International Standards and ISO 45001 – Occupational Health and Safety

Dmytro Zubov, PhD

dmytro.zubov@ucentralasia.org

Naryn, 5:45pm, January 25, 2023

Lessons learnt last time

- Outline of the course

- Syllabus

- Course project

- Intro to Safety Management

- Prevention and control strategies

What we gonna discuss today?

- Tutorial: Presentation of the Course project's outline (maximum 3 min)

- Why is the (new) standard needed?

- What does ISO 45001 introduce that we haven't had before?

- 45001: An implementation guide

- Arduino-based Management Alarm Systems

Tutorial: Course project's outline presentation (3 min)

- Tutorial: Presentation of the Course project's outline (maximum 3 min)

  - Let's discuss the outline before the tutorial if necessary

Global toll

- 2.3 million people killed by work accidents and diseases every year

- 6,300 deaths per day (one every 15 seconds)

- 270 million fatal or non-fatal work accidents every year

- 160 million people with occupational disease every year

- ~ 4% of world GDP = work accidents and diseases

# Why was ISO 45001 developed instead of OHSAS 18001?

- Global impact of failure (see stats :)

- OHSAS 18001 – well used, but not an agreed international standard

- ISO 45001 aligns with other management standards

OHSAS - Occupational Health and Safety Assessment Series

ISO 45001 adoption by country as of Jan 2023

- ISO 45001 published in March 2018
- The goal of ISO 45001 is the reduction of occupational injuries and diseases, including promoting and protecting physical and mental health
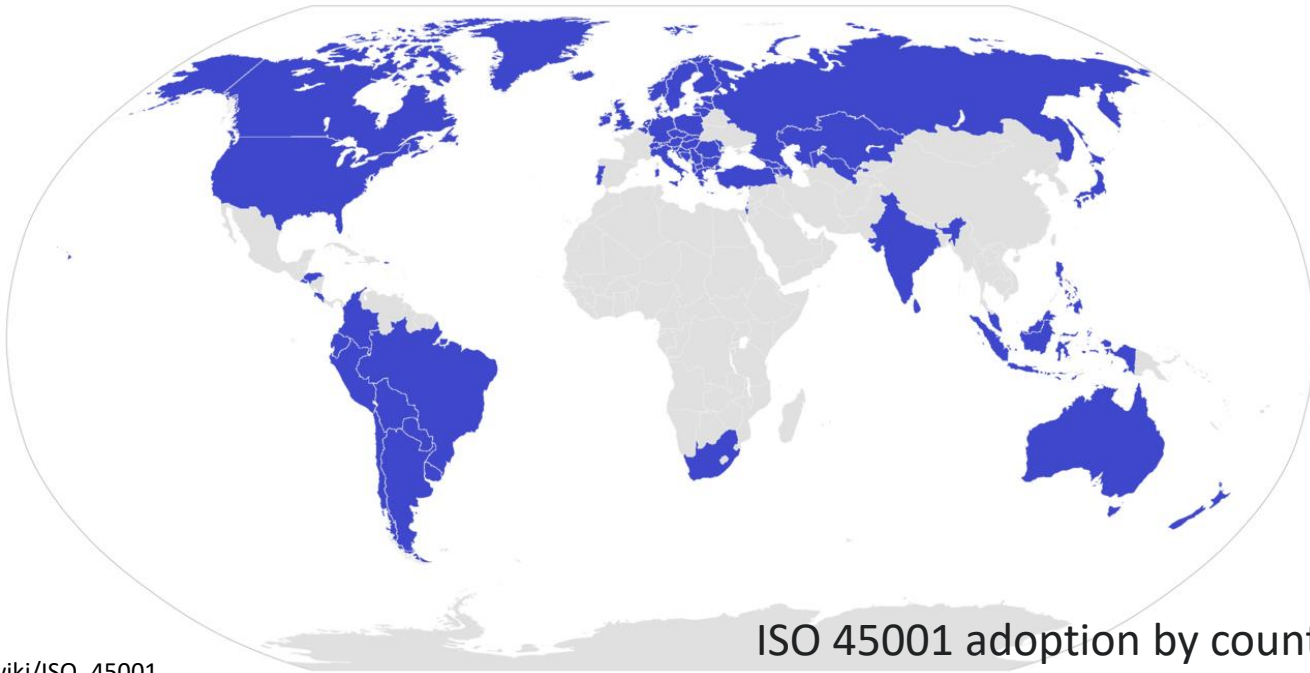
ISO 45001 adoption by country, Jan 2023

ISO 45001 follows the High Level Structure of ISO standards

● ISO 45001 follows the High-Level Structure (HLS) of other ISO standards, such as ISO 9001:2015 and ISO 14001:2015, which makes integration of these standards easier

1. Scope
2. Normative references
3. Terms of definition
4. Context of organization (*new compared with OHSAS* 18001)
5. Leadership (*new compared with* OHSAS 18001)
6. Planning
7. Support
8. Emergency preparedness
9. Performance evaluation
10. Improvement

Management system standards

- ISO 10006 – Quality in project management
- ISO 10007 – Configuration management
- ISO 15161 – Food safety (ISO 9000 and HACCP)
- ISO 19600 – Compliance management systems
- ISO 20000 – IT services
- ISO 20121 – Sustainable event management
- ISO 20400 – Sustainable purchasing
- ISO 22000 – Food safety
- ISO 22301 – Business continuity management
- ISO 26000 – Social responsibility
- ISO 27500 – Human centered organizations
- ISO 28000 – Security in the supply chain

Management system standards (cont.)

- ISO 30000 – Ship dismantling
- ISO 30300 – Records management
- ISO 31000 – Risk management
- ISO 37500 – Outsourcing
- ISO 39001 – Road traffic safety management
- ISO 45001 – Occupational health and safety
- ISO 50000 – Energy management
- ISO 55001 – Asset management
- ISO/IEC Guide 73 – Risk management terminology
- IEC 60300 – Dependability
- IEC 62402 – Obsolescence management

Management system standards (cont.)

- ISO/TR 18155 – Human resources
- ISO 18480 – Facilities management
- ISO 18788 – Private security
- ISO 21001 – Educational establishments
- ISO 37001 – Anti bribery management systems
- ISO/AWI 50501 – Innovation management
- ISO 9001 – Quality
- ISO 14001 – Environment
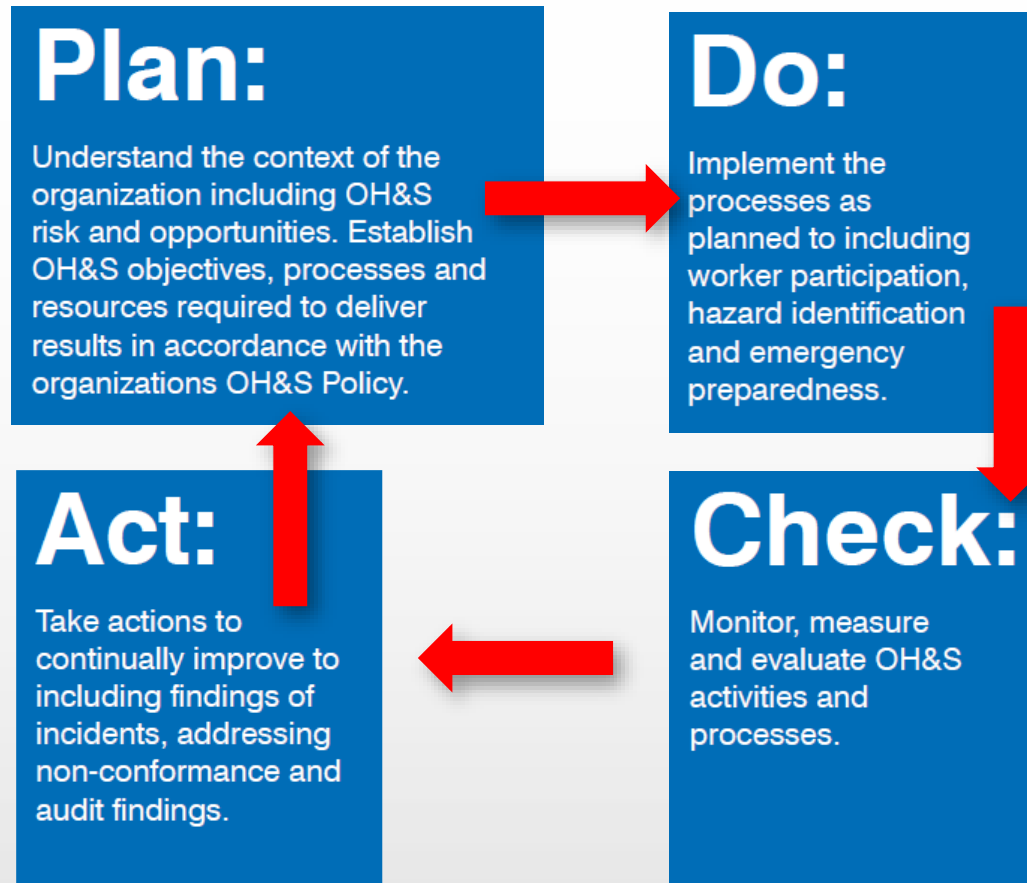- ISO/IEC 27001 – Information security management

IEC – International Electrotechnical Commission
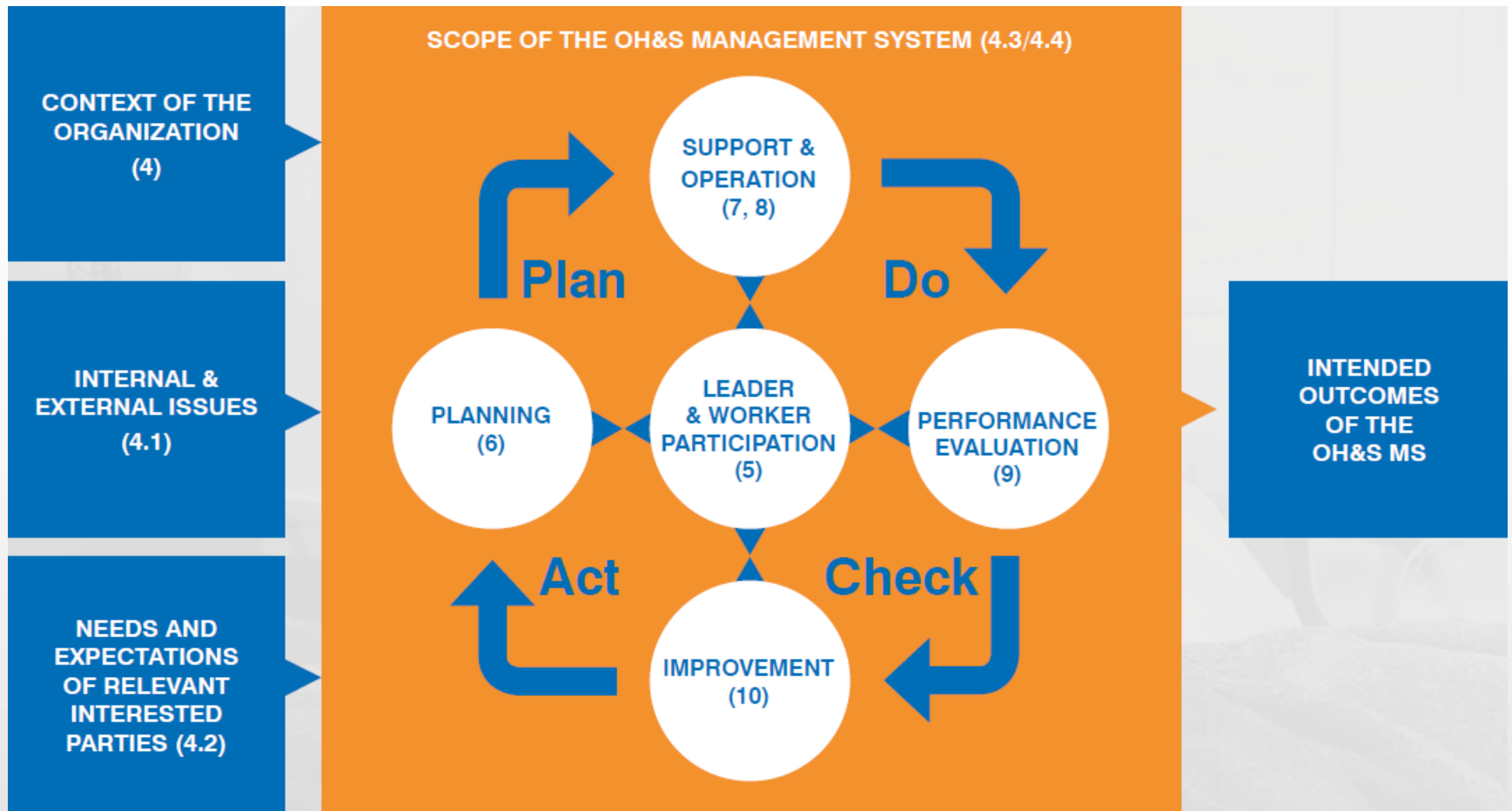AWI – Approved new Work Item

Main Characteristics of ISO 45001
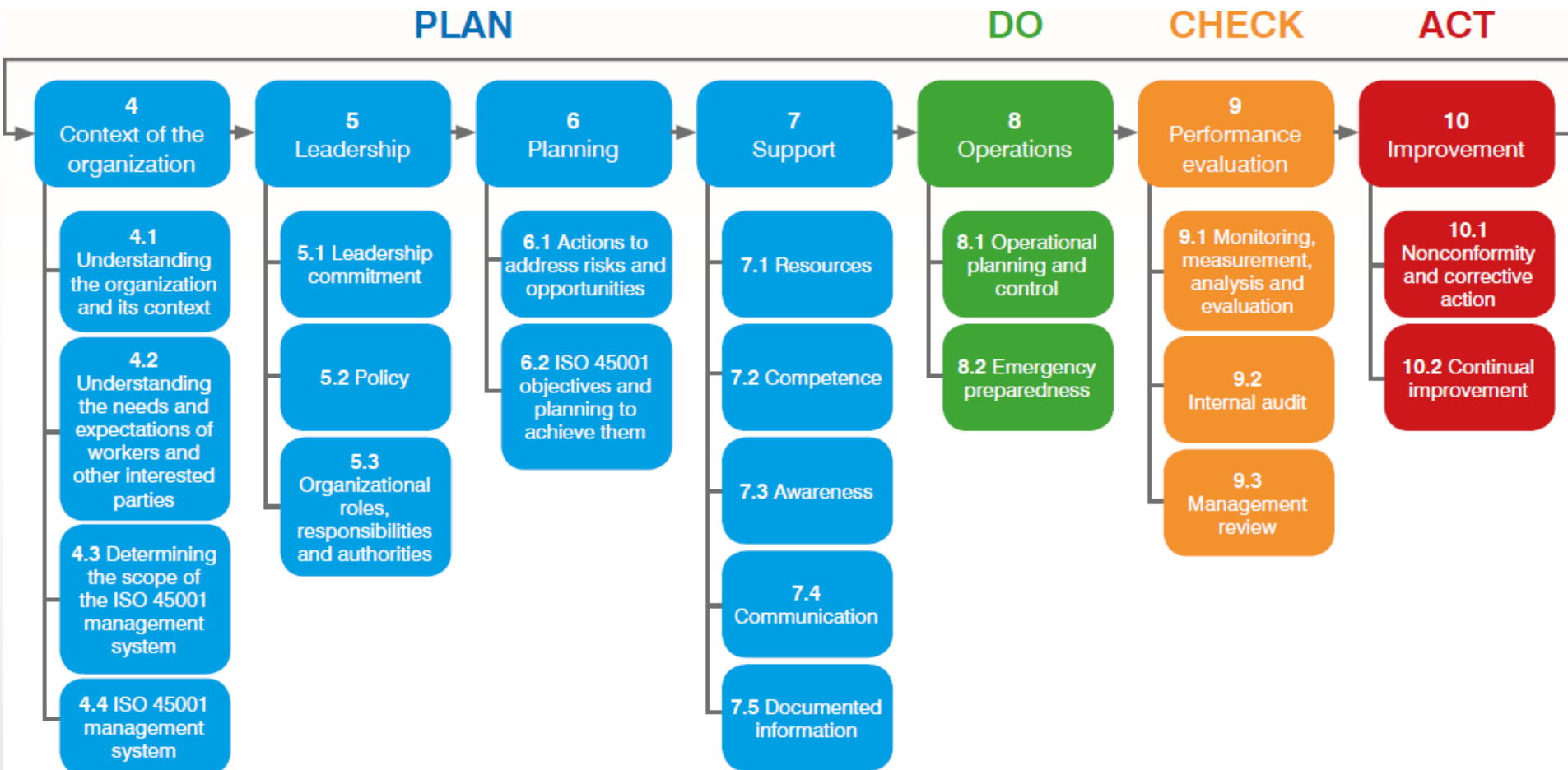
- Plan-Do-Check-Act (PDCA) cycle

Plan:
Understand the context of the organization including OH&S risk and opportunities. Establish OH&S objectives, processes and resources required to deliver results in accordance with the organizations OH&S Policy.

Do:
Implement the processes as planned to including worker participation, hazard identification and emergency preparedness.

Act:
Take actions to continually improve to including findings of incidents, addressing non-conformance and audit findings.

Check:
Monitor, measure and evaluate OH&S activities and processes.

Main Characteristics of ISO 45001 (cont.)

- Plan-Do-Check-Act (PDCA) cycle

SCOPE OF THE OH&S MANAGEMENT SYSTEM (4.3/4.4)

CONTEXT OF THE ORGANIZATION (4)

INTERNAL & EXTERNAL ISSUES (4.1)

NEEDS AND EXPECTATIONS OF RELEVANT INTERESTED PARTIES (4.2)

SUPPORT & OPERATION (7, 8)

PLANNING (6)

LEADER & WORKER PARTICIPATION (5)

PERFORMANCE EVALUATION (9)

IMPROVEMENT (10)

Plan — Do — Check — Act

INTENDED OUTCOMES OF THE OH&S MS

Main Characteristics of ISO 45001 (cont.)

Main Characteristics of ISO 45001 (cont.)

- 4.1 Understanding of the organization and context based on internal and external issues:
  - External issues
    - Cultural, social, political, legal, financial, technological, economic and natural surroundings including the environment in which the organization operates
    - Who the competitors are and any contractors, subcontractors, suppliers, partners and providers
    - National and international law
    - Industry drivers and trends which have influence on the organization
    - The organization products and services and their influence on occupational health and safety
  - Internal issues
    - Governance, organizational structure, roles and accountabilities
    - Policies, objectives and the strategies in place to achieve them
    - Resources (including human), knowledge and competence
    - OH&S culture within the organization and the relationship with workers
    - Process for the introduction of new products, materials, services, tools, software, premises and equipment
    - Working conditions

Main Characteristics of ISO 45001 (cont.)

● 4.2 Understanding the needs and expectations of workers and other interested parties

○ Interested parties can be documented in the form of a map:

Main Characteristics of ISO 45001 (cont.)

- 4.3 Determining the scope of the OH&S management system
  - From the context information gathered in 4.1 and understanding of needs and expectations of workers and interested parties in 4.2 the 'scope' can be developed
  - The Scope sets out the areas of the business that are going to be managed in the OH&S Management System
- 4.4 OH&S management system
  - From the information gathered in 4.1, 4.2 and 4.3 the standard requires the design and integration of processes within the management system to satisfy the requirements of ISO 45001
  - This may include such processes as design and development, procurement, marketing, and manufacturing

Practitioners need to:

- Understand the requirements of ISO 45001

- Identify and address any gaps in knowledge

- Raise awareness within business

- Secure a commitment to the standard

- Upskill stakeholders
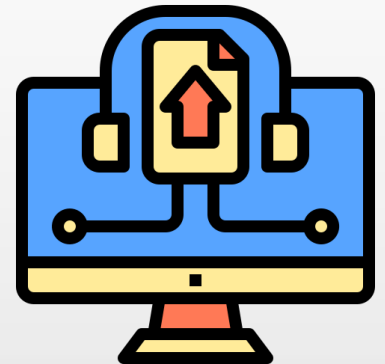
Do you have any questions or comments?

Thank you
for your attention !

In this presentation:
• Some icons were downloaded from flaticon.com and iconscout.com