



E-SPACE

Eco-Schools Project
Advancing Circular Economy



HAND PRINT
Action Towards
Sustainability

Increase your Handprint!
Decrease your Footprint!



Sponsored by



E-SPACE: Eco-Schools Project Advancing Circular Economy

Uvajanje in spodbujanje krožnega gospodarstva



Dan okoljskega dolga

= dan v letu, ko začne človeštvo porabljati več naravnih virov, kot jih Zemlja lahko obnovi v tem letu

→ v zadnjih 20 letih se je premaknil za dva meseca

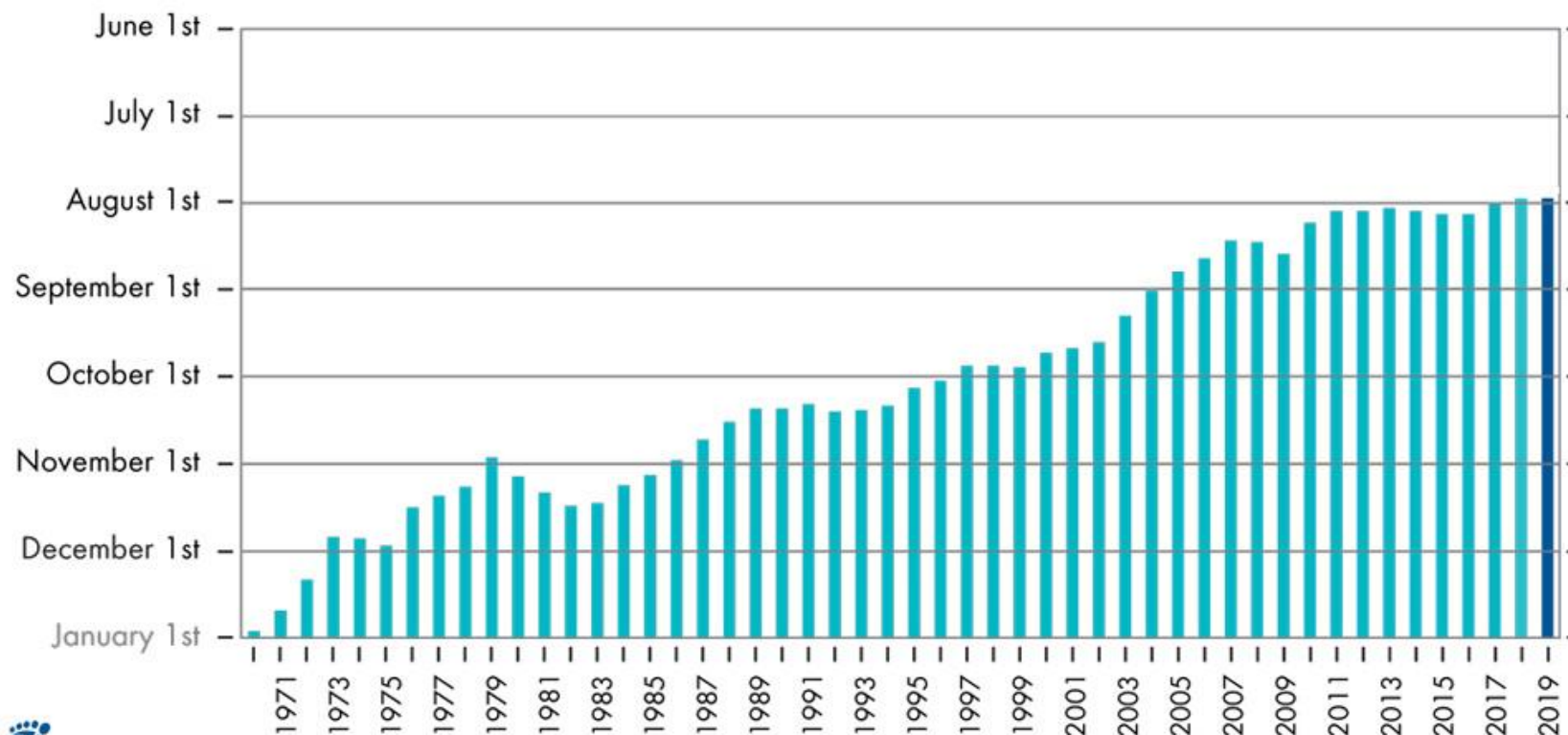


1 Earth

Earth Overshoot Day
1970-2019



1.75 Earths



Dan okoljskega dolga: datumi

Leto	Slovenija	EU	Svet
2017	13. maj		1. avgust
2018	11. maj		2. avgust
2019	27. april	10. maj	29. julij

How many Earths do we need if the world's population lived like...



Source: Global Footprint Network National Footprint Accounts 2019

Znanje in ozaveščanje za pozitivne spremembe in akcijo



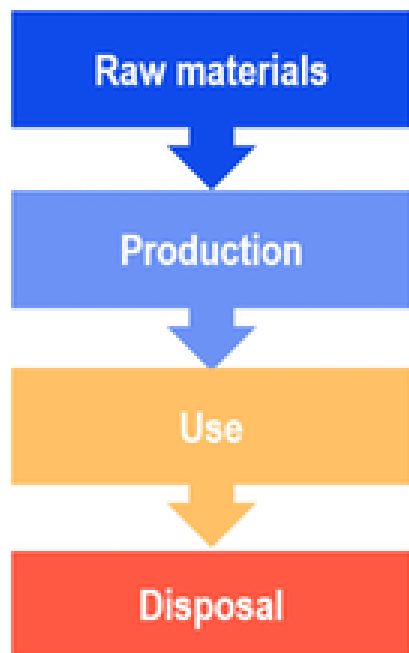
HAND PRINT

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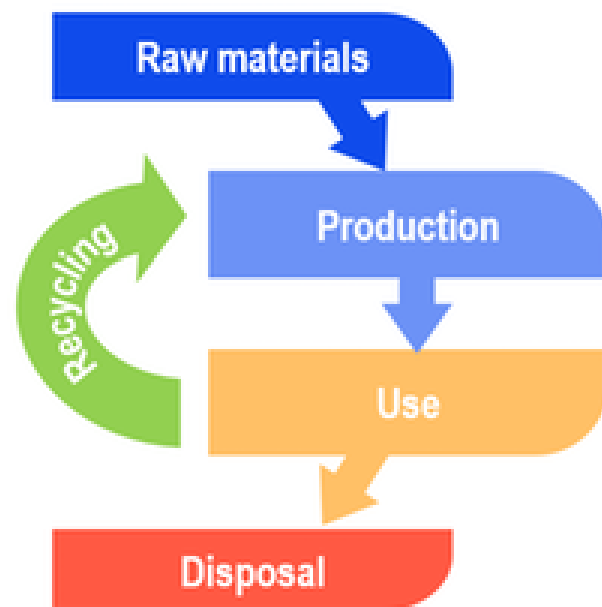
- Aktivnosti, ki zmanjšujejo porabo/potrošnjo.
- Aktivnosti, ki povečujejo odpornost naravnih sistemov in virov.
- Aktivnosti, ki minimalizirajo nastajanje odpadkov.
- Podpiranje trajnostnih izdelkov in storitev.
- Povečanje zavedanja o aktivnostih, ki podpirajo trajnost.

Krožno gospodarstvo

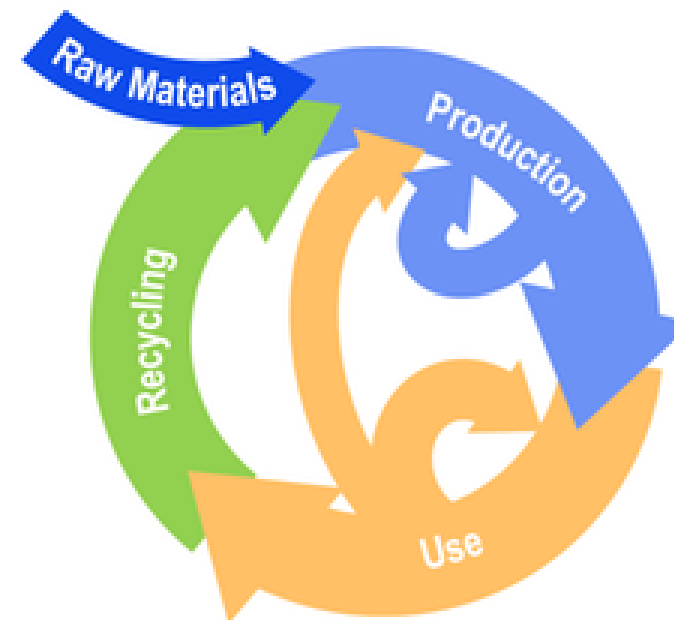
Linear economy



Recycling economy



Circular economy



E-SPACE: krožno gospodarstvo v Ekošoli



- **Pilotni projekt** na globalni ravni FEE
- Dve državi:
Slovenija in Latvija
- Trajanje:
oktober 2019–november 2020
- Starostna skupina:
6.–9. razred OŠ
srednje šole

Glavne vsebine



- Papir / kartonska embalaža za mleko in sokove (KEMS)
- Plastika
- Tekstil
- Električna in elektronska oprema
- Hrana

Sklopi aktivnosti

Učitelji, mentorji

- Zunanja aktivnost
- Zbiranje KEMS
- Priprava učne ure
- Izvedba učne ure
- Analiza LCA

Učenci, dijaki

- Video o krožnem gospodarstvu v vsakdanjem življenju
- Izziv: izdelki iz odpadnih materialov
- Analiza LCA
- Ekokviz
- Ozaveščevalna kampanja

Šole

- Izračun ohranitve dreves z uporabo recikliranega papirja na splošno (lahko posebej za higienski papir EcoNatural)
- Načrt krožnega gospodarstva za šolo
- Dogodek v povezavi s KG (obrok, repair cafe, dogodek na šoli)
- Ozaveščevalna kampanja na ravni šole

Materiali

• Priročnik za mentorje (prevod v slovenščino):

- Definicije in sheme
- Primeri učnih ur (predlogi)
- Predloga za analizo LCA

• Plakat

• Vprašalniki (pred in po izvajanju aktivnosti) za:

- mentorje
- za učence, dijake



Worksheet
Product Development and the Environment Activity - Life Cycle Assessment Worksheet

Product that you are assessing: _____

Inventory analysis

Step 1 Materials Acquisition/Extraction: Each material in a product has its own life cycle of use and waste. List all the materials (metal, plastic, paper etc.) in your product. One point is assigned for each of the material used in the product.

Type of Raw Materials (List All)	Points (1 point per material)
Total Points	

Step 2 Materials Processing: Most of the objects we use daily must be processed before they are in a useful form for manufacturing. Again, list the materials, (metals and plastics) in your product. Assign one point for each material.

Metals and Plastics in the product (List All)	Points (1 point per material)
Total Points	

Step 3 Manufacturer: All of the processed materials in your product must be formed and shaped into (plastic lever). List the different parts and assign one point for each part

Parts of the product (List All)	Points (1 point per material)
Total Points	



Coffee Waste Recycling

In the UK, 55 million cups of coffee are consumed each day, leading to over half a million tonnes of coffee grounds being generated and wasted. This waste generally goes to landfills after use. A startup in Glasgow called Revive Eco strives to radically change mindsets, and show that materials can still possess huge value, even after being used for their primary purpose. The coffee grounds collected from different cafes and restaurants are processed at a common facility to extract natural oils and soil enhancing products. Revive Eco aims to create local solutions to solve global problems. Manufacturing products and providing services with a commitment to create a positive environmental impact.

How It Works



Each year, over two billion t-shirts are sold worldwide and 520 million pairs of jeans are sold in the U.S. With the production of one t-shirt using up 700 gallons of water and one pair of jeans using up 1,500 gallons, it is easy to understand why the call to curb textile waste is urgent.

A Levi's plant in El Paso, TX uses 15% of the city's water supply. In a study by Levi's, researchers found that manufacturing one pair of jeans requires 400 mega joules of energy, and expels 71 pounds of carbon dioxide. The amount of carbon dioxide emitted to produce one pair of

4. Environmental Impact of Water
Pumping 17,000 ft³ (480 m³) of water a height of 330 ft (100 m) requires approximately 200

jeans is equivalent to driving 78 miles.

The cotton industry uses 25% of the world's pesticides and herbicides.

A fading agent called potassium permanganate, starch, and indigo dye waste are often released into the same canals used to irrigate local farms. These chemicals sterilize soil and kill seedlings.

The Environmental Protection Agency estimates that the average American throws away about 70 pounds of clothes a year, most of which are destined to rot away in landfills.

Hot water is used for dishwashing, clothes washing,

A better phone is a phone made better



6. Ugly Food - A Waste that Does Not Make Sense

Over the last 100 years, the agricultural system has been disrupted by several technologies that have transformed our food supply completely. Whereas food supply used to be from local farms that served local markets, it has become a vast global network of farmers, agribusinesses and stakeholders. The current food system strives to make all food available at all times and in all places. The drive for efficiency, higher yields and lower costs has led to several unforeseen issues, including of waste. Global food waste is a far-reaching problem with tremendous financial, ethical and environmental costs. The causes range from bumpy roads to overly-selective customers. An estimated 1.3 billion tonnes of food is wasted globally each year, one third of all food produced for human consumption, according to the Food and Agriculture Organization (FAO) of the United Nations. The amount of food lost or wasted costs 2.6 trillion USD annually and is more than enough to feed all the 85 million hungry people in the world - four times over. At the same time we are worried that we don't have enough food for the growing population.

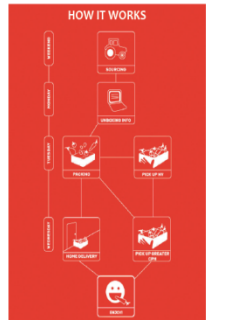
To address the problem, various enterprises are mushrooming globally. Misfit in USA and GRIM in Denmark are two such enterprises. They often work with dedicated farms and wholesalers. The advantage of such services or intervention saves money as they source high quality fruits and vegetables that stores can't or won't sell, stop food waste going to landfill simply because they don't look good and help farms find a market for the things they grow.

"Food waste" and "food loss" are commonly used terms but don't quite mean the same thing.
1. "Food loss" typically refers to food lost in earlier stages of production such as harvest, storage and transportation.
2. "Food waste" refers to items that are fit for human consumption but thrown away, often at supermarkets or by consumers.
3. Agriculture emits 35% of all greenhouse gas (GHG) emissions.

(Food and Agriculture Organization of the United Nations (FAO), 2018).

Watch the video

Developed and adapted from the information available on <https://www.misfit.com/en/why-better-food>.



Izobraževanje

- Delavnice
- Povezava z učnim načrtom (OŠ)
- **Primer:** Krožno gospodarstvo v lokalni skupnosti v Novem mestu

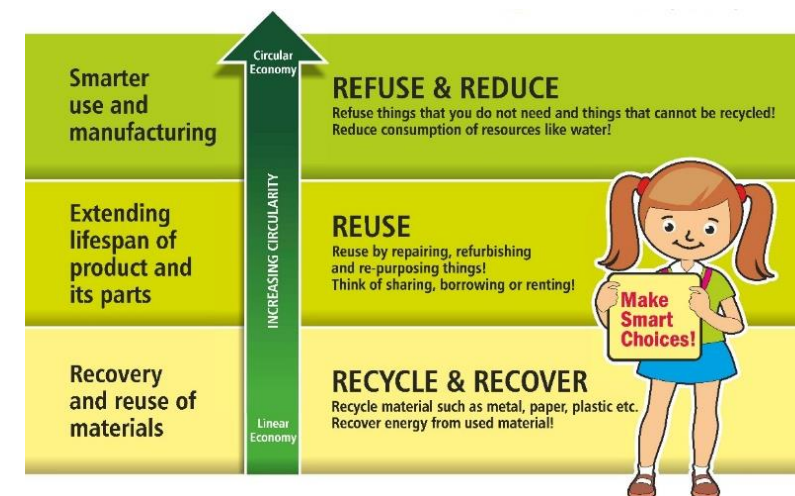
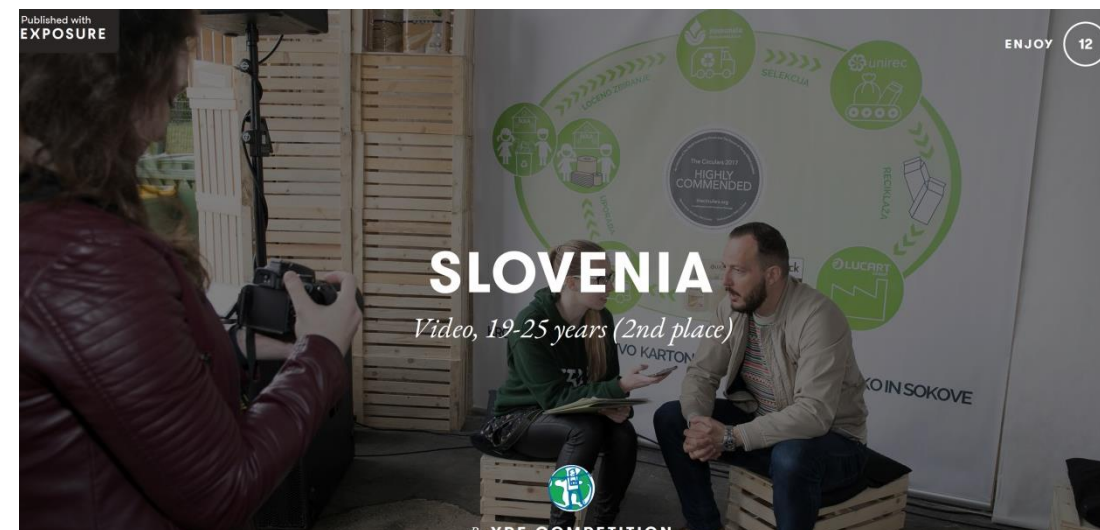
➤ Filmi:

Krožna praksa Novo mesto

Video prispevek Mladi poročevalci

www.lucartprofessional.com

- **Prispevek:** priročnik Razvojni izzivi embalažen panoge v krožnem gospodarstvu



Časovnica

- Trajanje: **oktober 2019-november 2020**
- Poročila: **november 2020**
- Zaključni dogodek: **december 2020**

Nagrade

- Učenci: 20 vstopnic za obisk Gardaland (+ 2 učitelja)
- Za mentorje: praktične nagrade
- Šola: četrletna brezplačna dobava higienskega papirja Lucart EcoNatural

Inovativna krožna praksa v Sloveniji

Novo mesto (3 leta), Brežice, Ljubljana:

- 8 občin namensko zbira KEMS, ki ga dajejo v predelavo, da izdelajo higienski papir, ki ga potem uporabljajo institucije, ki ločeno zbira surovino zanjo
- Lokalna skupnost je samozadosten vir surovin za reciklirane izdelke.



KROŽNO GOSPODARSTVO KARTONSKE EMBALAŽE ZA MLEKO IN SOKOVE



Dodatne informacije, prve prijave

E-pošta:

gregor.cerar@ekosola.si, lucija.marovt@ekosola.si

Preliminarne prijave: seznam na stojnici EKO-INICIATIVA / VALTEX

