Introduction to sustainability and space in VET education

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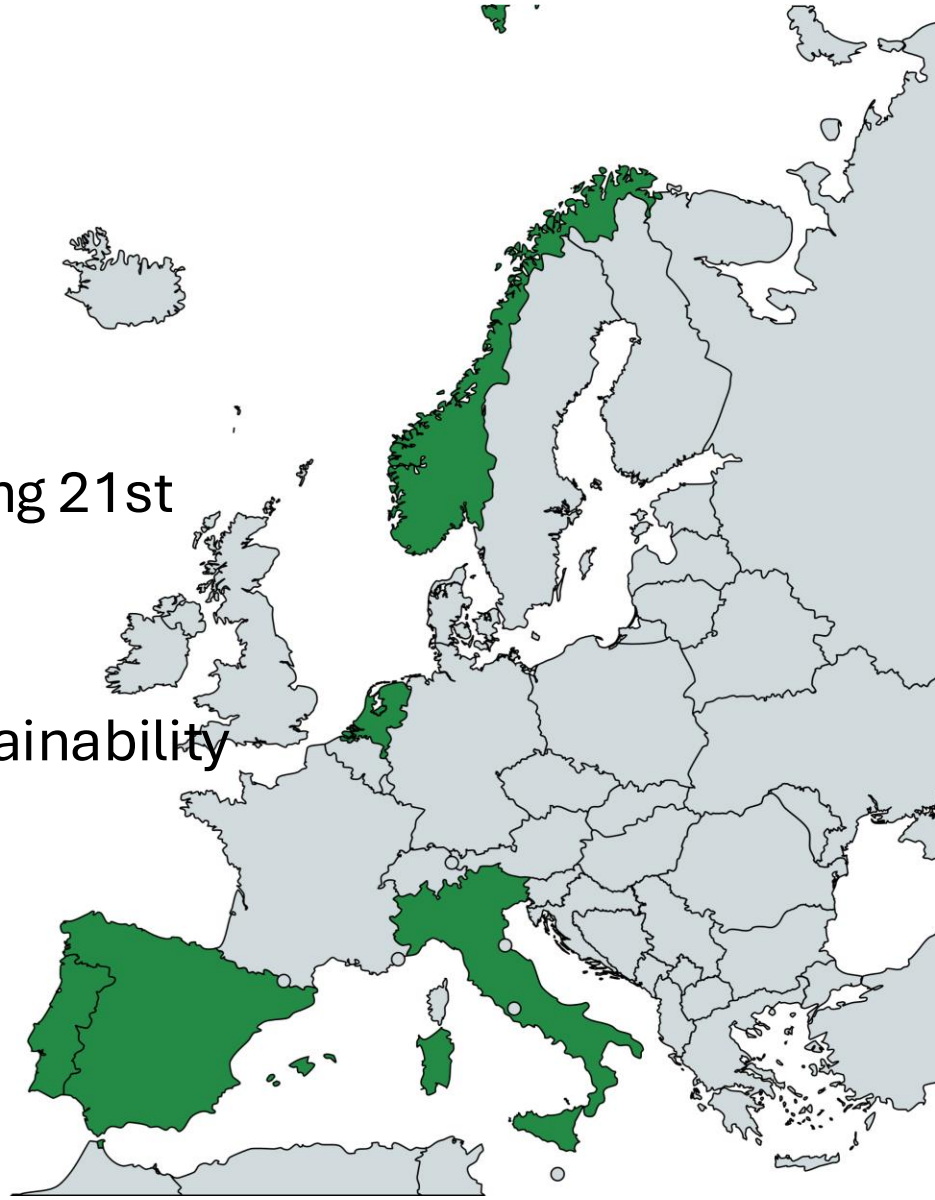
PLANET CHANGE

Planet Change

- Target group: VET students and teachers
- Aim: Raising awareness about sustainability and training 21st century skills in the context of space technology
- Developed: 18 activities to be used in class about sustainability and space



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Planet Change - partners

- Netherlands:
  - Leidse instrumentmakers school
  - NEMO Science Museum
- Norway: Andøya Space
- Spain: Instituto Astrofysica de Canarias
- Portugal: Virtual Campus
- Italy: CRES

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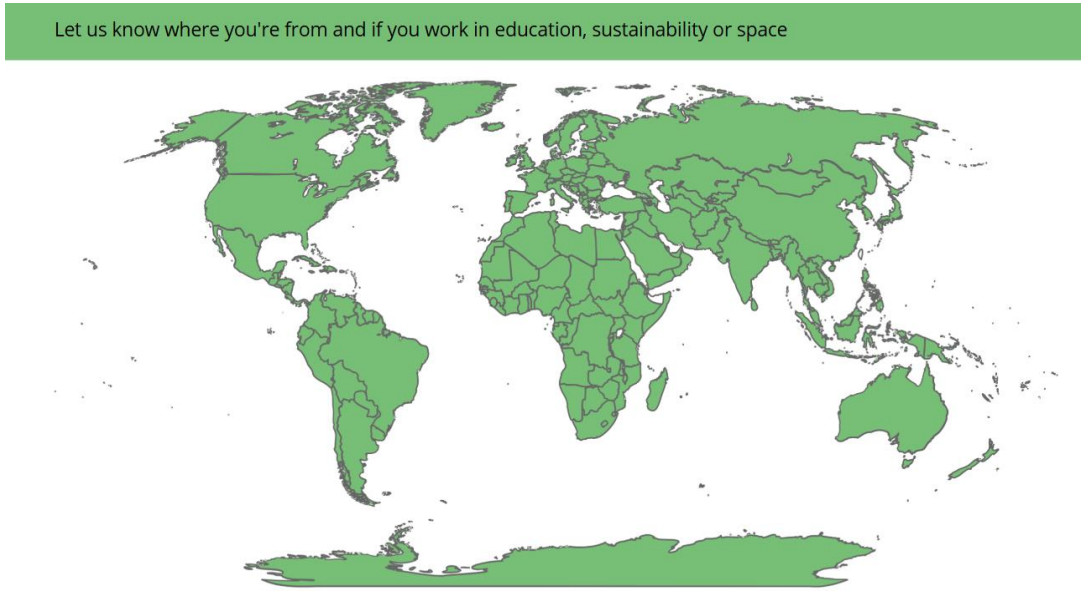
Introduce yourself!

- On the Canva, let us know:
  - Where you're from
  - If you work in education, sustainability, space or ....



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Activities

- 18 activities in the context of sustainability and space technology
- The activities use earth observation data
- The students learn how a concept works in space with applications on Earth

Themes:

- Pollution
- Space hazards
- Agriculture
- Logistics
- Energy efficiency
- Constructions
- Climate change

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Pollution	Air pollution
	Light pollution
Energy efficiency	Solar panel alignment
	Solar panels from space
	Energy and green professions
Space Hazards	Space debris
	NEO’s
Constructions	Phase I
	Phase II
	Phase III

Agriculture	Agriculture in space
	Space for crop optimalisation
Climate change	Deforestation
	Wildfires
	Monitoring the health of the oceans
	Salmon and rainforest
Logistics	Space Data
	GNSS

Tutorials	Tutorial EObrowser
	Tutorial google earth pro

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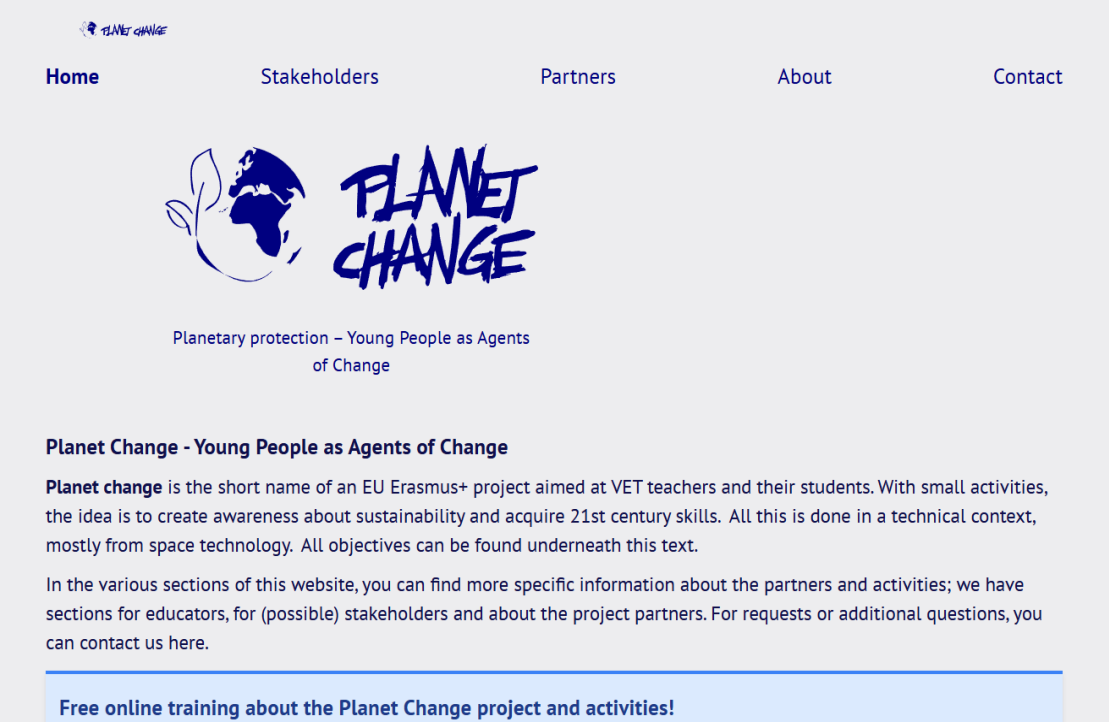
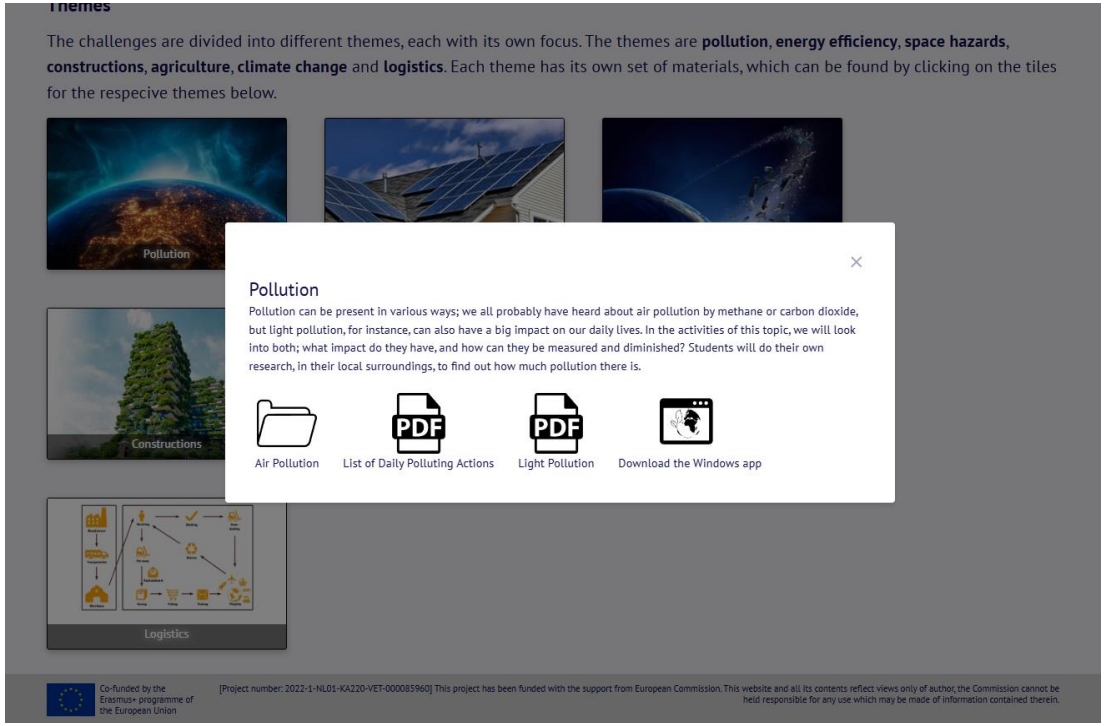
Website


Home
Stakeholders
Partners
About
Contact
PLANET CHANGE
Planetary protection – Young People as Agents of Change
Planet Change - Young People as Agents of Change
Planet change is the short name of an EU Erasmus+ project aimed at VET teachers and their students. With small activities, the idea is to create awareness about sustainability and acquire 21st century skills. All this is done in a technical context, mostly from space technology. All objectives can be found underneath this text.
In the various sections of this website, you can find more specific information about the partners and activities; we have sections for educators, for (possible) stakeholders and about the project partners. For requests or additional questions, you can contact us here.
Free online training about the Planet Change project and activities!


Themes
The challenges are divided into different themes, each with its own focus. The themes are pollution, energy efficiency, space hazards, constructions, agriculture, climate change and logistics. Each theme has its own set of materials, which can be found by clicking on the tiles for the respecive themes below.
Pollution
Constructions
Logistics
Pollution
Pollution can be present in various ways; we all probably have heard about air pollution by methane or carbon dioxide, but light pollution, for instance, can also have a big impact on our daily lives. In the activities of this topic, we will look into both; what impact do they have, and how can they be measured and diminished? Students will do their own research, in their local surroundings, to find out how much pollution there is.
Air Pollution
List of Daily Polluting Actions
Light Pollution
Download the Windows app
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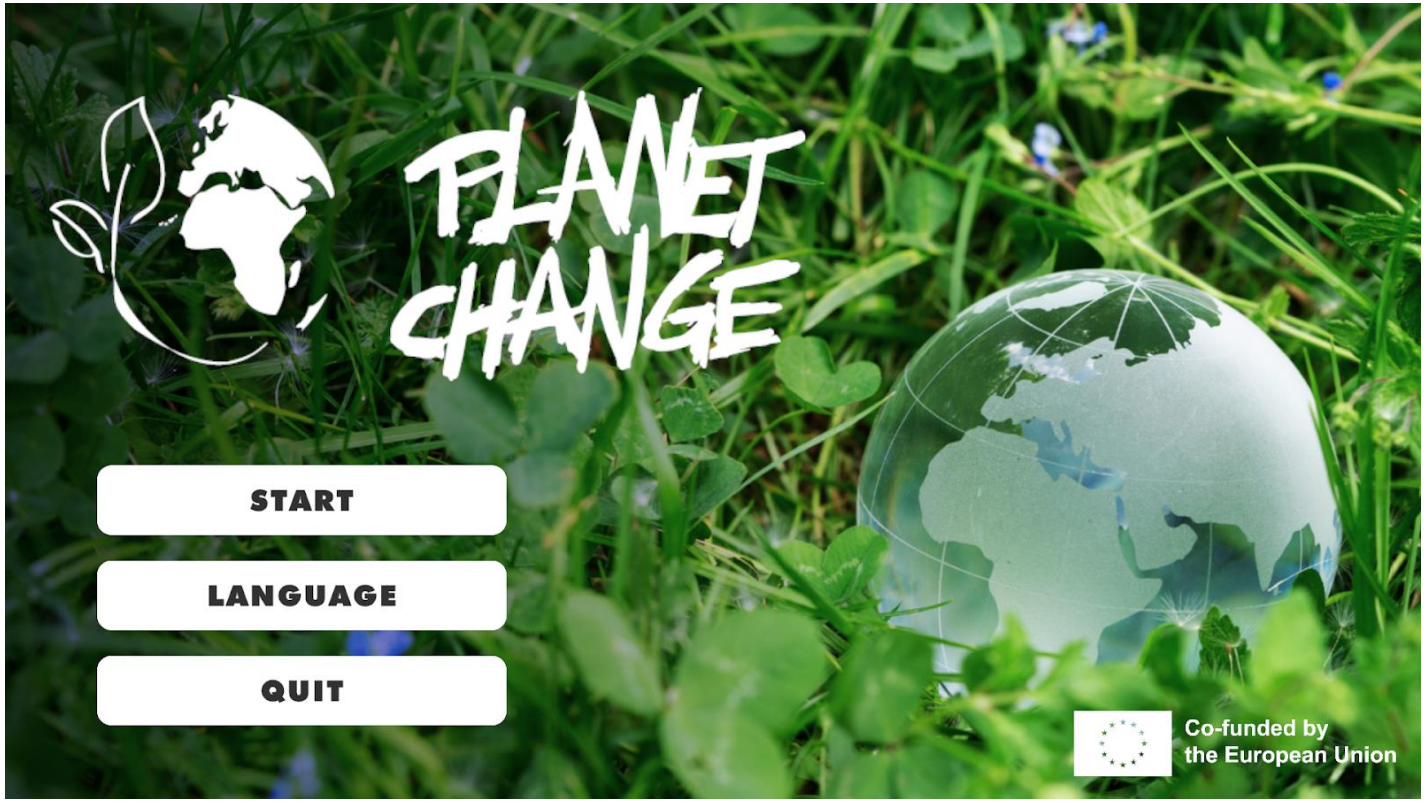
[Project number: 2022-1-NL01-KA220-VET-000085960] This project has been funded with the support from European Commission. This website and all its contents reflect views only of author, the Commission cannot be held responsible for any use which may be made of information contained therein.

Multimedia activities



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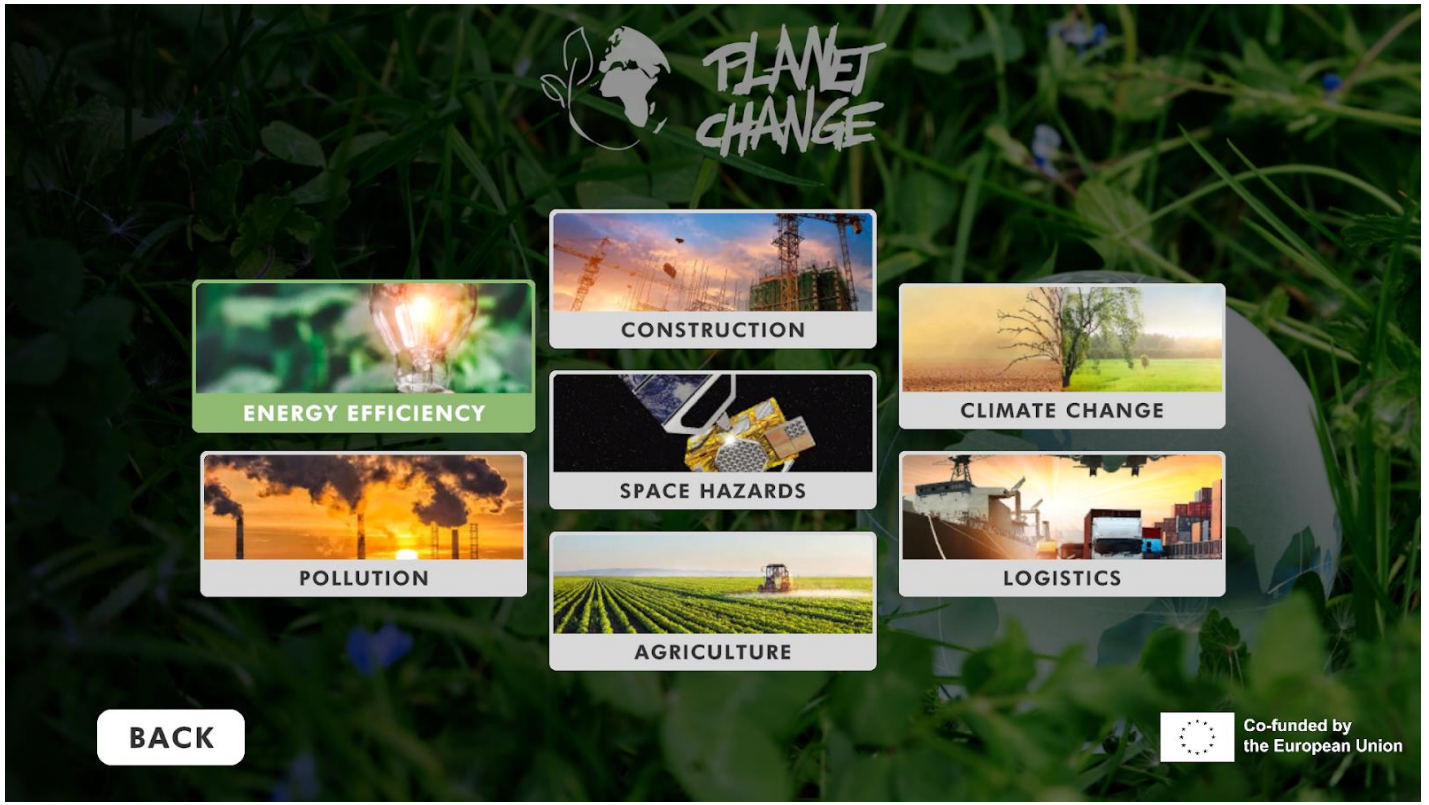
Multimedia activities



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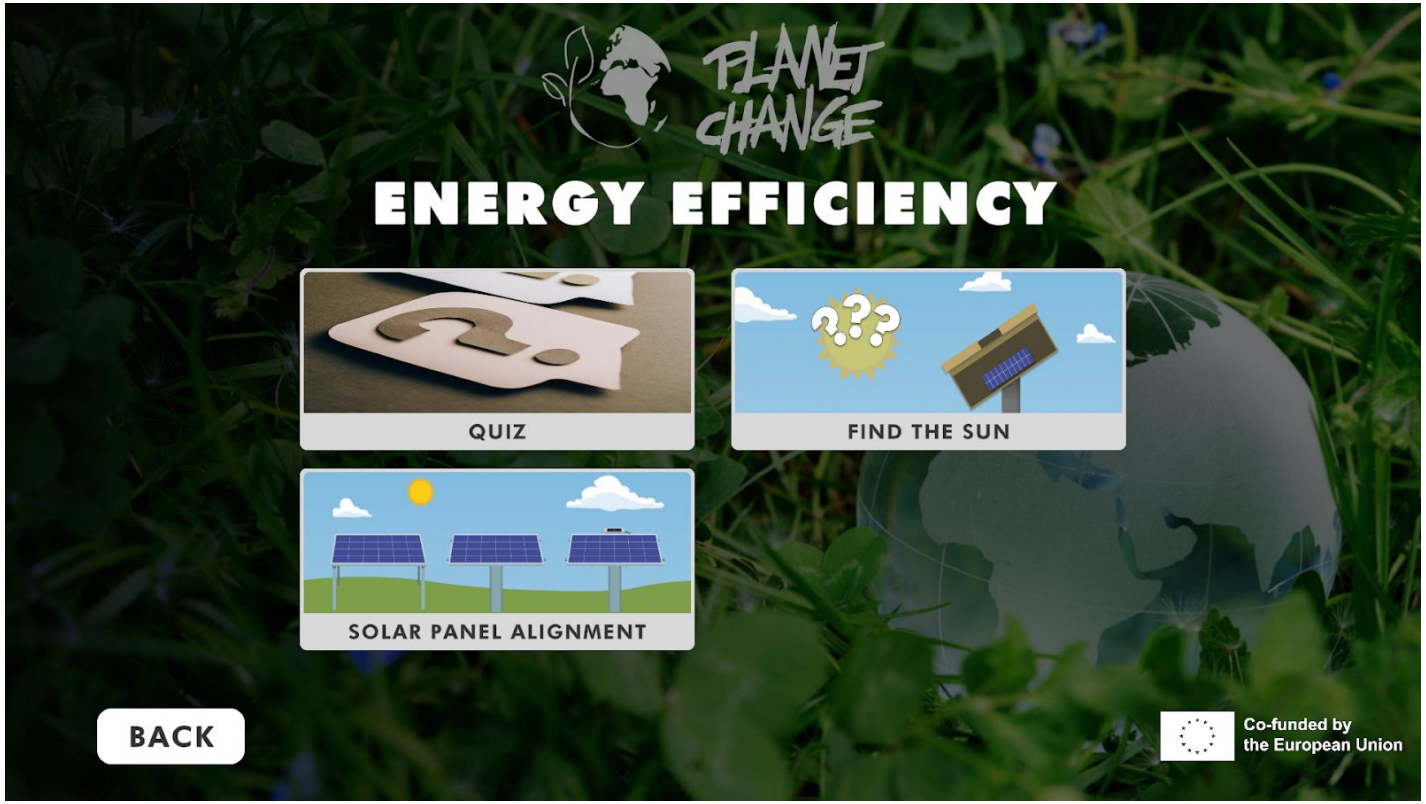

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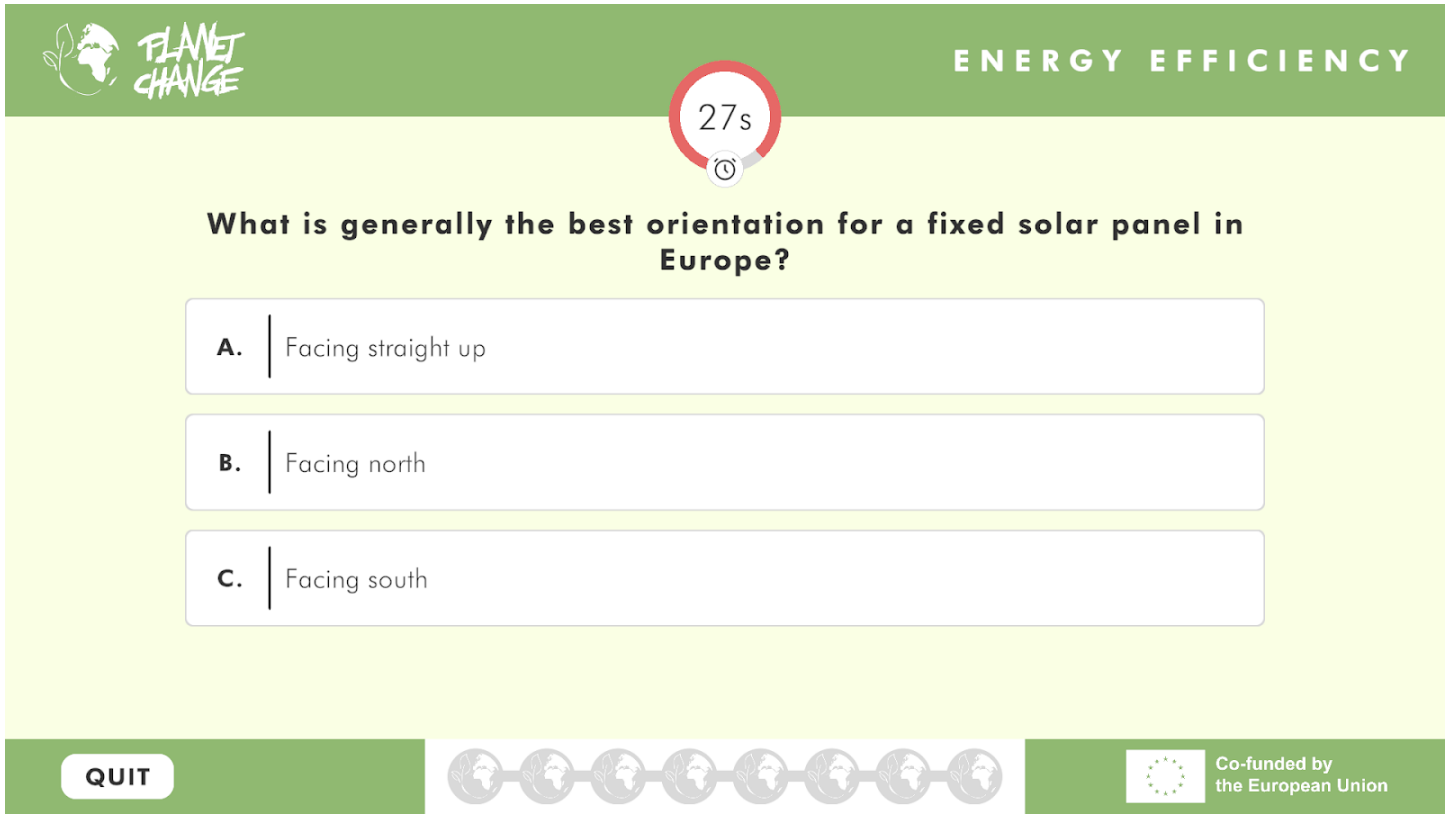
Multimedia activities

- **Quiz**
- Simulation
- Game



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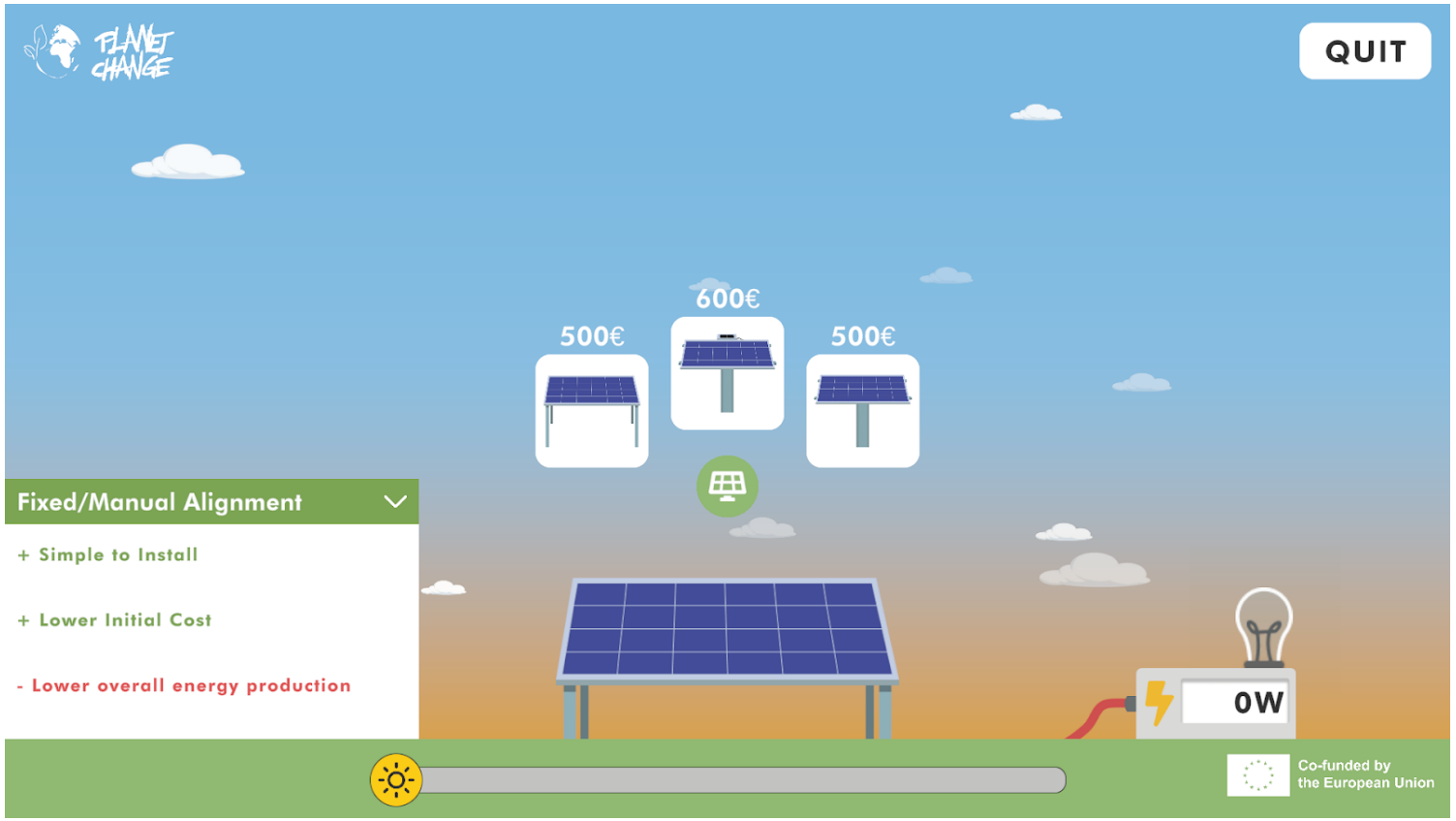

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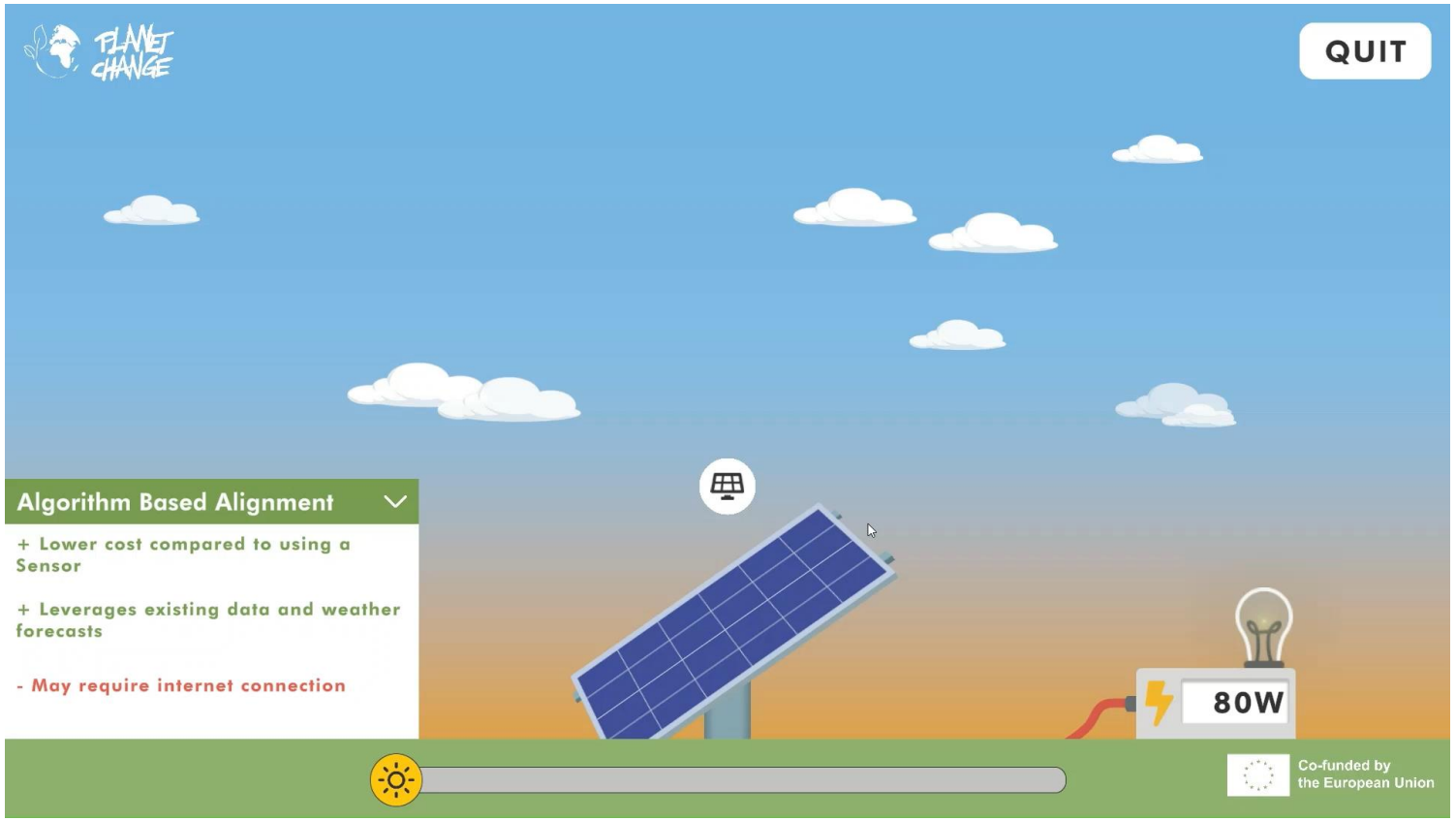

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Multimedia activities

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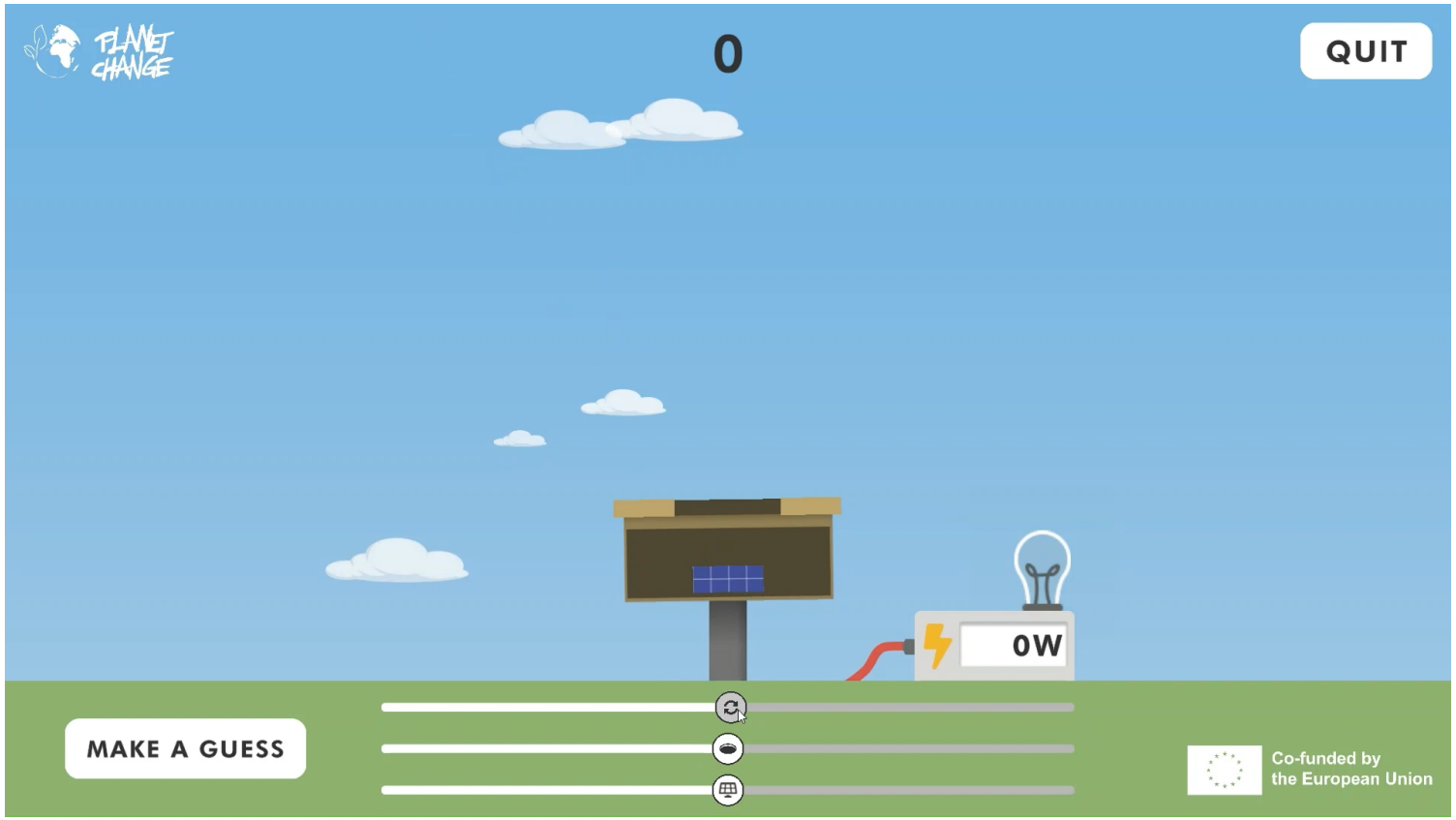

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Today

- Space for crop optimalisation
  - Make use of Earth observation
  - Browser tutorials
- Reflection

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Activity Space for crop optimalisation

Space for crop optimalisation

- Duration 2 x 45 minutes
- European qualifications level: 3-4
- Topic: agriculture and climate change

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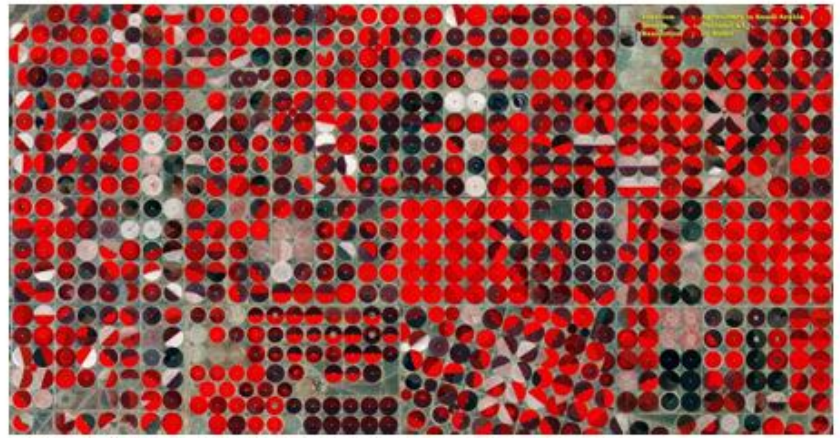
Activity Space for crop optimalisation

Introduction



Sentinel 2 monitoring agriculture in Saudi Arabia. Light red means healthy crop. Credits: ESA

Part 1: Satellites eyes help from space

EO browser

Part 2: Satellites for optimising agriculture: How?

Part 3: Reflection and next steps

Part 4: A possible future in the space sector

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Tutorials

[Google Earth Pro]

[EO Browser]

Copernicus browser

NEW!

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Reflection

- How would you like to implement space technology in your activities?
- How would you like to implement sustainability in your activities?
- What aspect of the training would you like to implement in your activities?

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Implementation of sustainability and space

- 8th of April, 15.00 - 16.30 CET

- Try other activities
- Talk with other professionals
- Learn best practices on how to implement sustainability and space

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