



Photo @ MEST



Geographic Coverage

Presence across Africa with particular focus on Ghana, Nigeria, Kenya, South Africa and Côte d'Ivoire.

COMPANY OVERVIEW

The Meltwater Entrepreneurial School of Technology offers graduate-level entrepreneurship training in business, communications and software development for African youth. MEST was launched in Ghana in 2008 and expanded into Nigeria, Kenya, and South Africa over the past decade. It was established by the Meltwater Foundation, the non-profit arm of Meltwater, a Norwegian software company. MEST was founded to train and mentor young Africans so they can develop their technology skills and become future software entrepreneurs. The Meltwater Foundation's long-term goal is to create wealth and increase jobs in Africa.

For more information, visit: https://meltwater.org/

Mission statement

To equip aspiring African entrepreneurs with the necessary technological skills needed for successfully launching a start-up. The program aims to provide students with extensive hands-on project work, culminating in a final pitch and the chance to receive seed funding.

"We want people who are passionate about technology and are keen on launching a start-up. Our program focuses on recruiting students at the beginning of the pipeline, even before they have ideas for their companies."

> Tobi Lafinhan, Recruitment Manager, MEST

Key Innovations

MEST is characterized by three unique features:

- Many startup programs focus on people with welldeveloped ideas. MEST targets potential entrepreneurs before the idea generation stage.
- 2. Three capstone projects allow students to launch prototype companies into the market before their real business pitch, giving them plenty of practical experience.
- 3. The program invites top executives to give guest lectures and provides close interactions with them over two to three days. This offers students a chance to build networks and discuss their ideas.

Program Overview

MEST aims to help participants launch global software start-up companies that leverage African talent. The program offers a full time, 12-month sponsored program in Accra that attracts top talent from Ghana, Nigeria, Kenya, South Africa, and Côte d'Ivoire. The participants, or entrepreneurs-in-training, complete a graduate-level course in software development, business, and communications.

Participants form teams of three to four to work on a start-up idea and present their final business plan to a board of investors. Typically, half of the 15 to 20 teams receive seed funding of \$50,000 to \$200,000. These successful teams go on to participate in the MEST Incubator program for an additional six months.

Program History

MEST launched in Ghana in 2008 as the first integrated entrepreneur training and start-up incubator program. Founders chose Ghana as the site for their headquarters because of a number of positive macro-economic attributes, including political stability, high education rates, good English language proficiency, and international flight connectivity. The program is focused on software development due to the relatively low initial cost of buying a computer.

Appendix C: Case Studies | MEST



Types of Digital Skills Imparted

Technological skills are at the heart of the MEST initiative. The program aims to develop three core skill sets needed to successfully launch a start-up: business, communication, and technology skills. Technology skills focus on advanced digital skills related to software development. These include core programming languages, Scrum & Agile development, Java programming, key performance indicators and web analytics, developing algorithms, user interface, user experience and web development.

Business Model

MEST sustains its operations through a number of patrons. It is supported by the Meltwater Foundation and, to a lesser extent, corporate sponsors such as German-based software company SAP. The operating budget allows MEST to run a team of about 15 employees across Africa and Silicon Valley and operate the MEST campus in Accra. Participants are not required to pay any program fees and MEST provides housing and free meals to students.

MEST also offers annual seed funding to the promising start-up ventures that enter the MEST Incubator. This funding is provided in return for a minority equity stake in the new company. MEST recently opened its incubators to outside start-ups, increasing the scale and vibrancy of the its network.

Multiple partners provide non-financial support to MEST participants and portfolio companies, including web hosting by Amazon Web Services, free software subscriptions from Microsoft, access to Internet services by Internet.org, legal counsel from DLA Piper, and technology from Samsung and Vodafone.

PARTICIPANT SOURCING AND SELECTION

Target Segment and Pipeline Development

MEST Founder Jorn Lyseggen recognized Africa housed a vast supply of potential talent but lacked resources to fuel entrepreneurs. To tap into this potential, MEST targets Africans who are interested in starting their own software companies. The program was founded in Ghana and has expanded to receive applications from Nigeria, Kenya, South Africa, and Côte d'Ivoire. Applicants must have a degree from a top university or technical college and demonstrate an interest in technology. Candidates with prior work experience in the technology sector are preferred, although previous coding experience is not a prerequisite.

MEST gives its participants a platform to launch a global start-up with training, mentorship, and seed funding integrated into one innovative program. The program also brings in guest speakers, such as executives of leading companies, to interact with participants over dinner. The program aims to develop the skills and network necessary for students to develop their own initiatives and enhance the global visibility of successful African software companies.

While the program has traditionally used online marketing to find applicants, it also has begun to leverage community and partner networks as a part of its outreach. Program outreach includes:

 Online marketing accounts for around 50 percent to 70 percent of applications. This medium has broad reach and attracts technology-proficient applicants.



- 2. Community networks bring roughly 15 percent to 20 percent of applications. MEST has recently started looking for applicants through communities of developers, such as those at Facebook.
- 3. Physical marketing is responsible for around 15 percent to 20 percent of applicants. MEST leverages partnerships with educational institutes to develop a pipeline for promotion such as Moringa School in Kenya and Lancaster University Ghana.
- 4. MEST has focused on longer-term pipeline development recently by engaging with students through internships and outreach events. These are aimed at generating interest in the program by allowing students to build a strong profile before submitting their application.

The lead time from application to program start is about six months. Applications close in February, followed by interviews in April and program commencement in August.

Application and Selection

Applicants must follow a rigorous vetting process. It starts with an online form followed by a series of tests and inperson assessments to evaluate applicants' analytical thinking, business acumen, and interest in technical entrepreneurship.

Selection Process

- 1. **Online Application:** Applicants are required to fill out an online form and submit their resume along with a letter of reference.
- 2. **Aptitude Test:** The test is a modified version of the Graduate Management Admission Test and includes five to six sections covering business, logical reasoning, quantitative aptitude, entrepreneurship, and English language skills.
- 3. **Phone Interview:** MEST has a 10 to 15-minute conversation to measure the applicant's interest in the program.
- 4. **Group Interviews:** Interviews are conducted in five countries by a set of panelists. The process includes various tasks and activities to assess each applicant's teamwork capabilities and ability to think on his or her feet.
- 5. **Final Interview:** Outstanding candidates are offered a one-on-one interview to gauge their motivations and overall fit for MEST. Interviews last up to 45 minutes.

MEST has improved its recruitment process over time and now is confident in finding exceptional students from a large pool of candidates. One key change has been a reduction in the interview panel from 15 people to five. These evaluators now include general managers, recruitment managers, and a Meltwater representative. This change ensures that candidates who are successful in gaining a place on the program are highly entrepreneurial and business-oriented.

Key Challenges and Solutions

- Visibility of Candidates with Relevant Interests: Online marketing has historically reached a large, indiscriminate audience. This is problematic for MEST, which has a specific target audience. The organization is able to engage in more targeted marketing through partner networks.
- 2. Pipeline Development: MEST has struggled with

building a long-term pipeline of participants. The program opens internship opportunities to students from partner universities in an attempt to find candidates with a strong interest in entrepreneurship. This gives them time to show how they fit MEST and its mission.

3. **Region-specific Challenges:** The program has received fewer applications from countries such as South Africa, in part because of greater opportunities in technology and entrepreneurship training. In Nigeria, a large portion of applicants are not fully engaged in the application process and do not end up completing it.

PROGRAM EXPERIENCE

Program Training and Approach

MEST is designed so students benefit from multiple teaching methods over a one-year period. Training sessions are usually offered on-campus at the MEST Center in Accra. The program is divided into four quarters, each focused on different aspects of the start-up process. These include programming and core business skills, software development, prototype business plans, and a final investor pitch.

The program approach changes each year depending on market needs, but consistently focuses on the core skill sets related to business, communication, and technology. Class experience accounts for 80 percent of student learning and is split across lectures, field time for market research, free time for attending events, meeting group members, and exploring Ghana.

Students work on three capstone projects where they simulate the process of creating a business, from idea generation to market launch. These projects enable them to gain practical experience before their final business pitch to investors. About half of the final business pitches receive seed funding. The MEST Incubator program then continues for an additional six months for ventures that were able to secure funding.

PROGRAM TIMELINE			
1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
Programming skills & core business content	Software development life cycle	Idea to prototype business plan & pitch	Pre-incubation & final investor pitch
		completion	

Student retention has not been a problem for MEST, with only two or three participants out of 60 leaving the program early each year.

Instructors

MEST ensures that its staff is highly qualified. Senior faculty members generally have at least 20 years of experience in their industries and come from international consulting firms, Silicon Valley start-ups, and software companies. Global teaching fellows include engineering and computer science graduates recruited from top universities in the United States, Europe, and Ghana, as well as Master of Business Administration students or alumni who have led successful entrepreneurial ventures. Throughout the program, guest lecturers also travel to Ghana to mentor and network with students. Staff and teaching fellows with technical expertise come from the MEST alumni network, its partner network, and through recruiting agencies. Technical expertise allows fellows to provide guidance through all phases of the program, including technological product iterations.

PROGRAM IMPACT

Learning Goals

Instructors ensure that learning is a holistic process for students. Learning goals cover three skills areas:

 Communication: MEST believes in the importance of communication skills to successfully articulate business ideas. Instructors place a strong emphasis on building communication skills through group activities and



capstone pitches.

- 2. **Technical:** MEST focuses on developing "full stack" technical skills rather than generic coding. This ensures each participant has a holistic set of digital skills that can be applied within each market.
- 3. **Business:** Developing future business owners is integral to the MEST vision. Classes focus on establishing knowledge in basic marketing, project management, sales, leadership, and organizational skills.

Participants also develop soft skills that are necessary for success in business. Evidence for this lies in the consistent success MEST participants have in business competitions that call for soft skills, such as communication and teamwork.

Participants are expected to leverage MEST's partner network as a part of their learning experience. They are given the opportunity to do so with more than 30 organizations, including potential investors and leaders in the technology sector who provide mentorship and help foster growth of African start-ups.

Employment Process

MEST aims to create a group of future employers who will start their own companies and contribute to the growth of Africa's digital sector. It supports this vision with a full-time, on-the-ground team of business advisors and experts to assist with application development, marketing, sales and distribution for start-ups.

Types of employment opportunities available to MEST alumni:

- Graduates are given the opportunity to pitch business ideas to a board of investors so they can obtain seed funding.
- Some entrepreneurs use their business skills and experience to seek employment opportunities in professional services such as consulting.
- MEST often gets experts from large software companies, such as like Facebook, Microsoft, and Uber, who offer career opportunities to the most technologically adept students.

Employer Perspectives

MEST graduates are highly employable. They have robust technical skills and a breadth of cross-cultural experience that is gained by working with people from diverse backgrounds. MEST has trained nearly 300 entrepreneurs since it began and brought in over 80 international fellows and mentors to help train African youth.

Economic Impact

MEST has invested \$15 million in over 50 early-stage software companies, from e-commerce and consumer

Internet to aggrotech, fintech, healthcare IT, and digital media. These companies have created more than 400 skilled jobs in Africa. In 2008, only 10 percent of the students were female. In 2016, that had risen to 30 percent. MEST continues to promote women's participation in Africa's digital economy.

OPERATIONS

Program Evolution

Participation and Funding

MEST began with 12 students a year and has risen to 60. Its growth also led to a rise in seed funding for teams.

Program Duration

Another change is the program length. MEST began as a two-year program and switched to a one-year program, with less classroom time in favor of practical exposure. This allows students to begin building their businesses sooner. MEST started accepting applications from Nigeria in 2015 and soon after expanded to Kenya and South Africa. In 2018, Côte d'Ivoire became the fourth market for applicants, making the program truly pan-African.

Applications

The growing popularity of MEST has helped attract international applicants. In 2018, the program received over 2,500 applications. About 1,000 made it past the initial filter. Many of these applications came from non-target markets including Tunisia, Somalia, Sierra Leone, and Tanzania. The program currently has participants from 12 to 14 different nationalities.

MEST recently launched a partnership with non-profit STEMbees, founded by MEST alumni, to increase the number of female students. The partnership is aimed at providing mentorship to young women looking to pursue careers in science and technology fields.

Incubator

The MEST Incubator—which provides seed funding, working

space, and hands-on support for start-ups—also has been growing in size. The flagship incubator is located in Accra, Ghana. A satellite space opened in Lagos in 2016 and Cape Town in 2017. MEST plans to open a new incubator in Nairobi soon.

Path to Scalability

MEST has reached many applicants through digital advertising and online communities. As the program is focused on technology, an online medium is a fitting method for marketing. MEST also has leveraged partnerships to increase its reach within Africa. Its partnership with Moringa School, a digital and professional skills learning accelerator, provides students with a 15-week coding boot camp and career placement services.

STUDENT EXPERIENCE

John Muchiri is a 2017 graduate of MEST. He and two other graduates cofounded Nestmetric, a company based in Kenya using real-time artificial intelligence, with the support of the MEST Incubator.

Overall Experience: Diversity is the key to this program. Students come from many different countries and bring a variety of ideas, ambitions, and work styles. This diversity helps contribute to a unique learning experience.

Application Process: The multiple stages of the application process, particularly the aptitude test and one-on-one interview, make it tough. This difficulty ensures quality students who are top performers in their countries.

Program Approach

"The true value of the program really depends on what your experience has been coming in. I had programming experience, so didn't really need that training, though a lot of people did. I found the quarterly capstone projects very useful as we had to go out and try to get customers for our businesses. Entrepreneurship is so practical, so this element of practical learning was useful."

– John Muchiri, Cofounder, Nestmetric

Program Impact

John dreamed of starting a global company. MEST equipped him with the necessary skills, resources, and alumni network to help accomplish it.

Reflections

What were the key reasons for selecting this program?

After starting a number of local companies, John wanted to create a global company with a large impact on the community. MEST aligned with his ambitions and had the track record of seeding many such companies.

How did the program help you to achieve these goals?

MEST attracts people from around the world to give guest lectures and mentorship sessions, John said. These experts include chief operations officers of large Silicon Valley companies, such as Facebook, as well as investors and industry leaders. Their interactions with students are very impactful. The alumni network is also a source of inspiration. Discussions with them about their own challenges and approaches are helpful for entrepreneurs-in-training.

What advice or suggestions do you have for the program?

John believes it's important for these programs to have as much practical application as possible. He explained that trainers should have real experience in what they are teaching, as this gives participants real insight into the challenges of developing a certain program or selling to particular customers.

John said MEST is ideal for students who can come up with good ideas, but that is not always easy. Programs should ensure they assist participants during the idea generation phase. One way to do that, he said, would be to let them work on existing ventures within the incubator before they launch into their own idea generation process.

What advice or suggestions do you have for applicants?

John believes applicants should have a fixed goal in mind and be clear on what their ambitions are in order to make full use of the program. He said applicants without a clear goal often find it hard to cope with the intensity of the program. For those who have a clear objective, he believes MEST is effective in providing the training, support, and networks needed to achieve it.

Student Background



John Muchiri, **Cofounder of Nestmetric**

- John is the co-founder of Nestmetric, a customer retention platform for Software as a Service companies that use AI to predict customer behavior.
- He entered MEST in 2016 as a student, having dropped out of a bachelor's of science in computer science. John found the process of pursuing a degree and working on a business at the same time difficult, and enrolled in MEST to help launch a global start up.
- Nestmetric was founded by John along with two fellow students. The company was finally launched in 2018 with initial funding from MEST. MEST had been instrumental in inspiring them to come up with ideas to solve community problems and helped provide the resources required to start a global company.



Aaron Fu Managing Director, MEST

Aaron Fu is an early stage investor, and

has 4 years of experience focused on innovation in Africa, working across diverse industries from financial services to agriculture. He manages a portfolio of 30+ startups spanning industry groups including fintech, media, eCommerce and agritech.



Tobi Lafinhan Recruitment Manager, MEST

Tobi Lafinhan is a civil engineer with

experience working for leading organizations in West Africa. He currently leads MEST Africa's regional participant search, while also supporting international marketing and recruitment for teaching fellows.



Ashwin Ravichandran Director, Portfolio Support, MEST

Ashwin is an

Interactive Designer/Developer, specializing in user experience and user interface and product growth. He has a bachelor's degree in Computer Science. In July 2015, he began as a tech fellow at MEST in Accra, Ghana working with 60 entrepreneurs on how to build sustainable tech startups. He now leads the MEST Incubator in Ghana and manages the overall startup portfolio across Africa.



KEY PEOPLE

Kamil Nabong Entrepreneur-in-

Residence, MEST

Kamil has a background in law

and economics. A MEST graduate, he co-founded Dropifi in 2011 to help online merchants engage with customers in a better way. Dropifi was the winner of Kaufman Foundation's Startup Open in 2012 and later became the first African startup accepted into 500 Startups in Silicon Valley.



Vo Jackson

Director, Community, MEST

Vo was born in Kwazulu-Natal and

moved to Cape Town in 2001 to study medical psychology and social work at the University of Cape Town. After her studies she spent a year traveling India, Nepal and Thailand before returning to Cape Town as a marketing manager for a local luxury restaurant group. Shortly after, the entrepreneur bug bit and she set off on her own pursuits, starting seven various ventures. Today she is responsible for MEST South Africa and leads the pan-African team of community managers.