Goals of Eco-Labeling in Textiles (Shortly):

Promote environmentally friendly textile production

Encourage sustainable raw material use

Reduce harmful chemical usage

Ensure product safety for consumers

Support fair labor and ethical practices

Eco Labels

Lecture # 5

Increase consumer awareness and informed choices

Boost market demand for eco-friendly products

Eco-labeling is a voluntary method of environmental performance certification and labeling that is practiced around the world. An Ecolabel identifies products or services proven to be environmentally preferable within a specific category. (2020)

Importance of Ecolabels (2020,21,22)

Ecolabels significantly promotes sustainability and environmental protection by providing several important benefits and serving various stakeholders. Here are some key reasons why ecolabels are important:

- a. Consumer Empowerment: Ecolabels empowers consumers with information about the environmental impact of products and services. They allow consumers to make more informed and sustainable choices, aligning their purchasing decisions with their values and ecological concerns.
- b. Market Transformation: Ecolabels can drive market transformation by creating demand for environmentally friendly products and services. When consumers actively seek eco-labeled products, businesses are incentivized to adopt more sustainable practices to meet this demand.
- c. Environmental Protection: Ecolabels encourage companies to reduce their ecological footprint. To obtain and maintain ecolabel certifications, businesses must implement environmentally

responsible practices, such as reducing energy consumption, conserving water, minimizing waste, and using sustainable materials.

- d. Innovation and Research: Ecolabels can stimulate innovation by encouraging companies to develop new technologies and processes that are more environmentally friendly. Businesses often invest in research and development to meet the criteria of eco-labeling programs.
- e. **Transparency and Accountability**: Ecolabels promote transparency in supply chains. They require companies to disclose information about their products' environmental performance, fostering accountability and encouraging ethical sourcing and production practices.
- f. Competitive Advantage: Companies that earn ecolabel certifications can gain a competitive advantage in the marketplace. Ecolabels can distinguish products and services from competitors and attract environmentally conscious consumers, potentially increasing sales and brand loyalty.
- g. Standardization: Eco-labeling programs often establish standardized criteria for sustainability. This helps create a common language and set of benchmarks for environmental performance, making it easier for consumers and businesses to understand and compare products and services.

- h. Global and Local Impact: Ecolabels can have both global and local impacts. Global ecolabels like ENERGY STAR and Fair Trade can influence international markets, while regional or national ecolabels can address specific environmental concerns and priorities.
- i. Government and Regulatory Support: Some governments and regulatory bodies endorse or require using ecolabels to promote sustainable practices and achieve environmental goals. This government support can further amplify the impact of eco-labeling programs.

In summary, ecolabels serve as valuable tools for promoting sustainability, empowering consumers, driving responsible business practices, and contributing to the protection of the environment. Their importance lies in bridging the gap between consumer choices and environmental stewardship while fostering a more sustainable and responsible economy.

Oeko-Tex Standard 100 (2021,22)

OEKO-TEX® STANDARD 100 is a globally standardized, independent testing and certification system for raw, semi-finished, and finished textile products at all processing levels and their accessories.

Oeko-Tex Standard 100 certification provides targeted product stewardship support for companies in the textile chain with humanecological product safety based on a scientific criteria catalogue and neutral laboratory tests. For consumers and purchasers, the STANDARD 100 product label is reliable proof that strict global standards test textile products to protect them from harmful substances.

The concept of the OEKO-TEX® STANDARD 100 tests for harmful substances is based on a modular system. This means that certification is available for every stage of the textile value creation chain, and certificates from prior steps are recognized at subsequent processing stages without further testing.

The STANDARD 100 certificate and label are only issued if all components of an article successfully comply with the stipulated criteria, including not only the outer fabric but also all sewing threads, linings or coatings and prints, as well as accessories such as buttons or zippers (Figure 1).



Figure 1: Components of an article to be tested for Oeko-Tex Standard 100 certification

To attain **Oeko-Tex Standard 100** certification, the fabric has been tested and certified to be free from harmful levels of more than **100** substances known to be harmful to human health.

STANDARD 100 tests for harmful substances are based on the product's intended purpose. Accordingly, STANDARD 100 distinguishes between four product classes: (2021,22)

Product class I:

Textiles and materials for babies and toddlers up to three years old: underwear, rompers, bed linen, bedding, and so on

Product class II:

Textiles and materials, the surface of which mainly comes into direct contact with the skin: underwear, bedding, towels, shirts, blouses, socks, and so on.

Product class III:

Textiles and materials, the surface of which does not come into direct contact with the skin: jackets, coats, outdoor textiles, and so on.

Product class IV:

Furnishing materials for decorative purposes: **Table linen, curtains, upholstery fabrics, etc.**

Benefits of OEKO-Tex certificate.

Obtaining an OEKO-TEX certificate offers several benefits for both textile manufacturers and consumers. Here are some of the key advantages:

For Textile Manufacturers:

Competitive Advantage: An OEKO-TEX certificate provides a competitive edge in the textile industry. It demonstrates a commitment to consumer safety and sustainability, which can attract environmentally conscious consumers and business partners.

Market Access: Many retailers and brands require suppliers to have OEKO-TEX certification to ensure the safety and quality of their products. Having this certification can open doors to new business opportunities and partnerships.

Product Safety: Certification helps manufacturers identify and eliminate harmful substances in their textile products, ensuring they meet strict safety standards. This reduces the risk of product recalls or legal issues due to safety concerns.

Improved Reputation: OEKO-TEX certification enhances a manufacturer's reputation by assuring consumers and stakeholders that their products are safe and environmentally responsible.

Cost Savings: By implementing more sustainable and efficient production processes, manufacturers may reduce waste, energy consumption, and the use of hazardous chemicals, leading to cost savings in the long run.

Supply Chain Transparency: Certification encourages transparency in the supply chain. Manufacturers must document and track the use of chemicals and materials, leading to better traceability and accountability.

Compliance with Regulations: OEKO-TEX certification helps manufacturers comply with global textile safety regulations and environmental protection regulations, reducing the risk of legal non-compliance.

For Consumers:

Consumer Safety: The primary benefit for consumers is the assurance of safety. OEKO-TEX-certified products are tested for harmful substances, reducing the risk of skin irritation, allergies, or other health issues.

Confidence in Purchases: When consumers see the OEKO-TEX label on a product, they can be confident that it has been independently verified for safety and meets strict environmental standards.

Eco-Friendly Choices: OEKO-TEX certification encourages consumers to make more sustainable choices by supporting products that adhere to responsible manufacturing practices and reduce environmental impact.

Transparency: The certification provides transparency about textiles' safety and environmental performance, allowing consumers to align their purchases with their values.

Trustworthy Labeling: OEKO-TEX certification helps combat greenwashing and misleading product claims by providing a trusted label that consumers can rely on.

Peace of Mind: Knowing that the textiles they use or wear meet stringent safety and environmental criteria provides consumers with peace of mind and confidence in their purchases.

In summary, OEKO-TEX certification benefits both textile manufacturers and consumers by promoting product safety, sustainability, transparency, and trust in the textile industry. It aligns with the growing demand for eco-friendly and safe products and encourages responsible production practices.

The EU Ecolabel

The EU Ecolabel helps to identify products and services that have a reduced environmental impact throughout their life cycle, from raw material extraction to production, use, and disposal. Recognized throughout Europe, the EU Ecolabel is a voluntary label promoting environmental excellence that can be trusted.



It is a scheme designed to encourage businesses to market products and services that are kinder to the environment and for European

consumers - including public and private purchasers - to quickly identify them. The EU Ecolabel for Textiles promotes the production and consumption of products with a reduced environmental impact along the life cycle and is awarded only to the best (environmental) performing products in the market. Similarly, the Green Public Procurement (GPP) addresses public authorities seeking environmentally friendly goods and services. The EU Ecolabel and GPP criteria are based on the requirements addressed in the EU Ecolabel Regulation 66/2010 and Communication COM(2008) 400 "Public Procurement for a Better Environment." The criteria will be defined based on the environmental information derived from Life Cycle Assessment and product-oriented Environmental performance assessment studies. Several environmental, safety, technical, and functional aspects will be considered. Moreover, during the EU Ecolabel and GPP criteria development, continuous wide consultation is foreseen with experts and stakeholders of manufacturers, the supply chain industry, consumer organizations, and NGOs.

EU Flower

This European Ecolabel encourages businesses to market products and services that benefit the environment. The Flower symbolizes the European Ecolabel. The European Ecolabel, the only sign of environmental quality certified by an independent and valid organization throughout Europe, presents a unique opportunity to satisfy the customer's expectations.

EU flower applies to all textile products, including clothing and accessories, fibers, yarns, fabrics, and interior textiles, except wall and floor coverings. EU Flower has detailed criteria for all the products to be tested at various stages of textile manufacturing.



Other Eco-labels are:

Blue Angel

The Blue Angel was initiated by the German government and awarded by an independent Jury to environmentally friendlier products than others serving the same use. Each label specifies that the product or service focuses on one of four protection goals: health, climate, water, and resources.



The compostability mark for European Bioplastic

Enables compostable products to be identified by a unique mark and channeled to recover their constituent materials in specially developed processes. The Compostability Mark thus conveys product information to waste-disposal plant operators and product image to consumers.



Coop Naturaline: Switzerland

It is dedicated to textiles and natural cosmetics made from cotton by controlled biological cultivation according to the guidelines of BIO Suisse or the European Union. It covers the entire textile chain and undertakes additional pollution testing by external labs and Coop quality safety.



Global Organic Textile Standard (GOTS)

The Global Organic Textile Standard (GOTS) was developed to unify the various existing standards and draft standards in the field of eco-textile processing and to define worldwide recognized requirements that ensure the organic status of textiles, from harvesting of the raw materials through environmentally and socially responsible manufacturing up to labeling, to provide a credible assurance to the end consumer. Processors and manufacturers shall be able to supply organic fabrics and garments with one certification accepted in all major selling markets. The Basic Features are:

- GOTS requires the use of certified organic fibers.
- GOTS provides both demanding environmental and social criteria
- GOTS criteria apply to all processing stages
- GOTS certification must be based on independent on-site inspections



Green Mark

<u>Green Mark promotes recycling, pollution reduction, and resource</u> conservation.



GUT

GUT enhances environmental friendliness through the entire lifecycle of carpets, from production to installation and from usage to recycling.



Made in Green

AITEX has created a green seal for overall quality. Made in Green is a symbol for all those who provide or are seeking Textile products manufactured with the guarantee that they are free from substances harmful to the environment and health.



Nordic Eco label or "Swan"

Swan demonstrates that a product is an excellent environmental choice. The "Swan" symbol, known in Nordic countries (i.e., **Sweden, Norway, Denmark, Finland, and Iceland**), is available for 65 product groups. The Swan checks that products fulfil specific criteria using samples from independent laboratories, certificates, and control visits.



NSF/ANSI 140 Sustainability Assessment for Carpet

This standard for carpet includes a rating system with established performance requirements and quantifiable metrics throughout the supply chain for public health and environment; energy and energy efficiency; bio-based, recycled content materials; environmentally preferable materials; manufacturing; and reclamation and end-of-life management.



NSF Sustainability Certified Product

The National Sanitation Foundation (NSF) Sustainability Certified mark is available to products that meet conformity assessment to an NSF/ANSI or other national or international sustainable product standards. Use of the NSF Sustainability Certified Mark is granted once certification has been completed through product evaluation, conformity assessment against standards and protocols, and production systems review.



Oeko-Tex Standard 1000

To complement the product-related Oeko-Tex Standard 100, the Oeko-Tex Standard 1000 is a testing, auditing, and certification system for environmentally friendly production sites throughout the textile processing chain.



Soil Association Organic Standard

It is an organic certification for farmers, growers, food processors and packers, retailers, caterers, textile producers, health and beauty manufacturers, and importers in the UK and internationally.



Comparison of OEKO-TEX Standard 100 and OEKO-TEX Standard 1000

The OEKO-TEX Standard 100 and OEKO-TEX Standard 1000 are both certification systems established by the International Association for Research and Testing in the Field of Textile and Leather Ecology (OEKO-TEX Association), but they have different focuses and purposes. Here are the key differences between the two:

OEKO-TEX Standard 100:

Focus: The OEKO-TEX Standard 100 primarily focuses on the safety of individual textile products, ensuring that they meet strict criteria for human ecological safety.

Certification Scope: This certification applies to individual textile products, including clothing, bedding, fabrics, and other textile articles.

Product Classes: The OEKO-TEX Standard 100 classifies products into Class I, Class II, Class III, and Class IV based on their level of contact with the skin. It sets specific criteria and limits for harmful substances in these product classes.

Consumer Safety: It is designed to protect consumers from harmful substances in textiles, especially those that come into direct and prolonged contact with the skin, such as baby clothing and bedding.

Stringent Testing: Products certified under this standard undergo rigorous testing for various harmful substances, including heavy metals, pesticides, and different chemicals.

Labeling: Products that meet the criteria of the OEKO-TEX Standard 100 can carry the OEKO-TEX label to indicate that they have been tested and certified as safe.

OEKO-TEX Standard 1000:

Focus: The OEKO-TEX Standard 1000 is centered on environmental sustainability and responsible production practices within the textile industry.

Certification Scope: This certification applies to textile production facilities (e.g., textile mills, dyeing and finishing plants) rather than individual products.

Environmental Criteria: The OEKO-TEX Standard 1000 sets criteria related to environmental performance, including waste management, water, and energy consumption, and the use of hazardous chemicals in textile production processes.

Sustainable Practices: It encourages textile manufacturers to adopt ecofriendly and socially responsible practices throughout their production processes.

Compliance Verification: Facilities seeking OEKO-TEX Standard 1000 certification must undergo an audit to ensure that they meet the environmental and social criteria outlined in the standard.

Sustainability Label: Facilities that meet the criteria can display the OEKO-TEX Standard 1000 label to demonstrate their commitment to sustainable and responsible textile production.

In summary, the main difference between OEKO-TEX Standard 100 and OEKO-TEX Standard 1000 is their focus and scope. OEKO-TEX Standard 100 is concerned with certifying individual textile products for their safety concerning harmful substances, while OEKO-TEX Standard 1000 is focused on certifying textile production facilities for their environmentally and socially responsible practices. Both standards contribute to the overall goal of safer and more sustainable textiles, but they operate at different stages of the textile supply chain.