

Charlie Ruff

Brussels Study Tour Lesson Plan

The European Green Deal

European Green Deal Visual Story <https://ec.europa.eu/stories/european-green-deal/>

Course	Standards
Biology	LS Bio. 8.2 and LS Bio. 10.1
AP Environmental Science	Science Practice 7: Environmental Solutions; Units 6-7 (Energy Resource & Consumption and Atmospheric Pollution)

Introduction

Green Deal Proposal Video: <https://audiovisual.ec.europa.eu/en/video/l-181464>

I notice:	I wonder:

Introduce featured initiatives in order to reach the goal of the first climate-neutral continent.

REPowerEU at a glance

https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/repowerEU-affordable-secure-and-sustainable-energy-europe_en

The Green Deal Industrial Plan

https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/repowerEU-affordable-secure-and-sustainable-energy-europe_en

EU Action to Address Energy Crisis

https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/repowerEU-affordable-secure-and-sustainable-energy-europe_en

[deal/eu-action-address-energy-crisis_en](#)

Lecture and Comparative Question Activity

Resources: Green Deal Fact Sheet and Green Challenge Slides

Use the Green Deal Fact Sheet provided by the EU to discuss the timeline created to approach climate neutrality. This fact sheet breaks down the Green Deal into four major pillars. Focus on each pillar individually and address the challenges that will arrive with each pillar based on background knowledge that students may already have.

The Green Challenge (Original slides found at the link below. I suggest editing slides to best fit the needs of your classroom.)

https://learning-corner.learning.europa.eu/learning-materials/ready-green-challenge_en

5 Sustainability Themes (the challenges below each theme are those that are conducted align most effectively with the APES Practices and the NC Biology Standards)

Theme 1: Housing and Buildings

- Problem: Energy consumption, lack of available energy, and lack of renovations.
- How is the EU addressing the problem?
- **Comparative question:** How has energy consumption and lack of energy resources in the United States had negatively impacted economic growth?
- Challenge 1: Make Your School Energy Efficient: students explore the energy efficiency of their school buildings - What steps could be taken (short, medium or longer-term) to save energy and reduce emissions? In small groups they identify problem areas and research possible solutions. Students then present their findings to school leaders to encourage change.

Theme 2: Producing and Consuming

- Problem: Plastic and Lack of recycled materials
- How is the EU addressing the problem?
- **Comparative question:** What policies could be put in place at the federal level to better prevent the use of plastic and encourage more recycling in all parts of the United States?
- Challenge 3: Upcycle an old object Students identify an old, unused object or item of clothing at home to upcycle or reuse. First, they research different ideas and techniques (e.g. You.Tube videos) to use, challenging each other to come up

with the most creative upcycle ideas. Next, working individually or in small groups they put their skills to the test to give the object a new lease of life. Students take 'before' and 'after' photos or videos to show the transformation.

Theme 3: Conserving Nature

- Problem: Threat to Biodiversity
- How is the EU addressing the problem?
- **Comparative question:** The EU has committed to restoring biodiversity by protecting ecosystems in hopes of promoting biodiversity and species growth. How could the United States learn from this model and prioritize which ecosystems should be taken care of first.
- Challenge 2: Green your school grounds Students explore how to encourage biodiversity and make their school grounds greener. Is there a green space that can be transformed into a wildflower garden? Can simple measures be used to encourage wildlife (e.g. bug houses, bird houses and feeders, bat houses)? Building on their ideas, students draw up and present a rewilding plan to school leaders and then set up a taskforce of students and staff to make it a reality.

Theme 4: Moving/Travelling

- Problem: Transport emissions and air pollution
- How is the EU addressing the problem?
- **Comparative question:** Architecture and development of cities played a huge role in public transport for European countries. If you were to colonize a new area of land and build the city from scratch, how could you ensure the growth and development of public transportation for years to come?
- Challenge 1: Reduce your car journeys Can students reduce weekly car journeys by walking, taking public transport, car sharing, bicycle, electric scooter etc.? Students vlog about their green journeys, assess the different modes of sustainable transport, and share their experiences on social media using the campaign hashtag.

Theme 5: Eating

- Problem: Food waste and unhealthy foods
- How is the EU addressing the problem?
- **Comparative question:** Grocery stores and local food vendors are required to remove food items from their location based on shelf life. Most of this food can be purchased and sold at discount stores or donated to local pantries however tons of this food is wasted each year. How could the United States ensure that the percentage of wasted food could be reduced in the next ten years?

- Challenge 3: Count the environmental cost Students visit a farmers' market or a farm shop to learn about the benefits of eating locally produced food vs food that has been transported hundreds or thousands of kilometers to reach our supermarket shelves. Alternatively, they research the environmental impact of buying locally grown produce (e.g. apple, strawberries) compared to the same product that is imported from a distant country. What other factors are important when calculating the carbon footprint of the food we eat? What about foodstuffs that can be linked to deforestation, biodiversity loss or the exploitation of local communities abroad? Students produce a Frequently Asked Questions (FAQ) sheet or webpage to help consumers make informed choices when shopping. They test their FAQs with friends and family. Does it make them change their habits?

Final Project

Choose one of the themes covered throughout the week and create a new policy to pass through legislation that could regulate energy consumption, food waste, transportation emissions, etc. This policy will be presented to the class with the class acting as the opposing legislation. Be prepared to answer questions that could possibly dismiss your policy from being taken into legislation.

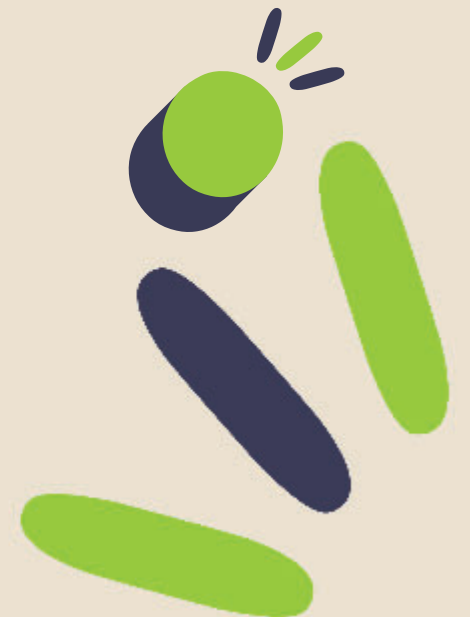


*READY FOR THE
GREEN CHALLENGE!*

*CLASSROOM IDEAS
FOR A GREENER EUROPE*



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TEACHERS FOR **FUTURE?** AN INVITATION



The EU is reaching out to citizens to make Europe a sustainable continent together.

You as secondary school teachers are in a unique position to

- educate the next generation about environmental problems and opportunities, and
- encourage young people to take „green“ action in their own lives.

Eager to take on this role but not sure how? This toolkit can help!



BACKGROUND OF THE TOOLKIT



The toolkit is based on the “**DING DONG – Ready for the Green Challenge**” campaign – an EU initiative that engages with young Europeans to build a sustainable future (October 2020 – June 2021).

Centred around **5 crucial sustainability themes** which the EU & its citizens need to address in the coming years.

Set-up as a **collaboration with 15 local social media influencers** who

- visited inspiring green projects enabled by the EU;
- took up “green challenges” to protect our planet.

Coverage of the influencer experiences on [social media](#) and the [DING DONG website](#).



THE 5 SUSTAINABILITY THEMES



Housing/
Buildings



Producing/
Consuming



Conserving
nature



Moving/
Travelling

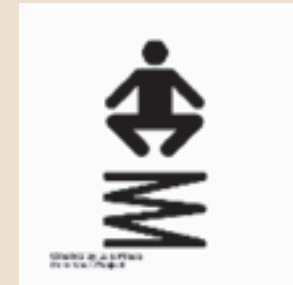


Eating

USE THE “DING DONG” CAMPAIGN AS A SPRINGBOARD

This toolkit helps teachers to:

- discuss the **5 sustainability themes** with students **aged 12-19**;
- **inspire students** via **concrete examples** of green projects at the local level;
- get ideas for **green challenges** that students can undertake either in or outside school;
- find useful **resources on sustainability & EU action** for further reading/ teaching opportunities.



THE TOOLKIT CONTAINS



For each of the **5 themes** :

- **Background information** about
 - the concrete **environmental problem(s)**;
 - **EU goals & actions** to address them;
- **Project examples from all member states** to showcase how the EU & local initiatives can jointly built a more sustainable future.
- **The contribution that we all can make** – discussion topics and “green challenges” for the students.
- **Links for further information** on the topics.



HOW TO USE THE TOOLKIT



Choose one or several of the **5 sustainability themes** covered by the campaign.

Discuss the theme(s) with the help of the information provided in this presentation.

Select green projects from the list at the end of this presentation to show your students that local environmental action makes a difference – and that the EU supports these sustainability efforts on the ground.

- **Discuss the projects** with regard to the environmental problems they tackle and the green solutions they offer.
- **Brainstorm** together with your students **about other possibilities** for citizens and decision-makers to address the environmental problems concerned.

Encourage students to **organise “green challenges”** – activities to make their schools, homes & lifestyles more sustainable.





THE TOOLKIT





GENERAL INFORMATION:

EU ACTION FOR SUSTAINABILITY



LET'S MAKE EUROPE GREEN AGAIN!

Europe's vision for 2050

- Net zero greenhouse gas emissions
- Minimize our waste
- Preserve our ecosystems

To make it a reality, we have to live, consume and produce differently.

No one should be left behind.



Where do I
find a new
job?

HOW DO WE GET THERE?

THE EU HELPS **REGIONS AND CITIES** BECOME **CHANGE MAKERS**

From 2021-2027, the EU will support local “green” actions with **more than € 100 billion**. Examples of supported projects include:

- solar-powered e-bike stations;
- organic food in school canteens;
- fight against marine litter;
 - ...for more project examples, see the list at the end of this presentation.

The EU no longer supports local actions that pollute the environment.



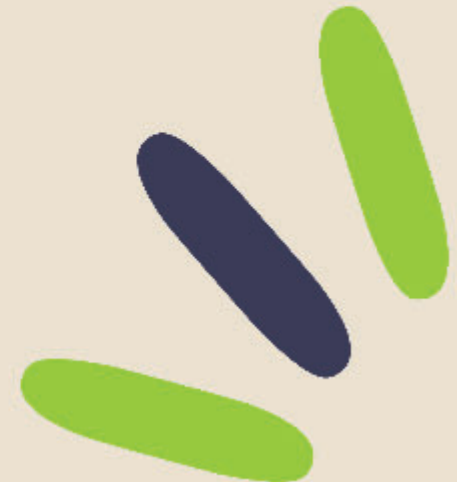


THE FIVE SUSTAINABILITY THEMES

*PROPOSITIONS
FOR CLASSROOM ACTIVITIES*



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THEME 1 – HOUSING / BUILDINGS



WHAT'S THE PROBLEM?

- Buildings account for **40%** of all energy consumed and 36% of all CO2 emissions.
- **75%** of buildings in the EU are not energy efficient, yet currently **fewer than 1%** are renovated each year.
- Over 50 million households in the EU experience energy poverty = lack of access to energy services due to factors such as low income, high bills and inefficient buildings.



Sources: [European Commission](#), [European Green Deal](#) | [EU Energy Poverty Observatory](#)



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THEME 1 – HOUSING/BUILDINGS



HOW DOES THE EU ADDRESS THE PROBLEM?

The EU has committed to reducing its energy consumption from housing significantly (as part of the **European Green Deal** – the plan to make Europe the first climate neutral continent in the world by 2050).

It supports the

- **renovation of buildings**, so that they use less energy, produce lower energy bills and improve people's health and well-being;
- **the construction of new buildings that consume very little energy – or produce more energy than they use** (energy-neutral or 'passive' buildings).



Sources: [European Commission](#), [European Green Deal](#) | [EU Energy Poverty Observatory](#)



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THEME 1 – HOUSING/BUILDINGS



PROJECT EXAMPLE: 'SMART ENERGY GUARDIANS' HELP THEIR SCHOOLS SAVE ENERGY



Source: EU Commission/©Energy@School; a project description is available [here](#) in Croatian, German, Hungarian, Italian, Polish & Slovenian. Please see a list with project examples from all EU countries at the end of this presentation.

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THEME 1 – HOUSING/BUILDINGS



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 1: Make your school energy efficient

Students explore the energy efficiency of their school buildings. What steps could be taken (short, medium or longer-term) to save energy and reduce emissions? In small groups they identify problem areas and research possible solutions. Students then present their findings to school leaders to encourage change.



THEME 1 – HOUSING/BUILDINGS



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 2: Inspire others to reduce their energy consumption

Students brainstorm how to reduce everyday energy consumption at home and in school (e.g. turning down radiators, unplugging appliances not in use). Each produces a Top 10 Tips (e.g. infographic, poster, social media post) aimed at other young people. Students next test the tips with their peers. What is the most effective way to persuade others to make changes?



THEME 1 – HOUSING/BUILDINGS



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 3: Discover a passive house near you

Students identify a passive house/building in their region or country and learn about eco-design and construction. How was it built? What materials were used? What criteria must be followed? Students interview an eco-builder / expert (in person or virtually) if possible, to learn more about eco-construction.

Students prepare a presentation or a model (virtual or physical) of a passive building to explain how a passive house is designed compared to a standard building. How are today's buildings being constructed to be more energy efficient? What are the advantages and disadvantages (short, medium and long term) of using these techniques? They discuss and share their findings with their classmates.



THEME 2 – PRODUCING/CONSUMING



WHAT'S THE PROBLEM?

- Industry is responsible for **20%** of the EU's total GHG emissions.
- Only **12%** of the materials used by EU industry come from recycling.
- Only **40%** of all household waste in the EU is reused or recycled.
- Plastic waste is a key problem with **less than a third** of it being recycled in Europe.
- The fashion industry produces **10% of global CO2 emissions** and uses an estimated **1.5 trillion litres** of water every year.



THEME 2 – PRODUCING/CONSUMING



HOW DOES THE EU ADDRESS THE PROBLEM?

The EU has committed to:

- help EU industry make its **processes and products more sustainable**;
- reduce its use of resources;
- encourage **new business models** based on renting goods and services;
- ensure that all packaging in the EU is reusable or recyclable by **2030**.

This work will help make Europe the first climate neutral continent in the world by **2050** as part of the **European Green Deal**.



Sources: [European Commission, European Green Deal](#) | [European Commission, Waste](#) | [European Parliament, Plastic Waste](#) | [Nature Reviews, The environmental cost of fast fashion](#)



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THEME 2 – PRODUCING/CONSUMING



PROJECT EXAMPLE: L'OUVROIR – UPCYCLING FOR A CIRCULAR ECONOMY



Source: L'Ouvroir; project information is available [here](#) in French.
Please see a list with project examples from all EU countries at the end of this presentation .

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THEME 2 – PRODUCING/CONSUMING



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 1: Uncover the high cost of fast fashion

Students learn about the impact of producing an item of clothing on the environment. Factors to consider: CO2 emissions, water used, raw materials, packaging, transport. What alternatives are there for keeping up with changing styles?

Students are challenged to dress sustainably for a special event (e.g. school concert, end of year party) by borrowing clothes, buying 2nd hand clothes, upcycling, making or renting clothes for the night. They take photos of their 'new' outfits, and vlog or blog about dressing sustainably to inspire others.



THEME 2 – PRODUCING/CONSUMING



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 2: Boost the circular economy near you

Students research the concept of the circular economy and how products can be designed to be reused and recycled. They compile an e-directory or webpage of eco-friendly businesses and services in their area (e.g. clothes rental services, refill shops, repair-cafes etc.). Encourage them to promote this list in the school and on social media to support the local circular economy!



THEME 2 – PRODUCING/CONSUMING



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 3: Upcycle an old object

Students identify an old, unused object or item of clothing at home to upcycle or reuse. First, they research different ideas and techniques (e.g. YouTube videos) to use, challenging each other to come up with the most creative upcycle ideas. Next, working individually or in small groups they put their skills to the test to give the object a new lease of life. Students take 'before' and 'after' photos or videos to show the transformation.



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THEME 3 – CONSERVING NATURE



WHAT'S THE PROBLEM?

- **Half** of the world's Gross Domestic Product (GDP), **€40 trillion**, depends on nature.
- **Only 23%** of species and **16%** of habitats are currently in good health.
- **1 million** species are at risk of extinction.
- Europe's common bird populations have declined by 12% since 1990.
- Urban areas have **more than doubled** since 1992.



THEME 3 – CONSERVING NATURE



HOW DOES THE EU ADDRESS THE PROBLEM?

The EU has committed by 2030 to protect and restore damaged ecosystems with goals, among others, to:

- establish protected areas for at least **30%** of land and **30%** of sea ([Natura 2000 network](#));
- restore at least **25 000 km** of rivers;
- plant **3 billion** trees.

This work will help make Europe the first climate neutral continent in the world by **2050** as part of the **European Green Deal**.



Sources: [European Commission, Biodiversity Strategy](#) | [European Environmental Agency](#) | [United Nations, Sustainable Development Goals](#)

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THEME 3 – CONSERVING NATURE



PROJECT EXAMPLE: EU & LOCALS TEAM UP TO TACKLE MARINE LITTER



Let's stop the trend!



Source: Interreg Balkan-Mediterranean Meltemi; project information is available [here](#) in English. Please see a list with project examples from all EU countries at the end of this presentation

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THEME 3 – CONSERVING NATURE



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 1: Clean-up a local green area

Students organise a ‘Trash Walk’, around a green space to collect rubbish, respecting any COVID-19 health measure in place where you live. Ask them to keep note of the types of rubbish collected and research how long it will take for these items to degrade. Using this information, students design an information and media campaign to persuade people to change their behaviour.



THEME 3 – CONSERVING NATURE



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 2: Green your school grounds

Students explore how to encourage biodiversity and make their school grounds greener. Is there a green space that can be transformed into a wildflower garden? Can simple measures be used to encourage wildlife (e.g. bug houses, bird houses and feeders, bat houses)? Building on their ideas, students draw up and present a rewilding plan to school leaders and then set up a taskforce of students and staff to make it a reality.



THEME 3 – CONSERVING NATURE



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 3: Become an eco-tourist

Where is your nearest [Natura 2000](#) protected area? Students research the Natura network and its aims. How is the area working to protect local biodiversity? How many people visit the site each year? How is eco-tourism different from conventional tourism?

Students each write a guide for becoming an eco-tourist. They share their guides online and organise a visit (physical or virtual) to the Natura 2000 site to put their guidelines into practice.



THEME 4 – MOVING/TRAVELLING



WHAT'S THE PROBLEM?

- Transport is responsible for **a quarter** of all Europe's greenhouse gas emissions (GHG) and this continues to grow.
- Road transport (cars, buses, freight transport) is responsible for **over 70%** of all transport emissions.
- Transport emissions are also the main cause of **air pollution** in cities.



THEME 4 – MOVING/TRAVELLING



HOW DOES THE EU ADDRESS THE PROBLEM?

- Taking more **sustainable modes of transport** (e.g. train, tram, bicycle, electric car) helps reduce emissions and improves air quality.
- The EU has committed to reducing GHG emissions in transport by **90%** by **2050** (as part of the **European Green Deal** – the plan to make Europe the first climate neutral continent in the world by 2050).

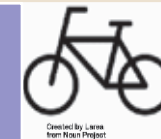


Source: [European Commission, European Green Deal](#)

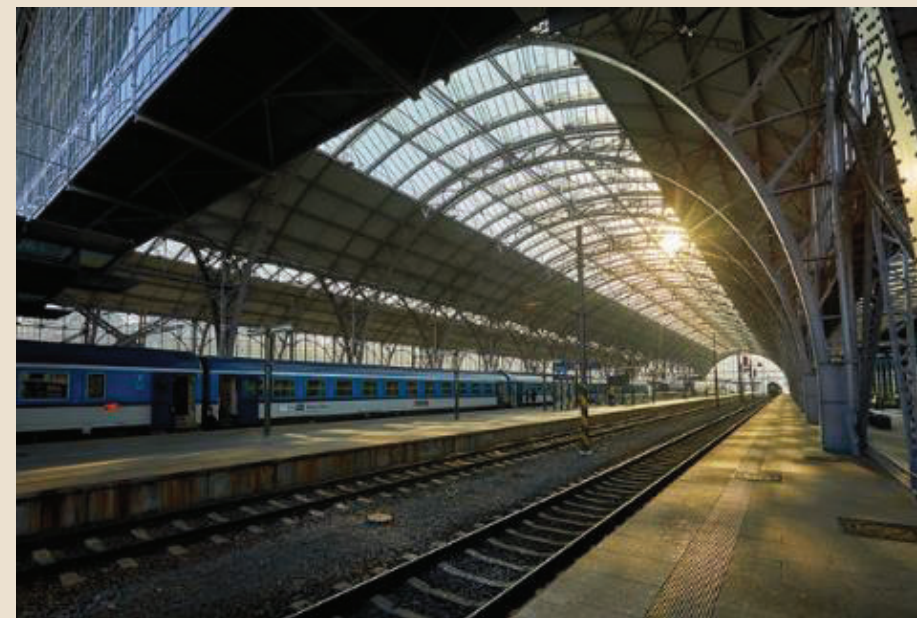
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THEME 4 – MOVING/TRAVELLING



PROJECT EXAMPLES: NEW BIKE LANES & AN UPGRADED TRAIN STATION IN CZECH REPUBLIC



Source: EU Commission/© Czech Ministry of Regional Development; project information is available [here](#) (bike lanes) and [here](#) (train station) in Czech and English . Please see a list with project examples from all EU countries at the end of this presentation

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THEME 4 – MOVING/TRAVELLING



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 1: Reduce your car journeys

Can students reduce weekly car journeys by walking, taking public transport, car sharing, bicycle, electric scooter etc.? Students vlog about their green journeys, assess the different modes of sustainable transport, and share their experiences on social media using the campaign hashtag.



THEME 4 – MOVING/TRAVELLING



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 2: Reduce your carbon footprint

Students first calculate their and/or their family's carbon footprint using an online calculator (e.g. www.carbonfootprint.com/calculator.aspx) and compare and contrast with classmates. Then each sets a target and time period to reduce their carbon footprint. Students track their progress (e.g. keeping a video diary) and update the class at the end of the challenge.



THEME 4 – MOVING/TRAVELLING



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 3: Explore the world sustainably

Students plan a future or fantasy trip using sustainable forms of transport.

- Students research destinations in their region that cover a specific point of interest (e.g. cultural, sporting, culinary, natural beauty) and plan a journey that relies on sustainable forms of transport.
- If students were given a rail pass around Europe where would they go and why? What's the furthest distance possible to travel by sustainable forms of transport? Whose trip has the lowest carbon footprint?

Students present their sustainable trips to the class (e.g. as maps, carbon counts, blogposts, articles) and vote for the winners.



THEME 5 - EATING



WHAT'S THE PROBLEM?

- Farming accounts for **10%** of the EU's GHG emissions (caused by e.g. livestock farming, agricultural land, fertilizer use).
- Soil is a thin layer of a fragile and non-renewable resource, on which **95% of all food production** depends – and it is eroding rapidly.
- Around **88 million tonnes of food waste**, which cost an estimated **€143 billion**, are generated every year in the EU.
- 1 in 5 deaths in the EU in 2017 were linked to unhealthy diets.

THEME 5 - EATING



HOW DOES THE EU ADDRESS THE PROBLEM?

The EU has committed to meeting several targets by 2030, including to:

- reduce the use of fertilizers by at least **20%**;
- reduce the use of harmful pesticides which pollute soil, water and air **by 50%**;
- ensure that **25%** of total farmland is being used for organic farming;
- cut food waste by **50%**.

These targets will help make Europe the first climate neutral continent in the world by **2050** as part of the **European Green Deal**.



Sources: [European Commission, Green Deal](#) | [European Environmental Agency](#) | [European Commission, Food waste](#)



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THEME 5 - EATING



PROJECT EXAMPLE: URBAN FARMING PRODUCES SUSTAINABLE FOOD IN BRUSSELS



Source: BoerenBrusselPaysans; project information is available [here](#) in French and Dutch. Please see a list with project examples from all EU countries at the end of this presentation.



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THEME 5 - EATING



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 1: Cook together sustainably

Students cook dishes using local, seasonal, sustainably-grown produce. Invite a local chef to provide a cooking lesson – either physically or virtually. If possible, also use local products which have been awarded [EU food quality labels](#). Students create an e-cook book of the finished dishes to share with friends and family.



THEME 5 - EATING



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 2: Switch to eco-friendly lunches

Students explore how carbon friendly their lunches are. They keep a record for a week of what they eat for lunch and the waste it creates. The following week they go 'green' – consuming only local/vegetarian food, with zero waste and no plastic packaging or cutlery. Students discuss their experiences with classmates. Next, they work together to devise a humorous media campaign to persuade the rest of the school to ditch their carbon heavy, plastic wrapped sandwiches and fast-food lunches.



THEME 5 - EATING



HOW CAN STUDENTS ADDRESS THE PROBLEM?

Challenge 3: Count the environmental cost

Students visit a farmers' market or a farm shop to learn about the benefits of eating locally produced food vs food that has been transported hundreds or thousands of kilometers to reach our supermarket shelves. Alternatively, they research the environmental impact of buying locally grown produce (e.g. apple, strawberries) compared to the same product that is imported from a distant country.

What other factors are important when calculating the carbon footprint of the food we eat? What about foodstuffs that can be linked to deforestation, biodiversity loss or the exploitation of local communities abroad?

Students produce a Frequently Asked Questions (FAQ) sheet or webpage to help consumers make informed choices when shopping. They test their FAQs with friends and family. Does it make them change their habits?



USEFUL RESOURCES

[The European Green Deal](#)

[The European Environment Agency](#)

[Young people and climate](#)

[Cohesion policy projects in your country and region](#)

[More data on EU cohesion funding](#)

[Green resources for teachers](#)



LIST OF PROJECT EXAMPLES

Country	Theme	Project name	Short description	Further information in:
Austria	Eating	Austrian & German Companies Develop Plant-Based Foods	Eating too much meat contributes to climate change and multiple health problems. Therefore, in this project, entrepreneurs and researchers develop natural and plant-based alternatives to meat.	DE EN
Belgium	Producing/ Consuming	A Sustainable Trade for People with Disabilities	This project supports green jobs for people with disabilities, e.g. repairing and recycling services.	FR , NL EN
Bulgaria	Moving/ Travelling	'Walkable' Cities Offer Cleaner, Safer Spaces	The project is helping 10 cities in the Danube region to reduce emissions, noise and street congestion by improving conditions for pedestrians. More walkable cities are more liveable, safer and healthier.	BG CZ , DE , EN , HR , HU , RO , SI , SK
Croatia	Buildings/ Housing	Energy-Saving Renovations at Primary School	After extensive renovations, the Nikola Tesla primary school in Rijeka now uses half as much energy for heating as before.	HR EN
Cyprus	Nature conservation	Keeping our Oceans Clean	Together, local officials, schools and communities in Greece, Cyprus, Albania and Bulgaria took action against marine pollution. They collected litter on the beach and discussed strategies to reduce waste at the local level.	EL EN



LIST OF PROJECT EXAMPLES

Country	Theme	Project name	Short description	Further information in:
Czech Republic	Moving/ Travelling	New Cycle Path in North-West Czech Republic	To ensure that citizens can safely cycle to work and school, the communities of north-west Czech Republic built a bicycle lane along a busy highway.	CZ EN
Denmark	Buildings/ Housing	Danish Island Energises the Environment	At the Samsø Energy Academy, visitors can learn about the potential of renewable energies. The academy is located on the 'renewable island' of Samsø, which generates most of the energy it needs from local, renewable sources.	DA EN , DE , FR
Estonia	Moving/ Travelling	Bike-sharing in Tartu	Tartu has a new bike-sharing scheme that makes it easier for residents to get around in the city – without a car and without emissions. It's the biggest bike-sharing network in the Baltic region.	EE EN
Finland	Nature conservation	Tackling Plastic Litter in the Baltic Sea	To limit marine pollution, we need to know where the litter comes from. Therefore, project partners from Finland, Sweden and Latvia researched how plastic waste finds its way from urban areas into the Baltic Sea.	FI EE , EN , SE , LV



LIST OF PROJECT EXAMPLES

Country	Theme	Project name	Short description	Further information in:
France	Eating	France & UK take the Cool Food Challenge	The project developed an app that allows users to track the impact their meals have on the environment - and encourages them to make more sustainable food choices.	FI EN
Germany	Producing/ Consuming	Turning Wasteland into a Vibrant Public Space	The project transformed an old freight terminal and rail yard in Leipzig into liveable spaces for citizens. It now offers opportunities for local businesses and initiatives, as well as a healthy environment for outdoor activities.	DE EN
Greece	Buildings/ Housing	Greece & North Macedonia Join Forces to Save Energy	A cross-border project brought together local authorities, businesses and schools from Greece and the Republic of North Macedonia to improve the energy efficiency of public buildings. The project is also raising awareness among local people and organisations about energy use and environmental protection.	EL EN
Hungary	Nature conservation	Support for Urban Green Spaces	Working with community groups, residents and local authorities, the project helped to relive abandoned areas and increase the numbers of visitors to urban green spaces.	HU CZ , DE , EN , HR , IT , PL , SI



LIST OF PROJECT EXAMPLES

Country	Theme	Project name	Short description	Further information in:
Ireland	Producing/ Consuming	Turning Waste Fishing Gear into Business Opportunities	This project is cleaning up the environment while helping local small and medium-sized companies turn waste into new opportunities. Together, partners from Ireland, the UK and Norway explored how clothing and building material can be developed from discarded fishing gear and then marketed with the help of eco-labels.	EN
Italy	Eating	Sustainable School Canteens	The BioCanteens Transfer Network is using the preparation of school meals with locally grown, organic food to protect people's health and the environment.	IT , BG , EL , EN , FR , PT , RO
Latvia	Nature conservation	Estonia & Latvia Combine Forces for a Safer Coast	This project aims to protect the marine environment through better coordination between Latvian and Estonian rescue services and improved equipment and infrastructure. Like this, the two countries can respond quickly to oil spills or other threats, minimizing the impact on marine animals and ecosystems.	LV , EE , EN
Lithuania	Producing/ Consuming	Cannamella: From Passion to Passionate Business	With EU support, a young Lithuanian entrepreneur started Cannamella, a brand of natural, ecologically responsible, handmade caramels.	LT , EN



LIST OF PROJECT EXAMPLES

Country	Theme	Project name	Short description	Further information in:
Luxembourg	Buildings/ Housing	A second Life for Construction & Demolition Waste	Ever wondered what happens to all the waste when a building gets constructed or demolished? It is an important environmental question, because concrete has a heavy carbon footprint. Therefore, this project explores ways to recycle construction and demolition waste.	DE FR EN
Malta	Producing/ Consuming	New Sewage Treatment Infrastructure in Malta	The project built a new wastewater treatment plant and connected it to the existing sewage system. The plant can treat the wastewater of 500 000 people and prevents the discharge of harmful substances into the environment.	MT EN
Netherlands	Moving/ Travelling	A Pioneering Solar Car Made in the Netherlands	Former students at Eindhoven University have developed a solar-powered car which is attracting worldwide interest. Their research paves the way for less polluting transportation.	NL EN
Poland	Eating	Hacking Away at the Food-Waste Cycle	The project helps redistribute food surpluses and raises awareness on how to prevent food waste. As part of the Food Waste Hackathon series, the project partners invite app designers and IT enthusiasts to develop new ideas that help people waste less food.	PL CZ , DE , EN , IT



LIST OF PROJECT EXAMPLES

Country	Theme	Project name	Short description	Further information in:
Portugal	Nature conservation	Protecting Marine Life in the Ria de Aveiro Lagoon	Marine biologists, conservationists and rescue services have teamed up to protect the marine environment in the Ria de Aveiro Lagoon. They perform animal rescues after oil spills, for example.	PT EN
Romania	Eating	Urban Agriculture Promotes Social Inclusion	The project uses urban farming to engage citizens in sustainable local development. People at risk of exclusion – e.g. the poor, the unemployed, the homeless, Roma, the elderly, women and the young – shall be empowered to participate in local decision-making and make their communities a better place to live.	RO BG , CZ , DE , EN , HU , SK , SI
Slovakia	Eating	Putting Beekeeping Back at the Heart of Rural Life	Bees are important for biodiversity and agricultural production, but their numbers are declining. This projects aims to reverse the trend through the construction of model beehives, a beekeeping museum, educational facilities and processing plants for bee products.	SK EN , FR , HU
Slovenia	Buildings/ Housing	Guardians of the 'Smart Energy' School	The project trained pupils to become 'smart energy guardians' who help save energy in their schools.	SI DE , EN , HR , IT , HU , PL



LIST OF PROJECT EXAMPLES

Country	Theme	Project name	Short description	Further information in:
Spain	Moving/ Travelling	Saving Energy at Railway and Bus Stations	This project made railway and bus stations more environmentally friendly, for instance via solar panels and less energy-consuming lights. The money that the transport companies saved due to lower energy bills was used to make the stations more comfortable for passengers.	ES EN
Sweden	Nature conservation	Boosting Arctic Fox Numbers in Northern Scandinavia	The project is stepping up efforts to save the endangered Arctic fox in Scandinavia. To achieve this, a cross-border network of public authorities and research institutes from Norway, Sweden and Finland has been set up.	SE EN , FI



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THE GREEN DEAL INDUSTRIAL PLAN

Speeding up the contribution of
Europe's innovative clean tech
industries to net-zero

February 2023

With the **Green Deal Industrial Plan**, the Commission will promote the creation of a more supportive environment for deploying the clean tech manufacturing capacity required to meet Europe's ambitious green targets.

The Green Deal Industrial Plan

Build the industrial
capacity for the clean
technologies that make
up the Green Deal

REPowerEU

Respond to energy market
disruption with affordable,
secure and sustainable energy
for Europe

The Recovery and Resilience Facility

Recover from the pandemic better prepared
for the green and digital transitions

The Green Deal

Make Europe the first
climate-neutral
continent
by 2050



THE ROAD TO NET-ZERO



Global trends

- ▶ The International Energy Agency estimates that the global market for key mass-manufactured clean energy technologies will be worth around USD 650 billion a year by 2030 – more than three times today's level
- ▶ The related energy manufacturing jobs could more than double in the same time period



EU funding for the green transition

- ▶ EUR 250 billion for green measures already available under the RFF
- ▶ InvestEU can mobilise EUR 372 billion, including for net-zero investments
- ▶ EUR 40 billion under the Innovation Fund in the next decade



EU's net-zero growth

- ▶ EU's net-zero start-ups ecosystem is worth over EUR 100 billion in 2021, doubling in value since 2020
- ▶ In 2022 wind and solar renewable energy production capacity in the EU exceeded 400 GW, an increase of over 25% compared to 2020



Green jobs

- ▶ The productivity in the clean energy sector is about 20% higher than on average across the economy
- ▶ The European economy counted 4.5 million green jobs in 2019 up from 3.2 million in 2000

THE PLAN IS BASED ON FOUR COMPLEMENTARY PILLARS



A predictable and simplified regulatory environment



Faster access to funding



Enhanced skills



Open trade for resilient supply chains

BOOSTING SUSTAINABLE COMPETITIVENESS

The Green Deal Industrial Plan will simplify, accelerate and align incentives to preserve competitiveness and attractiveness of the EU as an investment location for industry and manufacturing, acting on all fundamental factors.

- Quick deployment of manufacturing capacity
- Critical Raw Materials Supply
- Affordable and sustainable energy



- Net-Zero Industry Act
- Promote regulatory sandboxes
- Electricity Market Design reform

- National and EU funding



- InvestEU, REPowerEU, Innovation Fund, State aid Temporary Crisis and Transition Framework, a European Sovereignty Fund

- Green and digital skills



- European Skills Agenda, Partnership for Skills

- Diversified access to critical inputs



- Free Trade Agreements, Critical Raw Materials Club, Clean Tech/ Net-zero Industrial Partnerships

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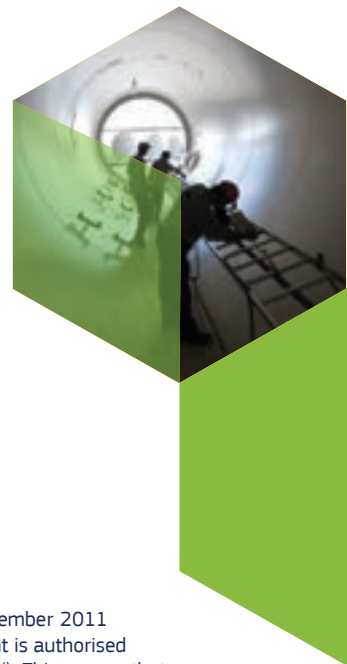
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Financing the transition

Take everyone along (Just Transition Mechanism)



Save Gas for a Safe Winter: Commission proposes gas demand reduction plan to prepare EU for supply cuts

Brussels, 20 July 2022

The European Union faces the risk of further gas supply cuts from Russia, due to the Kremlin's weaponisation of gas exports, with almost half of our Member States already affected by reduced deliveries. Taking action now can reduce both the risk and the costs for Europe in case of further or full disruption, strengthening European energy resilience.

The Commission is therefore proposing today a **new legislative tool and a European Gas Demand Reduction Plan, to reduce gas use in Europe by 15% until next spring**. All consumers, public administrations, households, owners of public buildings, power suppliers and industry can and should take measures to save gas. The Commission will also **accelerate work on supply diversification, including joint purchasing** of gas to strengthen the EU's possibility of sourcing alternative gas deliveries.

The Commission is proposing a **new Council Regulation on Coordinated Demand Reduction Measures for Gas**, based on [Article 122 of the Treaty](#). The new Regulation would set a target for all Member States to reduce gas demand by 15% between 1 August 2022 and 31 March 2023. The new Regulation would also give the Commission the **possibility to declare, after consulting Member States, a 'Union Alert' on security of supply, imposing a mandatory gas demand reduction** on all Member States. The Union Alert can be triggered when there is a substantial risk of a severe gas shortage or an exceptionally high gas demand. Member States should update their national emergency plans by the end of September to show how they intend to meet the reduction target, and should report to the Commission on progress every two months. Member States requesting solidarity gas supplies will be required to demonstrate the measures they have taken to reduce demand domestically.

To help Member States deliver the necessary demand reductions, the Commission has also adopted a **European Gas Demand Reduction Plan which sets out measures, principles and criteria for coordinated demand reduction**. The Plan focuses on substitution of gas with other fuels, and overall energy savings in all sectors. It aims to **safeguard supply to households and essential users** like hospitals, but also industries that are decisive for the provision of essential products and services to the economy, and for EU supply chains and competitiveness. The Plan provides guidelines for Member States to take into account when planning curtailment.

Energy saved in summer is energy available for winter

By substituting gas with other fuels and saving energy this summer, more gas can be stored for winter. Acting now will reduce the negative GDP impact, by avoiding unplanned actions in a crisis situation later. Early steps also spread out the efforts over time, ease market concerns and price volatility, and allow for a better design of targeted, cost-effective measures protecting industry.

The Gas Demand Reduction Plan proposed by the Commission is based on consultations with Member States and industry. A wide range of measures are available to reduce gas demand. Before considering curtailments, Member States should exhaust all fuel substitution possibilities, non-mandatory savings schemes and alternative energy sources. Where possible, **priority should be given to switching to renewables** or cleaner, less carbon-intensive or polluting options. However, switching to coal, oil or nuclear may be necessary as a temporary measure, as long as it avoids long term carbon lock-in. Market-based measures can mitigate the risks to society and the economy. For example, Member States could launch auction or tender systems to **incentivise energy reduction by industry**. Member States may offer **support in line with the amendment of the [State aid Temporary Crisis Framework](#)**, adopted by the Commission today.

Another important pillar of energy saving is the reduction of heating and cooling. The Commission urges all Member States **to launch public awareness campaigns to promote the reduction of heating and cooling** on a broad scale, and to implement the EU '[Save Energy Communication](#)', containing numerous options for short-term savings. To set an example, Member States could

mandate a **targeted lowering of heating and cooling in buildings operated by public authorities**.

The Demand Reduction Plan will also **help Member States identify and prioritise**, within their “non-protected” consumer groups, **the most critical customers or installations** based on overall economic considerations and the following criteria:

- **Societal criticality** – sectors including health, food, safety, security, refineries and defence, as well as the provision of environmental services;
- **Cross-border supply chains** – sectors or industries providing goods and services critical to the smooth functioning of EU supply chains;
- **Damage to installations** – to avoid that they could not resume production without significant delays, repairs, regulatory approval and costs;
- **Gas reduction possibilities and product/component substitution** – the extent to which industries can switch to imported components/products and the extent to which demand for products or components may be met through imports.

Background: What the EU has done to secure its energy supply

Following the Russian invasion of Ukraine, the Commission adopted the REPowerEU Plan to end the EU's dependence on Russian fossil fuels as soon as possible. REPowerEU sets out measures on diversification of energy suppliers, energy savings and energy efficiency, and an accelerated roll-out of renewable energy. The EU has also **adopted new legislation requiring EU underground gas storage** to be filled to 80% of capacity by 1 November 2022 to ensure supply for the coming winter. In this context, the Commission has **carried out an in-depth review of national preparedness plans** to face possible major supply disruptions.

The Commission has **set up the EU Energy Platform** to aggregate energy demand at the regional level and facilitate **future joint purchasing** of both gas and green hydrogen, to ensure the best use of infrastructure so that gas flows to where it is most needed, and to reach out to international supply partners. Five regional groups of Member States have already been initiated within the Platform, and a dedicated task force has been created within the Commission to support the process. The EU is **succeeding in diversifying away from Russian gas imports** thanks to higher LNG and pipeline imports from other suppliers. In the first half of 2022, non-Russian LNG imports rose by 21 billion cubic metres (bcm) as compared to the same period last year. Non-Russian pipeline imports also grew by 14 bcm from Norway, Azerbaijan, the United Kingdom and North Africa.

Since long before the Russian invasion of Ukraine, the EU has been **building a clean and interconnected energy system**, focused on increasing the share of domestically-produced renewable energy, phasing out imported fossil fuels, and ensuring connections and solidarity between Member States in the event of any supply interruptions.

By progressively eliminating our dependence on fossil fuel sources and by reducing the EU's overall energy consumption through increased energy efficiency, **the European Green Deal and Fit for 55 package strengthen the EU's security of supply**. Building upon these proposals, REPowerEU aims to accelerate the instalment of renewable energy across the EU and the deployment of energy efficiency investments. Over 20% of the EU's energy currently comes from renewables, and the Commission has proposed to more than double this to at least 45% by 2030. Since the beginning of the year an estimated additional 20 GW of renewable energy capacity have been added. This is the equivalent of more than 4 bcm of natural gas.

Through our investments in LNG terminals and gas interconnectors, every Member State can now receive gas supplies from at least two sources, and reverse flows are possible between neighbours. Under the Gas Security of Supply Regulation, Member States must have in place national preventive action plans and emergency plans, and a solidarity mechanism guarantees supply to 'protected customers' in neighbouring countries in a severe emergency.

For More Information

[Memo Q&A](#)

[Communication](#)

[Annex](#)

[Regulation](#)

[State aid Temporary Crisis Framework](#)

[Factsheet: Save gas for a safe winter](#)

[Factsheet: A European Gas Demand Reduction Plan](#)

[Factsheet: Supporting cities to save energy](#)

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