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# INNOVATION CHALLENGE

## EGERTON UNIVERSITY ENTREPRENEURIAL FRAMEWORK

INNOVATION HUB

# HACK4IMPACT

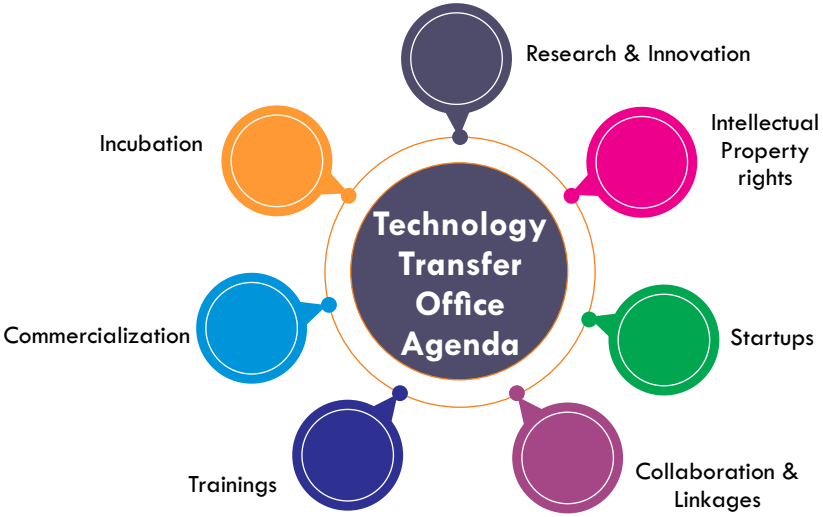
21st | NOV | 2025

**"Transforming Lives through Quality Education"**

***Egerton University is ISO 9001:2015 Certified***

# PROGRAMME FOR EGERTON UNIVERSITY INNOVATION HACKATHON

| Day | Duration | Activity | Facilitators |
|---|---|---|---|
| **21/11/ 2025** | **8:30 – 8:40** | Arrival & Regist. | Dr. M. Udoto (MC) |
| | **8:40 – 9:00** | Introductions | Prof. G. Owuor Director (R&E) |
| | **9:00 – 9:15** | ***Opening Remarks from DVC (A,R &E)*** | ***Prof. Bernard Aduda*** |
| | **9:15 – 9:30** | ***Official opening by the VC*** | ***Prof. Isaac Kibwage*** |
| | **9.30-9.40** | ***Objectives of the Hackathon (TTO)*** | ***Dr. Joseph Momanyi*** |
| | **9.40-9.50** | ***Objectives of the Hackathon (TTO)*** | |
| | **9.50-10.00** | ***Industry Experts*** | ***KIPI/KENIA*** |
| | **10.00- 10.20** | **Health break** | |
| | **10:30 - 12:40** | *Presentations* **(each innovator 5 mnts)** | ***Innovators/Judges*** |
| | **12.45- 13.15** | *Results and Award ceremony* | ***KIPI/KENIA VC DVC (A, R &E)*** **Director (*R &E*)** |
| | | **Closing Ceremony** | Dr. Maurice Udoto |
| | **13.20- 13.35** | ***Launch of the Students Innovation Club*** by the Vice-Chancellor | ***Prof. Isaac Kibwage*** |
| | **13.45- 14.00** | ***Closing remarks*** | ***Prof. Benard Aduda*** |
| | | **Lunch break** | |




## Our Vision

To cultivate a vibrant, student driven innovation culture within Egerton University that accelerates entrepreneurial growth and societal transformation.

## Specific objectives

1. Foster an innovation-driven mindset by nurturing creativity, critical thinking, and entrepreneurial skills among students.
2. Bridge the gap between theory and practice through hands-on, real-world problem solving, prototyping, and venture development.
3. Promote cross-disciplinary collaboration by bringing together students from various academic backgrounds to co-create impactful solutions.
4. Provide access to mentorship and networks by connecting students with industry experts, innovation hubs, government agencies, and startup ecosystems.

## From Academia to Industry: *Redefining the role of a University*

The Egerton University Entrepreneurial Framework is a strategic institutional commitment to transcend traditional boundaries. The framework is detailed in the blueprint paper entitled, Innovation, Entrepreneurship and Commercialization Master Plan (IECMP). While our core mission remains to generate significant knowledge and education that innovatively ensures socio-economic impact in Kenya and the region, IECMP Framework serves as the best foot to step the ground.

This Innovation showcase is one of the expressions in this Framework now in action. This is one of the acceptable ways the university is expressing commitment to turn cutting-edge ideas into viable solutions.The IECMP is built on **four** interconnected strategic pillars designed to support you—the innovator—at every stage realize your dream. Policy & Institutional Culture represent the Foundation, Research & Capacity, the Engine, Commercialization & Linkages the bridge, and IP Protection & Management the Shield.

## 1. The foundation (Policy & Culture)

At the very onset, we seek to establish clear policy and institutional culture**.** The purpose is to create a dynamic, supportive, and efficient environment which will nurture entrepreneurship at all levels—from student to senior faculty. This pillar ensures commercialization process is clearly defined, operational guidelines established, and administrative bottlenecks minimized.

## 2. The engine (Research & Capacity)

Research and capacity represent the engine that drives Innovations. This pillar ensures we generate high-quality, commercializable knowledge and have the talent to execute. Egerton University has demonstrated this through its metric Infrastructure of specialized labs (Biotech, Food Safety, Engineering Technology) and over {Ksh 1.67}$ Billion worthy of external funding. The university's knowledge base is demonstrated by the over1,422 peer-reviewed publications and and 444 post-graduate theses repositories for last 2 years.This Innovation showcase is **Focused on the** use of our rich scientific data and specialized labs to inform your proof-of-concept design strategic for your aid as the innovator at every stage:

## 3. The Bridge (Commercialization & Linkages)

Commercialization pillar bridges the Research to Revenue, the translation of incubated products into revenue-generating enterprises, fostering critical industry partnerships along the way. This pillar purposes to accelerate market uptake, drive industry collaboration, and create new revenue streams for the university. The university seeks to actively file many IPs, establish and grow/scale enterprises/startups. Today's showcase challenge focuses on the mining of IPs available, screen and obtain high-ranking ideas, for immediate registration for Patenting.

## 4. The Shield (IP Protection & Management)

**IP** protection and management or alternatively, **Securing Your Idea** represent the shield pillar. Under this pillar, the University shall systematically identify, evaluate, and file for the necessary protection (Patents, Trademarks, etc.) for all high-potential innovations. To this far, the university has established and operationalized an Intellectual Property Office (IPO) for scouting and initial protection support. The Launching of this Innovation Club is part of a comprehensive program to thoroughly cover the IPR Policy, startup policy and accelerate the processes.


## The Objectives of the IECMP Framework

The overall objective is to create a self-sustaining cycle where research, innovation, and commercialization drive revenue streams, industry collaboration, and national economic growth (aligned with Kenya's BETA). The activities will involve;

a) **Cultivating an Innovation Culture:** This is to integrate entrepreneurial thinking and innovation across all academic disciplines and non-academic functions.

b) **Supporting Idea Generation:** **This involves p**roviding specific resources and key infrastructure (physical and digital) to transform raw research into market-ready concepts.

c) **Facilitating Commercialization:** It involves establishing clear, streamlined pathways for licensing, spin-offs, and partnerships which bring university IPs to market.

d) **Strengthening Ecosystem Linkages:** We shall actively engage with government, private sector, and investment partners to secure needed resources and market access for our upcoming entrepreneurs.

## The Expected Outcomes

e) **Job and Wealth Creation**: Measurable increase in graduate-led and university spin-off startup companies.

f) **Increased IP Portfolio**: Higher volumes of high-value patents, registered licenses, and intellectual property.

g) **Enhanced Revenue Streams:** Diversified income for the University through successful commercialization and royalty collection.

h) **Community Impact:** Successful deployment of innovations addressing key societal and environmental challenges (e.g., food security, water scarcity).

## Key Milestones Achieved (I) - *Infrastructure & Policy*

### Building the Foundation:

The university has an established Innovation, entrepreneurship and Commercialization Master plan (2025), an entrepreneurship policy 2025-(wip), reviewing IP policy (2019), Research policy(2019), Draft startup policy (2025), Consultancy policy (2019). Technology transfer offices and ihub business incubation services are now in place.

### Technology Transfer Office (TTO)

**Function:** Central unit responsible for managing intellectual property, patents, licenses, and brokering commercial deals between researchers and industry.

### Launch of the Innovation Hub (ihub)

**Function**: A dedicated physical and virtual space providing training, mentorship, and resources for students and faculty developing new products and services.

### Draft Startup Policy

**Significance:** A formal institutional policy designed to clearly define equity sharing, IP ownership, and support mechanisms for university-affiliated startups.

### Establishment of the Water De-fluoridation Unit

**Impact:** A technological breakthrough developed at Egerton, now being rolled out to address a critical public health and environmental challenge in fluoride-affected regions.

## Key Milestones Achieved (II) - *Ecosystem Engagement*

IEC Implementation status

| Activity | Status |
|---|---|
| Draft plan | Complete - Awaiting Approval |
| Establishment | Complete - Physical and online (Web) |
| TTO | Coordinator appointed |
| Staff | Operational framework complete. |
| Policy | Work in progress (WIP) |
| Startup policy | Allocated, student led iHub established |
| Incubation site | 4 complete, one operational (Water de-fluoridation Unit set for opening) |
| Commercialization | Work completed;<br>1. 14 varieties with KEPHIS<br>2. 1.variety with ICRISAT<br>3. 1 copyright<br>4. 2 trademarks<br>5. 1 patent<br>} KIPI |
| IP Protection | |

### Robust Business Incubation Services

Comprehensive support including legal aid, business plan development, financial modelling, and access to initial seed funding for promising ventures.

### Deepened Engagement in the Kenyan Entrepreneurial Ecosystem

Formalized partnerships with national incubation networks, private sector leaders, and regulatory bodies.

### 1. Active Participation in National Events

Consistent presence at national innovation summits, trade fairs, and policy forums, ensuring Egerton's visibility and influence.

### 2. Establishment of Valuable Network Resources

Building a critical database of mentors, venture capitalists, technical specialists, and industry partners accessible to young entrepreneurs.

### *3.* The Current Milestone: *The establishment of Student Innovation Club*

Today's event represents the next evolution of our Framework—a rapid prototyping environment designed to generate market-ready solutions in

high-pressure, collaborative sprints. We shall lift the results to the next level.

## Egerton on the Kenyan Innovation Map

### Evidence of Growth & Achievements

Egerton University's commitment to breakthrough research is evident in the successful commercialization of six (6) crop varieties, licensing of six (6) more, in the process of establishing four (4) spin-offs/startups.

**Sorghum Beer:** Development of a commercially viable, locally sourced beverage product.

**Fish Feeds**: Locally formulated, cost-effective feeds to support the burgeoning aquaculture sector in Kenya.

## Our Commercialization Pathways

Egerton University actively uses multiple routes to ensure its research reaches the public:

**Licensing:** (As demonstrated by the Chelalang beans) Exclusive or non-exclusive rights granted to established companies.

**Spin-off Companies:** Directly assisting faculty and students to establish new companies based on University IP.

**Joint Ventures:** Collaborating with private firms to co-develop and co-fund innovative products.

**Social Enterprise:** Deploying low-cost solutions to community challenges (like the Water De-fluoridation Unit).

## The flywheel system & key levers we need,

**That can leverage multiple impact with same effort.**

1. Innovation and Commercialization Infrastructure & Data systems.

This is the system we need in place to solve for visibility of innovation and research, Market validation and begin the process to unlock capital/funding from private sector.

*2.* Catalyzed Venture studio *(the engine that transforms research into venture)*

This is the system we need to catalyze our idea to market pathways, moving from passive provision of limited infrastructure to a hands - on- co-founder role supporting the entrepreneurs to get to growth and scale.

*3.* Private Capital models & self replicating funding *(brended financing)*

This the system we need to create a self sustain system that is seeded with impact capital but grows to unlock private capital in a systematic and trusted mechanism that ensure incentive alignment of all stakeholders.

4. Policy alignment *(partnership, IP, Curriculum teaching, procurement, incentives)*

This is the system that ensure the enabling policies and processes are in place to support this vision to scale.

From internal institutional policies to national policies that can either enable or hinder progress must iteratively evolved

## Questions Commonly Asked (QCA)

### 1. What is intellectual property?

Intellectual Property comprises intangible products of human intellect, such as inventions, literary works, designs, symbols, and trade secrets, safeguarded through patents, copyrights, trademarks, and trade secret laws, encouraging innovation and supporting economic development. In Kenya, IP is regulated by laws like the Copyright Act (2001), Trademarks Act Cap 506, Intellectual Property Act (2001), and international treaties, crucial for protecting creativity and fostering innovation.

### 2. Who can own intellectual property in Kenya?

IPR can be owned by individuals, businesses, or other entities. The owner of an intellectual property right has the legal authority to control how the IP is used and who can use it. Ownership of IPR typically arises in the following ways

I. **Individual Inventors/Creators:**

When an individual invents something (such as a new product or a piece of music) or creates original content (like a book or artwork), they automatically own the copyright or patent to their work.

II. **Employers:**

**SDG Olympiad list of winning projects, 2025:** Example SDG projects won elsewhere to learn from



In many cases, If an employee creates an invention or produces creative work within the scope of their employment, the employer owns the rights to that intellectual property

III. Companies and Corporations:

Businesses often own patents, trademarks, and trade secrets related to their products and services. These rights are valuable assets that contribute to a company's brand and market position.

IV. Joint Venture/Collaborative Efforts:

Intellectual property rights can also be jointly owned when multiple individuals or entities collaborate on a project. Ownership shares are typically defined in legal agreements.

V. Purchased or Acquired Rights:

Individuals or companies can acquire intellectual property rights through purchase, licensing agreements, or mergers and acquisitions

FIVE TYPES OF IPRs

Intellectual property encompasses various forms of creative and innovative endeavors, each protected by different types of rights:

1. Patents: Patents grant inventors exclusive rights to their inventions, preventing others from making, using, or selling the invention for a limited period, usually 20 years from the filing date.

2. Copyrights: Copyrights protect original literary, artistic, and musical works, giving creators the right to control the use and distribution of their creations. Copyrights last for the author's lifetime plus 50 years

3. Trademarks: Trademarks safeguard symbols, names, and slogans used to identify goods or services, ensuring consumers can distinguish between different products in the market. Protection duration is usually 10 years and the Trademark protection can be indefinite as long as the mark is used and renewed.

4. Trade Secrets: Trade secrets are confidential business information, such as proprietary methods, customer lists, or manufacturing processes, which provide a competitive advantage. Trade secrets have no fixed duration and last as long as the information remains secret.

5. Industrial Designs: Industrial designs protect the ornamental or aesthetic aspects of a product, influencing its visual appeal. Industrial design rights usually last for 5 to 15 years, depending on the period of extension.

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