

AmCham Bulgaria Hackathon 2026

March 20 – April 30, 2026



Erosion control and soil restoration plan for a newly built PV and BESS project in Bulgaria



ASSIGNMENT CONTENT

1/2

Our company has recently completed a PV and BESS renewable energy project. During construction, the site required significant earthworks, including grading and cut-and-fill activities, to prepare the land, build access roads and project infrastructure.

After these works, some areas of the site remain exposed and are currently more vulnerable to surface runoff, small channels forming in the soil, and the movement of sediment. As the ground continues to stabilize and vegetation gradually establishes, visible signs of soil erosion can still be seen across several parts of the site.

ASSIGNMENT CONTENT

2/2

You are asked to develop a practical proposal that:

- Stops or significantly reduces erosion in the short term, and
- Improves soil quality and resilience long term, enabling stable vegetation and healthier soils across the site.

Your solution should align with the „Tech-for-Good: Local Impact“ theme, meaning it should be environmentally sound, locally suitable, and designed for measurable benefits.



MENTORS:

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TECHNICAL REQUIREMENTS:

The solution should cover four key parts:

1. **Diagnosis and prioritization**

Identify the likely causes of erosion (e.g., soil compaction, bare soil, concentrated water flow). Explain how you would locate and prioritize the most critical areas to address first.

2. **Implementation plan**

Describe the project phases and actions for each phase, including materials (such as suitable vegetation), timing, sequencing, and responsible roles.

3. **Nature-based and soil-health measures**

Propose vegetation suitable for Bulgaria, soil improvement methods (decompaction, organic matter, mulching), and a maintenance plan including mowing, inspections, and reseeded.

4. **Technology use**

Include technology to improve results (e.g., erosion mapping, drone monitoring, dashboards, rainfall-triggered inspections).

SKILLS TO BE DEVELOPED

- **Analyze complex business and environmental challenges** by identifying root causes, assessing risks, and prioritizing actions in a real infrastructure project context.
- **Develop practical and implementable strategies**, translating sustainability goals into structured, phased action plans.
- **Balance environmental impact with operational and financial constraints**, including cost awareness and feasibility considerations.
- **Use data and technology to support decision-making**, such as monitoring tools, risk mapping, and performance tracking.
- **Define and measure success using KPIs**, linking sustainability initiatives to measurable outcomes.
- **Collaborate and communicate effectively in teams** to deliver clear, professional proposals for real-world stakeholders.