



Guiding Secondary Education Girls Towards Green Jobs



Project: 2023-2-BG01-KA210-SCH-000185374



















Project: GirlsGoGreen(GGG)

Guiding Secondary Education Girls towards Green Jobs through Challenge - Based Learning

Coordinator: ALDA Association/Bulgaria

For: 12 months, 2024

ID: KA210-SCH - Small-scale partnership in school education (KA210-SCH)

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- Empowering Secondary Education
 Girls with Green Skills for Green Jobs
- Fostering I-STEM engagement for sustainability
- GGG empowers SE girls with green skills via Challenge-Based Learning in STEM
- Promoting an I-STEM approach it enhances sustainability practices and STEM interest among girls

















GGG General Objective

GirlsGoGreen (GGG) aims to empower Secondary Education (SE) girls with green skills through innovative Challenge-Based Learning strategies and engage them in sustainability practices.

GGG promotes the Integrated - Science, Technology, Engineering and Math (I-STEM) approach to SE teachers in STEM disciplines as an interdisciplinary teaching method in environmental and Circular Economy (CE) contexts, particularly focusing on raising the girls' interest in STEM.















GGG Specific Objectives

- 1. Exploit and share best European SE practices in engaging SE girls in STEM education with a focus on green skills;
- 2. Empower 10 SE STEM teachers with new knowledge and skills in I-STEM teaching within the environmental and CE context;
- Raise the STEM interest and awareness of CE in 60 secondary school girls from 2 EU schools and one informal girls' group through the pilot of GGG new tool as an informal educational activity;















GGG Specific Objectives

- 4. Provide valuable feedback for EU career guidance in 60 EU SE girls;
- 5. Establish a European network of GGG ambassadors between secondary schools, local communities, and businesses through organising 3 Multiplier events Girls Go Green in PPC;















Setting the Stage: The Current State of STEM Education













Unveiling the Reality of STEM Education Today

Urgent Need for Green Skills Training

67%

High percentage of unprepared teachers for green skills

















"The future belongs to young people with an education and the imagination to create".

Barack Obama















Recognizing the Gap: Challenges for Secondary Education Teachers







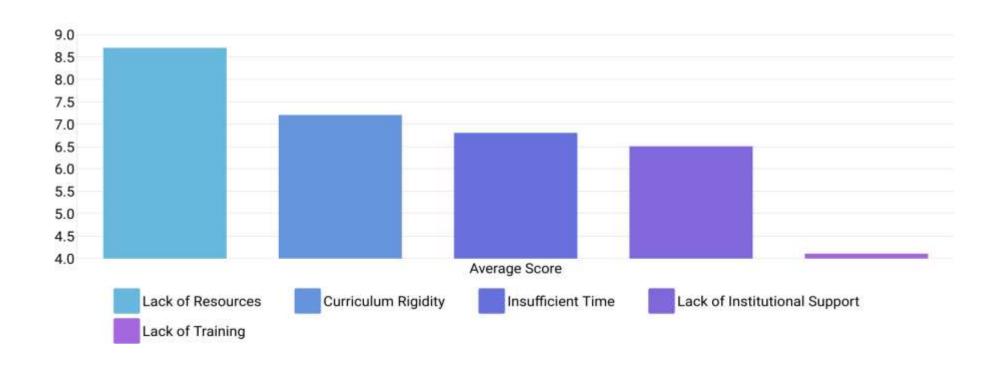






Navigating the Roadblocks in Green Skills Integration

Challenges in Integrating Green Skills into STEM Education

















A New Approach Emerges: Introducing Challenge-Based Learning













Revolutionizing STEM Education with Challenge-Based Learning

Inspiring Green Innovators

Challenge-Based Learning empowers students to tackle real-world eco-challenges, fostering STEM engagement and green skill development.











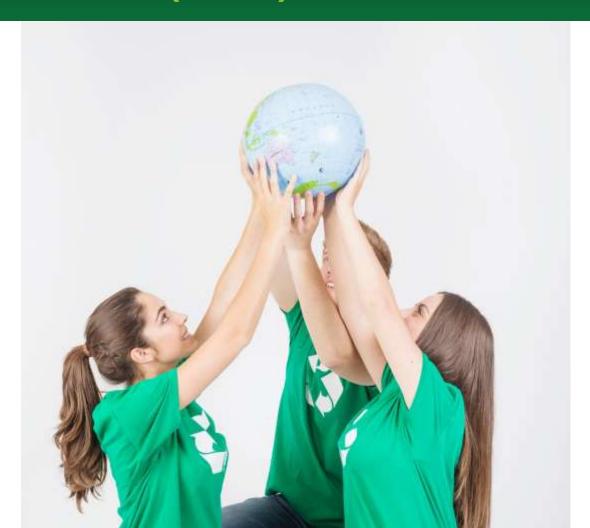




Key Principles of Challenge-Based Learning

Empowering STEM Education

- Real-world Challenges
 Encourage collaboration and problem-solving
- Authentic Learning Experiences
 Connect theory to practical applications
- Student Ownership
 Promote autonomy and curiosity
- Interdisciplinary Collaboration
 Leverage diverse skills effectively
- Critical Thinking Skills
 Analyze, explore, decide
- Culture of Innovation
 Think creatively and iterate

















Fostering Green Skills: Successful Implementation Strategies













Empowering Teachers with Successful Strategies

Effective CBL Strategies

- Step-by-Step Guide Structured framework for integration
- Best Practices
 Interdisciplinary collaboration, student-led inquiry
- Real-Life Examples
 Showcasing successful implementation cases
- Outcome Measurement
 Assessing pedagogy effectiveness with metrics
- Sustainability Integration
 Incorporating environmental responsibility principles















Measuring Impact: Assessing Green Skills Development

Measuring Impact with Assessment

- CBL Benefits Enhances critical thinking skills
- Assessment Tools Rubrics and checklists for evaluation
- Impact Metrics Environmental awareness and problem-solving
- Evaluation Frameworks Triple Bottom Line and SDGs
- Best Practices Showcase Tangible outcomes and improvements

















Transformative Impact: Student Engagement and Green Skills Acquisition















"Tell me and I forget, teach me and I may remember, involve me and I learn".

Benjamin Franklin













Green Skills Acquisition: Nurturing Sustainable Mindsets

Empowering Eco-Minds

Cultivating green skills through Challenge-Based Learning ignites student passion for sustainability, fostering environmental stewards and problem solvers.

















Culmination: Empowering Curriculum Developers for a Sustainable Future













Paving the Way for a Sustainable Future

Empowering Change Makers

Challenge-Based Learning empowers students to innovate for a sustainable future. Embrace CBL for greener STEM lessons.















Empowering Change: Equipping Curriculum Developers

Transformative CBL for STEM

- Real-world problem-solving Emphasize practical solutions
- Engaging collaborative projects Foster teamwork and creativity
- Critical thinking development Enhance problem-solving skills
- Curriculum integration guidelines Step-by-step implementation process
- Resource support for innovation Offer tools and opportunities
- Sustainable STEM culture Promote adaptability and stewardship

















GGG Partnership Details













ALDA Association is a non-profit organisation established in 2021.

ALDA supports various national initiatives in the field of education, youth, sport, culture and tourism. ALDA objectives:

- ❖ To promote effective policies and practices in the non-formal education in Bulgaria;
- To raise awareness among educational institutions towards innovative trends, problems and possible solutions to the informal education of youth and adults;
- ❖ To raise awareness campaign targeting communities and institutions that offer non-formal education about the latest innovations and good global practices in preparing quality programs for schools;















Platon schools (Kindergarten – Primary – Secondary – Lifelong Learning Centre) is a modern educational institution with 620 learners and 90 staff.

- Through use of the most up-to-date facilities, a diverse curriculum, experienced and skilled teaching staff and, most importantly, through consistency on principles and respect towards pupils and parents, Platon school has been struggling during the last 25 years for the accomplished education of our pupils.
- ❖ Platon is affiliated to: Katerini Municipality, International Hellenic University, District Educational Authority of Pieria, Chamber of Commerce of Pieria, Olympus Festival, Volunteering team of Pieria, Cultural and Athletic clubs.















Istanbul Ataturk Fen Lisesi - İAFL is a public high school of science. It was founded as the second high school of science in Turkey in 1982 within the scope of the Science School Project.

- ❖ The main aim of the high schools of science is to deliver a highly-academic and scientific education to high-achieving students to raise them as future scientists, engineers, and doctors.
- ❖ The school curriculum covers a general upper secondary education programme with a specific focus on science and maths subjects.

















GGG Project Target Groups and Participants













Target group of teachers

10 Secondary school STEM disciplines teachers and educators - mostly responsible for teen girls' education;



Target group of female students

60 secondary school girls to be empowered with green skills for green jobs and raised STEM interest;

















GGG Indirect Targets

- 4 School staff and STEM leaders of 2 schools from GR and TR and 1 STEM educator manager from BG;
- They need new strategies and educational programs to support students in STEM and GREEN education.





Project: 2023-2-BG01-KA210-SCH-000185374









Project staff and participants

- 3 researchers to carry on the project research and prepare the digital toolkit with min. 10 best practices;
- 3 technicians to help drafting the digital toolkit;
- 1 gender expert from Bulgaria to develop training material of a 12 hours course;
- 3 trainer expert in Green pedagogy, in Career guidance and in instructional design from GR to develop training material of a 12 hours course;
- 3 trainers from BG,GR and TR for delivering 12 hours course and around 10 hours for evaluating the draft scenarios of the participants
- 2 educators to attend the course and develop 1 scenario each
- 4 teachers to attend the course and develop 1 scenario each
- 4 teachers to attend the course and develop 1 scenario each
- 2 educators, 4 teachers from GR, TR meeting in Greece

- Implementation
- 1 expert on Gender balance
- 2 educators to implement the material and support students
- 1 expert on Career Guidance and 1 expert on Green Pedagogy
- 8 teachers to implement the material and support students
- 60 secondary education girls to take part in project pilot actions
- 9 girls/women to present innovative Sustainability ideas on Technology Entertainment and Design
- 6 participants in Kick Off
- 1 communication manager
- 20 participants from all partner organisations to take part in the Virtual closing Conference















GGG Results and Causes







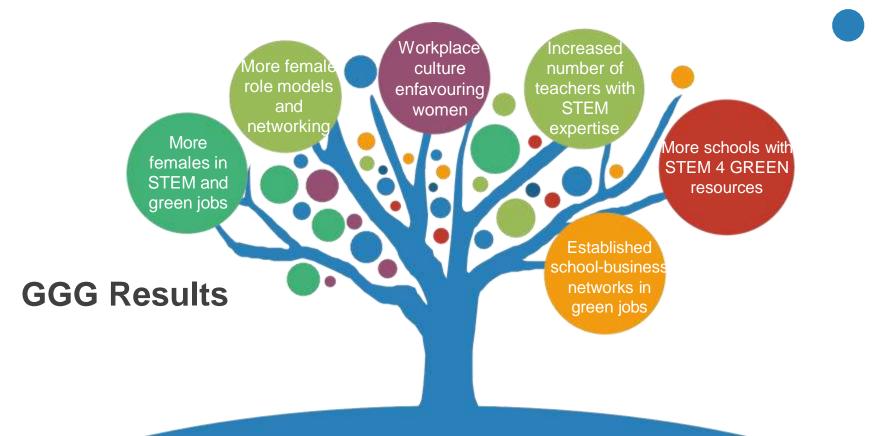






Project: 2023-2-BG01-KA210-SCH-000185374

GirlsGoGreen (GGG) Results



GGG results will enforce the EU secondary education with new STEM 4 GREEN resources based on CBL to empower girls with green skills for green jobs.







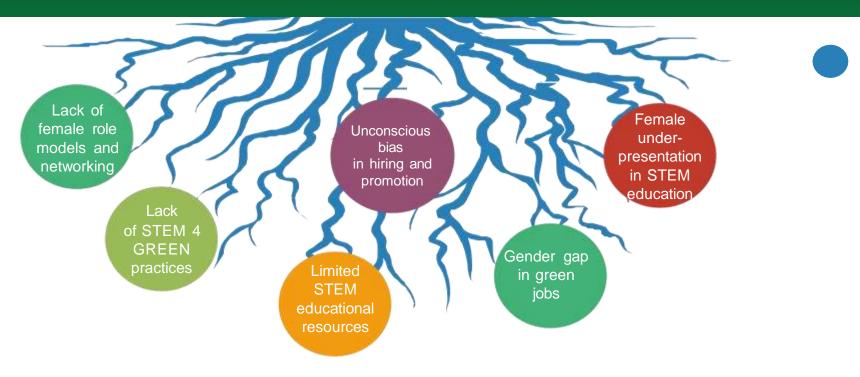






Project: 2023-2-BG01-KA210-SCH-000185374

GirlsGoGreen (GGG) Causes



GGG Root causes















GGG Activities and Deliverables













Project: 2023-2-BG01-KA210-SCH-000185374

GirlsGoGreen (GGG) activities/deliverables

Activities	Deliverables
1.Research on the best European secondary school practices in engaging girls in STEM education for development of skills in accelerating the green transition;	1 digital toolkit including a minimum of 10 practices in secondary school practices in engaging girls in STEM education for the development of skills in accelerating the green transition
2.Elaborating of Green Qualifications and Career guidance through Co-Creation Challenge-Based Learning approach (CCC_BL) online open-source course for teachers;	1 teachers' course - based on the Co-Creation Challenge-based learning approach (CCC_BL) providing knowledge on Environmental Sustainability, Circular Economy and Green Jobs, highlight the I-STEM methodology





Project: 2023-2-BG01-KA210-SCH-000185374









GirlsGoGreen (GGG) activities/deliverables

Activities	Deliverables
3.Training of the teacher activity (secondary STEM teachers' training on Green Qualifications and Career guidance through Co-Creation Challenge-based learning approach (CCC_BL) project course);	PPPs on the main subjects of the elaborated educational content in teachers course. Google Meet or Zoom by live trainers in 6 sessions of 2 hours each for 2 months.
4. A project teachers' meeting in Greece to develop and validate teaching material for implementation of the pilot course for girls;	Validated teacher material for the school pilot actions;





Project: 2023-2-BG01-KA210-SCH-000185374









GirlsGoGreen (GGG) activities/deliverables

Activities	Deliverables
5. Green Qualifications and Career guidance Pilot Implementation among secondary school girls;	1 Girls Green Jobs Guide for schools; 1 GGG (Girls Go Green) repository of four activities on Emerging Green Jobs for Schools; Online hackathon; 1 Educational Policy Guidelines;
6. Girls Go Green Multiplier event in Bulgaria, Greece and Turkey;	PPPs on the project and its deliverables; Established a network of GGG ambassadors between secondary schools, local communities, and businesses in Bulgaria to become part of the GGG European ambassadors' network;















GGG Project Management and Dissemination Activities











GGG Project management

- ❖ The project management encompasses contractual issues, technical, administrative, finance, communication, and knowledge management inside the project, and external relationships between the project and the NA. The Project's coordinator will lead this activity but will be assisted by all project partners. This WP has the following objectives:
- * Ensure effective planning, implementation, coordination, and achievement of the project activities, including timely
- ❖ Production of deliverables and successful completion of the tasks;
- Provide project structure and support to assist decision making, internal and external communications, encourage greater accountability and control, minimize risk, and identify address, and exploit project-related opportunities;
- Coordinate quality control for project deliverables and help the consortium achieve their project objectives;









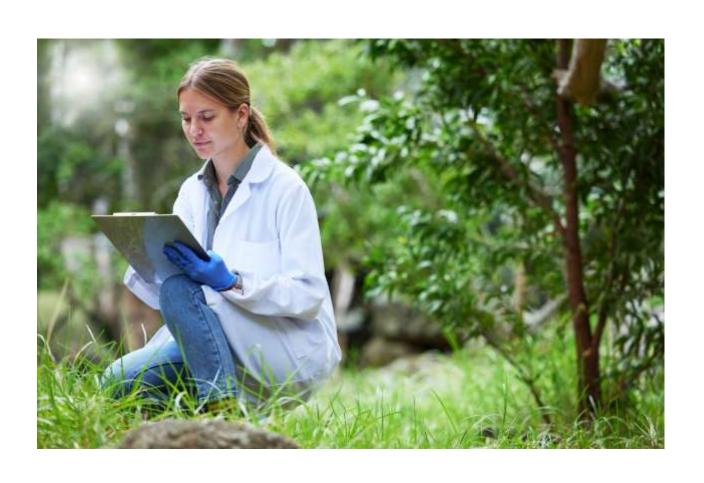




Project Management **Activities**

Managing Project Elements

- Contracts Management Handling contractual issues within the project effectively.
- Technical Requirements Addressing and meeting technical needs of the project.
- Financial Oversight Managing project finances efficiently and transparently.
- Effective Communication Facilitating clear and open communication channels within the project.
- Knowledge Management Ensuring effective storage and dissemination of project knowledge.

















Tangible and Intangible Project Outputs











Tanaible Project Outputs Project Impact Highlights



- Project Website
 Central hub for project
 information and resources
- Digital Toolkit
 Tools for implementing environmental education effectively
- Online Courses
 Accessible digital learning opportunities for girls
- Activity Repository
 Collection of educational activities for sustainability teaching

Policy Guidelines

Framework for integrating environmental topics into curriculum

- Multiplier Events
 Events to amplify project impact
 and reach
- European Network
 Collaborative platform for sharing best practices













Intangible Project Outputs

Building Capacity and Networking

Empower girls with green job skills, enhance teachers' pedagogical skills, mobilize local stakeholders. Establish digital toolkit, online courses, and European network for sustainability impact.















TANGIBLE

- 1. Project website and visuals
- 2. Digital toolkit of best practices in engaging girls in STEM;
- 3. Open online course for teachers on CCC_BL;
- 4. GGG (Girls Go Green) repository of four activities on Emerging Green Jobs for Schools; Online hackathon;
- 5. GGG Guide for schools;
- 6. Multiplier event in Bulgaria;
- 7. Multiplier vent in Greece;
- 8. Multiplier event in Turkey;
- 9. European network GirlsGoGreen;
- 10. Educational Policy Guidelines with 1 GGG repository of activities for Schools;

INTANGIBLE

- girls to be enforced with green job skills and STEM knowledge,
- teachers to be empowered with new pedagogical skills in STEM for green jobs
- ❖ mobilise local SE stakeholders













Dissemination Activities

Extending Reach and Impact

Maximize project outcomes by disseminating results through social media, newsletters, workshops, conferences, and the project website. Engage wider audience for sustainable impact.















GGG Dissemination Activities

- ❖ The Dissemination and exploitation Plan that will be defined at the Kick-Off meeting in Bulgaria on how to promote project activities and results achieving the best possible utilization and viability
- Promotion through Social Media accounts like Facebook, and Instagram presenting information on the project, its Partners, activities and results;
- Release of Newsletters;
- Articles on platforms, blogs, etc.;
- Workshop presentations in the project participation countries on the topic related to GirlsGoGreen;
- Conference Participation in project-participating countries on the topic relevant to the project and Proceedings;
- Well-communicated project activities with target groups;
- Good project communication between partners;
- GirlsGoGreen project website;















Project Milestones, and Timeline

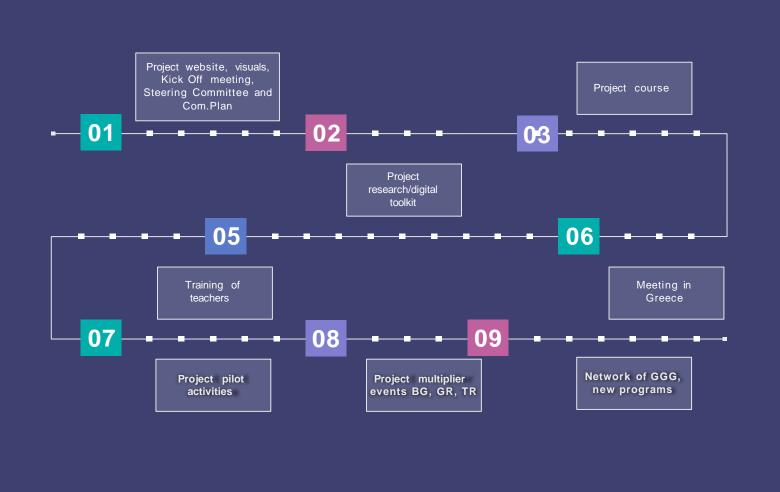
























Research

44 days, May- Jun 2024

Alda

Course elaboration

30 days, Jun-Jul 2024

Platon

Teacher's training

60 days, Jul-Sept 2024

Platon













Meeting In Greece

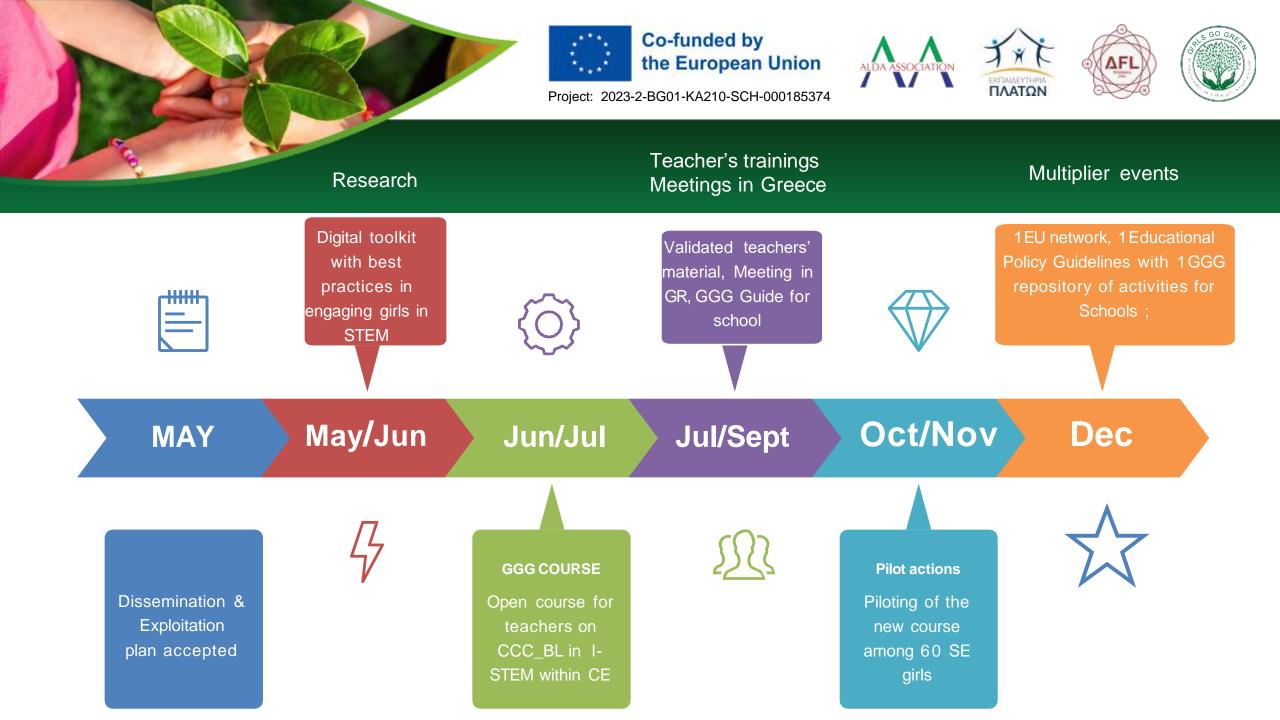
- 1 day
- Oct 2024
- Platon

Course piloting

- 120 days,
- Oct 2024-Feb 2025
- Platon

Multiplier Events, BLG, GR, TR

- 1 dayFeb 2025
- All Partners















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THANK YOU FOR YOUR ATTENTION