



...Keep
Innovating



ANNUAL
REPORT
2022



www.yiyasolutions.org

Luganda
Okuyiyya

English
Innovate

Swahili
Badili



Oku'yiya

verb Luganda

- To solve an old problem in a new way
- To Hustle

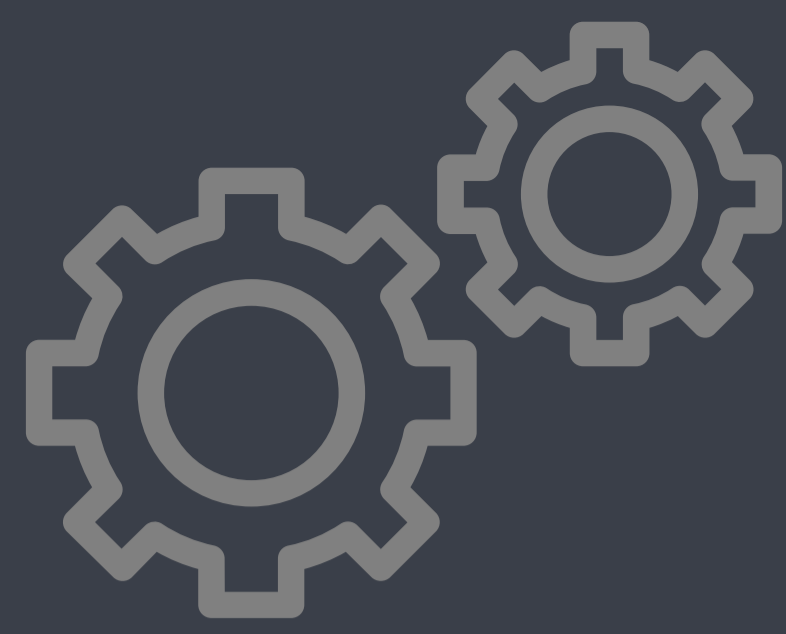


VISION



We envision a world where the 1.3 billion people living in Africa **have a seat at the table** in innovative fields globally, where African **perspectives, knowledge, and skills** help create new solutions to the world's biggest challenges. We envision a future where African technologies **drive a powerful African economy** that provides productive, fulfilling livelihoods for all its inhabitants.

Mission



We work to develop resilience and creative problem solving in African youth through experiential STEM education.

We aim to create the next generation of **African innovators and inventors** by teaching young people to use the engineering design process to apply **science and math** topics from school to **solve real problems** in their local communities.





Co-founders' message

Dear esteemed stakeholders,

We are delighted to present to you our annual report for the year 2022. Yiya celebrated its 5th anniversary this year, and the milestone gave us an opportunity to reflect on the impact we have accomplished so far. As so many of you know by now, Yiya in Luganda means 'to innovate.' Over the past five years, we have been so inspired by the Yiya learners who continue to innovate to use their Yiya skills. Some use these skills to improve their schoolwork, some use them to get back to school after dropping out, and many others use them to create more independent and dignified livelihoods for themselves. The development of our remote learning program Yiya AirScience has exponentially increased the numbers of young people we are able to impact. There are now 32,000 young people on the AirScience platform, with over 2.7 million interactions in the offline learning app itself.

We want to express our heartfelt gratitude to our generous partners who have fueled this impact. Thank you for supporting us to develop the next generation of African innovators! We are so deeply grateful for our incredible Yiya staff, our partners, board members, and all the Yiya Champions who contribute passionately to Yiya's vision of a world where the 1.3 billion people living in Africa have a seat at the table in innovative and technical fields across the globe. Whether you're on the front lines supporting young people in the field, helping guide the programs team to stay mission-aligned, or talking about Yiya to any person who stands still long enough, you are helping expand our impact on the young people we serve.

We are also grateful to [CNN](#), [The Global Partnership for Education](#), [HundrED](#), and [Carnegie Mellon University](#) for promoting Yiya's impact through your broadcasts and publications. We also thank NTV Uganda and the Uganda Broadcasting Corporation (UBC TV) for inviting us to talk about the potential of Edtech in removing the barriers to education for underserved youths. As we look forward to what lies ahead in Yiya's next 5 years, we are inspired by a Yiya learner named Bua who sent this message to all of us: 'Please carry on with the good work!'

We hope you enjoy the following report highlighting all the good work that the Yiya community has achieved this year! Mwebale nyo!

Erin and Samson



In 2022 Yiya's curriculum team designed a new curriculum for AirScience on pedal-powered washing machines.

1



Researching problems in our learners communities

2

Experimenting to create a technology that solves the problem and only uses materials that can be found in very rural settings.

4

Testing the curriculum with beneficiaries

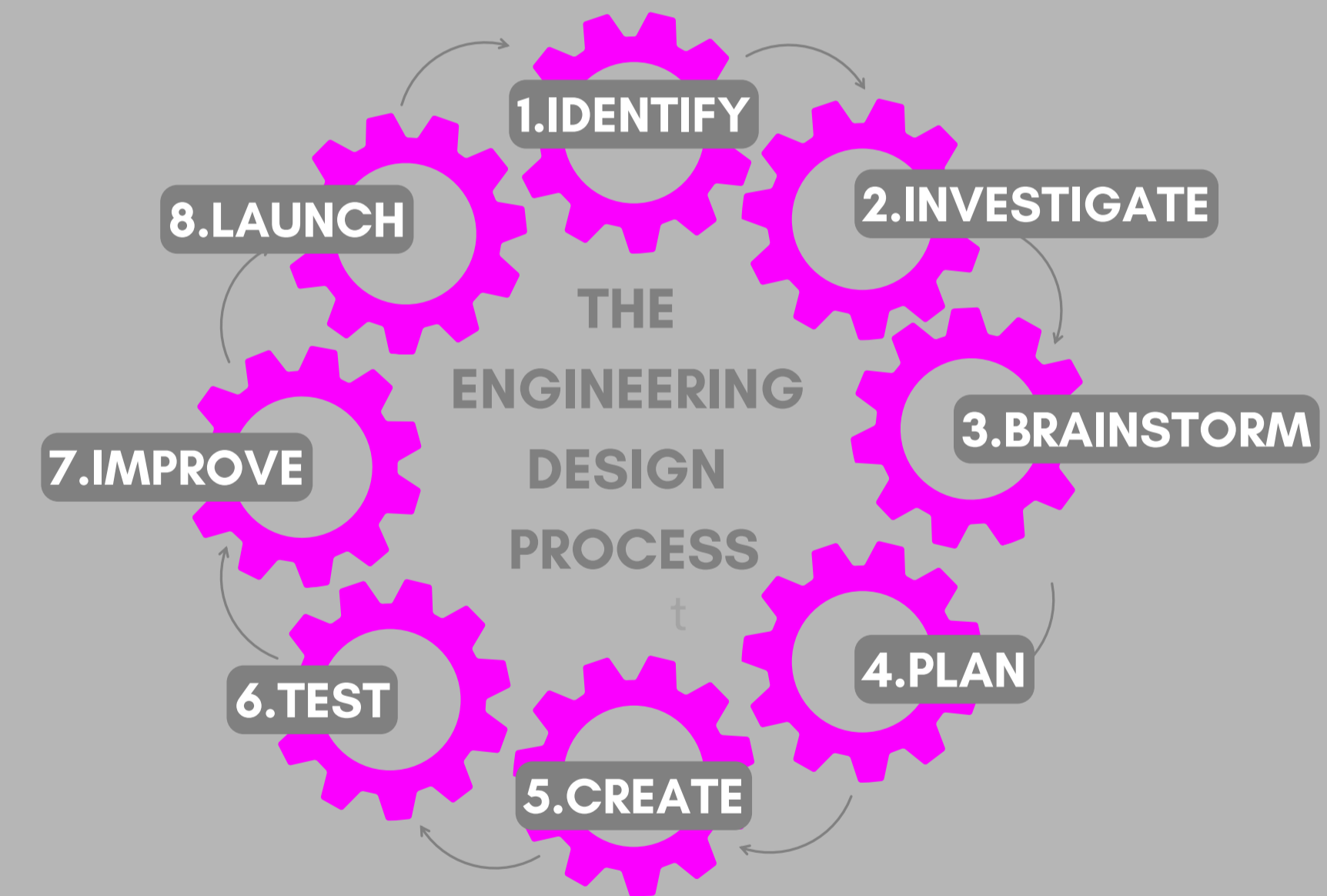


5

Training teachers on the new curriculum, including having them build the technology so that they are teaching from their own experience

3

Writing curriculum for voice only teaching within the 8-step engineering design process



6

Delivering the course on three radios: Q FM in Lira, Radio Maria in Gulu and Speak FM in Gulu, continuously getting feedback from learners and implementing changes in the as needed.

OUR LEARNERS

Gender breakdown of Yiya AirScience Students

Girls

52%

Boys

48%

Ratio of students participating in Yiya Airscience

NEET

16%

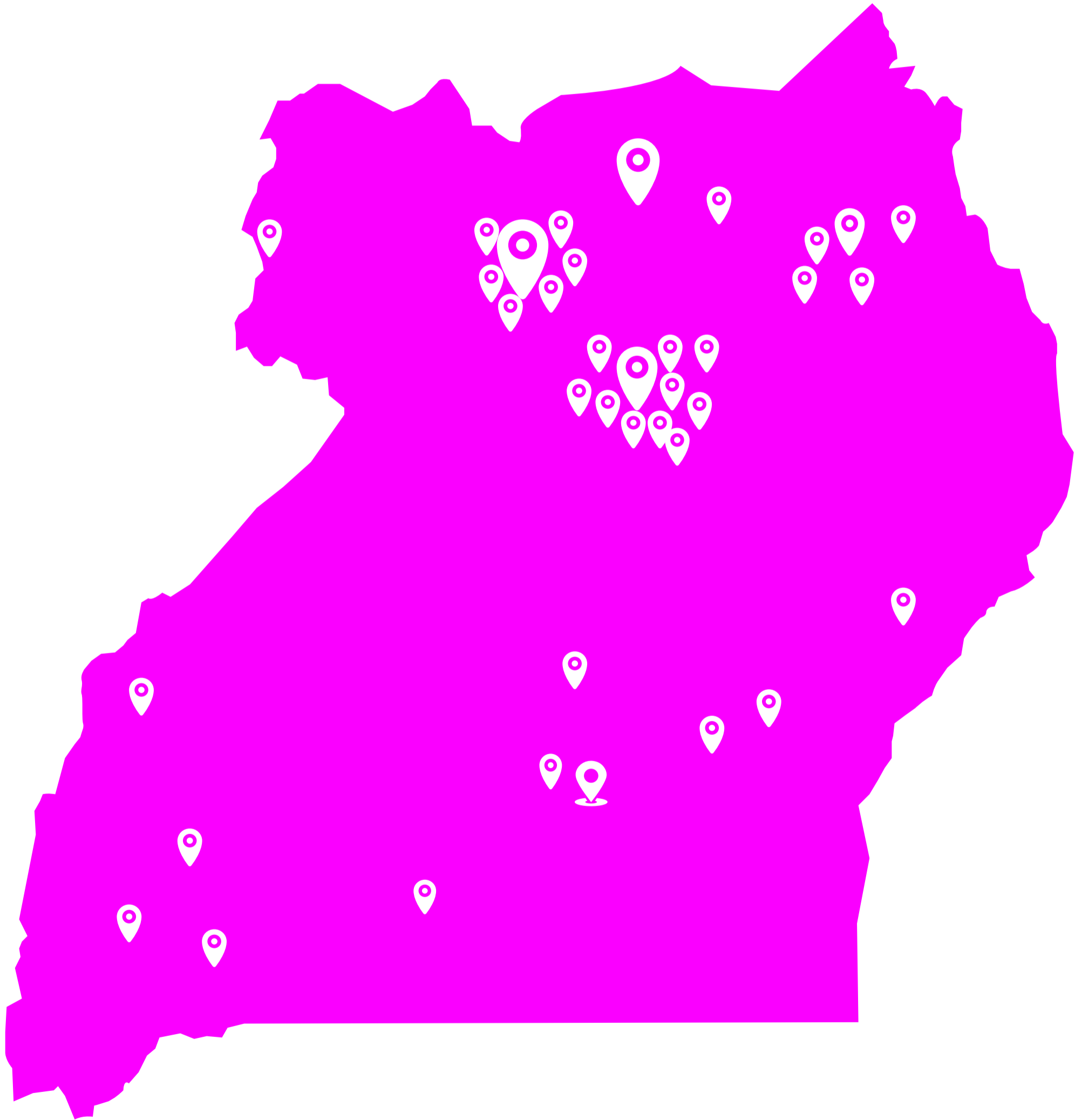
In-School

47%

Out of school

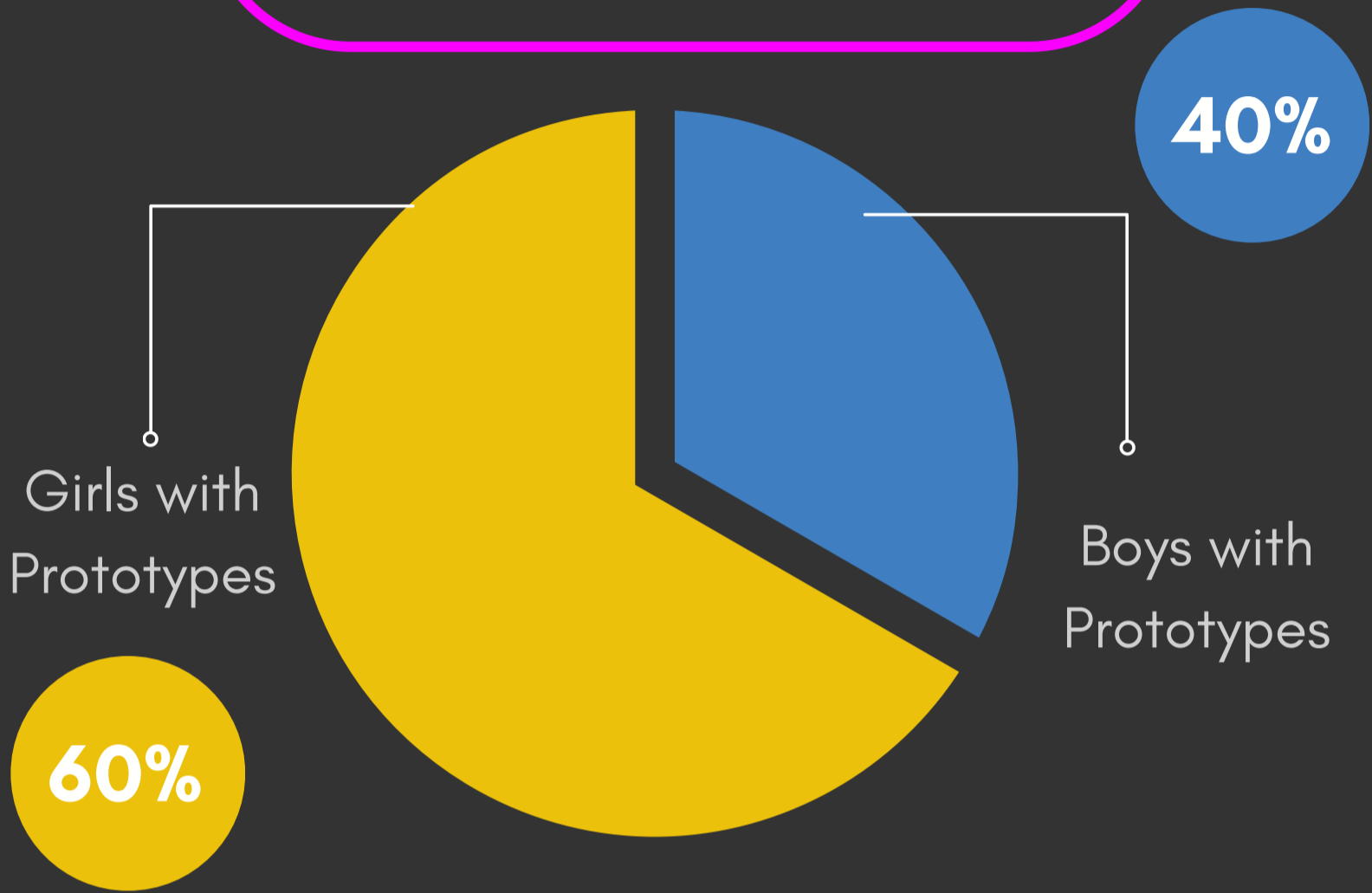
37%

The distribution of Yiya Airscience learners across Uganda



21% returning learners and 79% first time learners

Increasing resilience and problem solving skills



20% increase in prioritizing "helping to solve problems"

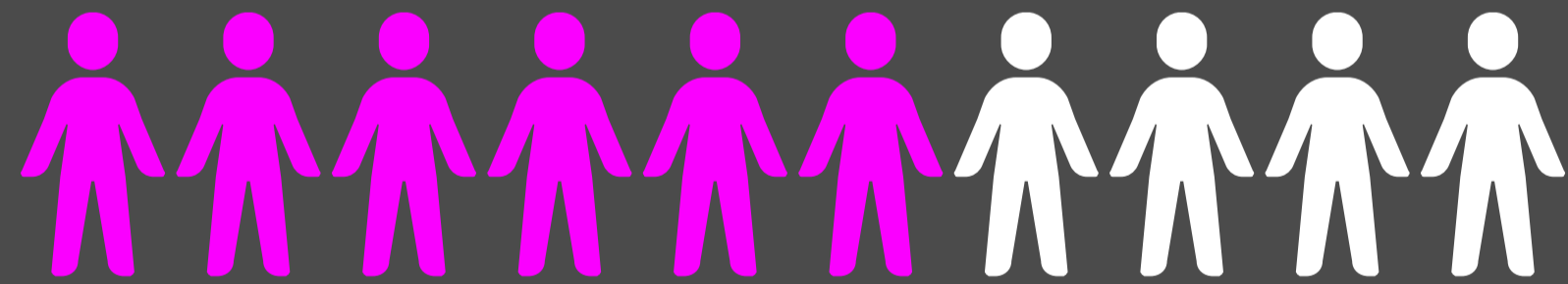
8% increase in the number of learners who demonstrated creativity in problem solving.

App Development and New Features

We successfully improved the user experience by developing numerous new features most of which strengthened the backend functionality making the app failure tolerant and resilient with multiple operational fail safe mechanisms and while others are for direct student interaction.

60% of the new features enhanced user experience while 40% strengthened the backend of the platform to make it more versatile for large numbers of users and simultaneous multiple courses.

In course 3



60% of the new features enhanced user experience.

40% were intended for internal usage.

14 new features that improved the learning experience

9 new features to improve backend functionality



Total number of times the Yiya AirScience code was dialed

207,816

Total interactions during course 3 only:

406,839



***284*19#**

Over 32000 course enrolments.

9,919 course completions since 2020



Total interactions on the app:

2,706,511

YIYA AIRSCIENCE BENEFICIARIES



1

Yiya AirScience Teachers

Yiya works with qualified teachers from schools in Northern Uganda. Teachers are taken through an on-boarding Teacher training workshop where they learn the Yiya AirScience culture, our model, and our methodology. Teachers are introduced to an experiential learning program where they get to interact with thousands of youths over radio and keypad phones. Unlike in the typical classroom, teachers here get to impact the lives of a lot of youths. Many teachers have testified that they are able to carry skills from the Yiya AirScience program into their classrooms and improve their classes. The government through the NCDC recently introduced a new lower school curriculum that is making education more practical than theoretical, and most of the Yiya AirScience teachers have been able to apply what they have learned from Yiya to implement the new National curriculum standards.

② Out of School Youth

Only 30% of Ugandan youth enroll in secondary school. The most common barriers they have told us are preventing them from accessing formal schooling are school fees, distance to school, and for many girls, being turned away having been impregnated. In addition, 1.5 million youth in Uganda are Not Employed, in Education, or in Training (NEET). We are making practical and interactive education making education easy to access.



③ Impact On Girls

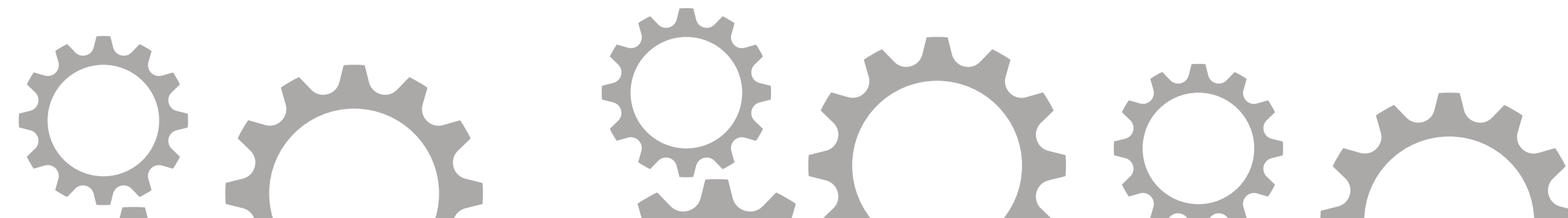
In 2022, Yiya increased the enrolment of female youth in Yiya AirScience from 32% to 53%! Our goal is to increase it to 60% in 2023. Girls are more often excluded from schools, and less likely to pursue math and science. So , we center female voices of teachers and learners on the radio, and highlight the income generation and community problem solving aspects of the program in our marketing to make it more accessible to young women.

EXPLORING OUR IMPACT

Abila Lona from Opem is a young mother who left school in S.2 because of school fees, and then became pregnant, preventing her from returning. Yet she loved learning, and when she heard the Yiya AirScience program, she started following from her radio and keypad phone. She says that being part of Yiya AirScience gave her a chance to continue studying from home, despite being out of school.

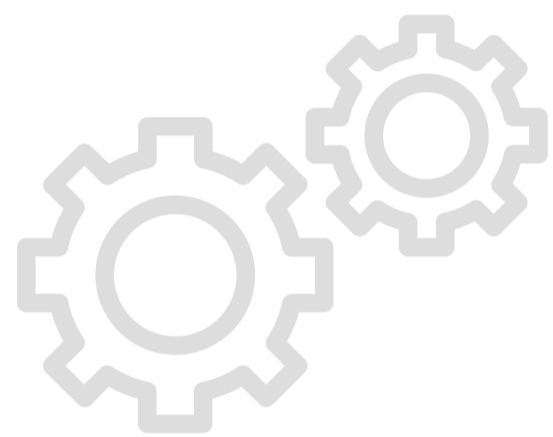
She also appreciates how flexible Yiya AirScience is, because she is able to learn even while running her business selling second hand clothing. Lona and 100 other Yiya students will showcase the technologies that they created through the Yiya AirScience program at the Yiya Technology and Innovation Community Showcase in Lira and Gulu in early 2023.

Abila Lona



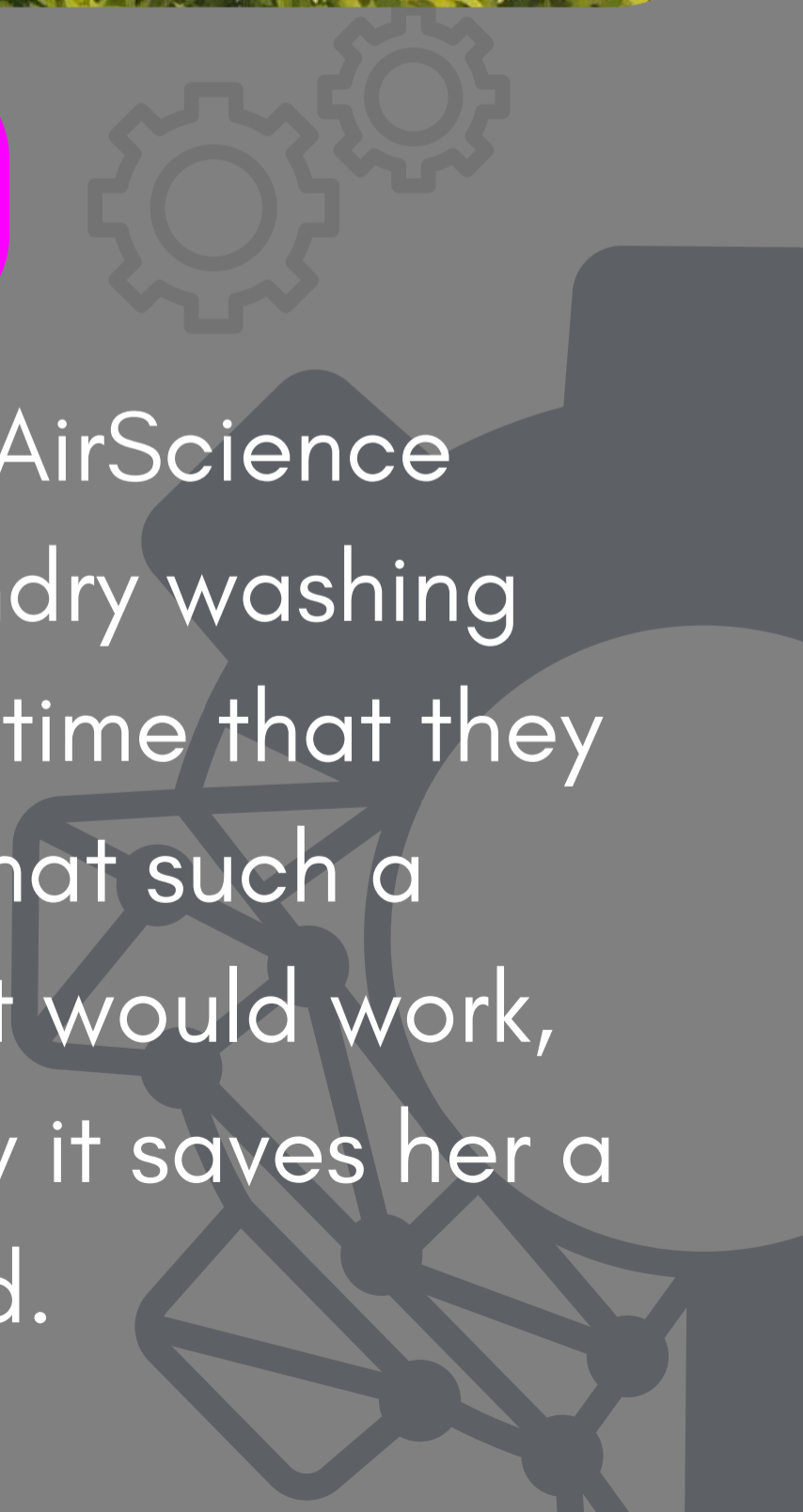
Alaba Jackie is an orphan from Lira district who lost both her parents. She was taken in by her grandmother, but she couldn't afford the fees to send Jackie to school. Jackie spent her time helping her grandmother at home with chores and garden work, but her grandmother saw she was depressed. One day Jackie learnt about the Yiya AirScience program on radio and she started following. Her grandmother observed a dramatic change. Jackie was more active, she created a washing machine, she is eager to seek out more learning opportunities outside of school, and she has hope for her future.

ALABA JACKIE



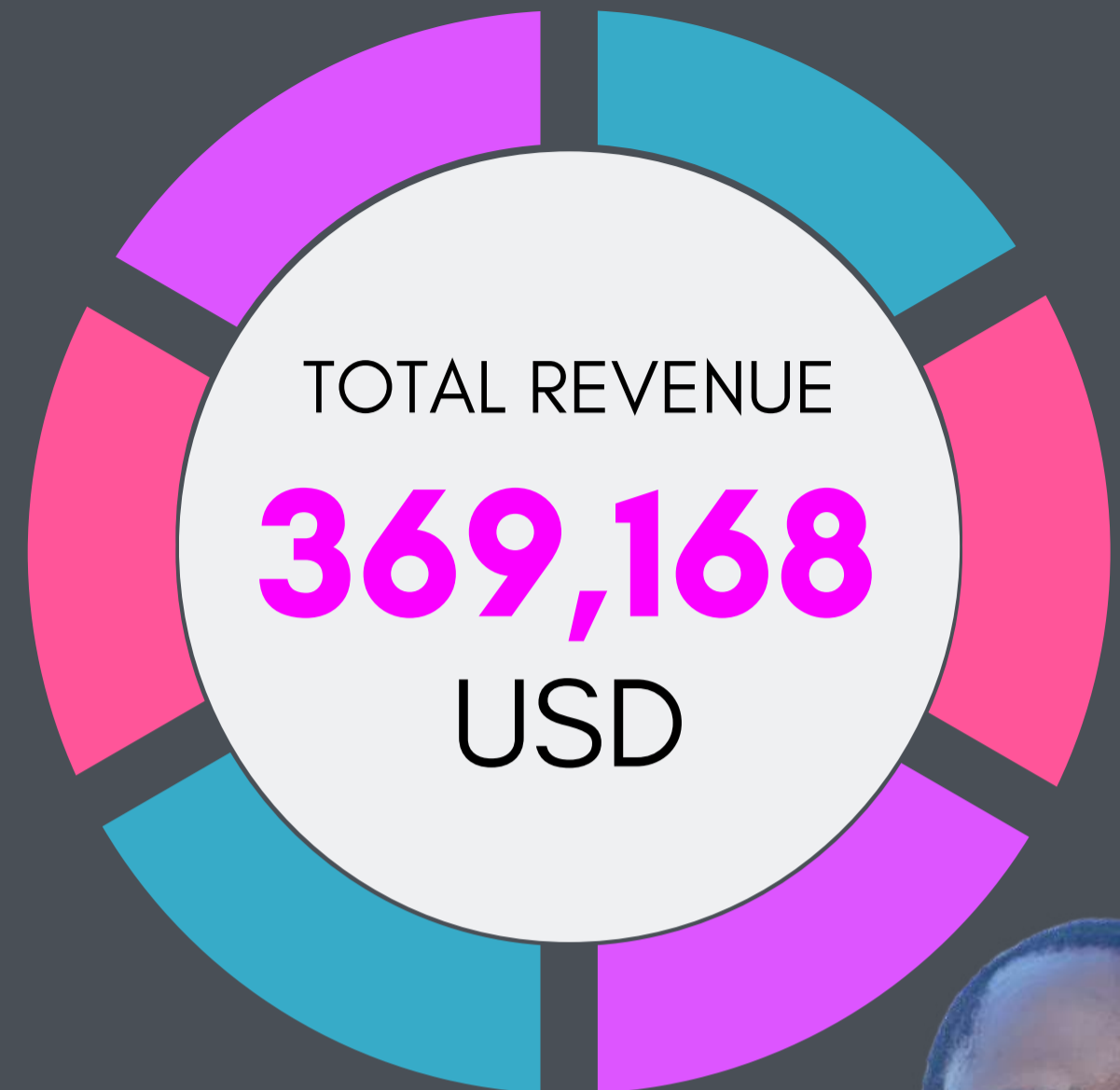
ATIM ROBINAH

Atim Robina from Lira is grateful for the Yiya AirScience program for teaching them how to make laundry washing machines because it has saved them a lot of time that they would have spent washing. She never knew that such a machine was possible, and people doubted it would work, because it doesn't require electricity. But now it saves her a lot of time and neighbors are really impressed.

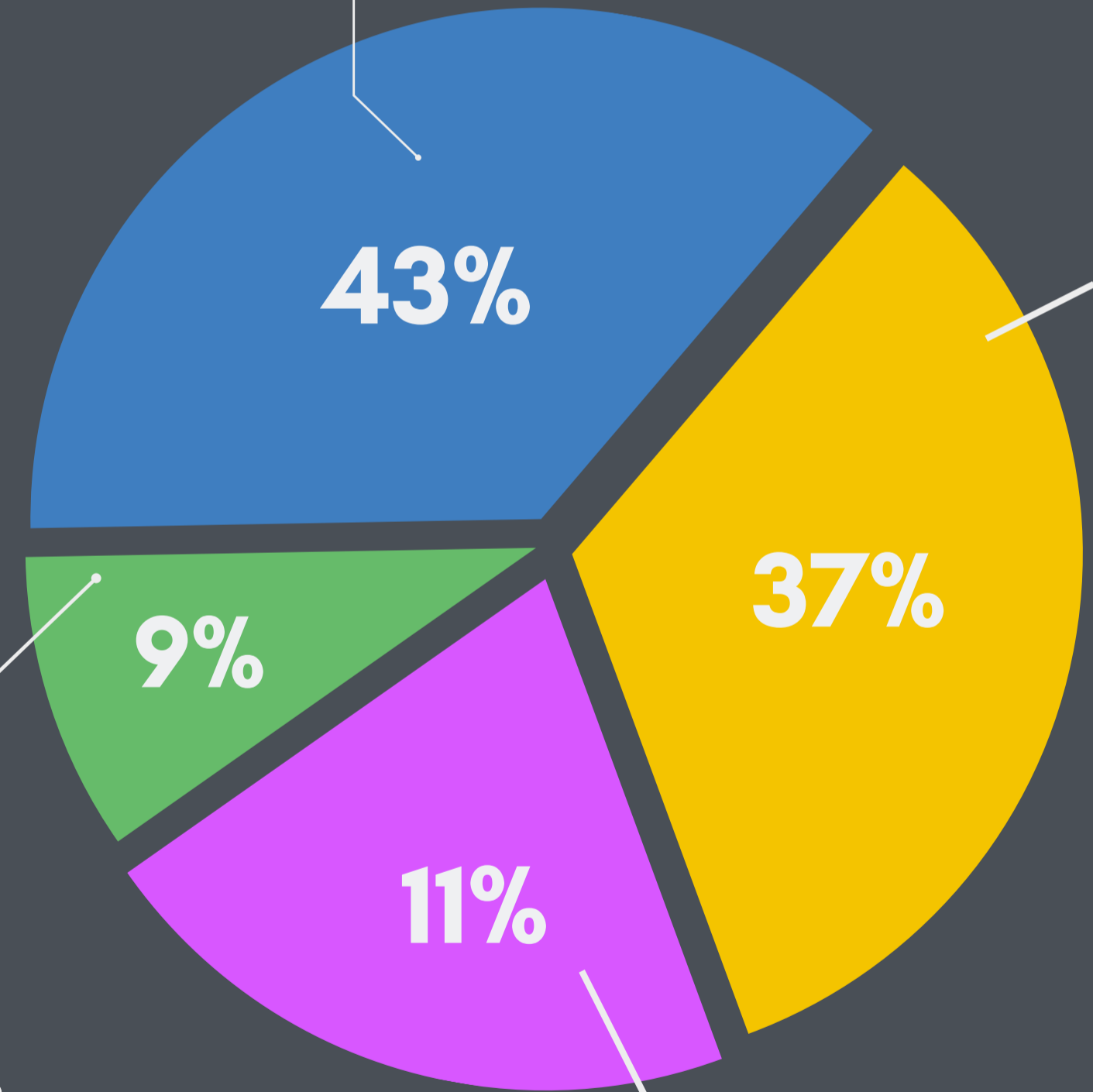


2022 FINANCIAL YEAR

Revenue Breakdown



 Savings



 Individual

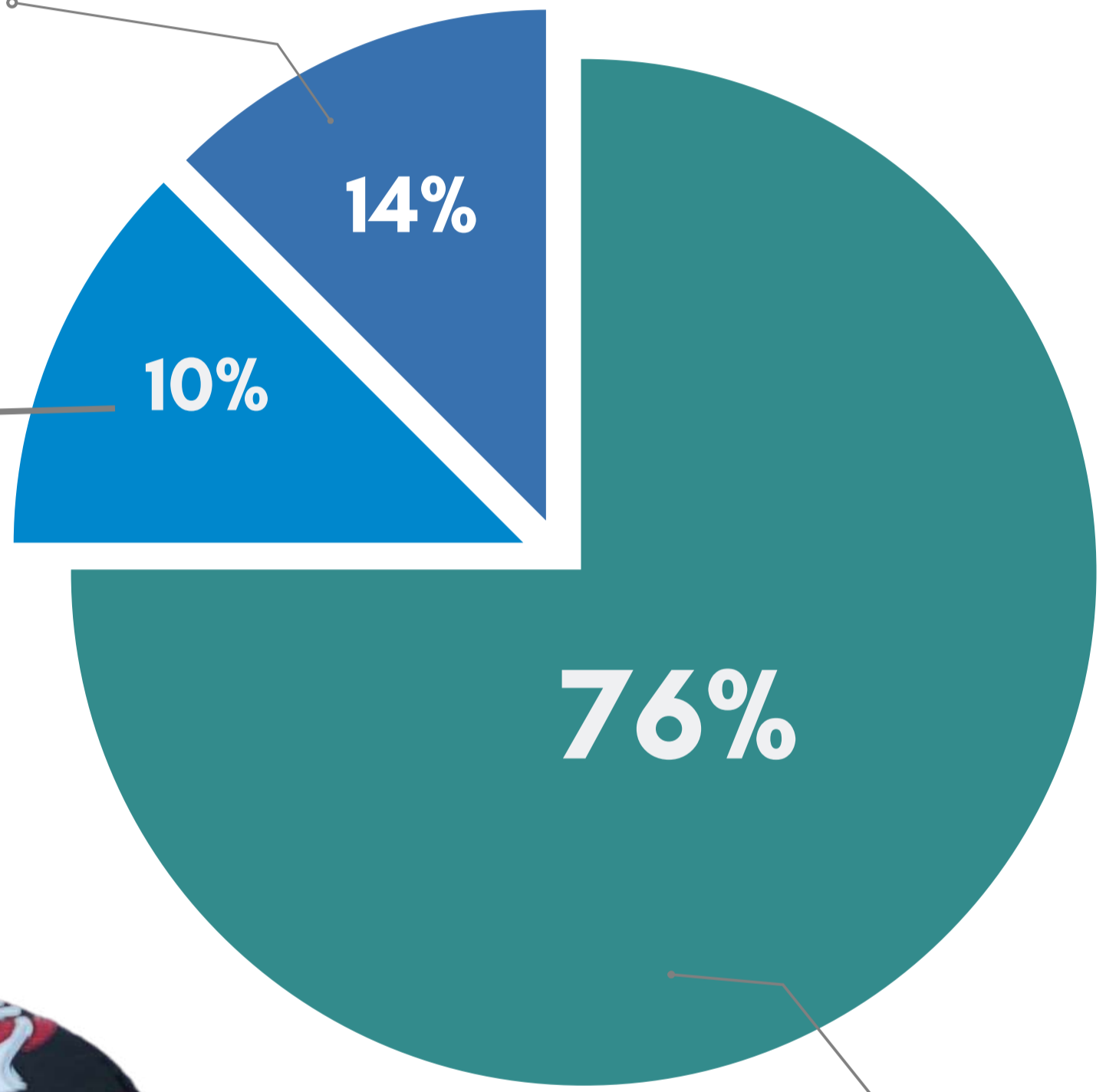
 Awards

 Foundations

Expenses: \$247,294

 Operations

 Fundraising



 Programs



Erin at Solve at MIT
in May 2022



Solve at MIT in May



Samson attended the E-learning
conference in Kigali



Samson and Erin at Solve
Finals in New York.



Highlights from
2022



Samson at the schools 2030 forum in Dar es salaam



Angela, Erin, Samson and Katumba, Yiya's board
member at the Issroff Family Foundations's
partner meet up in New York, Sept 2022



Samson and some of the delegates at the
Opportunity Collaboration Conference in
Dominican Republic

Looking ahead to 2023

Yiya AirScience Technology and Innovation Community Showcase! The first opportunity for both out of school and in school youth to showcase the technologies they created through Yiya AirScience!



Researching the impact of language on learning with our partners at Carnegie Mellon University



Delivering a course in both English and a local language in a new region in Uganda



Translating one of our courses into a local language!



Developing new implementing partners and government partnerships in the Ministry of Education... and the Ministry of Gender...



Meet our TEAM



Samson Wambuzi
Co-Founder & CIO



Erin Fitzgerald
Co-Founder and CEO



Angela Forcier
Chief of Staff



Sheeba Niwensiima
Manager , UX



David Buyinza
Manager , Tech



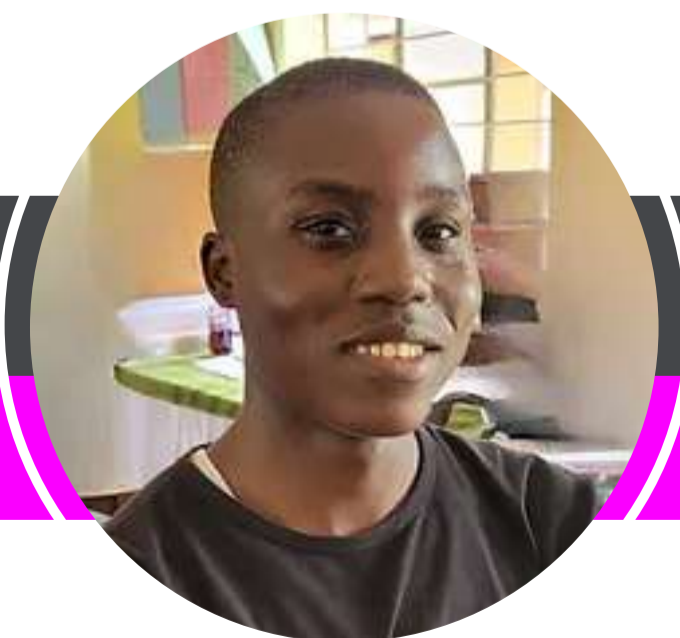
Edrine Ssemwanga
Program Coordinator



Michael Arikosi
Software Developer



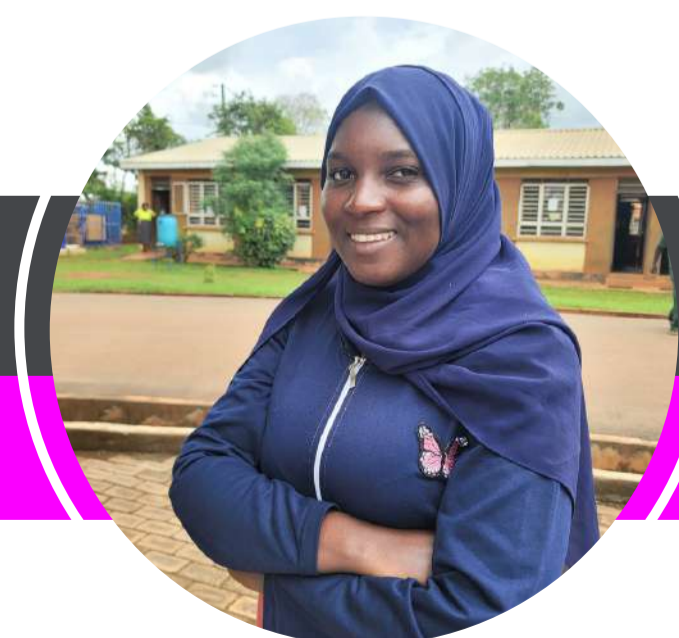
Felly Alaka
Field Officer



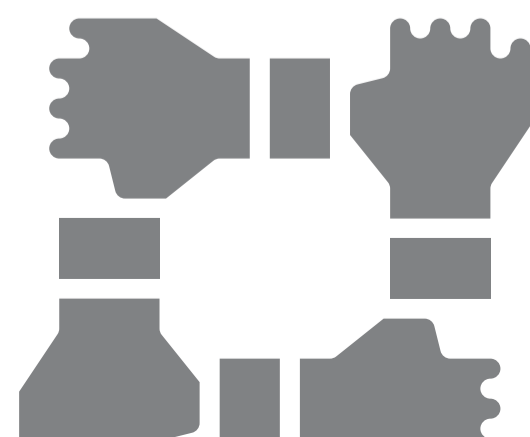
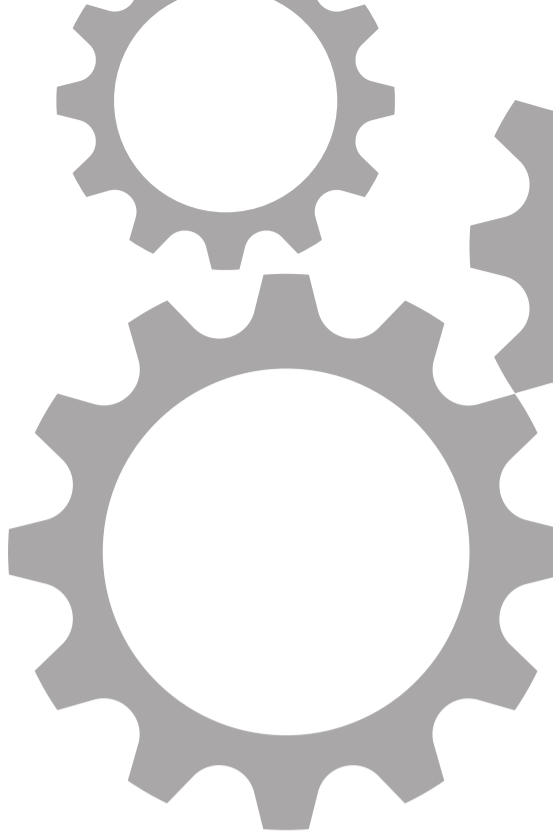
James Senono
Innovations Fellow



Harriet Aber
Field Officer



Sharifah Naluswata
Jr.Developer and Analyst



OUR PARTNERS



New Partners 2022



BOARD MEMBERS

CAROLINE LOWENTHAL, BOARD CHAIRPERSON

MERCY KATAIKE VICTORIA

JOSEPH KAIZZI KASOLO

MIRIAM R. KABAGOROBYA

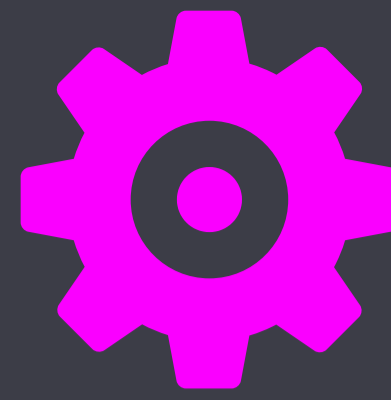
RAINA ECKHARDT

RICHARD JEONG

JAMES KATUMBA

FRED BARUNGI

THANK YOU TO OUR DONORS



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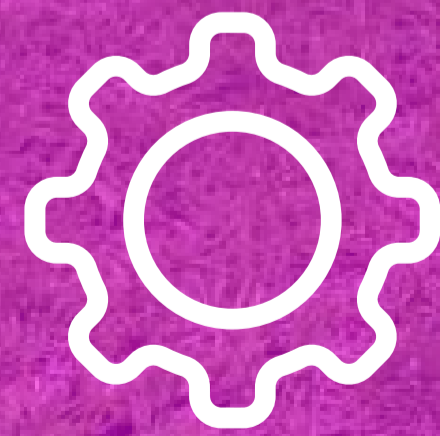
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Rich Jeong
Richard Kleinschmidt
Richard Shackell
Rick Sestile
Sarah Harrison
Sean Fitzgerald
Sharifah Naluswata
Sushama Sajwani
Xin He
Anonymous



*Thank
You*

On behalf of Yiya, we would like to express our sincere gratitude to all the generous donors who have contributed to our cause. Your support is invaluable and helps us continue our mission of making a positive impact on the world. Thank you for your kindness and generosity.





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Wakiso Uganda, P.O Box 108536,
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