Harnessing the Power of AI for Africa’s Development

An Overview
Villgro Africa was first established in 2015 (known then as Villgro Kenya) to serve a nascent global health innovation ecosystem on the African continent.

The sector choice was informed by the lack of focused support in health and life sciences research and innovation.

Over the last 7 years, Villgro Africa supported over 50 innovators, invested more than 2.1M in funding in companies that have gone on to unlock over $20 million in follow on funding and touching million lives in Africa.

Villgro Africa funding partners include Argidius Foundation, Lemelson Foundation, IDRC, AI4D, USAID, Grand Challenges Canada, Saving Lives @ Birth, Johnson & Johnson Impact Ventures, Villgro Innovations Foundation (India), Villgro USA & Villgro Philippines, among others

In March 2021, launched a pan-African call for innovations entitled “Harnessing the Power of AI for Africa’s Development”.
What we excel in

1. **Screening & Selection** - Our context specific and rigorous selection process allows us to back suitable implementing partners (portfolio companies) for programmatic funders.

2. **TA** - We offer hands on customized technical assistance to our investees. We bolster their internal capacity by embedding our portfolio managers.

3. **SEED Capital** – We Leverage our funders to offer direct Patient Capital to Villgro portfolio companies and apply our de-risking mechanism and investment readiness support to help unlock follow on funding.

4. **Thematic Calls** – We identify priority areas and put a targeted call for innovations and manage the portfolio over the next 2-3 years. Good example is the recent call for AI innovations in Africa in partnership with AI4D funded by IDRC/SIDA.

5. **Ecosystem Building** – Interlinking with Academia, Government, Private Sector and Corporates to collaborate on Go-to-Market partnerships that allow Hardware innovations/SMEs/Startups to thrive.

6. **Market Entry Support** – We support entrepreneurs, Innovators and companies that want to enter any new market in East Africa.

7. **Jaza Rift Fund ($30mn)** – Next round of funding $200K to $800K to Villgro portfolio companies and other promising healthcare ventures outside our portfolio.
We received **187 applications** from 32 countries across Africa, including 28 from francophone countries.

25 companies (3 from francophone countries) proceeded to our due diligence process, where 12 of them (2 from francophone countries) were selected for a final pitch.

<table>
<thead>
<tr>
<th>Company name</th>
<th>Country</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRIX</td>
<td>Cameroon</td>
<td>Agriculture (Agritech)</td>
</tr>
<tr>
<td>Agripoa</td>
<td>Mauritius/ Tanzania</td>
<td>Agriculture (Agritech)</td>
</tr>
<tr>
<td>Redefine Africa Ltd</td>
<td>Tanzania</td>
<td>Finance (Financial banking)</td>
</tr>
<tr>
<td>XSENSEAI Company Ltd</td>
<td>Tanzania</td>
<td>Healthcare (Detection and Diagnosis)</td>
</tr>
<tr>
<td>Ocular (Makerere AI Lab)</td>
<td>Nigeria</td>
<td>Healthcare (Detection and Diagnosis)</td>
</tr>
<tr>
<td>Dawa Health</td>
<td>Zambia</td>
<td>Healthcare (Maternal Healthcare)</td>
</tr>
<tr>
<td>Korenti Health</td>
<td>Ethiopia</td>
<td>Healthcare (Record Keeping)</td>
</tr>
<tr>
<td>Sekani</td>
<td>Kenya</td>
<td>Healthcare (Telecommunication)</td>
</tr>
<tr>
<td>Naana Technologies</td>
<td>Burkina Faso</td>
<td>Healthcare (Detection and Diagnosis)</td>
</tr>
<tr>
<td>Yelenkoura Technologie</td>
<td>Mali</td>
<td>Healthcare (Assistive Technologies)</td>
</tr>
<tr>
<td>Brain Tumor Detection</td>
<td>Senegal</td>
<td>Healthcare (Detection and Diagnosis)</td>
</tr>
<tr>
<td>Streamline</td>
<td>Uganda</td>
<td>Healthcare (Community insurance)</td>
</tr>
</tbody>
</table>

**Countries included:** Mauritius, South Sudan, Sudan, Burkina Faso, Papua New Guinea, Niger, Egypt, Madagascar, Morocco, Libya, Tunisia, Gabon, Congo, Nigeria, Uganda, Kenya, Tanzania, Burundi, Rwanda, Zambia, Senegal, Togo, Nigeria, DRC, Cameroon, Mali, Ethiopia, Gambia, Zimbabwe, South Africa, Malawi and Ghana.
Alignment to Responsible AI

Responsible AI is a governance framework that documents how a specific organization is addressing the challenges around artificial intelligence (AI) from both an ethical and legal point of view, through development and deployment.

**Four principles of Responsible AI**
1. Underscore fairness.
2. Transparency and explainability.
3. Privacy and security.
4. Human centeredness.


## General Observations from the Program

<table>
<thead>
<tr>
<th>Observation</th>
<th>Description</th>
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<tbody>
<tr>
<td>General lack of understanding of what constitutes “AI”</td>
<td>Not a strong awareness of AI or it’s appropriate deployment and related challenges. Many are self-taught with low understanding on ethics, risks, etc.</td>
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<tr>
<td>Lack of Awareness of Ethical Issues</td>
<td>Issues/Concerns around data collection, use and dissemination are largely nascent</td>
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<td>There is promise towards scale and impact.</td>
<td>Across the continent, there are innovations that are showing promise towards commercialization and/or scale</td>
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<tr>
<td>The Quest to ”Monetize Data”</td>
<td>Towards sustainability goals, many companies are trying to figure out how they can monetize their data – this remains very elusive.</td>
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<tr>
<td>The Threat (Opportunity?) of Big Tech</td>
<td>Among innovators, there is growing sense the larger companies will eventually move in and eventually dominate the market</td>
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<tr>
<td>General lack of cohesion in the AI ecosystem</td>
<td>Opportunities clearly exist to enhance collaborations through intentional efforts in ecosystem development.</td>
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CALL FOR
African AI-Enabled Healthcare Solutions

Villgro Africa, IDRC, AI4D, the Oxford initiative, I-DAIR, Johnson and Johnson Impact Ventures, NVIDIA and Siemens Healthineers have partnered with the aim of uncovering health-focused African-led AI innovations.

How will you benefit?

1. Funding - Initial investment funding of up to 50,000 USD for selected innovations.
2. A customized one-year incubation program - Designed to help scale the innovation toward growth and impact.
3. Access to Networks - Access to development and investor networks from Villgro Africa, AI4D and partners.

DEADLINE:
25TH NOVEMBER 2022
Villgro Africa’s Support Model

**Pre-Product**
- Quarterly Diagnostic Panels, Mentoring and Access to Networks
- Value Proposition Validation
- Product/Service Development & Design
- IP/Innovation Management
- Villgro Funding/Co-Funding

**Pre-Revenue**
- Business Model & Validation
- Regulatory Approval & Policy Support
- C-Level Talent Infusion
- Investment Readiness Support

**Pre-Scale**
- Investor Introductions
Challenges in making private sector investment and Villgro’s alignment to addressing them

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Villgro’s offering</th>
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| × Lack of Strong Sector Focused Innovation Ecosystem                       | ✓ Using a Triple Helix Approach Villgro is able to convene different actors from Academia, Private Sector and Government.  
✓ Villgro Africa has had a 7-year track record making healthcare investments in East Africa. This has afforded us lessons, domain expertise and academia-industry linkages that can further be enhanced by bringing on board partners to form an Industrial Cluster. |
| × Lack of implementation capacity (Lack of skills & C-Level Talent)        | ✓ Using our 6-point de-risking mechanism that touches on i) Team  ii) Business model  iii) Investability iv) Product  v) Impact Measurement and vi) Exit feasibility to help build capacity we are help innovators to focus on all the aspects of building a business.  
✓ The Team aspect of the de-risking mechanism mentioned above allows us to see gaps in the team skill set and team dynamics and produce a customized mitigation strategy.  
✓ Villgro Africa has also helped entrepreneurs to head hunt for complimentary skillsets for a C-Level position and formalize advisory boards |
| × Lack of Leverage/Limited Matching Fund partners                           | ✓ Over the last 6 years, we have invested ~USD 2.1mn as funding directly to healthcare startups. This has unlocked USD 20mn dollars as direct leverage. We tend to be first money in. Our de-risking mechanism increases the chances of companies to raise follow on funding. |
| × Lack of Staying power and patience capital by other investors            | ✓ Our incubation program ranges from acceleration of up to 1 year to a multi-year ranging from 2 to 3 yrs. and highly customized to suit individual entrepreneur needs. |
| × Restrictive policies and regulations in academia that impede creation of spin-off companies | ✓ Advisory support to institutions to help them set up tech transfer offices with innovator friendly policies |
Example of a **Typical Villgro Africa Deal Workflow**

- **Entrepreneur**
  - Apply for incubation
  - Preliminary Assessment/ Rapid Diligence
  - Internal Investment Committee (<$20K)
    - Accepted
    - Entrepreneur Questionnaire
      - Company validation
        - Site Visits
  - Detailed Diligence
    - Villgro Africa C-Level Team
  - Detailed assessment report
    - Villgro Africa Board
    - Accepted
  - External Investment Committee (>=$20K)
    - Financial Negotiation
      - Agreement Signed
        - Portfolio Management
          - Company & Incubation relationship Information
          - Revenue, Impact, Sales, Milestone tracking
          - Dashboards & Reporting

**Villgro Africa Board:**

**Financial Negotiation:**

**Agreement Signed:**

**Portfolio Management:**

**Company & Incubation relationship Information:**

**Revenue, Impact, Sales, Milestone tracking:**

**Dashboards & Reporting:**
Four Stages for Business Start Up and Development

1. Design
   - 1st Stage, Design – pre-seed funding to define strategy, develop technologies, prepare business plan, build a team.

2. Validate
   - 2nd Stage, Validate – seed funding to facilitate market trials and refinement, operationalizing the model and setting up innovation capabilities.

3. Prepare
   - 3rd Stage, Prepare – early-stage equity financing for marketing, supply chain, fixed assets, inventory and external heavy financing to improve market conditions, customers awareness, all stakeholders skills.

4. Scale
   - 4th Stage, Scale – financing to support expansion and renew the market to remain competitive.

Funding for each stage is crucial and needed:
- 1st Stage, Design – **pre-seed funding**
- 2nd Stage, Validate – **seed funding**
- 3rd Stage, Prepare – early-stage equity financing
- 4th Stage, Scale – financing

Financial Prospective

- Grants
- Soft Loans
- Guarantees
- QuasiEquity
- Equity
A Strong & Diverse Team

Wilfred Njagi
Co-founder & Chief Executive Officer
Wilfred Njagi has over 10 years experience working in Tech startups, business development, social entrepreneurship, impact investing and incubation support. He has international work experience in Middle East, Asia and Sub-Saharan Africa. He holds a MBA in Global Business and Sustainability.

Rob Beyer
Co-founder & Executive Chairman
Rob Beyer brings a combination of seasoned experience in senior administration and business development roles. Rob is energized by opportunities to create market-based partnerships that improve livelihoods while increasing financial inclusion and gender equality of opportunity. He holds an MA in Entrepreneurship and an MSc. In Business Information Technology.

Robert Karanja
Co-founder & Chief Research Officer
Dr. Robert Karanja has over 15 years working experience in academia and development entrepreneurship. His key enterprise is in biomedical research, health systems strengthening, intellectual property, technology commercialization & social entrepreneurship. He holds a Ph.D. in Parasitology and Entomology.

Wambui Nyabero
Chief Technology Officer
Eng. Wambui Nyabero is an inventor and innovator who is passionate about the healthcare industry. She has over 20 years of experience directing change and growth within both small and large enterprises in the U.S. She holds a M.S in Manufacturing Systems Engineering from Stanford University.

Franciscah Nzanga
Chief Operations Officer
Franciscah Nzanga has gathered significant years of experience in the Micro-insurance sector on project management, product design, operations strategy, actuarial pricing, process design as well as risk management. She has a background in actuarial science and holds an MBA in Financial Decision making.

villgro africa
A Strong & Diverse Team - continued

Moses Waweru
Senior Program Manager
Moses holds an MSc. in Global Health from the University of Manchester and a Bachelor of Business Administration specialising in entrepreneurship. He has diverse experience in managing health research and intervention programs covering areas such as substance abuse, mental health, HIV/AIDS, health promotion and behaviour change programs.

Immanuel Momanyi
Advisory Services Lead
Immanuel Momanyi has multi-sectoral experience working firsthand with businesses across Sub-Saharan Africa to develop business strategies, financial models and analysis, data analysis, market research and actuarial valuation. He holds a B.S in Actuarial Science.

Snider Mugese
Finance Lead & Portfolio Analyst
Snider Mugese is a Certified Public Accountant and a Certified Investments and Financial Analyst. She leads the finance department, participates in performing due diligence and provides technical assistance to our portfolio companies. She holds a B.S in Financial Engineering.

Deogratias Mzurikwao
AI Sector Lead
Dr. Deogratias Mzurikwao has over 6 years experience in the Artificial Intelligence sector on research and development. He is skilled in python, machine learning, deep learning, data science and pattern recognition. He holds a Ph.D. in Artificial Intelligence from University of Kent.

Jackson Mwatha
Corporate Finance & Advisory
Jackson Mwatha is a management and corporate finance consultant with over 10 years of experience working with early and growth-phase enterprises in achieving their strategic and capital raising goals. He holds a MBA in Global Business & Sustainability.

Snider Mugese
Finance Lead & Portfolio Analyst
Snider holds a B.S in Financial Engineering.
Amadi Growman has a history in examining and validating the accuracy of data. His key skills include, conducting diligence reports, qualitative & quantitative research and development of the ecosystem. He holds a B.S in Actuarial Science.

Joelle Mumley is an experienced writer and entrepreneur. She has a history of writing and editing within various industries including health technology, business development, finance and recreation. She holds a M.A in Social Entrepreneurship.

Edwin Osora has over 3 years experience working in the insurance sector. He provides analytical and technical skills for conducting market research and scouting, screening & selection of innovative startups for incubation. He holds a B.S in Actuarial Science.

Amadi Growman has a history in examining and validating the accuracy of data. His key skills include, conducting diligence reports, qualitative & quantitative research and development of the ecosystem. He holds a B.S in Actuarial Science.

Loice Shirwa is currently pursuing her CPA. Her key skills are creating, analyzing, examining and interpreting financial reports and statements. She also provides support in carrying out due diligence on startups across East Africa. She holds a B.Com in Accounting and Finance.

Winnie Wangari is a B.Sc. Mechanical Engineer graduate from the University of Nairobi. A registered graduate member of the Engineering Board of Kenya (EBK) and the Institute of Engineers of Kenya (EIK). She provides technical support to invention-based enterprises to help them through their product development stages and clinical validation phases.
Rebecca Amo

Consultant

Rebecca is an experienced professional with 8+ years across human capital management and strategy in organisations in Kenya, South Africa and India. Rebecca holds an Executive-MBA in Leadership and Management from USIU, a BSc. in Environmental Health Science and currently is an Executive Master’s candidate at the London School of Economics pursuing Behavioural Science.

Christian Khisa

Multimedia Specialist

Christian Khisa is a creative storyteller and content developer. At Villgro Africa, he collaborates with the team to communicate and tell impact stories. Christian leads video production and provides creative support to the communications team through content development such as photography and graphic design.
Who supports us

Our partners and networks

Strathmore University
PATH
AMREF
mHealth
Boehringer Ingelheim

The Lemelson Foundation
USAID
IDRC-CRDI
Johnson & Johnson Impact Ventures

Tangaza University College
ISHOW
Making more health