



SDG 12: Responsible Consumption and Production

University of Applied Sciences Burgenland

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



**Interpretation
of responsible
consumption and
production**



Main goal: to ensure sustainable consumption and production patterns

Countless tons land in the garbage every day: plastic packaging, leftover food, old furniture, electrical appliances, clothing, cell phones — around 3.5 million tons. We consume just as much every day and forget that the production of things also needs energy, raw materials and manpower, and our planet has only a limited amount of all this. In order for us to be able to buy products so cheaply, people in other countries have to work for low wages, rainforests are being cut down, landscapes are being destroyed for the extraction of raw materials. Therefore, the UN calls for sustainable consumption and production, recycling, less food waste, more sustainable corporate governance and higher environmental and social standards in the economy. We must respect human rights and respect the limits of our planet in order to make it liveable for future generations.

What is a material footprint?

...refers to the total amount of raw materials extracted to meet final consumption demands as one indication of the pressures placed on the environment to support economic growth and to satisfy the material needs of people

Source: unstats.un.org



Did you know that the global material footprint rose from 43 billion metric tons in 1990 to 54 billion in 2000, and 92 billion in 2017 – an increase of 70% since 2000, and 113% since 1990?

Source: unstats.un.org



"I have read an article that technological advancements will drive down the amount of lithium (required to make an electric vehicle or other batteries) by half over the next decade. The amount of cobalt required will drop by more than three-quarters and nickel by around a fifth. Europe will need to import less raw material because of recycling, as it is estimated that in 2035, over a fifth of the lithium and nickel, and 65% of the cobalt needed to make a new battery could come from recycled items."

Source: transportenvironment.org

What is the issue with food?



Land degradation, declining soil fertility, unsustainable water use, overfishing and the degradation of marine environments are all lessening the ability of the natural resource base to supply food.

Source: un.org



Did you know that the food sector accounts for ~30% of the world's total energy consumption and for ~22% of total greenhouse gas emissions?

Source: un.org



"While food supply is a complex issue involving many actors everyone can contribute to it. A while ago, I also started with some very small steps by buying more consciously to ensure that I don't need to throw away food!"

What is “e-waste”?

...means any waste of household or business items with circuitry or electrical components with power or battery supply

Source: globalewaste.org



Did you know that only 17.4% of global e-waste generated in 2019 was documented to be collected and properly recycled?

Source: ewastemonitor.info

“Batteries contain a variety of valuable raw materials as well as hazardous materials. The other day, I saw my friend disposing them with household trash. But they should be returned to the shop or to the local collection centre in order to recycle and/or dispose of them safely.”



Model: sustainable consumption and production



Source: UNEP (2010), Clarifying Concepts on Sustainable Consumption and Production, UN Environment Programme, Paris, oneplanetnetwork.org



Did you know that Earth Overshoot Day marks the date when humanity's demand for ecological resources and services in a given year exceeds what the earth can regenerate in that year? In 2021, it falls on July 29.

Source: overshootday.org

Subgoals: targets

Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

12.1

12.2

12.3

12.4

12.5

12.6

12.7

12.8

By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

Promote public procurement practices that are sustainable, in accordance with national policies and priorities

By 2030, achieve the sustainable management and efficient use of natural resources

By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

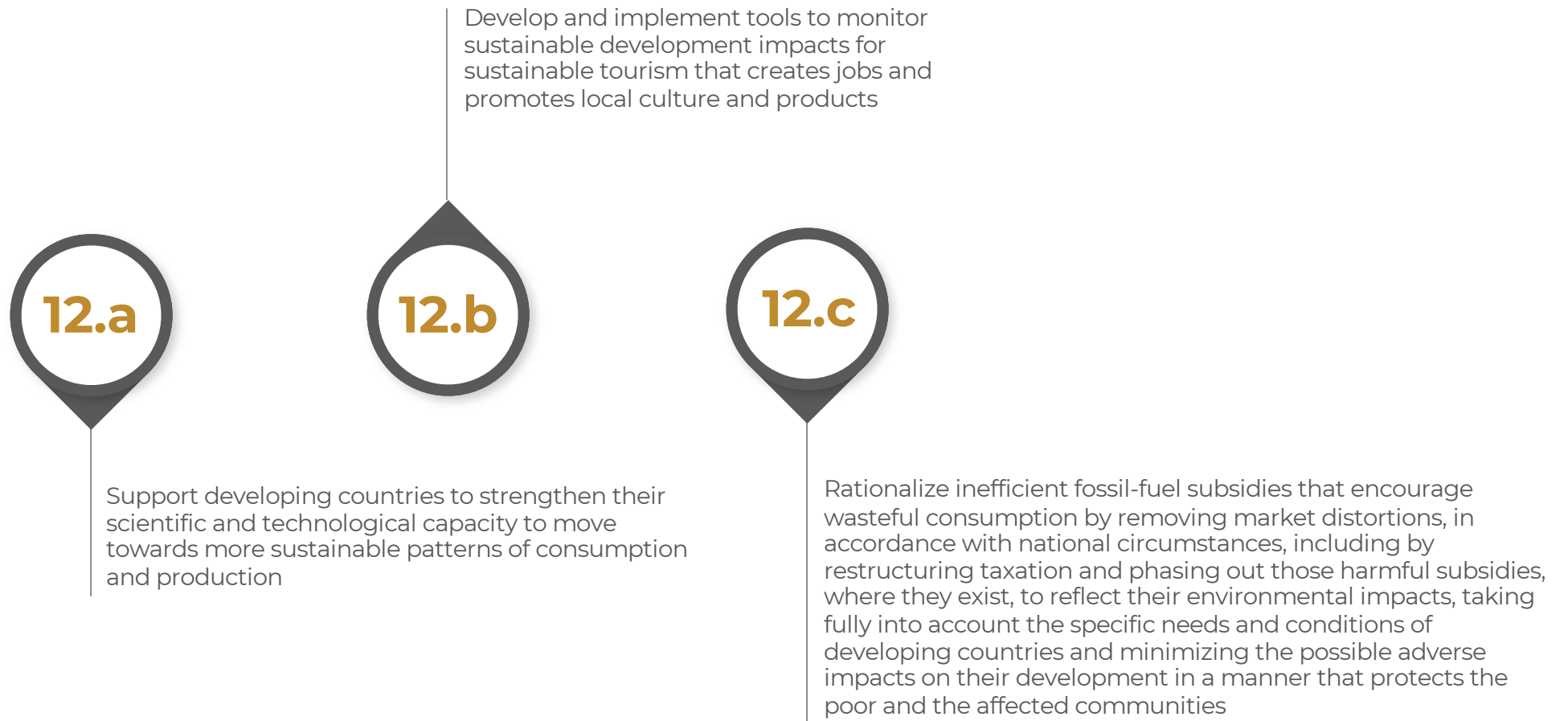
Source: [bundeskanzleramt.gv.at](https://www.bundeskanzleramt.gv.at) and [un.org](https://www.un.org)

Targets = Numbers, Measures = Letters

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Subgoals: measures



Source: [bundeskanzleramt.gv.at](https://www.bundeskanzleramt.gv.at) and un.org

Targets = Numbers, Measures = Letters

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**Current state of
responsible
consumption and
production**

Report 2020

The Sustainable Development Goals Report 2020



Source: un.org

The Sustainable Development Goals Report 2021



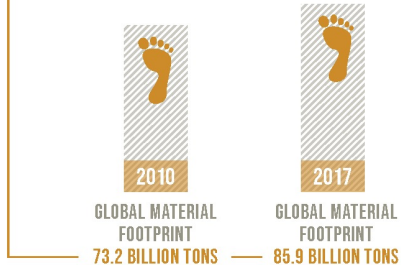
Source: un.org

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ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

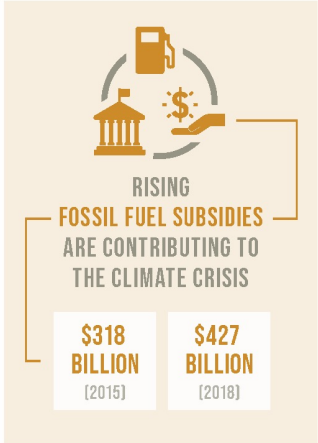
BEFORE COVID-19

THE WORLD CONTINUES TO USE NATURAL RESOURCES **UNSUSTAINABLY**



COVID-19 IMPLICATIONS

THE PANDEMIC OFFERS AN OPPORTUNITY TO **DEVELOP RECOVERY PLANS** THAT BUILD A MORE SUSTAINABLE FUTURE

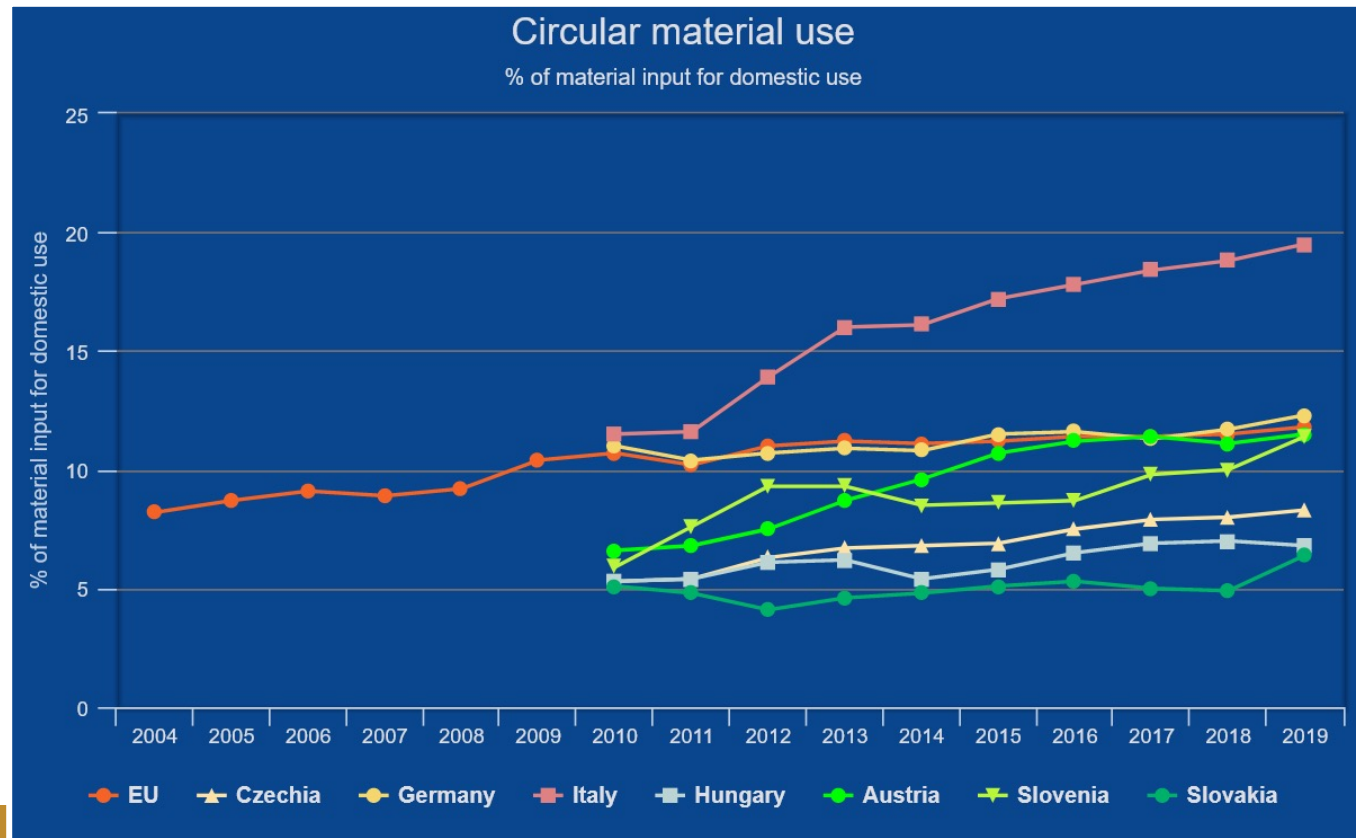


13.8% OF FOOD IS LOST IN SUPPLY CHAINS (2016)

Source: un.org



Some European statistics



Source: ec.europa.eu

Did you know that a meager 9.7% of Austria's economy is circular, only slightly above the world economy's stats of 9.1%?

Source: ara.at



"I often ask myself if recycling is a good thing? Or is it just a little less bad than throwing things into the bin or sometimes even worse, when you think about energy and chemicals needed to recycle? Wouldn't it be better to simply improve product designs to make them re-usable from the beginning?"



Implementation in Austria as of 2020

Target	National indicators (selected)	Trend
12.1	Total green turnover from EGSS	↑
12.2	Total raw material consumption	:
	Total domestic material consumption	↘
	Domestic material consumption per capita	↗
12.4	Hazardous waste generation	:
12.5	Recycling rate of waste excluding major mineral waste	↑
12.6	EMAS (Eco-Management and Audit Scheme) registered organisations and sites	↗
	Companies with an Ecolabel licence	↑
	Products and services with an Ecolabel licence	↑

Source: Statistics Austria. 8-year trend 2010–2018 (if figures missing, at least 7-year trend) in 4 categories (↑↗↘↓) if there is a clear target (quantitative/normative); ✓ (part of the) indicator target achieved; : calculation of trend not possible. More information about methodological questions can be found in the National Indicator Report 2020.

- > The output of environmental goods and services grew considerably between 2010 and 2017, increasing from EUR 32 billion in 2010 to EUR 36 billion
- > The number of companies with an Ecolabel licence in 2018 was more than double the figure for 2010.
- > Austria's domestic material consumption increased by around 4.2% between 2010 and 2018. The country's per capita raw material consumption is considerably higher than the EU average.
- > Hazardous waste generation declined by 18.2% between 2010 and 2016.



Did you know that more than 8,000 young people visit the CoCoLab (Conscious Consumers Laboratory) in Austria every year, where they are given the opportunity to learn about and reflect upon their own consumer behavior?



Main issues to solve in Austria as of 2020



Extent of product use and time of products' life cycles need to be extended significantly through product design and consumer behavior



Practice of circular economy and efficient usage of raw materials need to be increased throughout the supply chain



Product materials that disturb natural cycles need to be substituted



Did you know that in Austria 30% of disposed products would still be usable?

Source: [bewusstkaufen.at](https://www.bewusstkaufen.at)

„One of my friends is buying a new smart phone every year. I am using mine for 4 to 5 years, and if I needed a new one, I would buy a refurbished one, they are very good and much cheaper and better for the environment.“



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**Potential
contributions
Learning activity**

Before thinking about potential contributions...

- Imagine an organization (business).
What is the core purpose of this organization*?
- Who are this organization's internal and external stakeholders?
- How do trends (or lack thereof) concerning “responsible consumption and production” impact this organization (its purpose, its stakeholders, its operation, its viability)?
- What challenges and/or costs emerge for this organization due to this impact?
- On the other hand, what opportunities and/or benefits arise?
- With all this in mind, what contributions** might this organization make to reach SDG 12 within its sphere of influence via inward and outward actions?

* Meant here are all sizes, all types

** Consider contributions inside the organization (referring to everything that is a resource to the organization and is directly or indirectly controlled by the organization, for instance, human resources, know how, monetary and material resources) and the outside of the organization (referring to everything outside of the organization that it can influence but lies outside of its control, for instance, policy change, partnering with other organizations, etc...)



Potential contributions by educational institutions

The purpose of educational institutions is to educate and train for life and for particular professional interests.

In terms of SDG 12, the tasks lie in role-modeling, researching and teaching about the potential of responsible consumption and production and how to achieve both, as well as raising awareness about the needs and the processes of transforming the culture of production and consumption.



Did you know that 18 universities in Austria have joined forces towards integration of sustainability in education? Another alliance is in the making for universities of applied sciences.

Source: nachhaltigeuniversitaeten.at

Potential contributions by educational institutions, cont.

Potential inward actions:

- adjust educational programs to include awareness, knowledge and research on responsible consumption and production
- include recycling and waste reduction policies for the internal infrastructures on campus
- reduce food and electronic waste

Potential outward actions:

- co-develop campaigns with other institutions to raise awareness about the impact of consumption and production patterns
- collaborate with businesses on research projects to co-design and co-develop sustainable products and services
- lobby for responsible procurement criteria for educational institutions

Potential contributions by municipalities

The purpose of municipalities is to plan, manage, and improve public work and services to the community.

In terms of SDG 12, the tasks for municipalities lie in encouraging its citizens to adopt responsible consumption patterns and nudging them towards using circular and regenerative offerings by making them more accessible.



Did you know that Vienna offers repair vouchers (Reparaturbon) where 50% of the costs of repair (up to 100 EUR) can be redeemed and financed by the city?

Source: wien.gv.at

„My village offers an electronic platform to share and or exchange, for free, goods you no longer need or want, but are still fully intact. It's called „Share & Care“ and a lot of people use it. I have still to fetch something because things go fast on that site.



Potential contributions by municipalities, cont.

Potential inward actions:

- adjust internal usage policies and project planning to increase responsible production and consumption
- train public staff on the topics of responsible procurement, production and consumption
- install a reporting system for transparency about waste issues and waste management

Potential outward actions:

- raise awareness about the importance of responsible consumption to the public by co-sponsoring events, speakers and co-actions
- collaborate with different stakeholders towards sustainable production policies and funding
- incentivize citizens to start their own responsible consumption initiatives (for example with participatory budgets)

Potential contributions by corporations and other organizations

The purpose of for-profit organizations (i.e. business) is to provide a service in exchange for resources (i.e. money). The purpose of non-profit organizations is to impact society in a certain way — both need to generate and/or collect adequate resources to pay for their operations and activities and/or make profit.

In terms of SDG 12, the opportunities for contribution may vary greatly between different types or sizes of organizations, but their core contributions to society for reaching SDG 12 are to adopt responsible and sustainable procurement, production, transportation and disposal patterns, as well as to accelerate initiatives for achieving a high degree of circularity within the organization on all levels.



Did you know that in Europe, a new social enterprise is fighting food waste? Alone in Austria, 60kg annually of “fit-to-eat” food is wasted per person.

Sources: toogoodtogo.at and [wwf.at](https://www.wwf.at)



Potential contributions by corporations and other organizations, cont.

Potential inward actions:

- incentivize and educate employees on responsible consumption, for instance, for using their own refillable lunch containers for take away
- identify “hot spots” within the value chain where interventions have the greatest potential for improving the environmental and social impact upon the system
- gain a competitive advantage by developing innovative business models such as moving from selling products to selling services

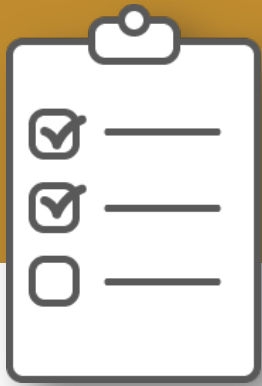
Potential outward actions:

- collaborate with universities, governments and other businesses to find solutions focusing for reduced use of resources and less waste
- reduce manufacturing impact by collaborating with suppliers towards more sustainable concepts of reuse and recycling
- co-initiate campaigns and events on responsible consumption



“Younger colleagues are telling me that they are choosing their employer according to how responsible and transparent they act in society and how authentically they do it.”

Activity: potential contributions by an organization of your choice



The purpose of xyz organization is to...

In terms of SDG 12, the tasks for this organization might be:

Potential inward actions:

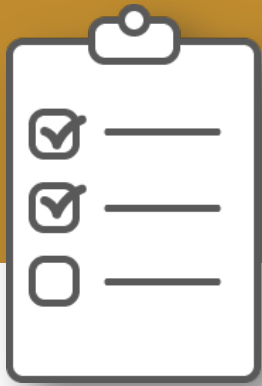
Potential outward actions:

How do inward and outward actions interact and impact each other?

Are partnerships necessary for the desired impact?



Activity: checking design of potential contributions



Returning to the opening questions:

- In which ways do the designed actions support the core purpose of xyz organization?
- In which ways do the designed actions serve the internal and external stakeholders of xyz organization?
- What balance between costs vs. benefits (or challenge vs. opportunity) can be noticed for xyz organization in terms of “responsible consumption and production”?
- How do the designed inward and outward actions cohere and create synergy for xyz impact?



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**Reflection and
resources
Learning activity**

Reflection and some resources

- Why are sustainable consumption and production so important?
- Which other SDGs interact strongly with SDG 12? How?
- What were your last five purchases besides food?
- What can you do as an individual to contribute to reaching SDG 12?
- How do you recycle?
- Do you know shops where you can buy food without packaging?
- Where have you come across the concept of circular economy already?

Further Infos:

- [SDG definition of the UN](#)
- [EU progress report on SDGs 2020](#)
- [SDG Compass on SDG 12](#)
- [Circular economy \(ARA\)](#)
- [Platform “toogoodtogo.at”](#)
- [Information about sustainability](#)
- [Waste of food \(WWF\)](#)
- [Jane Goodall — International E-Waste-Day](#)
- [Federal Ministry of Agriculture, Regions and Tourism](#)
- [Platform “landschafttleben.at”](#)
- [Platform “Wir-leben-nachhaltig.at”](#)
- [SDG Report 2021](#)



Activity: SDG journey

- > Put your SDG glasses on and observe your environment under the SDG 12 umbrella for a week and find evidence for responsible or irresponsible consumption and production.
- > If appropriate and allowed, take pictures of the found circumstances and catalogue the photos (begin making a scrapbook) — they will lead to a final assignment at the end of the series. Before you venture out, it might be a good idea to inform yourself about legal responsibilities when taking photos of people: [oesterreich.gv.at](https://www.oesterreich.gv.at) (If you are not in Austria, look for the regulations of the respective country!)

Possible resource for online scrapbook (free for classrooms and non-profits): [canva.com](https://www.canva.com)



“Small steps really matter. Think about your buying behavior. If you buy from sustainable and local sources, not only can you make a difference for these sellers and producers. You are also exercising pressure on businesses to adopt sustainable practices!”

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Sources

Slide 3:

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Slide 4:

- <https://unstats.un.org/sdgs/report/2019/goal-12/>
- <https://www.transportenvironment.org/publications/batteries-vs-oil-comparison-raw-material-needs>

Slide 5:

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Slide 6:

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Slides 8 & 9:

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