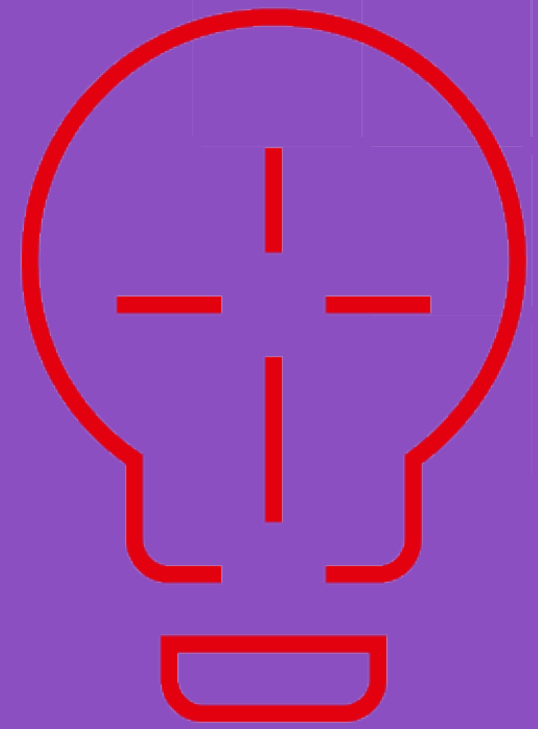
ISO Standardization Foresight Framework. Ideation Workshops

December 2022

Ideation Workshops

ISO's Ideation Workshops are designed to collect ideas from stakeholders for future standardization opportunities. We are seeking to involve a wide range of stakeholders, from both within and outside the ISO community. And especially those particularly attuned to signals of change. The ideation workshops will invite participants to **reflect together on how the trend will evolve in the future and identify emerging areas for future standardization**, drawing on participants' insights and knowledge. **Our ability to reach new and diverse stakeholders will be key to our success in these workshops.**



About this document

This document was realized as preparatory material for the Ideation Workshop on Sustainable Production. It contains high-level information on trends in Sustainable Production, so that participants can start thinking in advance about the questions and topics to be discussed at the workshop.

Reading this material ahead of the workshop is optional, i.e., you can easily participate without having read the material in advance. In the workshop you will be guided through a step-by-step process.

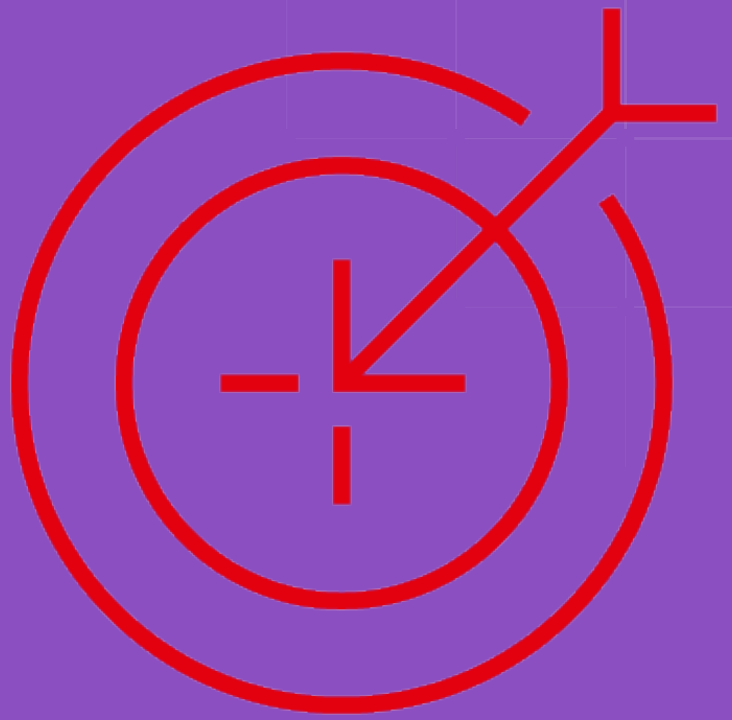
This workshop is taking place in the larger context of the ISO Standardization Foresight Framework, which aims to integrate foresight tools and methodologies into ISO's core processes, making the organization more future orientated.

Activities in the ISO Standardization Foresight Framework are still in a pilot phase and are currently focusing on:

Environmental scanning, i.e., identifying and monitoring changes emerging in the standardization environment by identifying trends from the spheres of **SOCIETY**, **TECHNOLOGY**, **ENVIRONMENT**, **ECONOMY**, **POLITICS**, and **SCIENCE**.

Ideation, i.e., identifying and analyzing emerging needs and future opportunities for standardization.

Across its foresight activities, ISO involves its members and stakeholder as well as relevant experts in order to include a variety of perspectives. More details on ISO's foresight approach are available at https://www.iso.org/foresight.html.



Trend Nudge

“Sustainable production until 2050”

A document developed in preparation for the ISO ideation workshops in December 2022

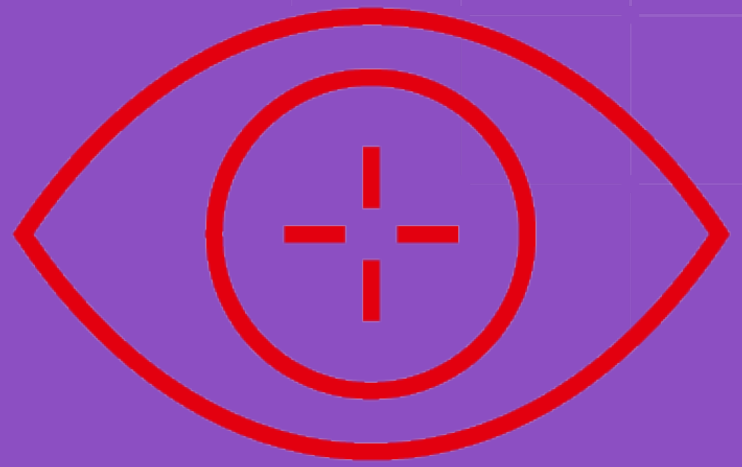
Guiding questions for the workshop

1. How could sustainable production develop between now and 2050?
2. What kind of challenges and opportunities (societal, technological, economic, environmental, or political) could emerge as a result of the rapid development of sustainable production?
3. How can standardization help to address these challenges and seize these opportunities?

Sustainable production

Consumers are more environmentally conscious than ever: 65% globally are willing to pay more for **products and services that are environmentally and socially responsible**. The twin pressures of demand for sustainability from consumers and regulation in accordance with national and international sustainability goals are increasingly leading **businesses to go green**. As a result, they are gradually adopting **circular economy** principles (the minimization of waste and raw material consumption through recycling and other activities), elements of the sharing economy, decarbonization targets, and other strategies.

International Standards can play an important part in the implementation of sustainable production, helping businesses ensure the changes they make will have a real impact for the environment while giving consumers tools, such as **recognizable labels**, to distinguish between genuinely "eco-friendly" claims and greenwashing.



See: Foresight trend report: Changing the nature of consumption, ISO News 2022

Scope and key aspects

- **Going green as an important business strategy**, with more and more companies aiming to redesign their business to be more sustainable
- **Circular Economy**, with lifecycle models increasingly being adopted, e.g., via cradle-to-cradle approaches
- **New business models**, with sharing and peer to peer economic models and regenerative practices becoming increasing important
- **New generation plastics and materials** – as plastics‘ fossil basis and plastic pollution become problematic, alternatives are being developed e.g., based on biomass
- **Smart manufacturing** – as its implementation expands, it will be essential to develop a better understanding of how it can contribute to sustainable development e.g., by enabling reshoring and near-shoring of production

The trend in focus: ***Sustainable production***

‘Sustainable Production’ refers to production processes shifting towards sustainability, in terms of environmental as well as social impacts of production, e.g., by using minimal natural resources, being non-polluting and ensuring fair and safe working conditions.

Selected facts and figures

- A 2015 Nielsen survey found that 66% of consumers globally are willing to pay more for products and services that come from companies committed to positive social and environmental impact, up from 55% in 2014 and 50% in 2013.[1]
- A 2015 BBMG survey, found that 63% of all consumers (global public) are positive influencers and encourage others to buy from environmentally and socially responsible companies.[2]
- 'Going green' has become an important business strategy and increasingly, companies are redesigning their business models to be more environmentally friendly and sustainable. This includes adopting life cycle models such as cradle-to-cradle (circular economy), sharing or peer-to-peer approaches, reducing emissions and creating shorter supply chains.[3,4]
- The IPCC report 2022 warned that the world is set to reach the 1.5℃ level of global warming within the next two decades and only the most drastic cuts in carbon emissions from now would help prevent an environmental disaster.[5]
- According to latest projections, the global population could grow to around 8.5 billion in 2030, 9.7 billion in 2050. The equivalent of almost three planets could be required to provide the natural resources needed to sustain current lifestyles.[6]
- Solid waste–related emissions are anticipated to increase to 2.38 billion tons of CO2-equivalent per year by 2050 if no improvements are made in the sector.[7]

The trend in focus: ***Sustainable production***

References

1. *Social Purpose and Value Creation. The Business returns of social impact, Deloitte 2016*
2. *Beyond the Noise. The Megatrends of Tomorrow's World, Deloitte 2017*
3. *Future Outlook. 100 Global Trends for 2050, UAE Ministry of Cabinet Affairs and the Future 2017*
4. *Global trends 2020. Understanding complexity, Ipsos 2020*
5. *Climate Change 2022: Mitigation of Climate Change, IPCC 2022*
6. *World Population Prospects 2019. Highlights, UN 2019*
7. *What a Waste 2.0. A Global Snapshot of Solid Waste Management to 2050, The World Bank*

Food for thought

What if in 2050…

- a high share of consumers choose products based solely on their sustainability ratings?
- green companies dominate the stock markets?
- cradle-to-cradle or zero waste production is standard practice?
- a general state of global resource scarcity propels new business models?
- the rapid shift towards use of bio-plastics has created competition for agricultural land with food production?

Emerging needs for standardization

- Increasing need for ways to reliably signal the eco-friendliness of products, with standards being able to fill gaps in the market for trustworthy eco-labels.
- Increase in demand for standards products related to corporate social responsibility and environmental, social and corporate governance as companies seek to prove their credibility regarding environmental and social responsibility.
- Increasing use of sustainable raw materials (including 'New generation plastics' and sustainably produced paper and textile products) could also lead to a need for standards for the production of these materials.
- New products such as meat replacements and laboratory-grown meat, as well as food production practices in the agricultural sector, may also be topics for future standardization work.
- Growth in the 3D-printing market allows for what is called 're-shoring' or 'near-shoring' of production – where manufacturing can be performed on demand and much closer to the end user. There may be an impact on international trade, and this could have impacts on the demand for international standards.
- …

The trend in focus: ***Sustainable production***

ISO Technical Committees:

- *ISO/TC 61 Plastics*
- *ISO/TC 207 Environnemental management*
- *ISO/TC 207/SC 3 Environmental labelling*
- *ISO/TC 207/SC 5 Life cycle assessment*
- *ISO/TC 261 Additive manufacturing*
- *ISO/TC 323 Circular economy*
- *ISO/COPOLCO Committee on consumer policy*