L'ONG DES UNIVERSITÉS

Reference: N°012/2026/UCOOPIA-BJ/CP/RAF

Terms of reference

Topic: Mangal 2.0 Hackathon | Call for university teams to design innovative solutions.

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1. INTRODUCTION

1.1 PRESENTATION OF UCOOPIA

Ucoopia, the very first inter-university NGO in Europe, is the result of the association between Eclosio (NGO of the University of Liège) and ULB-Coopération (NGO of the Free University of Brussels), and the active participation of the University of Mons (UMONS).
In close collaboration with its partners, local organizations, civil society, and the academic world, Ucoopia promotes dynamics of change to:

- **Preserving and restoring natural resources**, including by supporting the agroecological transition, to ensure healthy and sustainable food
- **Promoting the socio-economic integration** of populations weakened by exclusion and inequality
- **Strengthening health systems** to ensure universal, equitable and quality access to health care
- **Encouraging citizen and academic engagement** in the face of societal and climate challenges, in Belgium and internationally

Ucoopia acts through knowledge creation and sharing, innovation, advocacy, equitable partnerships and citizen mobilization.

1.2 BACKGROUND AND RATIONALE

The Mangal Festival is an innovative platform dedicated to preserving and promoting ecosystems. The Mangal Festival is an innovative platform dedicated to the preservation and promotion of natural ecosystems in West Africa. Supported by the Delta Gulf of Benin Collective and coordinated by Ucoopia, with financial support from the Luxembourg Agency for Development Cooperation and administrative and financial support from the Swiss NGO Helvetas, the festival is part of a dynamic of cross-border cooperation and multisectoral mobilization.

Building on the success of its first edition held in Senegal, which brought together over 300 participants and generated significant economic and environmental benefits, the second edition aims to strengthen the connections between ecology, culture, and local development, based on the natural and human heritage of the Mono Transboundary Biosphere Reserve (RBTM). The festival is organized around five interconnected programs: the Pedagogical and Educational Program, the Protected Areas Management Program, the Scientific Program, the Territorial Attractiveness Program, and the Artistic and Cultural Program. Among these components, the scientific program plays a central role by serving as a meeting point between academic research and territorial knowledge. It is structured around three key actions: a scientific seminar in partnership with GBIOS and ENABEL, a series of thematic webinars, and a hackathon open to local innovators. In this context, the Mangal 2.0 Hackathon is part of the project—a major participatory system designed to engage the creativity and expertise of higher education students across the West African sub-region. This event aims to unite students, researchers, coaches, community actors, and

partner institutions around a shared goal: to co-design practical and innovative solutions to the priority challenges faced by the RBTM, especially regarding sustainable management of mangroves and wetlands. This document outlines the Terms of Reference, defining the framework, objectives, participation modalities, and conduct guidelines for the Mangal 2.0 Hackathon.

2. OBJECTIVES, THEMATIC

2.1 General objective

The overall objective of the Hackathon is to mobilize students to design innovative solutions that stimulate the local economy while ensuring the sustainable preservation of wetlands, in response to the priority challenges of the Mono Transboundary Biosphere Reserve.

2.2 Specific objectives

Specifically, this activity aims to:

SO1: Stimulate multidisciplinary collaboration among West African university students to generate innovative ideas that enable river-marine wetland managers to diversify and increase their sources of income, while ensuring that the ecological balance of the ecosystems concerned is maintained.

SO2: Develop, through a design thinking approach, prototypes of innovative, applicable and viable solutions, which strengthen the mobilization of economic resources for wetland management without harming their ecosystems.

SO3: Select, promote and reward the most promising, concrete and viable projects with a view to their effective deployment among river-sea area managers.

2.3. Theme and Challenge

The chosen theme is: **"Concrete action plan to develop the local economy while preserving wetlands".**

In this context, the teams will need to propose solutions with dual economic and environmental impacts.

Therefore, the proposal must demonstrate:

- its ability to generate local economic value;
- its active contribution to the preservation and restoration of ecosystems;
- its innovative approach or tools used;
- its interdisciplinary foundation by crossing at least two areas of expertise;
- its replicability in other similar contexts in West Africa.

Solutions should:

- Be adapted to local realities;
- involve stakeholders of the territory;
- be technically feasible;
- be economically viable;
- be environmentally sustainable.

3. TARGET AUDIENCE AND CONDITIONS

- **Targets**

The Mangal Hackathon targets students from the 13 coastal countries of West Africa, particularly from the following universities:

- Faculty of Agricultural Sciences (UAC) (Benin)
- National University of Agriculture (Benin)
- University of Parakou
- University of Cape Coast (Ghana)
- Félix Houphouët-Boigny University (Ivory Coast)
- University of Lomé (Togo)
- Nigeria Maritime University (Nigeria)
- Other West African universities.

The Hackathon will bring together up to 10 teams, each consisting of 4 to 6 students from diverse backgrounds (such as environment, agriculture, socio-economics/management, and digital fields) to encourage relevant and innovative solutions. Each university can register up to two teams.

- **Conditions of Participation**

To participate, the following conditions apply:

- Be enrolled in a partner university in a Master's or PhD program specializing in Environment, Biodiversity, or any other field related to the festival (Agriculture, Ecotourism).)
- Form a team of 4-6 members with a team captain who will submit the form
- Participate in all phases of the Hackathon
- Have minimum access to IT tools
- Participate in the Scientific Program Webinars

NB: Participation in the webinars before the hackathon is mandatory and a condition of access to the Hackathon, in order to guarantee the quality and relevance of the solutions proposed.

4. HACKATHON PROCESS

The Hackathon will follow a structured approach inspired by Design Thinking, allowing participants to understand the issues, design innovative solutions and test their relevance before their implementation. The followingg table presents the main phases:

Phase	Methodological step	Description	Period

Team applications	Online Quote.	Teams are asked to submit their applications by clicking on this link: Student registration link	Before 08 April 2026
Team selection	10 teams from the 5 countries concerned will be selected.	Teams will be selected based on the following criteria: • Motivation and dedication to availability • Multidisciplinary and mixed team • Understanding of the problem and possible solutions.	April 13, 2026
Scientific Webinars	Understanding and Immersion (Empathize)	Immersion in the realities of wetlands through 3 thematic webinars and sharing of experiences. These webinars will be led by scientific panelists and stakeholders from international field sites.	April 15 to 30, 2026
Pre-Hackathon Training	-	Participants will be trained on: • Using the TEAM platform • Design Thinking • Value Proposition • Business model • Territorial impact analysis • Pitch	April 15 to 30, 2026
Hackathon	Challenge Analysis and Ideation (Ideate)	Understanding the problem, analyzing the proposed challenge, formulating the team's angle of attack and generating ideas for solutions	May 06 to 09, 2026
	Feasibility and prototyping (Prototype & Test)	Selection of realistic ideas, elaboration of the economic model and development of a first prototype with the support of the coaches. A solution with a double impact: economic and environmental.	
	Action plan and pitch preparation	Based on the validated prototype, the teams develop a clear action plan (steps, resources, timeline) and prepare the final PowerPoint presentation of their solution to the jury.	
Post-Hackathon	Support	The top three teams will be selected to participate in the Festival's final event in September 2026 in Grand-Popo, Benin.	May 10, 2026.

5. EVALUATION, DELIVERABLES AND PRICING

5.1. EXPECTED DELIVERABLES PER TEAM

At the end of the Hackathon, each team will have to produce:

- A prototype solution
- A structured business model
- A PowerPoint pitch
- An operational action plan

5.2. Evaluation criteria

The solutions will be evaluated by a mixed jury (scientists, local leaders) according to the following criteria:

Criterion	Description
Relevance	Adequacy of the solution with the identified needs and the local context
Innovation	Originality of the approach and tools proposed
Feasibility	Realistic and feasible in the context of the MTBR
Economic impact	Potential for income generation for local communities
Environmental impact	Contribution to the preservation of ecosystems
Quality of the pitch	Clarity, conviction and structuring of the presentation

5.3. Prices and benefits

Participation will enable students to enhance their skills, strengthen their vocation, benefit from an international professional network, and increase their visibility. The top three teams will be selected to participate in the final event of the Mangal Festival, in September 2026, in Grand-Popo, Benin. The top three teams will be recognized in front of a diverse panel of actors, including those from conservative, technical, and financial sectors.

6. SUPERVISION AND ORGANISATION

The Hackathon will be held entirely online via Teams or Zoom (including the plenary room and team rooms). Each team will be supported by an expert coach throughout the process. The coach acts as a facilitator: guiding the process, enhancing the quality of solutions, and assisting in preparing the pitch, but not doing the work for the participants. Support in the form of an internet connection package will be provided to the selected teams. However, participants must have at least basic equipment (such as a computer or smartphone).

The Mangal Festival is positioned as an eco-festival, meaning an event whose organization reflects the environmental values it promotes. Accordingly, the Hackathon aligns with this philosophy by adopting a fully online format (reducing travel and carbon footprint), utilizing lightweight digital formats for deliverables, and promoting awareness of responsible digital practices among participants throughout the process.

7. APPLICATION AND CONTACT

Candidate teams must submit their application through the online form by April 8, 2026, at 11:59 PM (GMT). The form allows you to provide the team composition, contact details, motivation, and an initial idea for a solution.

Form link: Student registration link

For any questions or requests for additional information:

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Mandatory statement: "Candidature_Hackathon_Mangal."