INTRODUCTION:

The National Institute of Statistics of Rwanda (NISR) is thrilled to announce 2025 Big Data Hackathon, designed to engage university students in developing innovative data-driven solutions. This hackathon brings together innovators and data enthusiastic students to tackle major challenges facing Rwanda today. Participants are encouraged to find data which can help them tackle their chosen challenge and provide a data science solution.

OBJECTIVES:

- To promote youth-driven data science solutions to national development challenges.
- To foster evidence-based policymaking through innovative tools.
- Enhancing the use of national data in public and private decision-making.
- Build data science capacity across academic institutions.

HACKATHON TRACKS:

Participants are required to choose one track below

Track 1: Data for Export Growth:

Challenge: Identify Rwanda’s next big export opportunity.

- Analyze global trade and export data.
- Predict demand using machine learning.
- Visualize insights via dashboards or mobile alerts.
- Propose policy recommendations for export strategy.
- Promote youth and SME engagement in export sectors.

Track 2: Ending Hidden Hunger:

Challenge: Address micronutrient deficiencies.

- Map malnutrition hotspots using geospatial data.
- Develop predictive models of malnutrition risk.
- Analyze root causes of stunting and deficiencies.
- Recommend interventions involving health, agriculture, education sectors.

- Propose short policy briefs for local implementation.

Track 3: Climate Resilience and Disaster Risk Management:

Challenge: Build tools for climate risk prediction and community resilience.

- Predict and monitor risks like floods, droughts, landslides.
- Visualize hazard-prone zones using geospatial data.
- Develop alert systems (SMS, Mobile app notifications).
- Support community-based disaster risk planning.

Track 4: GIS Innovative Challenge:

Challenge: Build a spatial sampling frame for agricultural survey data collection (Season C).

- Identify and map areas with high potential for planting Season C crops.
- Develop an automated model to map and classify potential areas.
- Output should support agricultural planning and decision-making.
- Deliverables may include interactive maps, classification tools, and brief documentation of the methodology.

Track 5: Open Innovation: Mobile/Web-Based Data Solutions:

Challenge: Create innovative mobile/web applications aligned with Rwanda's development goals.

- Application must function as full web-based platform with mobile version (Android, iOS, or Windows).
- Open to all sectors, including health, education, agriculture, finance, transportation, etc.
- Projects must utilize NISR and open/public datasets.
- Emphasis on usability, impact, and alignment with NST2 priorities.

REQUIREMENT FOR PARTICIPATION:

- Competition is open to all undergraduate and Recent graduates (graduated in 2024 and 2025) or master's students, regardless of their field of study.
- Fresh graduates from fields related to Data science, Statistics, Economics, Mathematics, IT, Information Systems, and Web development are encouraged

to apply.
- Students must have a student card or other official document confirming he/her eligibility. Fresh Graduates must have a degree or other document confirming that he/she graduated from the university in either 2024 or 2025.
- For students, form a team of 2 from any university. Fresh graduate participation is individual, and their evaluation will be different for student.
- Students from the final year and female participants are encouraged.
- Participants are allowed to use any programming language of their interest.
- Submissions for the hackathon will be expected as **a** GitHub-deployed app link and documentation
- By entering the competition, the entrants agree to grant permission to NISR to use and reproduce their work, with appropriate acknowledgment.
- Plagiarism is prohibited. You must declare that the submission is your own work and that all sources of reference are acknowledged in full. Failure to do so will result in disqualification.

EVALUATION CRITERIA:

- Relevance to the Theme (20%)
- Data Utilization and Accuracy (25%)
- User Interface (UI) and User Experience (UX) (15%)
- Creativity and Innovation (15%)
- Impact and Scalability (25%)

PRIZES AND VALUE ADDITION:

- Every participant will gain practical data skills needed for a potential career path in data industry.
- The top 3 teams for the hackathon and infographic students will be awarded high-quality laptops for each member of the team. In addition, students from winner teams who are in their final year of study will be awarded professional internship after their graduation.
- The best fresh graduates will be awarded 6 months professional internship at NISR.

TIMELINE:

- **4th August – 10th September 2025:** Open for registration on the NISR website. The registration **closes on 10th September at 12:00am.**

- **September 2025:** Kick –off and guidance webinar and initial capacity building sessions (remote).
- **10th October 2025:** first-stage submission deadline.
- **22nd October:** Hackathon finalists for Phase 1 announced.
- **9th - 15th November 2025:** Hackathon Phase 1 (Technical mentorship & skills development).
- **24th November 2025:** Hackathon finalists for Phase 2 announced.
- **8th – 13th December 2025:** Hackathon Phase 2 (Advanced Technical Mentorship and final presentations).
- **Awards Ceremony:** To be communicated.

CLICK HERE TO DOWNLOAD 2025 HACKATHON POSTER



Please get in touch if you need further information regarding the Hackathon competition via email: **competition@statistics.gov.rw** or Tel: **0786872057**

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