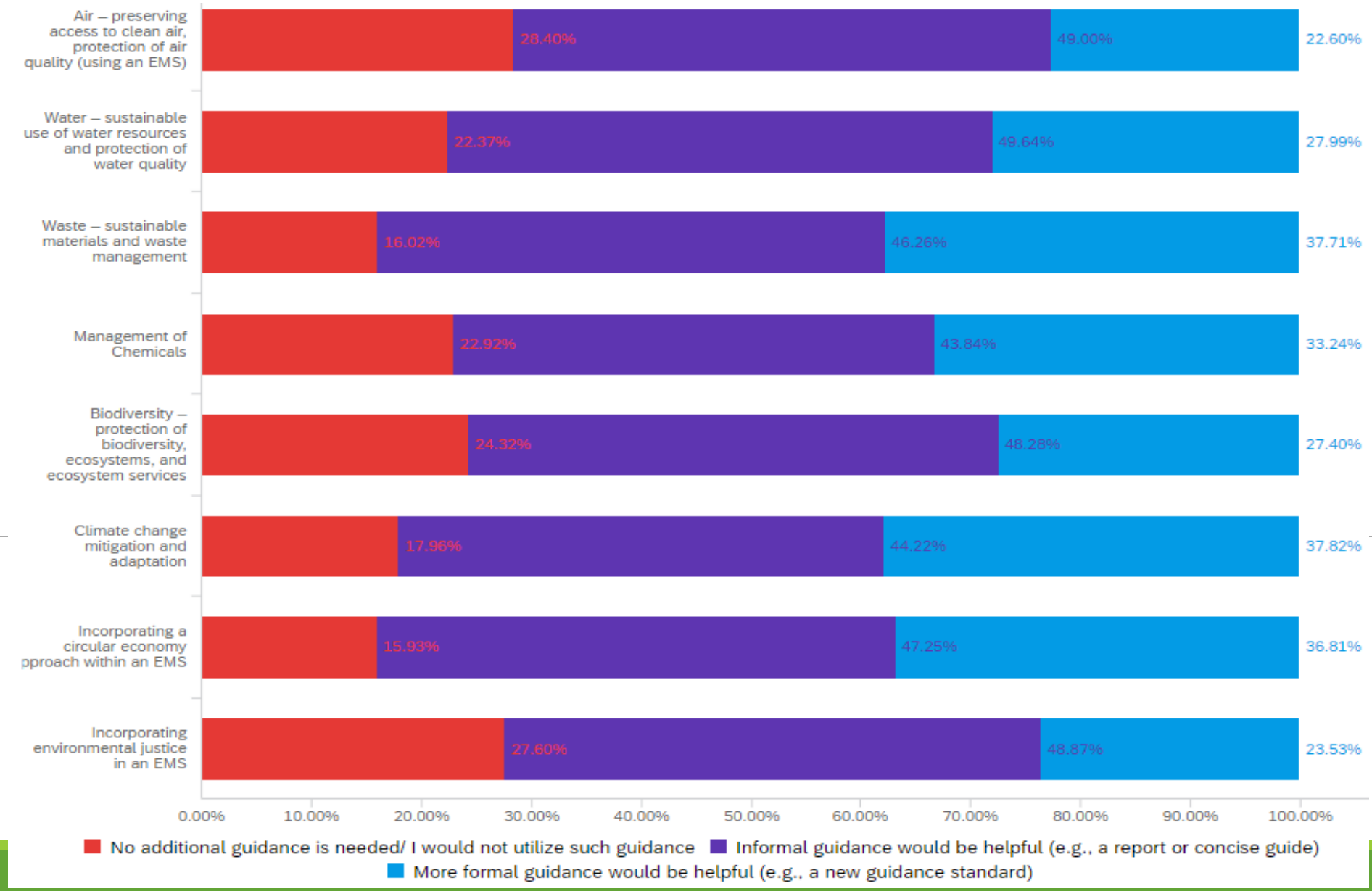
# To what extent has ISO 14001 provided value for business management in your organization?



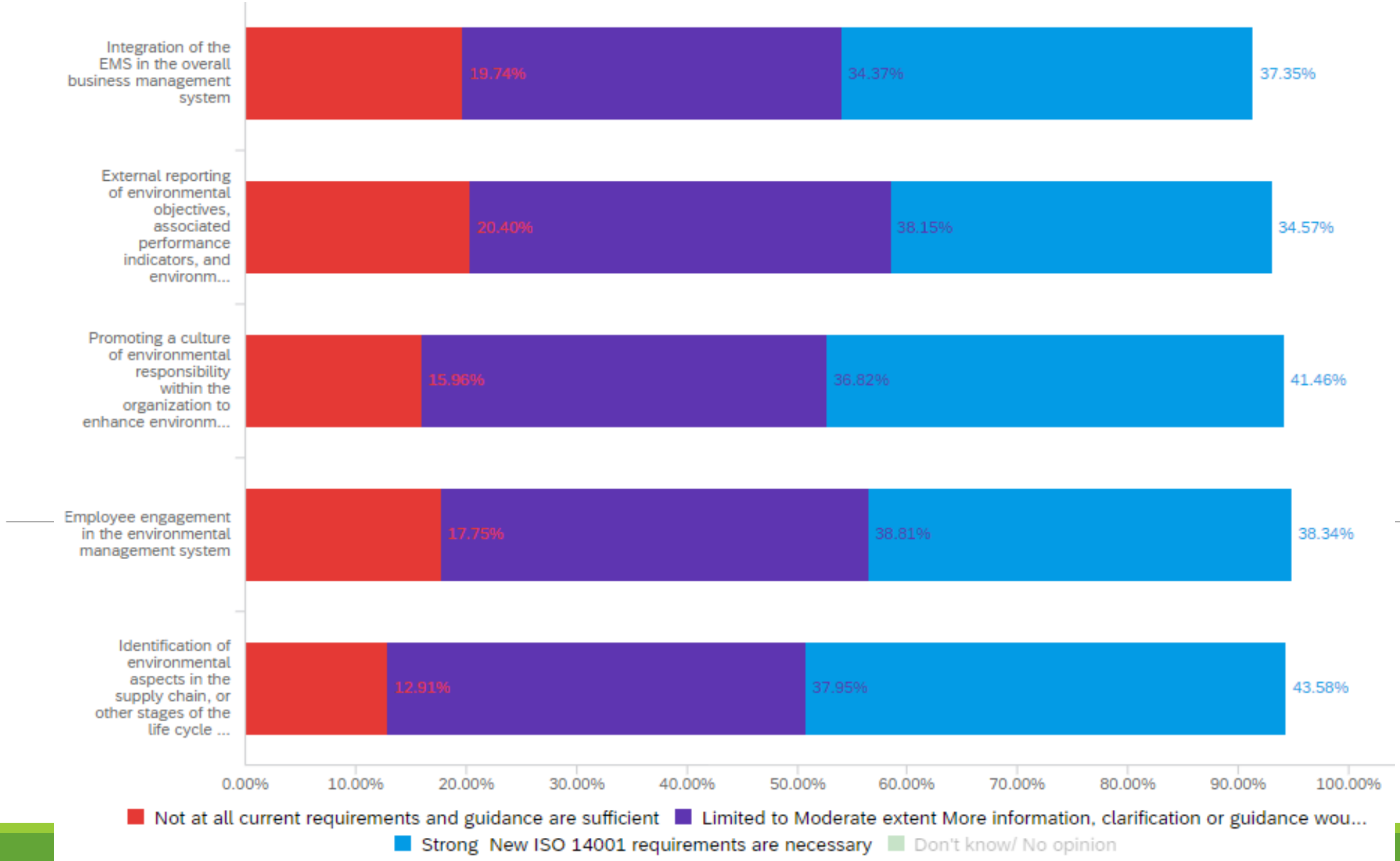
To what extent has ISO 14001 provided value for environmental management in your organization?



# Are there specific environmental topic areas or issues for which you would like to see more guidance provided, in relation to implementing an EMS?



# To what extent should ISO/TC 207 strengthen attention to, or take action to address the following, in the next revision to ISO 14001?



# Questions?


You can access the survey via the following link:

https://rit.az1.qualtrics.com/jfe/form/SV_ezWLovidsdRn7Lw

# Q&A Panel

Dick Hortensius

Senior Standardization Consultant Management Systems

NEN

Martin Baxter

Director of Policy and External Affairs, IEMA and Chair of ISO TC 207/SC1

Fred Wenke

Head of Certification Body, TÜV SÜD, and

German expert that is leading the future challenges taskgroup in ISO/TC 207/SC 1

Anya Ledwith

Founder

Eshcon Ltd

Lisa Greenwood

Assistant Professor in Environmental Sustainability, Health and Safety

RIT



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# Closing remarks and the end of the event

- Upon completion of the feedback survey, BSI will forward versions of the presentations made today and the recording of the webinar

- Attendance certificates – the link for this will be emailed out post event with recording and feedback survey.

- Let us know in the feedback what other subjects you would like us to cover in future webinars

- Please don't forget to respond to the ISO 14001:2015 User Survey:

https://bit.ly/3uRtOD9

- For more information please visit:

https://committee.iso.org/home/tc207sc1

# Thank you for attending

By Royal Charter

bsi.