

# **Continuous Education in the field of Standardisation for Sustainable Development**

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# Sustainable Development Goals and Standardization (I)

- \* In 2015, the UN set an ambitious 15-year plan to address some of the most pressing issues faced by the world
- \* **Economic, environmental and societal dimensions** of the sustainable development are all directly addressed by ISO standards.
- \* Organizations and companies looking to contribute to the SDGs find that International Standards provide effective tools to help them rise to the challenge.



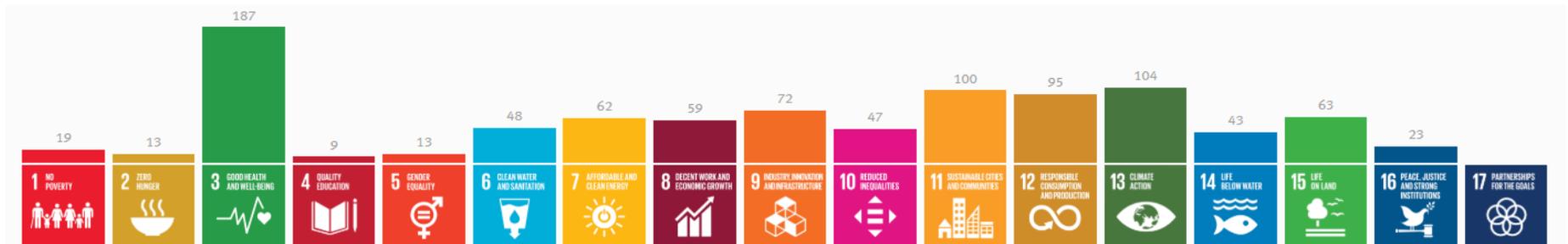
# ISO standards

\* **ISO standards** support the three pillars of sustainable development:

- \* **Economic** – by facilitating international trade, improving a country's national quality infrastructure, supporting sustainable business practices.
- \* **Social** – by helping countries and communities to improve the health and well-being of their citizens, covering all aspects of social welfare, from healthcare systems and related products to social inclusion and accessibility.
- \* **Environmental** – by helping businesses and countries manage their environmental impact, covering environmental management systems, measuring and reducing greenhouse gas emissions and energy consumption, and encouraging responsible consumption.

# Sustainable Development Goals and Standardization (II)

- \* The achievement of **key SDGs** such as:
  - \* clean water and sanitation (SDG6)
  - \* affordable and clean energy (SDG 7)
  - \* decent work and economic growth (SDG8)
  - \* industry, innovation and infrastructure (SDG 9)
  - \* sustainable cities and communities (SDG11)
  - \* responsible consumption and production (SDG12)
  - \* and climate action (SDG13)
- \* demands clear and wise standards.



# Education for standardization and sustainable development education

- \* **In Russia**, education for sustainable development has become an important component of various curricula – from technical to humanitarian, from medical to political.
- \* **At the Higher School of Economics**, sustainable development related courses are offered to all students and mid-career people looking for the enhancement of their professional skills.
- \* **Education for standardization** is not an exclusion: sustainable development related issues are discussed in all training courses devoted to the majority of standards, both national and international.

# HSE Experience in standardization

- \* 2017 - the establishment of an International research and educational center for technical regulation, standardization and metrology.
- \* 20015-2018 - the creation of more than 50 training programs for training and retraining on the standardization of industry professionals.

In 2017-2018 in the Centre more than 300 specialists increased their qualification from the industry.

# Most popular ISO standards

- ISO is an independent, non-governmental membership organization and the world's largest developer of voluntary standards.
- \* ISO has published **more than 22 000 International standards** covering almost all aspects of our life.
- \* Most popular standards include:
  - \* **ISO 9000 Quality management**
  - \* **ISO 14000 Environmental management**
  - \* **ISO 50001 Energy management**
  - \* **ISO 37000 Sustainable development of communities**
  - \* **ISO 26000 Social responsibility**
  - \* **ISO 31000 Risk management**
  - \* **ISO 22000 Food safety management**
  - \* **ISO 27001 Information security management**
  - \* **ISO 45001 Occupational health and safety**

# Management system as one of the key instruments of the sustainability

- \* A management system is **a set of interrelated or interacting elements** that organizations use to formulate policies and objectives and to establish the processes that are needed to ensure that **policies are followed and objectives are achieved**.
- \* These elements include structures, programmes, procedures, practices, plans, rules, roles, responsibilities, relationships, contracts, agreements, documents, records, methods, tools, techniques, technologies, and resources.
- \* Management systems can be developed and implemented in any organization; more over, ISO 37000 series addresses communities and their sustainability.

# Plan- Do –Check – Act Cycle

## Plan:

- \* Establish objectives and draft your plans (analyse your organization's current systems, establish overall objectives, set interim targets for review and develop plans to achieve them).

## Do

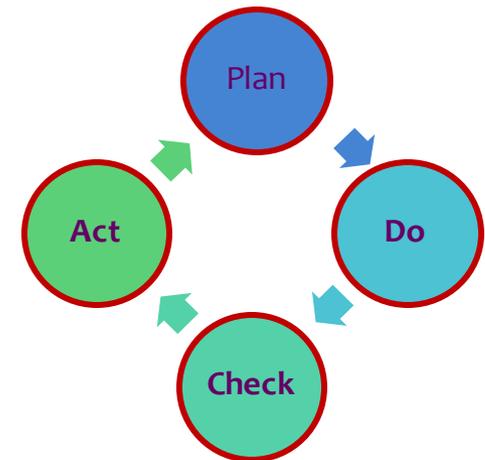
- \* Implement your plans

## Check

- \* Measure and monitor your actual results
- \* against your planned objectives

## Act

- \* Correct and improve your plans to meet and exceed your planned results



# Integrated management systems

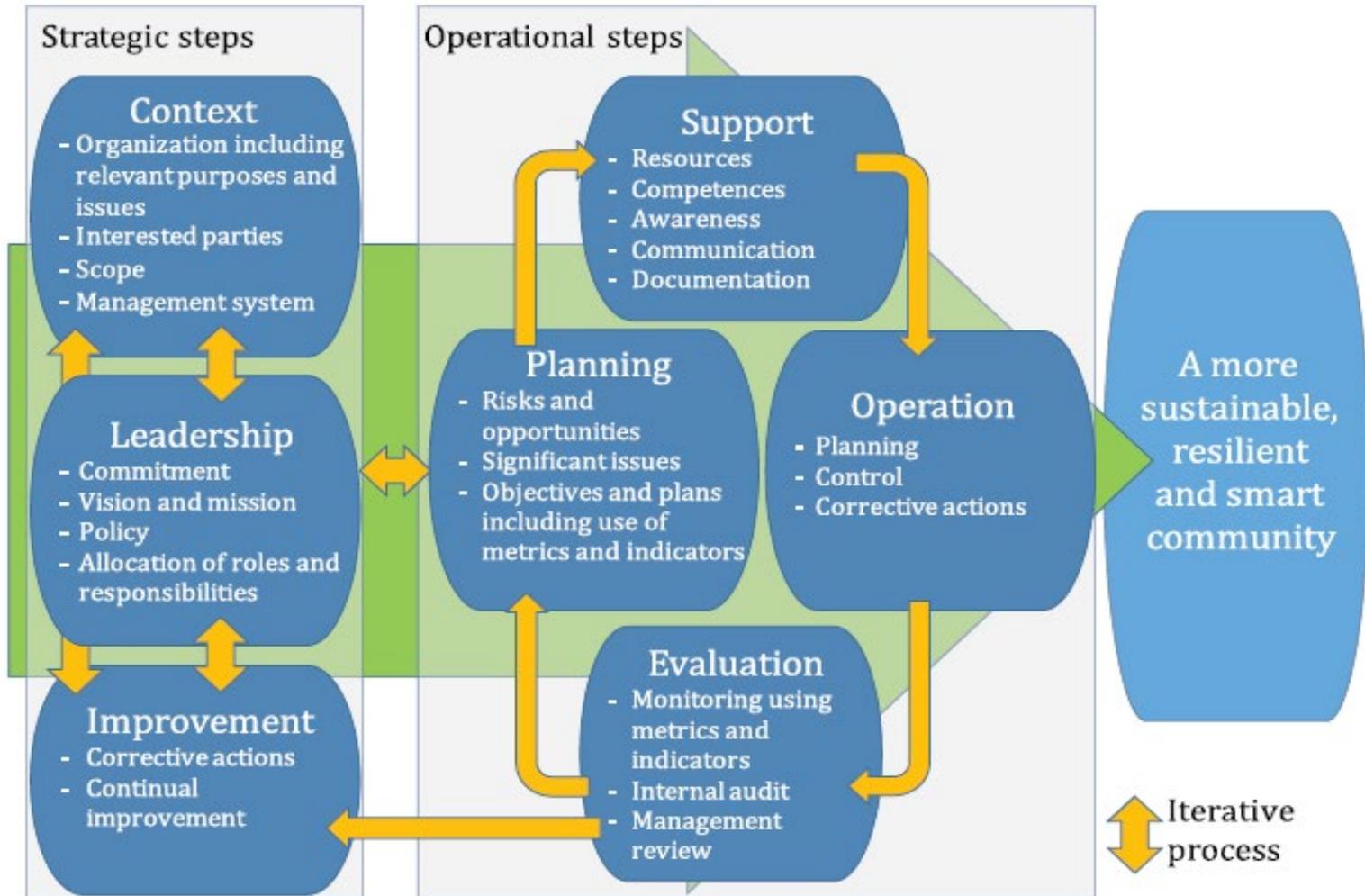
- \* An integrated management system (IMS) combines all related components of a business into one system for easier management and operations.
- \* **Quality, Environmental, Energy and Safety management systems** are often combined and managed as an IMS.
- \* These systems are not separate systems that are later joined together, rather they are integrated with linkages so that similar processes are seamlessly managed and executed without duplication.



# Benefits of integrated management systems

- \* An IMS allows to:
  - \* meet all standard requirements with **one set of policies and procedures**;
  - \* audit more than one system at a time to save money and resources (ISO 19011:2011);
  - \* improve **overall effectiveness and efficiency** by removing the need to duplicate tasks;
  - \* **clearly define roles and responsibilities** and highlight common objectives;
  - \* make it **easier to continually improve** all management systems
- \* There is no ISO standard on IMS, but there are various PCs.

# PDCA cycle in ISO 37101



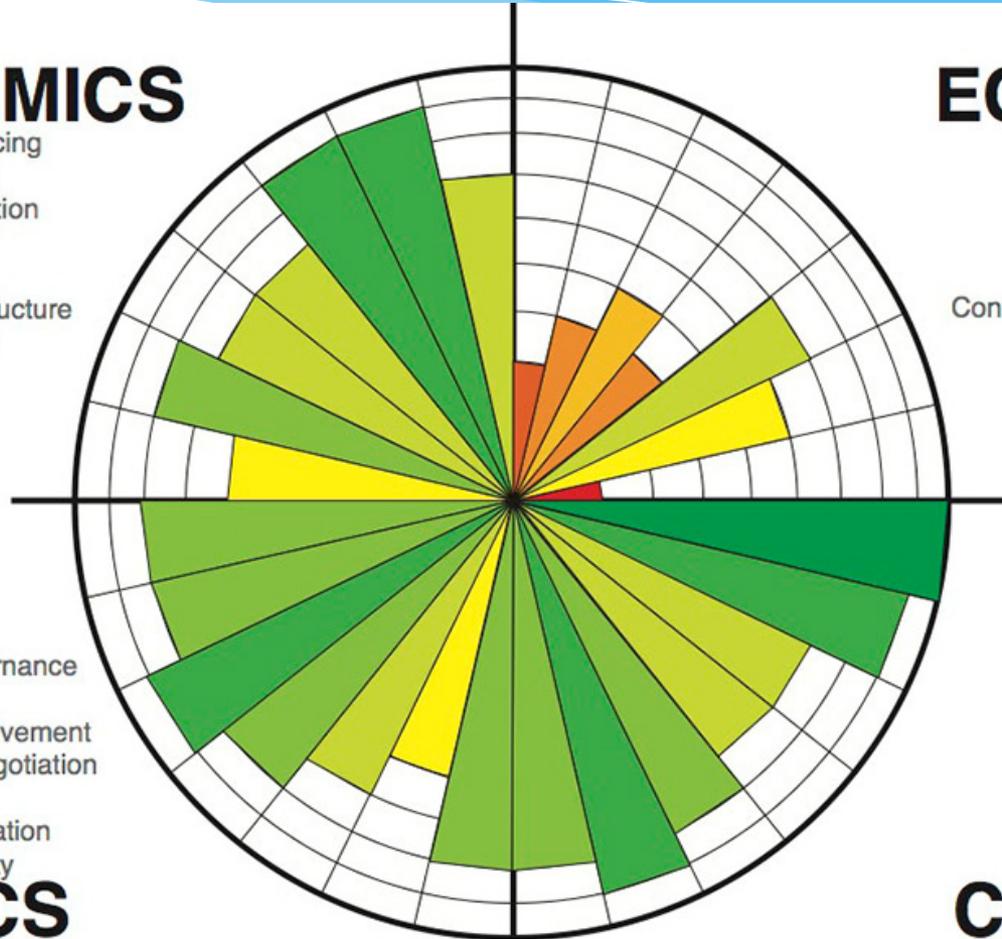
# Circles of sustainability: assessment criteria

## ECONOMICS

Production & Resourcing  
Exchange & Transfer  
Accounting & Regulation  
Consumption & Use  
Labour & Welfare  
Technology & Infrastructure  
Wealth & Distribution

## ECOLOGY

Materials & Energy  
Water & Air  
Flora & Fauna  
Habitat & Food  
Place & Space  
Constructions & Settlements  
Emission & Waste



Organization & Governance  
Law & Justice  
Communication & Movement  
Representation & Negotiation  
Security & Accord  
Dialogue & Reconciliation  
Ethics & Accountability

## POLITICS

Engagement & Identity  
Recreation & Creativity  
Memory & Projection  
Belief & Meaning  
Gender & Generations  
Enquiry & Learning  
Health & Wellbeing

## CULTURE

# Conclusions

- \* **Management Systems Standards have been the focus for training various audiences since the 1990s.**
- \* **Since 2015, standards are seen as a core element of the education for sustainable development.**
- \* **At the Higher School of Economics, standardization training courses are offered to various audiences – from Bachelor level students to the trainees looking for the professional upgrading programmes.**
- \* **Training materials are produced and continually improved to introduce practical examples and to cover new standards and approaches.**

# Thank you!

## Higher School of Economics

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