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Special thanks to Vic Toy
Slides were taken from his presentation
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Chair, U.S. TAG ISO 45001
Global Trends

- Prevention Through Design
- Sustainability
- Risk Assessment
- Professional Capability Framework

ISO 45001
OHS and Sustainability

Social responsibility, reputation, costs, productivity, organizational efficiencies & effectiveness
OSH and Sustainability
The Six Capitals

To satisfy demands for greater transparency, integrated reporting often emphasizes the importance of the so-called “six capitals”

Six Capitals
- Financial
- Manufactured
- Intellectual
- Human
- Social/relationship
- Natural

Organizations use all six of these capitals to create value
Businesses are increasingly recognizing the importance of a skilled, engaged and productive workforce.

**Reputation** is a key factor in attracting and recruiting talent and can have significant financial impact.

Increased demands for improved performance on human capital-related issues will lead to increased demands for improved OHS performance.
Professional Capability Framework

Characteristics of a Profession

- Great responsibility
- Accountability
- Specialized education
- Body of Knowledge (BOK)
- Ethical constraints
- Certifications
- Associations
The OSH profession is adversely affected by a lack of occupational barriers to entry

Common problems include:

- Unqualified practitioners
- Unaccredited certifications
- Employers who are not well advised
Professional Capability Framework

The OHS Professional Capability Framework
A Global Framework for Practice
Role, Knowledge and Skills

inshpo

International Network of Safety and Health Practitioner Organisations

October 2015
Promote high standards of competence for and among OHS professionals

Promote a shared understanding of OHS roles

Establish the role as a key advisor, strategist and leader

Set the role in the context of the management of risk within sustainable business practices

Promote evidence-based decision making in identifying competencies
Prevention through Design

Prevention through design is the concept of mitigating occupational hazards and risks by "designing them out"
Incorporating decisions pertaining to occupational hazards and risks into the process of design and redesign of work premises, tools, equipment, machinery, substances, and work processes including their construction, manufacture, use, maintenance, and ultimate disposal or reuse.
In the **United States**, Prevention through Design is a long-term initiative by NIOSH.

In **Australia**, PtD is one of seven action areas of the Australian Work Health and Safety Strategy 2012–2022.

In **Europe**, safe design is a key focus of directives relating to construction and machinery safety.
Prevention through Design
ANSI/ASSE Z590.3

Prevention through Design: Guidelines for Addressing Occupational Risks in Design and Redesign Processes

- Provides guidance on including PtD concepts within an OSH management system
- Provides guidance for a lifecycle assessment and design model
- Incorporates Hierarchy of Controls
Prevention through Design
Hierarchy of Controls

HIERARCHY OF CONTROLS

Elimination
- Physically remove the hazard

Substitution
- Replace the hazard

Engineering Controls
- Isolate people from the hazard

Administrative Controls
- Change the way people work

PPE
- Protect the worker with Personal Protective Equipment
New territory, expanding space for OHS professionals

➢ “This new focus has spawned a variety of activities, including risk assessments, enterprise risk management initiatives (ERM), or governance, risk, and compliance initiatives (GRC).”

An increase in the perceived importance of transparency and accountability

➢ “Boards of Directors are focusing on risk and the related risk management practices and are asking tough questions about how those organizations identify, assess, monitor, and manage their risks.”
Figure 1
Risk Management Process

Communication and consultation (5.2)

Establishing the context (5.3)

Risk assessment (5.4)
  - Risk identification (5.4.2)
  - Risk analysis (5.4.3)
  - Risk evaluation (5.4.4)

Monitoring and review (5.6)

Risk treatment (5.5)

Note. Adapted from ANSI/ASSE Z690.2-2011, p.21, by ANSI/ASSE, 2011, Des Plaines, IL: Author.
ISO 45001

The international community has voted to develop what many consider is the most significant health and safety standard in the past 50 years.
A management system explained:
This process of systemizing how things are done is known as a management system.

- Each company possesses an overall management system

**Management system:** set of interrelated or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives

Annex SL
The ISO Definition of a Management System

A management system explained:
This process of systemizing how things are done is known as a management system.

The question is….

- whether your system is suitable, adequate
  and effective for managing OHS?
The most compelling reason for an OHSMS
The data

- **2.2 million** workers lose their lives globally every year due to work-related accidents and diseases\(^1\)

- **Over 4.1 million** US workers suffer serious illness or injury every year\(^1\)

- **26.4 million** UK working days were lost due to work-related illnesses and workplace injuries\(^2\)

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1 – US Department of Labor Report 2013
2 – UK Health & Safety Executive Report 2010/11
The most compelling reason for an OHSMS
Nigerian example

Nigerian factory fire kills 45 workers

By our correspondent
25 September 2002

At least 45 workers lost their lives on the night of September 15 when a fire swept through a Nigerian plastics factory—West Africa Rubber Products Limited—in the Odogun Industrial Estate, Ikorodu, 40 kilometres north of Lagos. The fire gutted the factory and the adjacent Super Engineering Limited, both of which are owned by a conglomerate based in Shanghai and Hong Kong.

There has been much speculation about the number of workers killed in the fire. The Nigerian Red Cross reported that seven bodies were found by the police on the night of the fire and 37 more were retrieved the next morning.

According to Reuters, Nigerian newspapers put the death toll at hundreds, saying that scores of night shift workers are still missing.

The police have been unable to confirm the higher toll, but both they and the Red Cross said they expected to find more bodies as the wreckage was cleared. Eleven workers are receiving treatment at Noah Hospital in Ikorodu. The Vanguard (Lagos) reported that seven of them have severe burns and the other four have gunshot wounds.

According to the BBC, the police are investigating reports that the factory gates had been locked and the owners had opened fire on crowds who rushed the complex during the blaze. The BBC report says that police intervened after local residents invaded the plant and attempted to lynch the owners, accusing them of negligence.
Benefits of an effective OHSMS

- Makes OHS relevant to organizations, stakeholders and interested parties
- Improves business opportunities with current or prospective customers
- Creates safer and healthier work environments
- Improves business results

Reference: ISO 45001 New Work Item Proposal
Background to current state - ISO 45001

- 3 previously failed attempts for an ISO OHSMS standard

- OHSAS "Standards and Certificates Survey"
  - a rapid rise in the rate of use of OHSMS in past 10 years
  - OHSMS standards are now being used in 127 countries
  - Over 100,000 certificates issued
Background to current state - ISO 45001

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ISO 45001 and current OHSMS
Core requirements are “generally” there, if you look for it….

ISO 45001
Context of the Org
Leadership & Worker Part...
Planning
Support
Operation
Performance Evaluation
Improvement

ANSI/AIHA/ASSE Z10 (2012)
Management Ldrs & Emp Participation
Planning
Implementation and Operation
Evaluation and Corrective Action
Management Review

OHSAS 18001 (2007)
OH&S Policy
Planning
Implementation & Operation
Checking
Management Review
ISO PC 283 Member Nations

- Participating Countries (58)
- Observing Countries (14)
ISO’s Project Committee (PC) No. 283 (ISO/PC 283) is responsible for the development of ISO 45001

ISO/PC 283’s membership currently includes:

- 65 participating countries, (increase of 6 since Sept 2015)
- 13 observer countries (decrease of 2)
- 19 liaison members.
## Participating Countries

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<tr>
<th>Secretariat: United Kingdom</th>
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<td>Argentina</td>
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So what are the major challenges:
It’s a global standard

- **Major issues related to development and final product**
  - Diversity of input
  - Need for basic vs. mature OHSMS concepts
  - Language and translation

- **Major issues related to requirements**
  - Spectrum of management system thinking
  - Objective of the OHSMS (compliance vs. conformance)
  - Speaking small (SMEs) or to what level
International Organizational Relationships

ISO 45001
Occupational Health & Safety Management Systems

International Organization for Standardization

U.S. Member of the ISO

U.S. Technical Advisory Group (TAG) and its Administrator
TAG to PC 283
90+ Organizational Members

“Mirror Committees”

Delegates/"Experts"

Project Committee 283
65 Member countries
13 Observing countries
19 Liaison Members
Original Timeline (key dates) – 3 Years (N68)

- 07/2013: New Work Item Proposal (NP)
- 10/2013: Working Draft (WD)
- 07/2014: Committee Draft (CD1)
- 01/2015: Committee Draft (CD2)*
- 09/2015: Draft International Standard (DIS) Draft *
- 06/2016? Final International Standard Draft (FDIS) **
- 07/2016? Final Draft International Standard (Ballot)
- 09/2016? International Standard

* Possibility of additional drafts
** Optional
Current Status

- Result of ballot on ISO DIS 45001

- The ballot closed on 12\textsuperscript{th} May 2016

- 71\% voted in favor but this was insufficient to secure the necessary vote to proceed to FDIS – what does this mean???

- There were nearly 3000 comments
Timeline – 3 Years Plus 1

- **Draft International Standard (DIS 1)**
  - Nov 2016: Release for translation
  - Feb 2016: TAG Dallas Meeting
  - Jun 2016: PC 283 Toronto Meeting
  - Sep 2016: PC 283 TG8 Denmark Meeting
  - Nov 2016: PC 283 WG1 Lithuania Meeting
  - Feb 2017: PC 283 WG1 Austria Meeting

- **Draft International Standard (DIS 2)**
  - Apr/May 2017: Release for translation
  - **May 2017:** Proposed TAG meeting (tentative)
  - Jun/Jul 2017: Ballot Due
  - September 2017: PC 283 Meeting

- **FDIS (possible):** 2 mo. Translation, 2 month ballot; 1 month Pub prep
Annex SL

A new common format has been developed by ISO for use in all its management system standards, and is being used by ISO 45001.

This is often referred to as “Annex SL”, and gives:

- a common top level clause structure (or sequence)
- standardized core text
- standardized core definitions
Annex SL: The effort to harmonize MSS

Background
- harmonizing management system standards (Focus on general management system requirements)
- Presents a challenge with some terms (e.g. risks)
- Changes can be requested for technical reasons but is difficult

A key benefit of Annex SL is for those wanting to integrate or leverage with other ISO standards.
What’s inside the proposed standard

1. Scope
2. Normative References
3. Terms & Definitions
4. Context of the Organization
5. Leadership
6. Planning
7. Support
8. Operations
9. Performance Evaluation
10. Improvement
11. Annex A
Iteration

By Christoph Roser. AllAboutLean.com
An international standard that specifies requirements for an OHS management system

- with guidance for its use to proactively prevent injury and illness
- applicable to any organization that wishes to demonstrate conformity
Scope
What ISO 45001 is NOT

- It does not state specific criteria for OSH performance
- It does not address product safety, property damage or environmental
- It is not intended to be a legally binding document
What’s inside the proposed standard
Context of the organization

4. Context of the organization
   4.1 Understanding the organization and its context
   4.2 Understanding the needs and expectations of interested parties
   4.3 Determining the scope of the OH&S management system
   4.4 OH&S management system
Context of the organization

What you might expect

- Understanding your internal issues, determining the scope of the OHSMS and utilizing a continuous improvement process.

What might be different:

- A management system linked to OHS performance
- Expansion of external issues
- Determination of relevant interested parties and their requirements
Defining the first step: Understand the context of the organization

Issues that can impact the Mgmt System

- Policies, strategies, organizational capabilities, resources, Services, Standards, guidelines, products, organization's culture
- legal, regulatory
- environmental characteristics
- financial, economic
- technological
- cultural, social, political
interested party: person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity related to the OH&S management system

Note: An interested party can be internal or external to the organization.
Context of the Organization

Interested Parties

Internal Interested Parties
- Employees
- Management Team
- Contractors
- Suppliers
- Board of Directors
- Top Management

External Interested Parties
- Consumers
- Community
- Regulators
- Special Interest Groups
- Shareholders
- Media
- Legislators
Clause 5 Leadership (*Top Mgmt*)

**What might be different:**

- Top management responsibilities for processes that *ensure*
  - knowledge of the organization’s context and OHS risks
  - hazard identification, assessment and actions and opportunities
  - Promoting and leading OHSMS culture
  - Worker participation and consultation

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**Top management:** person or group of people who directs and controls an *organization* (3.01) at the highest level
What’s inside the proposed standard

5. Leadership, Worker Participation and Consultation
5.1 Leadership and commitment
5.2 Policy
5.3 Organization roles, responsibilities, accountabilities and authorities
5.4 Participation and consultation
Clause 5 Leadership (*Policy, etc*)

**What you might expect**

- An OH&S Policy appropriate to the OH&S risks, satisfying requirements, continual improvements, available, and communicated: (the framework)
- Roles, responsibilities and employee engagement in the OHSMS

**What might be different :**

- Policy Elements
  - Appropriate to the nature of the org’s OH&S risks & “opportunities”
  - Use of hierarchy of controls
  - Commitment to compliance with legal and other requirements
  - Commitment to worker/rep* participation & consultation (with extreme redundancy)
  - Prescriptive responsibilities for effective worker engagement and involvement in all aspects, including policy development

Blue Text: Concepts or terms used in Annex SL (not exact text)
What’s inside the proposed standard

6. Planning
   6.1 Actions to address risks and opportunities

   6.2 OH&S objectives and planning to achieve them
Clause 6 Planning

What you might expect

- Process for identifying hazards, legal and other requirements, changes to the organization
- Plans for actions to address risks and opportunities
- Development of “objectives” and plans for achieving them

What might be different:

- Consideration of issues referred to in context of the org & requirements of interested parties
- Assessment of OH&S risk (includes controls) vs “Risk Assessment” which is left to the org
- Definition of risk as the “effect of uncertainty” vs. traditional OH&S definitions
- Determination of objectives at all levels to maintain & improve the OHSMS
Three types of objectives

Managing risks and opportunities, not just numbers
Clause 7 Support

**What you might expect**
- Support that provides resources and ensures **competent persons**, awareness of the policy
- Determination of internal and external **information and communications**
- Documented information required by this standard and the org with appropriate creation and updates and controls that include availability and protection from loss and improper use.
- Worker access to relevant records and control of personal information

**What might be different:**
- Description of the OHSMS
- Determining the “knowledge” required for OHSMS operation
- Define communication objectives and include contractors, visitors, external and internal parties

Blue Text: Concepts or terms used in Annex SL (not exact text)
The organization determines what documented information it needs beyond that which is required by the MSS that includes:

- Scope of the OHSMS
- Policy
- Objective
- Evidence of competence
- Management reviews
- Nonconformities and actions taken
- Corrective action results
- Records of process completion
- Documented information of external origin
- Monitoring, measurement, analysis and evaluation results
- Internal audit program implementation and results

- Roles/responsibilities
- Planning process results
- Legal & other rqmts
- Plans
- Controls
- Emergency response process/plans
- Compliance evaluations
- Continual improvement results
Clause 8 Operations

What you might expect

- A process to verify the implementation of controls
- Risk reduction using the hierarchy of control
- Plan for management of changes (temporary or planned) including resolution of incidents, non conformities, new products, equipment, org structures, processes, materials, knowledge, requirements, etc.
- Control of outsourced processes & procurement to conform to OHSMS rqmts

What might be different:

- Implementation of actions in clause 6, Planning
- Control of risks to other interested parties in the workplace
Significant Restructuring of MOC

The organization shall establish a (a) process(es) for the implementation and control of planned temporary and permanent planned changes that impact OH&S performance such as including:

- a) new or changes to products, services and, process(es), including:
  - working conditions;
  - workplace locations and surroundings;
  - equipment; or services
  - work organization;
  - work force;

- changes to work processes, procedures, equipment, or organizational structure;
- a) b) changes to applicable legal requirements and other requirements;
- b) c) changes in knowledge or information about hazards and related OH&S risks;
- e) d) developments in knowledge and technology.
Clause 9 Performance Evaluation

What you might expect

- Determination of what needs to be monitored and measured, criteria, methods, frequencies, schedules
- Evaluation & documentation of OH&S performance & OHSMS effectiveness
- Compliance with requirements and corrective actions as needed
- Internal Audits with objective auditor selection, appropriate reporting
- Top Management review of the OHSMS (suitability, adequacy & effectiveness)

What might be different:

- An audit program that includes consultation with workers/reps
- Results reported to relevant interested parties
- Inclusion of the management review under “performance evaluation”
- A rather prescriptive list for a management review
Clause 10 Improvement

What you might expect

- Actions (review and corrective action) to deal with root causes of nonconformities & incidents
- Improvements to the suitability, adequacy and effectiveness of the OHSMS

What might be different:

- Incidents that include near misses
- Establishment of a continual improvement process rather than as a part of the planning process.
- Worker/rep participation and communication on corrective actions
- Promotion of a positive OHS culture
The explanatory information given in this annex is intended to prevent misinterpretation of the requirements contained in this International Standard. While this information addresses and is consistent with these requirements, it is not intended to add to, subtract from, or in any way modify them.

The requirements in this International Standard need to be viewed from a systems perspective and should not be taken in isolation, i.e. there can be an interrelationship between the requirements in a clause with the requirements in other clauses.

The Annex is over thirty pages!
ISO 45001 vs. OSHAS 18001

Key differences in ISO 45001:

- Annex SL
- More areas where top management must demonstrate their involvement and engagement
- Requirements for understanding the context of the organization and the needs and expectations of interested parties
- Definitions. e.g. worker, hazard, risk.
- Hierarchy of controls
- Management of change
- Procurement

Reference: ISO 45001 New Work Item Proposal
Steps you can take now ....

We may be in the middle of the standards development process, but there are things you can do to prepare:

1. Get management system savvy, it’s the future
2. Take a look at ISO 45001 CD2 to get a sense of direction
3. Review Annex SL as the baseline for your management system
4. Meet with others in your organization with (14001, 9001) management system responsibilities on approaches given Annex SL
5. Watch for the DIS2, there’s an opportunity for public comment
6. Pick up ANSI Z10, OHSAS 18001, ISO 45001 CD and implement /leverage concepts that make sense for your organization – value creation
In closing…

We’re in the middle stages, but there’s an excellent chance it’ll be here before you know it.

- The future is tied to systems thinking.
- Matching the way we manage safety in the same way business is managed – globally and interconnected.
- Ultimately, it’s about market presence driving improvements in OHS whether it’s worker safety or the promotion of the value and demand for what it is we do.