



# #Solar4Future+

ERASMUS+

SOLAR ENERGY FOR FUTURE GENERATIONS: BE BRIGHT, TURN TO SOLAR POWER  
2024-1-LV01-KA220-SCH-000252988

## POWERING THE FUTURE: SOLAR ENERGY TRANSFORMS EUROPEAN EDUCATION

An Erasmus+ project that brings together schools across Europe to build a responsible, creative generation prepared for climate challenges.

**In a world where climate change is no longer a distant threat but a present reality, education becomes the key to transformation. The Erasmus+ Solar4Future+ project brings solar energy from laboratories directly into the classroom, equipping students not only with knowledge, but also with the tools needed to build a sustainable future.**

The project “Solar Energy for Future Generations: Be Bright, Turn to Solar Power” (#Solar4Future+) brings together educational institutions from across Europe in a shared mission: shaping a generation aware of the impact of its choices on the environment and prepared to respond to the challenges of climate change.

Based on an interdisciplinary STEAM approach (Science, Technology, Engineering, Arts, and Mathematics), the project transforms learning into



a practical and meaningful experience. Students explore solar energy concepts, build functional devices, analyse the economic and social impact of renewable energy, and express their creativity through innovative artistic projects.

What makes Solar4Future+ truly distinctive is the collaborative structure of its curriculum. Each partner country contributes a specific thematic chapter, creating a coherent and comprehensive educational framework that connects theory with real-world application.

Latvia focuses on the science of light and solar energy, helping students understand how energy is generated and used. Croatia brings an engineering perspective, guiding students in the design and construction of solar-powered devices. Italy introduces a creative dimension through artistic expression using solar energy, while Romania explores solar concepts through mathematical applications and real-life problem-solving. Türkiye focuses on solar energy systems engineering and decision-making, while Spain addresses the

broader context of renewable energy and societal sustainability.

More than just an educational initiative, Solar4Future+ promotes modern teaching methods such as discovery-based learning, teamwork, and real-life simulations. Students are placed in authentic situations where they must analyse, argue, collaborate, and find solutions – developing exactly the competencies required in the 21st century.

By connecting schools from Latvia, Croatia, Italy, Romania, Türkiye, and Spain, the project builds a strong European partnership that goes beyond knowledge transfer, encouraging active participation, creativity, and responsibility.

Through this project, students are not just learning about the future – they are becoming part of it.

## RIGA, LATVIA THE START OF A SOLAR JOURNEY



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**After focusing on the theoretical framework and the development of lesson plans, the project moved to the classroom testing of the proposed activities.**

The activities conducted by the Latvian team focused on the testing of lesson plans developed within the Solar4Future+ project, offering valuable insight into how the curriculum works in real classroom settings.

The initiatives took place at Inženierzinātņu Vidusskola, where more than 30 students participated in interactive, hands-on lessons guided by two teachers. Students explored solar energy concepts through practical activities, engaging directly with the learning process.





The session reflected the project’s emphasis on experiential learning, encouraging students to collaborate, experiment, and develop key skills such as critical thinking, teamwork, and problem-solving.

At the same time, the testing phase played a crucial role in refining the curriculum, ensuring that teaching methods are effective, adaptable, and relevant across different educational contexts.

Beyond the classroom, the mobility strengthened the cooperation between partner institutions, contributing to the development of a shared European educational framework focused on sustainability.

20-22  
October  
2025



## ITALY – WHERE SOLAR ENERGY MEETS ART

Students explored sustainable creativity through solar-powered artistic techniques

**The mobility in Italy brought together all partner countries within the Solar4Future+ project, offering a unique perspective where solar energy became not only a scientific concept, but also a medium for artistic expression.**



**Students and teachers from all partner countries proudly present their solar-printed creations during the mobility in Italy, highlighting creativity, collaboration, and sustainable learning.**

Hosted by the Italian partner institution, this mobility engaged participants from all partner countries, strengthening the collaboration and cultural exchange within the Solar4Future+ project.

The activities focused on the theme of “Artistic Expression through Solar Energy”, reflecting Italy’s contribution to the project and its interdisciplinary STEAM approach.

Participants took part in hands-on workshops exploring solar-powered artistic techniques. Students experimented with anotype printing, using natural pigments such as turmeric, and cyanotype printing, a light-sensitive process applied to paper or fabric, creating images through exposure to sunlight.

These activities encouraged students to explore the connection between science and art, while promoting creativity, experimentation, and environmental awareness.

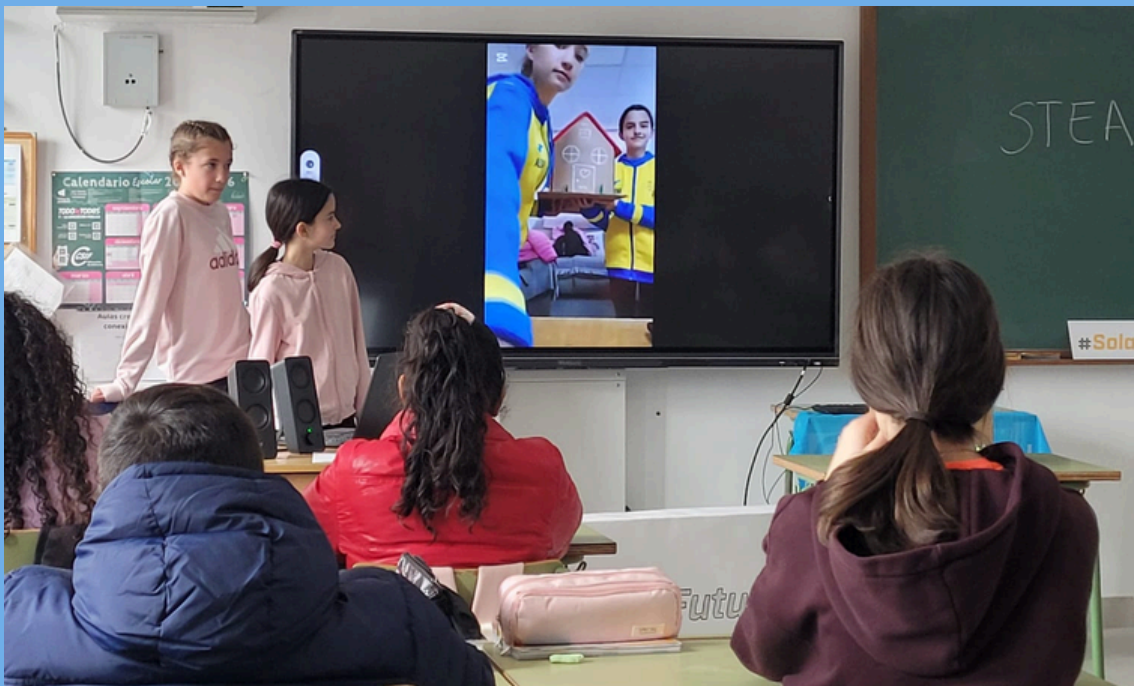
The final exhibition of students’ works highlighted not only the learning outcomes but also the collaboration and engagement that defined this mobility.



## SPAIN – SOLAR ENERGY AND SUSTAINABILITY IN SOCIETY

Students explored real-world solutions for a more sustainable future

The mobility in Spain focused on the social impact of renewable energy, encouraging students to explore how sustainable solutions can be applied in real-life contexts.



Hosted by the Spanish partner institution, this mobility reflected Spain's contribution to the project, focusing on the theme of “Renewable Energy and Sustainability in Technology and Society”.

Students were involved in activities that encouraged them to analyse real-life situations and develop sustainable solutions for different community needs. Through guided tasks and collaborative work, they explored how solar energy can be integrated into everyday life.

One of the key aspects of this mobility was the community-based approach, where students were challenged to think critically about environmental issues and propose practical, sustainable alternatives.

The activities promoted not only scientific understanding but also awareness of social responsibility, encouraging students to see themselves as active contributors to a more sustainable future.

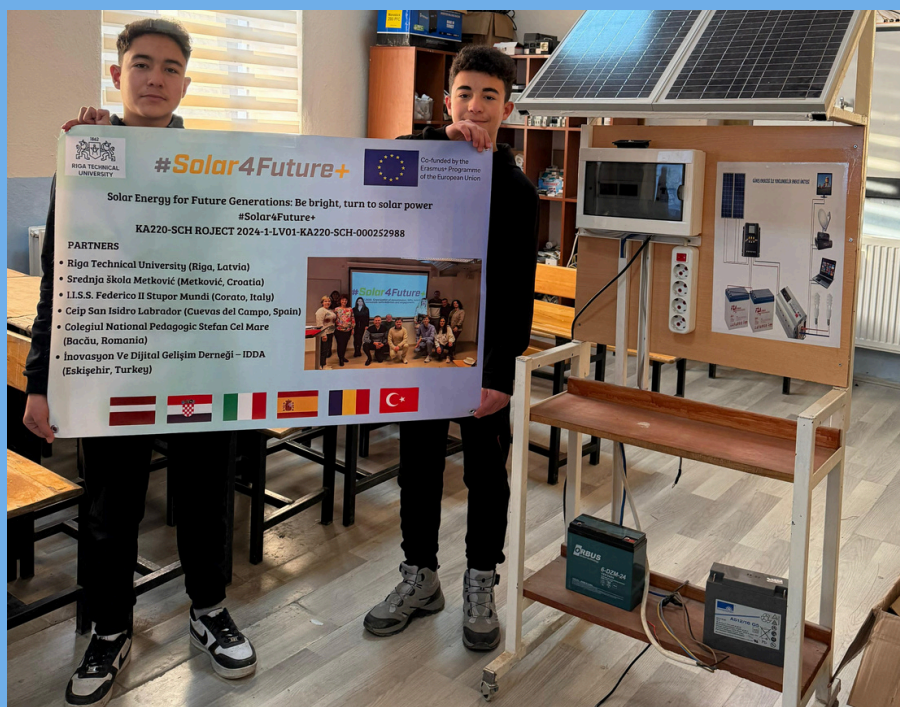
This mobility highlighted the importance of connecting education with real-world challenges, reinforcing the role of schools in shaping environmentally responsible citizens.



## TÜRKIYE – STUDENTS DESIGN THE FUTURE OF SOLAR ENERGY

Through role-play and collaboration, students explored real-world energy solutions

The activities taking place in Türkiye placed the students at the center of the learning process, challenging them to take active roles in designing solutions for a more sustainable future.



The actions focused on engaging students through interactive and participatory activities, reflecting the theme of “Engineering of Solar Energy Systems”.

Students took part in a dynamic role-play activity, simulating a Solar Energy Summit, where they assumed different roles such as engineers, decision-makers, and environmental specialists. Working in teams, they were challenged to analyse situations, propose solutions, and defend their ideas.

The activities encouraged active involvement, communication, and collaboration, allowing students to experience real-world decision-making processes related to renewable energy.

Through these tasks, students developed essential skills such as critical thinking, negotiation, and problem-solving, while gaining a deeper understanding of how solar energy systems can be designed and implemented.

The activities reinforced the importance of learning by doing, placing students in authentic contexts where they could explore, create, and take responsibility for their ideas.



AMBASSADOR  
SCHOOLS

## CROATIA – BUILDING SOLAR DEVICES THROUGH HANDS-ON LEARNING

Students turned ideas into functional prototypes using solar energy

**The initiatives in Croatia focused on hands-on learning, giving students the opportunity to design and build their own solar-powered devices.**



Conducted by the Croatian partner institution, these activities emphasized practical learning and experimentation, reflecting the theme of “Designing and Building a Solar-Powered Device”.

Students were actively involved in creating functional prototypes powered by solar energy. Working in teams, they designed, assembled, and tested their own devices, transforming theoretical knowledge into real applications.

The activities encouraged students to experiment, solve problems, and improve their designs through trial and error. By testing their prototypes in different conditions, they gained a deeper understanding of how solar energy works in practice.

This hands-on approach allowed students to develop technical skills, creativity, and confidence, while also promoting teamwork and collaboration.

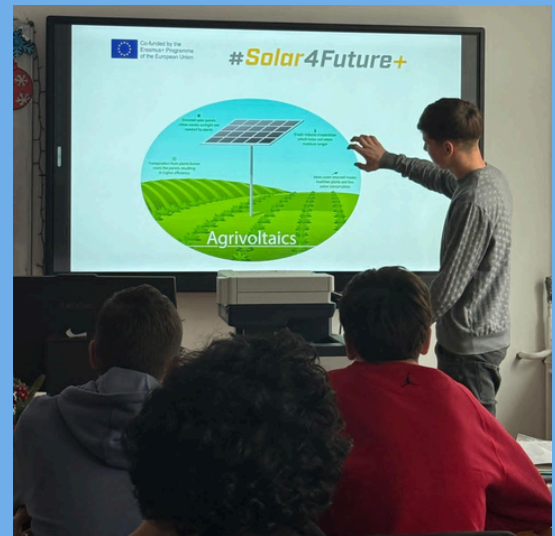
The actions highlighted the importance of learning through experience, showing how students can better understand complex concepts when they are directly involved in the process.



## ROMANIA – SOLAR ENERGY THROUGH MATHEMATICS AND REAL-LIFE APPLICATIONS

Students used mathematical thinking to understand and apply solar energy concepts

The activities in Romania highlighted how mathematics can become a powerful tool for understanding and applying solar energy in real-life situations.



The initiatives of the Romanian partner institution focused on practical applications of solar energy through mathematics, reflecting the theme of “Exploring Solar Energy through Mathematics”.

Students were actively involved in tasks that connected mathematical concepts with real-world scenarios. They calculated energy efficiency, analysed costs, and explored how solar energy can be used in everyday life.

Through guided activities, students applied formulas, percentages, and problem-solving strategies to better understand how solar systems function and how they can be optimised.

The activities encouraged logical thinking, collaboration, and the ability to interpret data in meaningful ways, helping students see mathematics as a practical and relevant tool.

The actions demonstrated how abstract concepts can be transformed into real-life applications, making learning more engaging and impactful.

Through collaboration, creativity, and hands-on learning, Solar4Future+ empowers students across Europe to become active contributors to a more sustainable future.