Pilot course on “Environmental labelling in circular economy”
Poland, Rzeszów 04.02.2021

ENERGY STAR®

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supported by Visegrad Fund

The project is co-financed by the Governments of Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe.

History and development of the program

- The ENERGY STAR project is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy.
- This project was established in 1992 by EPA, which reports directly to the US government.
- The ENERGY STAR certification mark is a blue square with a white outline of a star and the inscription energy star and is the property of the company - it is certified.
- Since its inception, the program has been run as a voluntary program for the identification and promotion of low-energy products and was originally awarded only to computers and printers.

- In 2010, the US Government Accountability Agency (GAO) reviewed the certification process for ENERGY STAR-labeled products and found inconsistencies in the certification process.
- certification requirements in 2011 were tightened by EPA by adding conditions for testing in accredited bodies and listed certification bodies.
- In the field of lighting, ENERGY STAR is awarded to light bulbs that meet strict criteria of quality, efficiency and durability.
- In 2020, Energystar.gov released an updated guide to verifying ENERGY STAR certificates.
- In 2016, 1,881 tests were performed on products that applied for the ENERGY STAR label, with a 95% overall compliance rate.
- Since 2017, 23 independent certification facilities and 255 laboratories have been recognized under the ENERGY STAR certification program.
- The use of the ENERGY STAR label in the EU is the essence of the EU-US ENERGY STAR agreement signed in 2001. This agreement lasted until 20.08.2018. The program is implemented by Council Decision 2006/1005 / EC7 and Regulation (EC) No 106/2008 on a Community energy-efficiency labeling program for office equipment labels.

Requirements and methodology of impact assessment

- EPA is constantly reviewing and innovating the requirements and methodology for assessing the impact of individual ENERGY STAR products.
- Eligibility criteria for imaging equipment are governed by the International Organization for Standardization, in particular ISO 2163
- The ENERGY STAR label has an impact on consumers because the products they obtain provide energy savings without compromising performance.

➢Green Public Production Criteria (GPP) for imaging equipment

The main and complex criteria are the same	
Subject	**Technical specifications**
➢ Purchase of energy efficient display equipment with reduced environmental impact	➢ Duplex ➢ Multiple images on one sheet of paper ➢ Energy efficiency in use ➢ Instructions for use for ecological performance management ➢ Product life and warranty ➢ Resource efficiency for cartridges: A design solution for reusing toner and / or ink cartridges
ENVIRONMENTAL MARKING CRITERIA	
Main criteria	**Complex criteria**
Higher energy efficiency in use mode ➢ Points will be awarded for each 5% reduction in energy consumption compared to the energy consumption set out in the technical specifications for the mode of use, measured according to the Imaging Power Test Method, Version 2.0 - May 2012 final, or equivalent. methods.	**Higher energy efficiency in use mode** ➢ Points will be awarded for each 5% reduction in energy consumption compared to the energy consumption set out in the technical specifications for the mode of use, measured according to the Imaging Power Test Method, Version 2.0 - May 2012 final, or equivalent. methods.
	Duplex ➢ Points are awarded to display devices equipped with an automatic duplex / duplex unit (duplex unit). ➢ The duplex and / or copy function is set as the default function in the original manufacturer's software.
Standby energy efficiency ➢ Points are awarded according to the power consumption of the equipment in standby mode when connected to the network to which the equipment is switched by means of a power management function or a similar function. The lower the power consumption, the more points will be awarded. ➢ Power consumption must be measured according to the test method for determining power consumption for display devices, version 2.0 - May 2012 final, or equivalent method.	**Standby energy efficiency** ➢ Points are awarded according to the power consumption of the equipment in standby mode when connected to the network to which the equipment is switched by means of a power management function or a similar function. The lower the power consumption, the more points will be awarded. ➢ Power consumption must be measured according to the test method for determining power consumption for display devices, version 2.0 - May 2012 final, or equivalent method.

Benefits and costs associated with participating in the program

- To date, more than 1.5 billion ENERGY STAR products have been sold.
- More than 2,500 builders have built more than 360,000 ENERGY STAR homes.
- EPA's energy performance rating system has been used to evaluate more than 21,000 buildings; 20% of office buildings, 13% of schools, 21% of supermarkets, 34% of hospitals, 9% of hotels were compared.
- EPA-certified products have helped save 430 billion kWh of electricity and reduce greenhouse gas emissions by 330 billion tons.
- According to a 2019 report published on the EnergyStar website on energy efficiency, companies found that $ 8 billion had been invested in energy efficiency programs in 2018.
- Households that opt for ENERGY STAR certification will save more than $ 500 in energy.
- In 2019, more than 3,000 products were awarded from more than 180 manufacturers in the United States
- The ENERGY STAR in 2019 was awarded through the EPA through 20 independent certification bodies and more than 500 laboratories that, at the request of the EPA, tested 2,000 products directly in retail stores, of which 126 products failed.

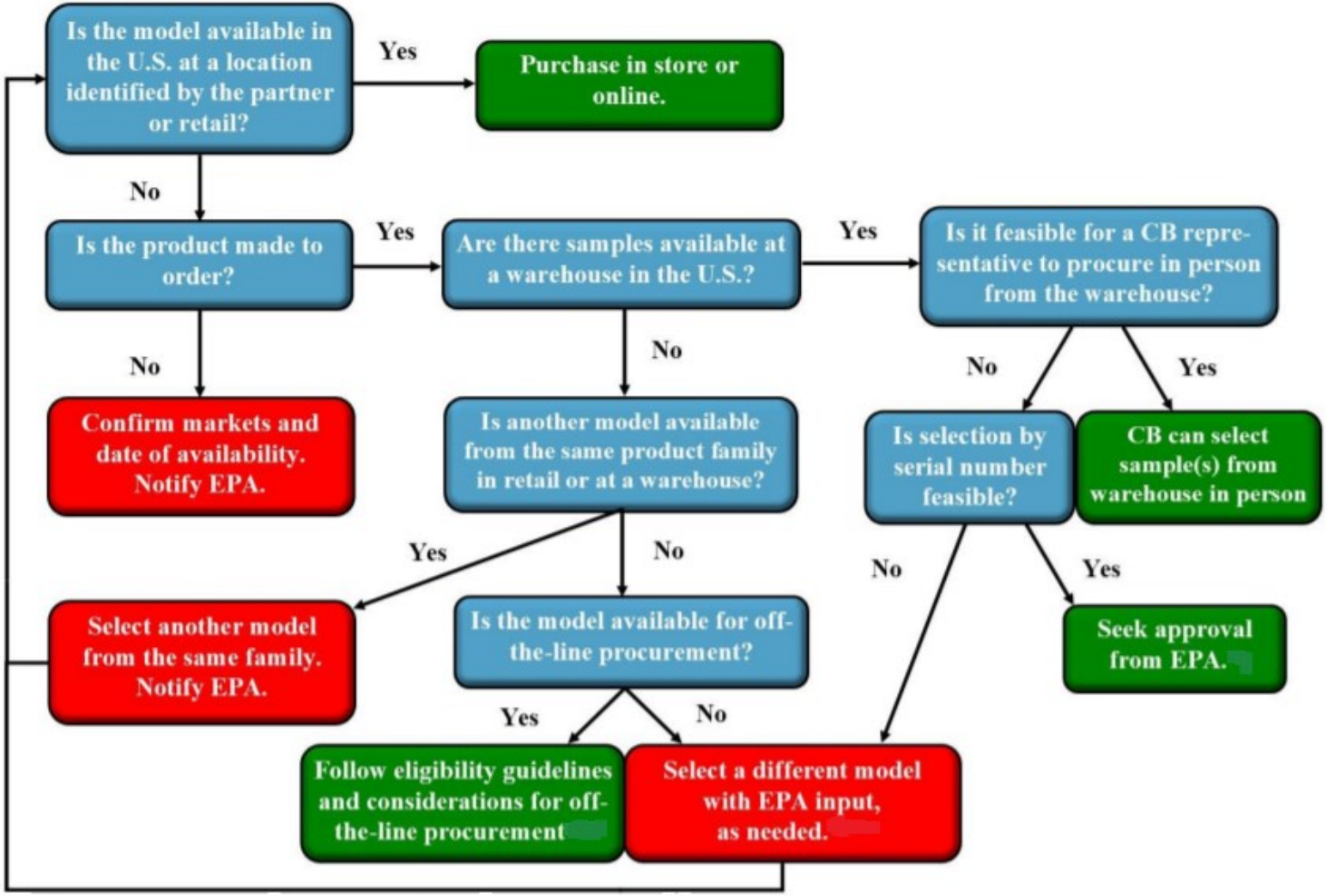
Case study

- To obtain an ENERGY STAR label and successfully certify products, the product must go through the procedure. The basis is that each product must meet specified criteria that are specific to each product group and are listed on the ENERGY STAR Web site.
- For clarity, it is possible to generalize these steps to the following points:

1. the manufacturer applies for certification of his products at website of ENERGY STAR
2. products are shipped for testing to specialized laboratories designated by the EPA as acceptable laboratories.
3. laboratories, as an independent third party, will receive a basic product data file with the name, which contains all the basic product data, the testing laboratory as well as information before and after the measurement.
4. the results are then compared to the requirements of the ENERGY STAR program
5. a decision is made whether or not to grant a blue label.

- This procedure must comply with all companies interested in the ENERGY STAR label.

- Procurement Decision Tree Model to verification from standard operating procedure form certification and verification document.



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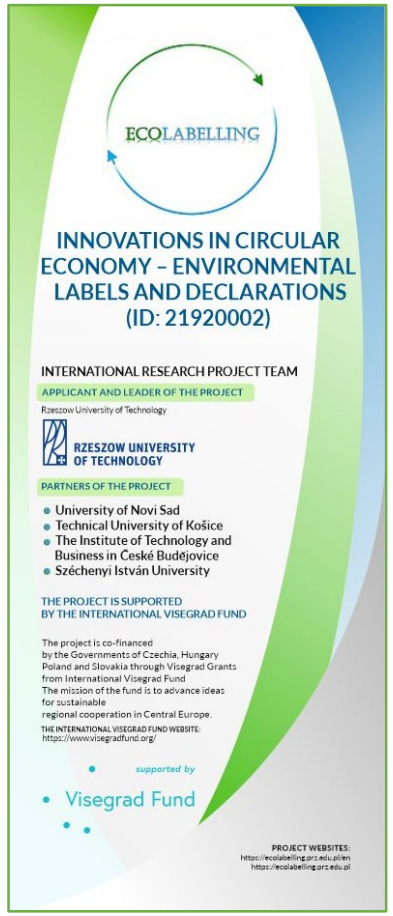
Thank you for attention



Project website: https://ecolabelling.prz.edu.pl/en/
The International Visegrad Fund website: https://www.visegradfund.org/

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ECOLABELLING project
Innovations in circular economy – environmental labels and declarations

(Visegrad+ Grant No. 21920002)