ADVANCED SMART SOLUTIONS LIMITED (ASSL)

SMARTPHARMA PROJECT FINAL PROJECT REPORT

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1. Executive Summary

The following table intends to give a quick overview of your activities. Please also indicate the respective countries, e.g., "Total number of people reached: 1 K, 2 T, 1 U, 2 R, 1 B, and 1 S".

Name of the Project	SmartPharma "A New Rx For More Effective Care in East Africa"			
Name of the Organization	Advanced Smart Solutions Limited (ASSL)			
Organization is active since	2020			
Number of People in the Organization	10			
Project Duration	7 months (November 2021 - May 2022)			
Any other Stakeholders involved?	 Pharmaceutical expert advisors from the East African Pharmaceutical Loci. The Pharmacy and Poisons Board (PPB) (Kenya) The Drug Index (Kenya) REPHAS PLC – Pharmaceutical Distributor (Philips Therapeutics) Health practitioners (pharmacists) 			
EAC member states involved	Kenya and Rwanda			
Total Number of people reached	 1. 114 pharmacies in Kenya 2. 110 pharmacies in Rwanda 3. +50 medical representatives from Rephas PLC 4. Over 1000 people reached through events and workshops 5. Over 130,000 people were reached through digital marketing activities on various social media platforms. 			

Benefit for people reached 1. Access to an online portal for procurement of discounted and authentic pharmaceutical products from a Pharmacy and Poisons Board (PPB) registered wholesaler (Rephas PLC). 2. Access to a range of various hard-to-find pharmaceutical products within certain regions from 20+ manufacturers represented by Rephas PLC. 3. Value addition through efficient customer service since medical representatives from Rephas PLC are able to purchase products on behalf of the customers with digital skills challenges. 4. Faster order turnaround times and the ability to track and follow up on order status with the wholesaler through integrated customer service Omni-channels such as live chat and WhatsApp. 5. Access to a customer-focused platform through which pharmacists can reach various distributors and manufacturers and give feedback that can be used to improve products and services. 6. Rephas PLC and the medical representatives expanded their customer base through the pooled procurement digital platform. They gained access to an alternative sales channel that

would boost their sales.

Number of events organised

5 events organised:

- 1. The project alignment workshop was held on 23rd November 2021.
- The SmartPharma showcase event during the 21st EAC-MSMES
 Trade Fair 2021 in Tanzania.
- The SmartPharma product review workshop was held on 16th January 2022.
- 4. The SmartPharma virtual marketing alignment event was held on 1st April 2022

Number of people participated in events	 5. The Philips Therapeutics Top 100 virtual webinar 'Disruption in the retail sector through digital innovations and enhancing customer experience 'was held on 21st April 2022 with more than 1000 pharmacists and medical practitioners in attendance. 1317 participants Age groups: 281 participants aged between 18-35 years 1036 participants above 35 years old. Gender: 531 females 786 males
Benefit for people participating in events	 During the platform alignment workshop, the enterprise architecture for the software platform was defined, all system users and use cases were defined and the platform upgrade project plan was agreed upon. During the platform review workshop, the team successfully reviewed the Beta and Gamma product versions of the platform and got approvals to kick-start piloting with the end-users. During the Philips Top 100 webinar, participants were educated on digital innovations such as the Rephas platform through the SmartPharma project which is disrupting the pharmaceutical retail sector and improving efficiency within the industry. Benefits of pooled procurement were also explained in detail. Participants of the Philips Top100 webinar were educated on how the adoption of technology could help drive customer centricity which is the heart of the retail industry. During the Philips Top 100 webinar, the participants were educated on innovative ways to enhance the customer experience and in turn grow their business revenue. Rephas PLC, the partnering pharmaceutical distributor used the virtual event to advertise and market their products to the pharmacies that participated.

Number of beneficiaries 1. Successfully registered and approved a total of 114 pharmacies (Number for each EAC to trade on the platform in Kenya. The registered pharmacies Country) were successfully onboarded and have been actively trading on (Number of Youth) the platform. (Number of Women) 2. Successfully registered a total of 110 pharmacies in Rwanda. Trading is yet to be activated for the pharmacies due to pending regulatory requirements... 3. Pharmacies in both Kenya and Rwanda were observed to employ an average of at least two employees per store. With a total of 224 pharmacies registered in both countries, the project therefore directly reached at least 448 health practitioners... 4. Of the estimated total population of health workers, 325 comprised of youths between 18-34 years, whereas 123 were above 35 years old. 5. Of the estimated total population of health workers, 257 were women and 191 were men. 6. Successfully partnered with Rephas PLC, a pharmaceutical wholesaler distributing for more than 20+ manufacturers in Kenya to advertise, market, sell, and distribute their pharmaceutical products through the smartpharma pooled procurement platform 1. The pharmacies have access to a catalogue of 120 highly Concrete impact on beneficiaries discounted pharmaceutical and authentic products from Rephas PLC Pharmaceutical distributor in Kenya. 2. The pharmacies have managed to reduce their cost of goods by purchasing highly discounted products from Rephas PLC. This will in turn lead to increased overall profits for the businesses. 3. By making higher profits through the partnership with Rephas PLC, it is expected that the pharmacies will expand their businesses which will consequently improve the living standards of the health workers.

- 4. With access to highly discounted prices on authentic products, the beneficiaries are expected to offer competitive yet affordable prices to their customers. This will ensure customers save on the cost of accessing authentic products which will in turn lead to improved livelihoods of the community both financially and health-wise.
- The efficient customer service and improved turnaround times
 have given the beneficiaries an excellent customer experience
 as receiving products has become more reliable and predictable.
- 6. The learning and training events organized for the pharmacies in partnership with Rephas PLC through the SmartPharma project will improve the knowledge and skills of the health workers thus ensuring personal and business growth.
- 7. The pharmaceutical distributors have grown their sales portfolio through incremental sales from the online orders through the platform which led to increased revenues.
- 8. The pooled procurement platform has made available genuine high quality medicine from reputable manufacturers directly accessible to pharmacies and clinics in low resource settings. This is aiding in eliminating the need for numerous middle-men and brokers who greatly contribute to the increased end user costs of genuine medicine and proliferation of cheaper low quality generics and in certain instances introduce counterfeits into the supply chain.
- 9. The greatest impact will be when pharmacies in Rwanda start transacting on the platform and benefit from the cross border trade with their Kenyan counterparts. The portal will enhance collaborative practice between practitioners in Rwanda and Kenya over and above access to highly discounted products. This should happen in the next phase of the project.

Number of paying customers	Over 350 paying customers who have traded over Kes 2,922,935 during the project period			
Frequency & amount of purchase	Daily trade is currently ongoing with peaks towards the end of the month. A total of Kes 2,922,935 was traded during the project period.			
Number of jobs created	 ASSL employed 9 members throughout the project period to implement project activities. More than 50 medical representatives from Rephas PLC were assigned to promote the use of the platform to buy essential pharmaceutical products directly from the pooled procurement platform. 114 pharmacies were activated in Kenya with an average of at least two employees per pharmacy, therefore at least 228 jobs are being supported by the enhanced trade on the platform. 			
Sort of jobs & income	 ASSL hired product developers, program coordinators, legal, financial and digital marketing consultants. More than 50 medical representatives from Rephas PLC were assigned to directly promote pharmaceutical products on the SmartPharma platform. ASSL anticipates more Jobs to be created for pharmaceutical technologists, courier services to deliver the online ordered products, operations and support staff, and additional software engineers to maintain the platform in Kenya & Rwanda. 			
Further activities planned?	 Continue with the digital marketing activities aimed at creating further awareness of the pooled procurement platform in order to boost demand and increase sales for pharmacies and distributors within Kenya and Rwanda. Onboarding more Pharmacies in Kenya and Rwanda to the platform. 			

	Activate trading for Rwandan pharmacies after gathering the
	required regulatory approvals.
	Improvement of the software to deliver a state-of-the-art
	technology product to serve various regions around the globe.
	Key improvement will be to allow access of the platform via low
	end mobile devices (feature phones) and communication
	channels such as SMS and USSD codes.
	Mobilise internally and externally for the additional investment
	beyond the current budget allocation to fund scaling activities.
	Engage, include and collaborate closely with all relevant
	authorities in EAC in the next project phase.
Financing secured for	ASSL secured marketing and logistic support for the promotion
further operations?	of the Pooled Procurement System in Kenya by Rephas PLC. The
	benefit-in-kind derived from the medical representatives was
	estimated to amount to Kes 5M annually.
	ASSL is still targeting a strategic distributor for the Rwandan
	Market to partner with. Rephas PLC has expressed interest to
	partner with ASSL as the main distributor in Rwanda
	ASSL is seeking further financing to support scaling and other
	approved project activities planned for the second phase.

2. Introduction and Background

ASSL is a data-driven consulting firm serving organizations in East Africa and beyond. We drive transformation and build businesses in East Africa by bringing together the capabilities needed to help enterprises grow and thrive in the post-digital age. Through technology, we work with organizations to create solutions that will solve the complex challenges encountered by our communities.

Our ongoing digitization project with the East African Pharmaceutical Loci (https://drugindex.it/) that involved developing a comprehensive and systematic database that would provide healthcare

practitioners in Eastern Africa with information on drugs and other related products, exposed some of the challenges encountered within the last mile drug dispensing ecosystem. The experience with these challenges that distributors faced while trading with pharmaceutical products within the EAC due to the unharmonized medicines regulatory systems which heavily increased the cost of most essential medicines and limited trade within the region, birthed the **SmartPharma project**.

The majority of health units involved in the last mile drug dispensing ecosystem in East Africa are staffed by entry-level healthcare workers. These workers have limited drug dispensing technical knowledge, and lack accessible accurate drug information. They also struggle with getting affordable and quality drug supplies due to the fragmented last-mile pharmaceutical supply chain and low-volume orders. This adversely affects the quality of care to patients.

Authorities and pharmaceutical suppliers are unable to get accurate drug dispensing data that is crucial in vital disease statistics and in mapping out the supply of essential drugs to communities. This considerably affects their ability to make informed decisions for the sector which could impact access to medicines and timely interventions in case of outbreaks and pandemics.

Based on the above background ASSL with the support from the GIZ-EAC programme through the Incubator for Integration and Development in East Africa (IIDEA), implemented the SmartPharma project from November 2021 to May 2022. A total of Kes **2,089,223.29** was provided to support the development and roll-out of a trusted end-to-end platform for pharmaceutical products across East Africa. The platform would help to:

- I. Improve the efficiency of the Pharmaceutical Distribution Chain in East Africa starting with Kenya and Rwanda.
- II. Empower healthcare practitioners with accurate drug information reinforced by an Electronic Expert Support System (EESS)
- III. Enable pharmacies and drugstores to accurately track their sales transactions, activities, and productivity using one integrated platform.

At the end of the project period, the Rephas pooled procurement platform had successfully been designed, developed, and rolled out for piloting. Pharmacies in both Kenya and Rwanda were registered, digital marketing activities were implemented throughout the EAC to create platform awareness and daily trade was activated for Kenyan pharmacies which totalled an estimated Kes 2,900,000.

ASSL will officially write to regulatory authorities in Kenya and Rwanda in order to introduce them to the SmartPharma project. The letter will include; funding details, project activities, outcomes, and policy recommendations from phase one of the project. The aim is to seek recognition, interest and support from these organizations that will enable sustainable scaling in the next phases of the project.

3. Objectives of the Project

The SmartPharma project objectives were:

- Offer a Trusted End-to-End (E2E) Solutions for pharmaceutical products across East Africa.
- Improve the efficiency of the pharmaceutical distribution chain in East Africa starting with Rwanda and Kenya.

4. Did you collaborate with any other organizations?

ASSL partnered with Rephas PLC, a pharmaceutical distributor (by Philips Therapeutics) in Kenya. Rephas PLC was the sole distributor of pharmaceutical products to all the registered pharmacies during the project period. The distributor also offered discounts on preferential products to the pharmacies via the platform. Rephas PLC also gave access to their +50 Medical representatives who directly promoted products published on the SmartPharma portal to all counties in Kenya.

ASSL sought collaboration with regulatory bodies such as The Pharmacy and Poisons Board and The Drug Index in Kenya. The Pharmacy and Poisons Board (PPB) certified the Rephas platform as a legitimate and authentic platform that health workers could partner with. The PPB also assisted in the authentication of properly registered distributors and pharmacies. This ensured that only quality and authentic products were traded on the platform. It was verified that Rephas PLC, the partnering distributor, is a regulated entity by The Pharmacy and Poisons Board. All pharmacies registered onto the platform uploaded their compliance documents that verified that they were also regulated by The Pharmacy and Poisons Board.

Through the digitization project with the East African Pharmaceutical Loci, ASSL sought collaboration with The Drug Index. It is anticipated that the collaboration will materialize in the next phase. The Drug Index will assist in giving information on the database of pharmaceutical brands in Kenya to ensure that the Rephas platform is up to date in terms of the product catalogue and drug information.

ASSL is reaching out to R.C.P.U (Rwanda Community Pharmacists Union) to assist in the identification, recruitment, and on boarding of more genuine pharmacies onto the platform in phase two. This will ensure the pharmacies have access to discounted pharmaceutical products from distributors.

Based on findings from the baseline survey carried out in Rwanda during phase one of the project, ASSL is required to comply with regulatory requirements from The Rwanda Food and Drugs Authority (Rwanda FDA) in order to operate within Rwanda. This information gathered will ensure ASSL complies with the regulations and collaborates with RFDA in order to successfully operate in Rwanda in the next phase.

ASSL will partner with a strategic distributor in the pharmaceutical sector in Rwanda, to assist in the piloting and launch of the platform within the Rwandan Market). Rephas PLC has expressed interest to collaborate with ASSL to launch the platform in Rwanda.

5. Report of the Project Activities

What has been implemented as per the work plan agreed? Report on the different activities implemented, dates, venue, objectives, and number of participants, output and outcomes as well as results plus pictures. Please number the activities accordingly

In order to achieve the long-term aspiration of the SmartPharma project, 'to create a Harmonised East Africa Pharmaceutical Product Catalogue that will allow for free trade and information exchange within the EAC resulting to improved healthcare outcomes, the project was divided into three phases. The main objective for the first phase which was successfully completed within the reporting period was to 'develop and improve the efficiency of the pharmaceutical distribution chain in East Africa'. Reporting was only done for this objective of the planning matrix funded by IIDEA. To achieve this objective, various activities were performed throughout the reporting period which generated the following outputs:

- **1.1.** Signing up at least one pharmaceutical distributor with presence in more than two EAC partner states.
- **1.2.** Enrolment of pharmacies on to the pooled procurement platform on a pilot basis.
- **1.3.** Development of a pooled procurement platform design document.
- **1.4.** Launch of the pilot phase.

The activities did not take place in their chronological order as initially planned. Most of them overlapped for efficiency and effectiveness by fast-tracking and reiterating within the planned project scope and budget during the reporting period as highlighted below:

Activity 1.1.1 Negotiate preferential discounted prices for health centres that order via the platform

Inputs of this activity:

- a) A regulated and established pharmaceutical distributor. During the project initiation stage, ASSL identified various distributors that it would partner with to achieve the project objectives. On careful and considerable examination, ASSL chose to partner with Rephas PLC (by Philips Therapeutics). This decision was mainly guided by the fact that both organizations had the same goal in mind. They both wanted to solve the challenges that existed within the pharmaceutical retail industry. Rephas PLC also expressed a huge interest in the SmartPharma project which was meant to improve efficiency in its retail sector as well as increase its sales volumes.
- b) EAC Secretariat trade facilitation support. The EAC has made some progressive transformations into a single market that allows for the free movement of goods, persons, services, labor, and capital. Some key EAC achievements that have made our project feasible are The Customs Union Protocol, the Common Market Protocol; trade facilitation; Removal of Non-Tariff Barriers to Trade, and more importantly for the pharmaceutical industry; harmonization of Standards and Measures. Due to these established measures by the EAC Secretariat, ASSL was able to successfully negotiate with Rephas PLC for preferential discounted prices on products for health centres.
- c) Engagement contract. An engagement contract was created to ensure that both ASSL and Rephas PLC remained compliant throughout the partnership. The contract entailed matters such as; the nature of engagement, terms, and conditions of engagement, duties and responsibilities of the parties, and signatures from both partners.

The objective of this activity was to ensure that the distributor committed to offering a substantial discount on pharmaceutical products for pharmacies. One of the major value propositions of the platform for the pharmacies was the provision of discounted products. It was, therefore, necessary to offer a substantial discount on products in order to encourage potential pharmacies to register and trade on the platform.

Output:

A signed agreement between ASSL and Rephas PLC was finalised. This is a legal and binding document that would guide the relationship between the parties throughout the partnership period.

Activity 1.1.2 Agreement on product distribution, customs, and order fulfilment terms

Inputs of this activity:

- a) A signed engagement contract between ASSL and Rephas PLC, a registered wholesaler distributing for more than 20+ distributors in Kenya. The agreement ensured ASSL has a diverse catalogue of discounted pharmaceutical products to process on the pooled procurement platform.
- b) EAC Secretariat trade facilitation support. The transformations and measures established by the EAC secretariat assisted to guide the conversation and agreement on customs. We now have more than 100 pharmacies from Rwanda that have signed up to the SmartPharma platform only awaiting for ASSL to firm up on an in-country distributor approved by the Food and Drugs Authority (FDA) of Rwanda to kick start trading on the platform.

The objective of this activity was to create a catalogue of discounted pharmaceutical products for the pharmacies. It was agreed that discounts, special offers, and flash sale offers would be offered to select products from time to time. This would be guided by data that would be collected from pharmacies regarding their preferences throughout the project period. It was also agreed that submitted and fully-paid orders would be fulfilled by Rephas PLC by delivering them to the purchasing pharmacies door step.

This arrangement has allowed ASSL to navigate the complexities of last mile delivery logistics that are a major 'killer' of e-commerce businesses globally. The partnership has also allowed the project to be in compliance with the regulatory requirements by PPB & FDA that restrict non-registered medical entities from participating in the pharmaceutical trade. ASSL being a technology company could only participate by providing the required technology platform for registered entities to directly transact on.

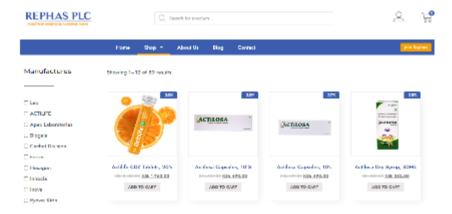
This is akin to the Uber two-sided marketplace, a platform business model that connects drivers and riders, with an interface that has elements of gamification that makes it easy for two sides to connect and transact. Uber makes money by collecting fees from the platform's gross bookings. This is the business sustainability model ASSL has adopted to ensure we continue to facilitate trade in the

pharmaceutical supply chain in East Africa while remaining profitable and impactful to the communities we serve.

Output:

A catalogue of discounted products was created for pharmacies. Below is a snapshot of the catalogue of discounted products, special offers and flash offer created in different intervals during the project period:

The customers are able to select their preferred products from the platform. Images and prices of various discounted offers are displayed here.



Customers are able to view details on flash sales and special offer deals on the platform.



Activity 1.3.1. Business process development and mapping

Inputs of this activity:

- a) Project team was built. A diverse and inclusive team was built to implement the planned project activities. The team consisted of short-term consultants such as; software developers, program coordinators, an accountant, a PR & marketing coordinator, and the program team lead.
- b) Data protection laws A review of the data protection laws was done and legal opinion on data protection laws and how it affects our data management was received. This is what informed the partnership with Rephas PLC to ensure we are compliant with Pharmacy & Poisons Board (PPB) Regulations governing trade of pharmaceutical products.

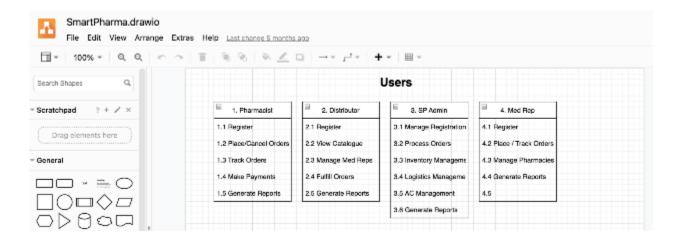
A project alignment workshop was held on 23rd November 2021 at Golden Tulip, Nairobi, Kenya. The aim of holding the workshop was to discuss the business processes involved and map out the platform model. Four members of the project team were in attendance. It was comprised of software developers and the program team lead as shown by the photo below:



The objective of this activity was to develop the database model. During the workshop, the team determined what sets of data would be stored and the interrelationships between the different data elements. The data would then be managed accordingly through a database management system.

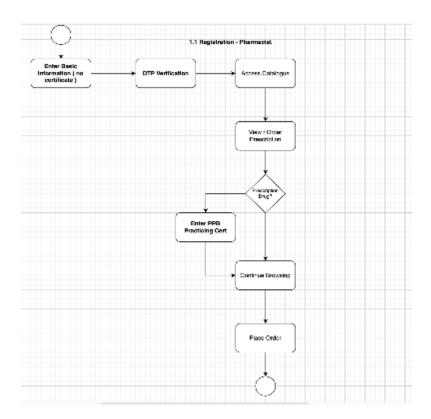
Output:

ASSL was able to define the main users of the system (Pharmacist, Distributors, Portal Administrators & Medical Reps) and their key roles as per the below table.

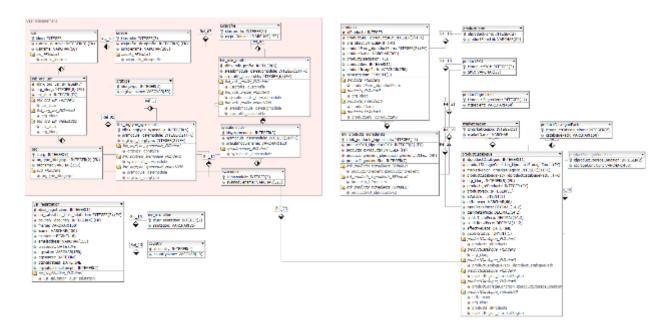


Database design and relationships:

User flow designs were discussed, agreed upon and documented as evidenced in the example below regarding the pharmacy registration process on the SmartPharma Platform.



Upon determination and discussion of the data sets, design and relationships, the signed off business processes and features were fit to a database model as illustrated below:



Database is absolutely an integral part of software systems. To fully utilise the Entity Relationship

Diagram developed by the design team. The team held several feedback sessions and consulted widely,
especially with representatives from Rephas PLC to ensure ASSL delivered a system that guarantees a
good customer experience and data storage in compliance with the established data protections laws.

Activity 1.3.2. Software development of the agreed-upon process and features

Inputs of this activity:

A. The project team: The team consisted of consultants such as; software developers, program coordinators, an accountant, a PR & marketing coordinator, and the program team lead. The team collaborated together to develop the Rephas platform. The Kenyan program coordinator worked closely with the entire team to ensure project activities were followed through within the set timelines, budget, and scope. The software developers developed the platform

- reiteratively and incrementally throughout the project period as guided by user needs and feedback from the team.
- B. The database model: The model created during the alignment workshop guided the developers on how to develop the platform.

The objective of this activity was to develop a customised pooled procurement platform for pharmacies. Throughout the platform development phase, the project team tested the platform to ensure that it met the needs of the end-user. On 16th January 2022, the SmartPharma product review workshop was held at Emara Ole-Sereni Hotel, Mombasa road. Three software developers and the program team leaders attended the event. Feedback gathered during the workshop was used to improve the platform's performance. The team successfully reviewed the Beta and Gamma product versions of the platform and got approvals to kick-start piloting with the end-users. Below is a photo from the review workshop:



Output:

A Minimum-Viable-Product (MVP) for the smartPharma project was developed and rolled out as a 'white labelled product' to Rephas PLC. The platform was made up of just enough features to be usable by early customers who could then provide feedback for future product development. Below are snapshots of various views of the platform developed:

1. Rephas PLC SmartPharma Pooled Procurement Platform – Homepage (<u>www.rephas.com</u>)



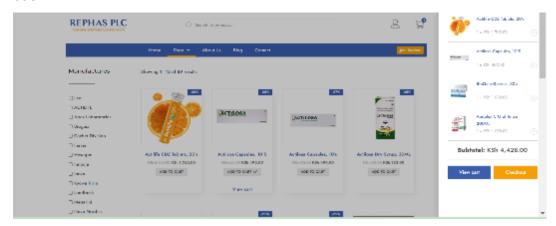
2. Selected Product View

Customer confirms product details here.



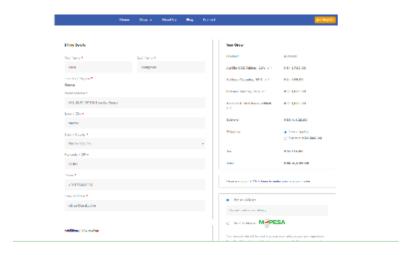
3. Shopping Cart View

On confirmation of product details, the customer can view a list of all selected products before order confirmation.

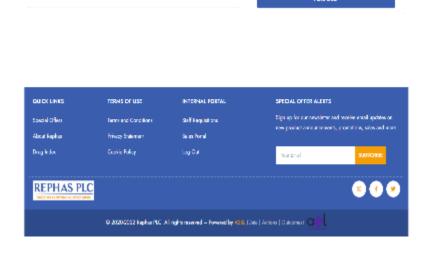


4. Shopping Cart Checkout and Payment view.

On product list confirmation, the customer can then checkout and make e-payment via M-pesa.

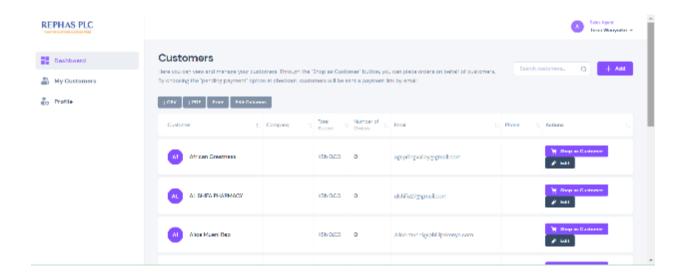


5. Platform Powered by SmartPharma Platform by ASSL - Rephas PLC Pilot View.



6. Pharmacy View Page for Medical Reps Who can buy on behalf of a customer.

This ensures efficient Customer service and faster order turnaround times.

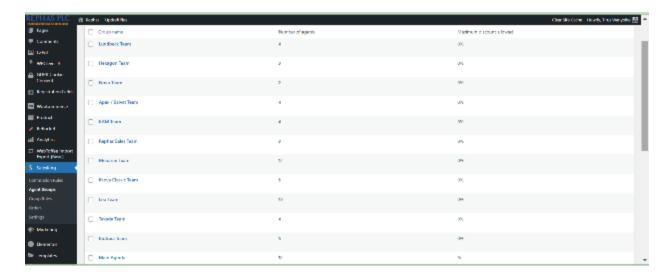


Activity 1.2.2. Recruitment of health facilities/pharmacies into the program

Inputs of this activity:

- a) The Rephas pooled procurement platform. Recruited pharmacies were signed up onto the developed, tested and approved online pooled procurement platform.
- b) The ASSL project team. The team consisting of program coordinators, the program lead and the software developers collaborated to ensure that the recruitment process for pharmacies was seamless. The Rwandan program coordinator recruited Rwandan pharmacies by manually registering them on registration forms. This data was then captured, awaiting the activation of trading activities in Rwanda.
- c) A promotional team of Medical representatives from Rephas PLC. More than 50 medical representatives from Rephas PLC were assigned to promote the pharmaceutical products on the platform in Kenya.

The objective of this activity was to recruit pharmacies in both Kenya and Rwanda onto the platform, in order to test out its functionality. The partnership with Rephas PLC gave access to 55 Medical representatives who directly promoted products uploaded onto the SmartPharma portal to all counties in Kenya. Below is a snapshot of the Rephas Medical Sales Representatives registered on the Platform – targeting the Kenyan Market.



The Kenyan pharmacies were successfully registered onto the platform and trading was activated for them. They successfully traded on the platform with daily trades amounting to an estimated total of **Kes 2.9M** throughout the project period. Trading for the Rwandan pharmacies would be activated in phase two of the project once all regulatory requirements by FDA are achieved in Phase II of this project.

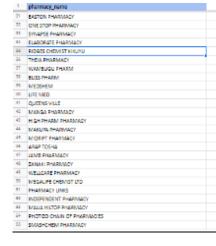
Output:

Recruitment of 114 onboarded and activated pharmacies in Kenya.

Recruitment of 110 pharmacies in Rwanda.

Below are snapshots of pharmacies recruited in Kenya and Rwanda:





List of Rwandan pharmacies

List of Kenyan pharmacies

Activity 1.2.1 Baseline survey was conducted to identify key essential pharmaceutical products to include in the program

Inputs of this activity:

- A. The Rephas pooled procurement platform. The identified pharmaceutical products would be uploaded onto this online pooled procurement platform
- B. Recruited pharmacies in both Kenya and Rwanda. The survey was conducted with this group of audience. Pharmacies in both Kenya and Rwanda listed their prudential pharmaceutical products for discounting.
- C. The promotional team of medical representatives from Rephas PLC. This team conducted the survey in Kenya. They gathered the feedback from the pharmacies they registered and onboarded onto the platform.
- D. Rwandan program coordinator. The personnel conducted the survey in Rwanda. He collected this data from the pharmacies registered in Rwanda.

The objective of this activity was to identify the essential products to upload onto the Rephas platform. The platform was customer-focused and therefore feedback from the users was very fundamental. It was created for the users in order to meet their needs.

Findings from this survey showed that pharmacies chose preferential discounting on their fast-moving products. This was deemed to be more profitable for them since this would ensure that the pharmacies order more products from the distributor, as sales increased at their stores.

A baseline survey was also conducted in Rwanda by the Rwandan program coordinator. The survey was approached through four viewpoints:

- Understand the pharmaceutical retail sector in Rwanda. How best could SmartPharma come in?
 What was the best strategy to adopt in order to succeed in the region?
- 2. Understand the business and organisational structures of pharmacies in Rwanda? How are they organised? Is there a monopoly? Are there SMEs?
- 3. Rules and regulations within the pharmaceutical sector. What are the regulations and standards to meet in order to operate in Rwanda?

4. On-demand pharmaceutical products in the Rwandan market. What are the fast moving drugs for pharmacies? Are there recommendations for any drugs the pharmacies would want introduced to the market in order to improve healthcare?

The Rwandan program coordinator gathered feedback from the pharmacies. Findings from this survey were to guide the second phase of the project.

Output:

Customer-centric information on the essential drug list to include in the discount program.

A report on the findings from the survey conducted in Rwanda:

- 1. Findings from the survey indicated that just as many other East African countries, Rwanda also faced huge challenges within the pharmaceutical distribution sector. The health workers have limited drug dispensing technical knowledge, lack accessible accurate drug information. They also struggle with getting affordable and quality drug supplies due to the fragmented last mile pharmaceutical supply chain and low volume orders. This adversely affects the quality of care to patients.
- 2. Findings indicated that there exists perfect competition within the Rwandan pharmaceutical sector. The market was open to various traders who freely operated their businesses within Kigali. There existed various pharmacies within Kigali which were owned by various individuals who worked within the pharmacies or employed other personnel to run the businesses for them. Both the owners and employees of the pharmacies expressed interest in the platform and looked forward to the launch in order to benefit from the platform.
- 3. In order for Smart Pharma to freely operate in Rwanda, findings from the survey revealed the below requirements will need to be met by ASSL or its distribution partners in Rwanda:
 - a. Provide a detailed company profile
 - b. Business registration certificate and full registration information of the domestic company.
 - c. Evidence of payment of prescribed fees.
 - d. Notarized valid FDA licence for professional practice of the designated responsible pharmacist/veterinary doctor.
 - e. Commitment letter from the designated pharmacist/veterinary doctor to respect the laws and regulations.

- f. Valid contract between the owner and the designated responsible pharmacist/veterinary doctor;
- g. Degree and curriculum vitae of the designated responsible pharmacist/veterinary doctor.
- h. Copy of the identity card or passport of both the owner and the designated responsible pharmacist/veterinary doctor.
- A recent passport-size photograph of the owner and designated responsible pharmacist/veterinary doctor.

We are currently finalising with Rephas PLC subsidiary in Rwanda to get all the required documents for submission to the regulator to allow for trade.

The survey also allowed ASSL to map the key products pharmacies in Rwanda preferred to be on the portal. The preference list for Rwanda pharmacies was surprisingly different from that of their Kenyan counterparts. This underscores the importance of market survey before full rollout of any project to a given demography. ASSL compiled the list and presented it to the distributor partner Rephas PLC to start on discount negotiations with the concerned manufacturers targeting the Rwandan market.

Below is a snapshot of the data gathered from Kenyan and Rwandan pharmacies respectively.





Fast-moving for Kenyan market.

Fast-moving products for the Rwandan market

Activity 1.4.1 Conduct workshop for program training and awareness with the target health care units and key stakeholders

Inputs of this activity:

- a) Rephas PLC, Pharmaceutical distributor: The distributor collaborated with ASSL to conduct the workshop during the Philips Therapeutics Top 100 webinar held on 21st April 2022.
- b) Pharmacies, drug stores, health centres: These entities were the target audience of the workshop. They participated in the webinar where they were educated about the disruption taking place in the pharmaceutical retail sector through the Rephas platform. They were also educated on how to improve the customer experience for their customers.
- c) The project team: The team collaborated with Rephas PLC to conduct the Philips Therapeutics

 Top 100 webinar held on 21st April 2022.
- d) The team of promotional medical representatives form Rephas PLC: They were educated about the disruption taking place in the pharmaceutical retail sector through the Rephas platform. They were also educated on how to improve the customer experience for the onboarded pharmacies.

The objective of this activity was to create awareness on the Rephas platform, train the pharmacies and other stakeholders on how to use the platform and also train the participants on how to enhance customer experience. The workshop was a virtual event which was held during the Philips Therapeutics Top 100 virtual event on 21st April 2022 webinar that attracted more than 1000 online viewers. The main agenda discussed was 'Disruption in the retail sector through digital innovations and enhancing customer experience'.

Through the partnership with Rephas PLC, ASSL was able to use the 50+ allocated medical representatives to train pharmacies on how to enrol and process the orders on the platform. This proved to be the most effective recruitment tool for pharmacies to the platform due to its face-to-face interaction.

Output:

Creation of awareness of the Rephas online pooled procurement platform.

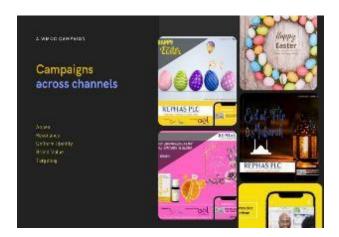
Activity 1.2.3. Program awareness/ marketing to the target groups

Inputs of this activity:

- A. A public relations and marketing personnel: The personnel planned and coordinated all PR & marketing activities.
- B. Social media platforms: Various social media pages were created for the Rephas pooled procurement platform. They include; <u>Facebook</u>, <u>Instagram</u>, <u>Twitter</u>, <u>LinkedIn</u>, <u>YouTube</u>. Various campaigns were promoted on this platforms.
- C. Marketing strategy: A marketing strategy was created by the marketing coordinator in collaboration with the entire team. It was used to guide the marketing activities.
- D. Financial resources: A budget was set aside to cater for the marketing activities. Since these activities are resource intensive, budget reallocation was approved from certain redundant budget lines towards digital marketing campaigns. Funds which had been budgeted for travel within Kenya and to Rwanda were reallocated to digital marketing activities. The budget reallocation went through the change management process and approval was given. The reallocation was justified since; Rephas PLC assigned medical representatives to promote the platform to various pharmacies in Kenya, a Rwandan program coordinator was hired to recruit pharmacies in Rwanda, the travel plans became redundant due to covid-19 travel restrictions.

The objective of this activity was to create awareness on the Rephas PLC platform in order to increase pharmacy registrations and sales volumes for both pharmacies and the distributor. Various campaigns were run throughout the month of April in order to create platform awareness.

Below are snapshots of campaigns published in the period:





Output:

The marketing activities led to growth of the Rephas' social media platforms, as shown below:

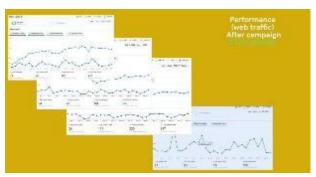
Facebook gained over 550 followers from 29 followers that existed before the campaigns.





The website traffic experienced a 212% during the campaign period.





6. Outreach of the project (in Numbers)

Below are the approaches used to realize the number of people reached by the project:

- 1. Total number of people reached by EAC country i.e. in Kenya and Rwanda.
- 2. Total number of people that participated in events & workshop
- 3. Total number of people reached through digital marketing activities

Total number of people reached by EAC country

Kenya: 114 pharmacies were onboarded onto the platform in Kenya. During the registration process it was observed by the medical representatives that each pharmacist employed at least 2 employees on average. This therefore means that at least an estimated 228 people have been directly reached by the medical representatives in Kenya.

75 % of this population was reported to comprise youths. Therefore, at least 171 people reached were youth.

60% of the population was observed to be women. Therefore, at least 136 people reached were women, while men were 92.

Rwanda: 110 pharmacies were registered for activation by the Rwandan program coordinator. On average, it was also observed by the Rwandan program coordinator that each pharmacist employed at least 2 employees. We could therefore conclude that at least 220 people were directly reached by the program coordinator during registration in Rwanda.

70% of this population was observed to comprise youth. Therefore, at least 154 youths were reached. 55% of the population was reported to be women. Therefore, at least 121 women were reached, while 99 men were reached.

The table below summarizes the project reach disaggregated by country, age and gender.

Outreach	Kenya	Rwanda	Total
Youth	171	154	325
Women	136	121	257
Men	91	99	190

Based on the observations at least a total of 448 people were reached directly during the registration processes in both Kenya and Rwanda. Of this total population, 325 comprised youths between 18-34 years. This is 72% of the population.

Of the 448 people estimated to have been reached, 257 were women. This is 57%. Whereas 43% comprises men.

Total number of people that participated in events & workshop

A total of 1317 people from Kenya participated in events organised by ASSL and partners as represented below:

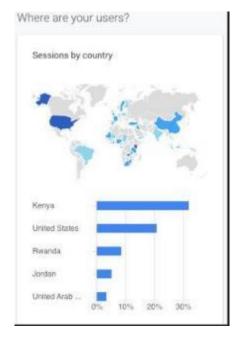
Event	Outreach	Age-group	Gender	Nature of interaction
Project alignment workshop	7	5 - between 18-35 years 2- above 35 years	7 - males	Actively involved in the project from the initiation stage to the closing stage. Defined the enterprise architecture of the platform, all system users, and use cases and aligned on the project plan.
SmartPharma showcase event in Tanzania	300+	40-between 18-35 years 260-Above 35years	10- male 160- female	Marketing of the Rephas platform during the 21st EAC-MSMES Trade Fair 2021 in Tanzania. The group comprises of participants who visited the SmartPharama tent pitched at the event to gather more information about the project.
SmartPharma product review workshop	7	5 - between 18-35 years 2- above 35 years	7 - males	Actively involved in the project from the initiation stage to the closing stage. They also reviewed the Beta and Gamma product versions of the platform and approved the piloting with end-users.
SmartPharma virtual	3	1 - between 18-35 years	2- males 1- female	Actively involved in the project from the initiating and

marketing alignment event		2 - above 35 years		implementation stage to the closing stage.
Rephas PLC virtual event	1000+	230-between 18-35 years 770-above 35 years	630 - males 370 - females	Participated in Phillips Top 100 Webinar that brings together more than 1000+ pharmacists each month. The webinar is supported by Phillips Therapeutics Ltd, a key partner to Rephas PLC.
Total	1317	1036-above 35 years 281-between 18-35 years	531 - females 786 - males	

A total of 1317 people were reached through events and workshops. Most participants were male with 60%, whereas women made up 40% of the population.

Of this 1317 participants, 78% were above 35 years old, whereas the youth made up 22 % of the population.

Total number of people reached through digital marketing activities





As shown above, throughout the campaign period, in the EAC, Kenya and Rwanda were top traffic sources for the Rephas platform, whereas the US continued to express some interest in the website. Over 30% of the traffic came from Kenya, 20% from the United States and 8% from Rwanda. As per the marketing report, the campaigns reached the largest audience who were youths aged between 18-34 years as compared to other age groups. 65% of the population were aged between 18-35 years old.

Based on the above results, the campaigns reached more men as compared to women. 84% of the population reached were male, whereas 16% were women.



As per the above results, an estimated 130,000 people were reached through the digital campaigns on Facebook and Instagram.

7. Describe the Communication interventions

What have you conducted? Describe the output, outcomes and results achieved with pictures, media clips, videos, links etc.

The following are the approaches taken to apply the various communication interventions used during the project period:

- 1. Communication interventions during on-site marketing activities.
- 2. Communication interventions used on the Rephas platform.
- 3. Communication interventions through digital marketing activities on social media platforms.

Communication interventions during on-site marketing activities.

GIZ in partnership with the EAC secretariat supported numerous projects in the EAC region through various programs. These programs were showcased during 21st EAST AFRICAN COMMUNITY MSMEs TRADE FAIR 2021, Mwanza, Tanzania (https://www.youtube.com/watch?v=QKCxCkl1wTs).

The SmartPharma project under the IIDEA program was showcased during the trade fair. The ASSL program team lead represented the team in Mwanza, Tanzania. Over 300 people visited the SmartPharma tent pitched at the event location. The smartpharma project was also featured on the EAC-GIZ portal

(https://www.eacgermany.org/news/new-prescription-more-effective-health-care-east-africa)

Posters were designed, produced, and displayed for showcasing during the trade fair. Flyers were also produced and distributed to the public that participated in the trade fair. Details of the SmartPharma project were included on the posters and flyers. A sample of the posters and flyers produced is shown below.





The ASSL program team lead displaying the SmartPharma project flyer in Mwanza, Tanzania.

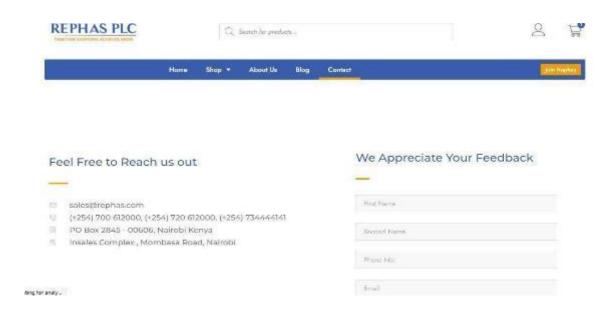
Communications interventions used on the Rephas Platform

The Rephas E-commerce website (www.rephas.com) was developed with additional features to offer a good user experience. From this platform, users are able to learn more about the project, view details of various manufacturers and products, and get information on any special offers or flash sale offers promoted.

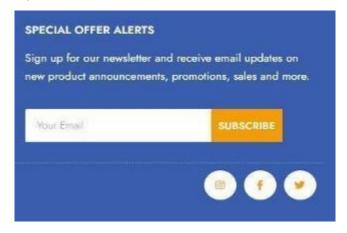
A unique 'blog section' was added to the platform to educate the users on health matters... This section was used to communicate on any developments in the health industry and post any health-related materials. By the end of the project period, through the blog, the users had been educated on; practical medical tips and advice, the evolving pharmaceutical retail business, and how to use digital innovation to drive customer experience.

Communication was done via emails and text messages whenever the users registered on the platform. Messages were also sent upon activation, on order reception, and confirmation. This was done to ensure engagement with the users.

The Rephas platform is customer-focused and therefore prioritizes on the needs and preferences of the end-user. In order to create an excellent customer experience, a dedicated 'Contact Us' section was added to the platform to ensure that users easily, efficiently and constantly communicated with ASSL to give their feedback or make enquiries. Please see a snapshot of the feature below:



A 'subscription' section was created for users to inspire loyalty to the brand. Updates on any special offers, promotions, announcements, and newsletters were shared regularly with the users upon subscription. Below is a snapshot of the section:



Communication interventions through digital marketing activities on social media platforms.

The PR, marketing and communications strategy was developed, streamlined and finalized by the project team. The strategy was primarily social media-driven and focused on the use of platforms such as Facebook, Instagram, Twitter, LinkedIn, YouTube, and google ads.

Various pages were created and activated across all the major social media platform. This was done in order to reach a wide range of people within the project period. Links to the pages are:

- <u>Facebook</u> (https://web.facebook.com/Rephas_Plc-110535928156398),
- Instagram (https://www.instagram.com/rephas_plc/)
- <u>Twitter</u> (https://mobile.twitter.com/Rephas_plc). The project was first introduced to the public on <u>twitter</u>.
- <u>LinkedIn(https://www.linkedin.com/company/84904799/admin/analytics/followers/?anchor=org-view-followers)</u>
- YouTube (https://youtu.be/u6q5QLnygfM)

Uniformity was consistently achieved in all the platforms to ensure that the intended message was conveyed to the target audiences. Reliable campaign concepts which ensured that effective and efficient conveyance was achieved were also developed. Uniformity using engaging visuals was achieved across Facebook, Twitter, and Instagram as shown by the main cover photo and infographics below:





To foster diversity and inclusion, hand-crafted and reliable campaign concepts were developed. They ensured that effective and efficient conveyance was achieved. Local languages such as Swahili were used to reach the various target audience as shown by the snapshot below:



The healthcare practitioners, specifically the pharmacists make up 60% of our target population. In order to ensure that the communications reached this intended audience, ASSL took a strategic approach and narrowed down the marketing activities to this target audience. This led to significant growth of the community members across the various social media platforms.

Below is a snapshot of messaging shared with a pharmacists group:



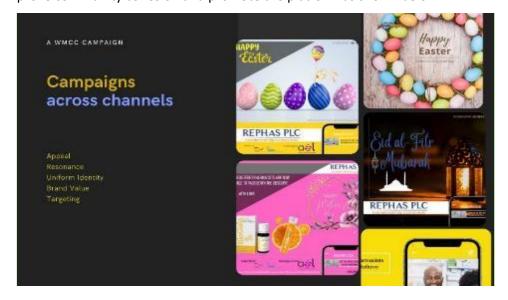
Research shows that platform users like to have a personalized touch with the organizations they are engaging with. They want to be assured that they will be attended to whenever they need any form of assistance. A dedicated WhatsApp business account was therefore integrated with the various platforms to ensure seamless communication between the beneficiaries, ASSL and Rephas PLC. See below:



Communications on discount offers were shared with the users via email. Email marketing was done to boost sales volumes. Emails were sent out to the Inactive and active pharmacies to communicate on planned discount offers as shown in the Easter offer message below:



Personalized engaging messages were used on the various social media platforms to boost customer engagement, improve community cohesion and promote the platform as shown below:



ASSL is a partner in the EAC-GIZ IIDEA project. In order to promote this partnership, the smartpharma project was also featured on the EAC-GIZ portal

(https://www.eacgermany.org/news/new-prescription-more-effective-health-care-east-africa)

Public announcements on the funding from GIZ were featured across various esteemed digital channels.

- Citizen Digital, one of the biggest media channels in Kenya published the announcement.
 https://www.citizen.digital/news/pooled-procurement-project-for-pharmacies-gets-giz-support-n299148
- Aptantech, a digital channel Created to give updates, news, analysis and reviews about
 information and communication technology (ICT) related; issues and trends in Kenya, Africa and
 the world also published the articled. https://aptantech.com/2022/05/30/pooled-procurement-project-for-pharmacies-gets-support-from-giz/

Pooled procurement project for pharmacies gets support from GIZ





(TOP: Newton Siele – right – Director of Rephas at a past event BELOW: Tirus Wanyolke, cofounder, ASSL).



The German Agency for international Cooperation (GIZ) has supported the healthcare IT project based on its potential to positively impact healthcare in the last mile.

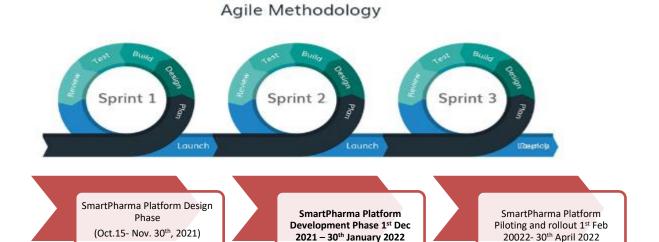
The GIZ agency that supports regional integration and improvement of healthcare access, known as incubator for integration and Development in East Africa (IIDEA), is monitoring the project.

8. Describe the M & E intervention implemented

Please describe the output, outcomes as well as results attained (include pics etc.)

We adopted the Agile Project Scheduling and Monitoring

The Agile Project Methodology which is an interactive approach to planning that breaks down a project into small sections known as sprints. Each sprint is then released for testing and quality assurance. Agile relies on an ongoing feedback system, where the goal is customer satisfaction and a successful product. With Agile, functionality is incrementally delivered throughout the development cycle which was key to our project as we made a couple of assumptions along the way. We concluded Sprint 1, 2, and 3 successfully, by developing the platform, reviewing the Beta and Alpha versions of the platforms, and piloting with end-users.

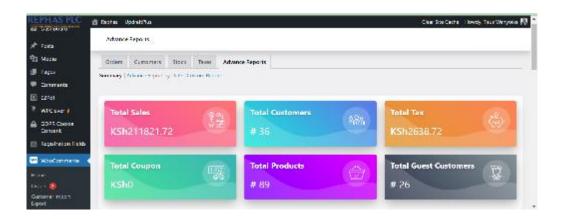


A Project Management Office (PMO) was also created to manage the project. The PMO was made up of the program team lead and the program coordinators from Kenya and Rwanda. The PMO held regular virtual meetings to discuss the progress of the project. The team reviewed activities, identified challenges encountered, and devised solutions during the meetings. The Kenyan program coordinator developed a project plan which was used to track the project activities throughout the reporting period. Despite developing the project plan, an agile approach was employed while implementing the activities. This ensured the team remained adaptable in the fast-paced changing environment.

Activity	Status
1.1.1 Negotiate preferential discounted prices for health centres that order via the platform	Completed
1.1.2 Agreement on product distribution, customs, and order fulfilment terms	Completed
1.2.1 A baseline survey was conducted to identify key essential pharmaceutical products to include in the program	Completed

1.2.2. Recruitment of health facilities/pharmacies into the program	Completed
1.2.3. Program awareness/ marketing to the target groups	Completed
1.3.1. Business process development and mapping	Completed
1.3.2. Software development of the agreed-upon process and features	Completed
1.4.1 Conduct workshop for program training and awareness with the target health care units and key stakeholders	Completed

Throughout the project period, a dashboard was used to track data and results from the project activities. The dashboard captured and tracked data throughout the various development cycles. Various sets of data were derived from the dashboards. They include; the number of pharmacy registrations, activations, and product order details, sales records, products, payment status, tax details, and performance metrics. Below is a snapshot of the dashboard taken at the beginning of the project.

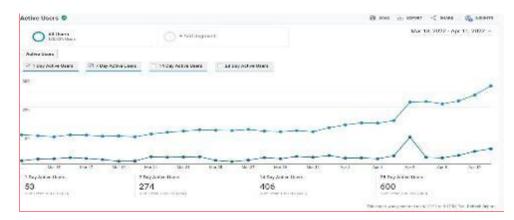


The dashboard was also useful in giving information about the marketing campaigns that were implemented. Campaign data on the performance of the website was derived from the dashboard

throughout the campaign period, as shown by the snapshot below illustrating a marketing report during the period. It shows the bounce rate, the number of new customers and returning customers.



In order to track digital campaign performance, google analytics tools were used to derive in-depth data from the Google marketing platform. This was very helpful in providing information about the impact of the marketing activities as illustrated by the campaign report of active users below:



This graph above shows that the number of active users grew consistently in the month of April due to the marketing campaigns launched

9. Achievements during the project implementation period

Outline and explain the achievements and showcase the success stories registered during the project time frame. See below the table for projects achievements registered during the project elaborated for specific activity.

Sprint One Achievements: Database Design & Relationships.

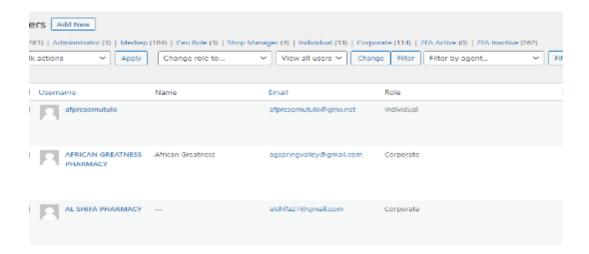
- The developers in collaboration with the other project team members successfully determined
 the sets of data to be stored and the interrelationships between the different data elements.
 Upon this determination, the data was fit to a database model which was used in development
 of the platform.
- This data is managed accordingly through a database management system. A dashboard was successfully developed from which data is extracted for project performance measurement.

Sprint Two Achievements: Platform Development

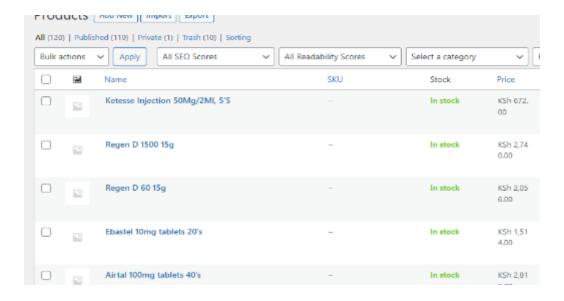
- The design specifications for the database model were implemented and the Rephas platform
 was successfully developed. Through this platform, pharmacies got access to authentic and
 discounted pharmaceutical products as planned.
- ASSL successfully partnered with a global pharmaceutical distributor, Rephas PLC to actualize
 the planned project activities. Rephas PLC gave access to their medical representatives that
 promoted the platform to pharmacies in Kenya. The distributor also offered discounted
 products to the onboarded pharmacies throughout the project period.

Sprint Three Achievements: Platform Piloting and roll-out

- The platform was tested, fine-tuned and evaluated by various stakeholders. On successful evaluation during the UAT workshops, the platform was considered operational and was rolled out for launching in both Kenya and Rwanda.
- Pharmacies were successfully onboarded onto the platform. A total of 114 pharmacies were registered and activated for trading on the platform in Kenya, as illustrated by the report below:



A total of 120 discounted products were displayed on the platform as at the project end period,
 as illustrate below



Throughout the project period, daily trade continuously grew. Orders were made by both new
and recurring customers. A total of 5789 orders were done throughout the project period, as
shown on the report below:

	Column Labels 4									
	jan-22		Feb-22	Same and the same and	Mar-22		Apr-22		Total Sum of Quantity	Total Sem of Amount(KES)
Labels	Sem of Quantity	Sum of Amoun	Sum of Quantity	Sum of Amount	Sum of Quantity	Sum of Amoun	Sem of Quartity	sum of Amount(KES)	The second second	The second second
BAFIKI CHEMIST	2	888							- 3	9
AMBALAT CHEMIST		(T		2664	8			2		
TRANSPAN CHEMIST LTD			y 25	0	5	2226	2	\$	- 3	
LU MR TABLETS, 20'S	27	16146	6	3588	18	20764	15	8970	60	39
AIZ PHARMACY LIMITED	20	11960		g	2 3			2	20	11
NFILMEDS PHARMACY			0	8	3	1794		ĝ .		1
AMU CHEMIST	1	398		3	3			S .	- 3	(
ERUSALEM DISPENSING CHEMISTS						2990	15	8970	20	11
DAMICH RI PHARMACY	1	398		35	S 8				1	3
MEDIPOINT(E.A) LTD			31	598	(f)			8 1	1	1
SILE PHARMACY LTD		2990	5	2990					10	5
FRANSPAN CHEMIST LTD				8	10	5980	1	9	10	
LU SP TABLETS , 20'S	- 4	2312	()	8	6 5		. 5	2890	9	5
AMU CHEMIST		578							1 3	
ERUSALEM DISPENSING CHEMISTS				8	3			2890	1	2
SILE PHARMACY LTD	3	1734	8	0	2 3			9	1	
LU TABLETS 10'S	11	2398	11	2398	16	5052	59	12862	95	20
APOLLO MEDICARE(K) LTD				8	3. 3.		10	2180	10	2
CABEN PHARMACY	-10	2190	9	ĵ)	7 7			Š	10	
FARMA TWENTY FOUR CTD							2	436		
NF LMEDS PHARMACY				St.	4	872			- 4	ē.
WMU CHEMIST	1	218		9.	1 2	50%		2	1	8
ERUSALEM DISPENSING CHEMISTS							20	4360	20	4
MEDIPOINT (E.A) LTD			1	21.5	3 3					\$
NCHE CHEMIST				9 780	2 S		10	2180	10	
VILE PHARMACY LTD			10	2150					10	2
HKEI PHARMACY				3	8		12	2616	1	2
NDGES CHEMIST				8	0.00			1090	1	1
TRANSPAN CHEMIST LTD					10	2180	2	-	10	1
d Total	1106	482296	764	536184	2660	1310361	1250	594094	5786	2,922

• During the project period, total sales of Kes 2,922,935 were made. Summary Platform performance is shown below:

	Column Labels -4			1						
	(en-22		Feb-Zi		Mar-22		Apr-22		Total Sum of Quantity	Total Sum of Amount(KES)
Row Labels	J Sun of Quantity	Sum of Amoun	Sum of Quantity	Sum of Amount	Sum of Quantity	Sum of Amour	Sum of Quantity	Sum of Amount(KES)		Maria de la compansa del compansa de la compansa de la compansa del compansa de la compansa de l
RAFIKICHEMIST	1	838							1	888
SAMBALAT CHEMIST				2664					6	2,664
TRANSPARICHEMIST LTD		· pus	0 3	1		2220				2,220
- ZULU MR TABLETS, 20'S	27	16146	3	3588	18	30764	15	8970	66	39,464
FAIZ PHARMACY LIMITED	20	11950				-			20	11,960
INFILMEDS PHARMACY			0 0		3	1794		1	3	1,754
JAMU CHEMIST	1	395	6 3			8 2 3		1	- 1	566
JERUSALEM DISPENSING CHEMISTS						2990	15	5970	20	11,960
KIAMICH EI PHARMACY	1	508	0 9			100			1	500
MEDIPOINT E.A. LTD			0 3	598		3 3			1	556
MILE PHARMACY LTD		2990	3	2990					10	5,980
TRANSPAN CHEMIST LTD		9.00	8 9		30	5950		i mai	10	5,980
×2ULU SP TABLETS ,20°S	4	2312				1 113	5	2890		5,280
JAMU CHEMIST	1	578							i	578
JERUSALEM DISPENSING CHEMISTS	- 4			- 3			5	2890		2,890
MILE PHARMACY LTD	3	1754	10 3			0 0		1	- 3	1,754
* ZULU TABLETS 10'S	11	2398	- 11	2308	34	3052	59	12862	95	20,726
APOLIO MEDICARE(K) LTD			F 1			3	50	2180	10	2,190
CASEN PHARMACY	10	2180	8 9	8		8 8	1000		10	2,180
FARMA TWENTY FOUR LTD							2	455	1	436
INFILMEDS PHARMACY			6 8		- 4	572				872
JAMU CHEMIST	1	218	3 3						- 1	219
JERUSALEM DISPENSING CHEMISTS							20	4350	20	4,360
MEDIPOINT(E.A) LTD			1	218		5 3			1	251
MICHE CHEMIST			V 1			1 0	10	2190	10	2,180
MILE PHARMACY LTD			10	2190					10	2,180
FIXEI PHARMACY			8 8			y 3	12	2616	12	2,606
RIDGES CHEMIST								1090	3	1,090
TRANSPAN CHEMISTILTO			Q	1000	- 50	2190			10	2,180
Grand Total	1106	462206	761	536184	2660	1318361	1259	594004	5780	2,972,935

- Successfully implemented digital marketing campaigns across various social media platforms
 which led to a growth in community following and membership on the various platforms. The
 Rephas Facebook page successfully gained over 550 followers from the previous 29 followers
 that existed before the campaigns were run.
- The Rephas platform also achieved a 212% growth on website traffic during the campaign period. Over 900 active users frequented the website in April compared to the previous 380 users that visited before the campaign period.
- Successfully registered 110 pharmacies in Kigali, Rwanda. Trading will be activated for the pharmacies in the next phase of the project.
- Successfully conducted a baseline survey in Rwanda through the Rwandan program coordinator.
 Findings from the survey will guide the project activities and decisions in the next phase of the project. (see report on project activities section)

10. To what extent do the outcomes of the project match the objectives of the original proposal? Please further indicate to what extent (in %) you fulfilled every single objective of the original proposal and briefly elaborate on that.

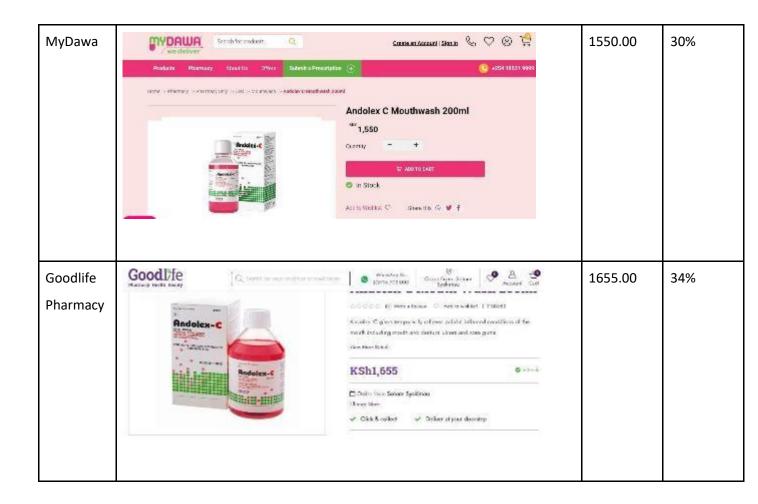
Outcome	Relationship between the outcome and objective
Designed and developed a pooled	This outcome aligns with project objective (1) to Offer a trusted End-to-
Procurement platform.	End (E2E) Solution for pharmaceutical products across East Africa by
	100%. The designed and developed platform is the trusted E2E solution
	for pharmaceutical products across East Africa.
	This outcome aligns with objective (2) - Improve the efficiency of the
	pharmaceutical distribution chain in East Africa starting with Rwanda
	and Kenya by 100%. The developed platform will help to improve the
	efficiency of the distribution chain in E.A.
Signed up a pharmaceutical	This outcome aligns with objective (2) - Improve the efficiency of the
distributor, Rephas PLC, with presence	pharmaceutical distribution chain in East Africa starting with Rwanda

in more than two EAC partner states	and Kenya by 100%. Through the online platform, the reliable
in more than two EAC partner states	distributor, Rephas PLC will help to improve the pharmaceutical
	distribution chain in E.A.
	distribution chain in E.A.
Signed up a chain of pharmacies/	This outcome aligns with objective (2) - Improve the efficiency of the
health centres in Kenya that order	pharmaceutical distribution chain in East Africa starting with Rwanda
their products on the pooled	and Kenya by 100%. The verified and registered pharmacies operating
procurement platform	efficiently on the platform by purchasing authentic products from
	Rephas PLC have helped to improve efficiency of the pharmaceutical
	distribution chain in East Africa.
Signed up a chain of pharmacies/	This outcome aligns with objective (2) - Improve the efficiency of the
health centres in Rwanda that will	pharmaceutical distribution chain in East Africa starting with Rwanda
order their products on the pooled	and Kenya by 100%. The verified and registered pharmacies operating
procurement platform	efficiently on the platform by purchasing authentic products from
	Rephas PLC have helped to improve efficiency of the pharmaceutical
	distribution chain in East Africa.
Launched the pilot	This outcome aligns with project objective (1) to Offer a trusted End-to-
phase	End (E2E) Solution for pharmaceutical products across East Africa by
phase	100%. The trusted E2E platform which is a solution to the
	pharmaceutical products in E.A was successfully launched to the
	market.
	This outcome aligns with objective (2) - Improve the efficiency of the
	pharmaceutical distribution chain in East Africa starting with Rwanda
	and Kenya by 100%. By launching the project, the platform will improve
	the efficiency of the pharmaceutical distribution chain in E.A.
	-,

Success Scenario

Pharmacies have access to an online portal for procurement of discounted and authentic pharmaceutical products from Rephas PLC. Below is a practical scenario illustrating the extent of success achieved by the project; it is a comparison done on prices in February for a select product (Andolex-C mouthwash) as displayed on various online pharmaceutical retail platforms, which clearly shows the value users are deriving from using the SmartPharma platform, due to the discounts offered on pharmaceutical products:





The scenario above clearly illustrates the positive impact created by the Rephas platform through the SmartPharma project. Pharmacists are able to make substantial savings by using the platform. For example, by purchasing the Andolex-C Mouthwash from Rephas, a pharmacist makes up to 30% and 34% savings as compared to purchasing from MyDawa and Goodlife Pharmacy platforms respectively. The example above is just a tip of the iceberg, since there are many more opportunities for pharmacies to make savings and improve their business revenues.

11. Project's lasting impact and sustainability.

<u>OUTPUTS</u>: Detail all Planned and actual activities carried out during the reporting period and the actual outputs. Explain any deviation between the planned and actual activities and propose follow-up actions.

Description of activities planned for the reporting period	Output targets		Level of achievement (achieved/pla	Explanation (s) / Performance / Remarks	
	Planned	Achieved	nned) in per cent		
1.1.1. Negotiate preferential discounted prices for health centres that order via the platform	Identify a reliable pharmaceutical distributor to partner with. Negotiate with the distributor on discounting rates for pharmaceutical products displayed on the platform.	Yes	100%	ASSL successfully identified a global distributor, Rephas PLC to partner with. Agreement between the partners was made and signed.	
1.1.2. Agreement on product distribution, customs, and order fulfilment terms	Agree on terms of product distribution, customs and order fulfilment.	Yes	100%	The partners agreed that product distribution and order fulfilment would be achieved by Rephas PLC, the distributor. Delivery would be done to the customer's location.	

1.2.1 A baseline	ASSL to conduct	Yes	100%	In Kenya, the survey was
survey to identify key	baseline survey in			conducted by the medical
essential	both Kenya and			representatives from
pharmaceutical	Rwanda.			Rephas PLC assigned to
products to include	Conduct survey			promote the platform.
in the program	with the registered			In Rwanda the survey was
	pharmacies.			conducted by the Rwandan
	Create a catalogue			program coordinator. During
	based on the			the survey, the coordinator
	essential drug list			also researched on
	created during the			regulations within the
	survey.			Rwandan market, the
				business, industry and
				organizational structures of
				the pharmacies. A report
				with the findings from the
				survey was presented. The
				information will be useful in
				planning activities and
				making decisions in phase
				two of the project.
				A catalogue of discounted
				pharmaceutical products
				was created based on the
				findings from the surveys.
1.2.2 Recruitment of	Recruitment of at	Yes	100%	114 pharmacies were
health	least 100 health			recruited, onboarded and
facilities/pharmacies	units in both Kenya			activated in Kenya by the
into the program	and Rwanda to take			medical representatives
, 5	part in the pilot			from Rephas PLC during the
	program			project period.
				. , '

				110 pharmacies were recruited in Rwanda by the program coordinator. Trading will be activate in phase two of the project.
1.2.3 Program awareness/ marketing to the target groups	To carry out digital marketing activities across various social media platforms.	Yes	100%	On-site marketing activities were conducted during the 21st EAC MSMES Trade Fair 2021, Mwanza, Tanzania. Digital campaigns were promoted across Facebook, Twitter, Instagram and YouTube. The campaigns led to growth of the community followers and visits.
1.3.1 Business process development and mapping	Design and draft the solution architecture document	Yes	100%	The project team lead and software developers held an alignment workshop where the database model was developed.
1.3.2 Software development of the agreed-upon process and features	To develop the online pooled procurement platform.	Yes	100%	The Rephas platform was successfully developed. Features were developed iteratively and incrementally as feedback was gathered from users during the project period. A review workshop was conducted, the team

				successfully reviewed the Beta and Gamma product
				versions of the platform and
				-
				got approvals to kick-start
				piloting with the end-users.
1.4.1 Conduct	To organize and	Yes	100%	ASSL collaborated with
workshop for	conduct a program			Rephas PLC to conduct the
program training and	and training			program training and
awareness with the	workshop for the			awareness workshop during
target health care	pharmacies.			the Philips Therapeutics Top
units and key				100 webinar. The
stakeholders				pharmacies were educated
				on the Rephas platform
				which was disrupting the
				pharmaceutical retail
				business through
				innovation. They were
				trained on the use of the
				platform and educated on
				how to use such innovations
				to improve the customer
				experience for their
				customers.

12. Describe the Lesson Learnt during the Implementation of the Project.

Major lessons were gathered throughout the project lifetime. From the project planning, initiation, execution, monitoring and evaluation up until the closing stage. To ensure knowledge management within the organization, these lessons will be stored in a learning repository as they are a source of reference that will be useful in guiding future project decisions.

Engaging all the stakeholders from the beginning of the project is critical to the project success. Different stakeholders in a project play different roles which ultimately influences the project outcomes. It is important to map out the stakeholder journey during project initiation in order to involve all the stakeholders early enough. ASSL will ensure that regional regulators and stakeholders are engaged throughout the project period in the next phase of the project.

With the encouraging support, positive response from the pharmacies and distributors and with the informative data gathered from the first phase of the project, it is evident that with more resources to create a stable and more reliable global pooled procurement platform, ASSL will be Abe to solve the distribution chain problems faced by pharmacies and patients in East Africa. Based on feedback, it was noted that some vital pharmaceutical products are unavailable in Rwanda yet there exists a high demand for them. This data will guide in identifying which products to introduce to the Rwandan market in order to improve the healthcare status of the communities. The need for this platform in the EAC region has also been validated by the positive response received from pharmacies in both Kenya and Rwanda. Most pharmacists happily registered onto the platform and have traded within the short project period, despite the project being a piloting phase and having developed a minimum-viableproduct. Results from the marketing activities also confirmed the feasibility for such a pooled procurement platform. There was a distinct growth in the Facebook community and website traffic which is a positive indication that the audiences are interested in the platform we have developed. While developing a minimum-viable-product especially for a large region like EAC where different communities and protocols exist, it is impossible to have all the facts and information needed to develop it from the onset. A lot of assumptions are made in the process. In such a situation, take an agile approach that will ensure you iterate regularly and perform incremental tasks that will ensure you develop for the intended users. An agile mind-set ensures that the varying needs of the customer are prioritized throughout the project period. The Rephas platform will require further improvements in order to include some important features that are necessary for the Rwandan market. For example, since Mpesa is unavailable in Rwanda, consider other efficient payment options, include more features that will serve the Rwandan market such as uploading of Rwandan documents and use of Rwandan currency in order to create a good customer experience. With this lesson and focus in mind, ASSL handcrafted some experiences for the Rwandan market. Since a good number of some Rwandan nationals faced challenges during online registration of their pharmacies due to technical limitations, manual registration forms were produced as a temporary alternative solution to the challenge.

13. What are some of the Challenges encountered during the Project Implementation?

Please list the biggest challenge on top and sort the others in descending order.

Describe problems / obstacles that were encountered during the reporting period and what was done to overcome them.

- 1a. Obstacle: Increased travel restrictions and reduced in person contact due to the global Covid-
- 19 Pandemic. The budget for the planned travelling within Kenya and to Rwanda was restricted due to the testing, quarantine travel demands and personal precautions required.
- 1b. **Solution:** ASSL resulted to having more digital interactions with the target healthcare workers and targeted digital marketing of the project via campaigns on various social media platforms.
- 1c. Solution: ASSL hired a program coordinator in Rwanda to run project activities in the country
- 2a. **Obstacle**: Highly charged political campaign period in Kenya has been a major hindrance. Travel was therefore restricted around various regions in Kenya due to the upcoming 2022 general elections.
- 2b. **Solution:** ASSL resulted to having more digital interactions with the target healthcare workers and targeted digital marketing of the project via campaigns on various social media platforms. Platforms.
- 2c. **Solution:** Medical representatives from Rephas PLC were assigned to the project to promote the platform to pharmacies in Kenya.
- 3a. **Obstacle**: Some Rwandan pharmacists faced challenges in registering their pharmacies online due to technical limitations. The Rephas PLC pooled procurement platform which is a minimum viable product (MVP) lacked some requisite features for successful registration and activation of the Rwandan pharmacies.
- 3b. **Solution:** We produced manual registration forms which the pharmacists used to register their pharmacies. Onboarding and activation onto the platform of these manually registered pharmacies will be done by ASSL in phase two.

- 3c. **Solution:** In phase 2 of the project, we intend to develop training manuals and carry out training workshops for the pharmacists in order to improve their technical knowledge and skills in navigating the Rephas platform.
- 3d. **Solution:** In phase 2 of the project, we shall focus our efforts on creating a good customer experience by carrying out regular follow-ups with the pharmacies and other potential users to ensure they have a good user experience with the platform.
- 3c. **Solution:** Since we adopted an agile approach throughout the project period, we shall continuously iterate and use the feedback gathered to improve the platform over time. Therefore, the requisite features will be prioritized in the next development phase in order to create a product that meets the needs of the regional users.

14. What are the Recommendations for the Integration Process from the Project?

The following were the recommendations from the implementation and consideration for the project;

1. As law abiding and compliant organizations, ASSL and the pharmaceutical distributor, Rephas PLC ensured that they put measures in place to only register and onboard pharmacies that were compliant with the standards and regulations of the governing bodies. The pharmacies were required to provide the necessary documentations as stipulated by the regulators. This audit and verification process slowed down the onboarding process and thus reduced efficiency. Integration of our system with the regulators and pharmacist registration database will allow us to simplify the onboarding process through authentication of legitimately registered retail outlets in Rwanda and Kenya. We therefore recommend the need to have a closer working relationship with the Pharmacy and Poisons Board of Kenya and Rwanda, the Food and Drugs Authority, the Ministry Of East African Community and Northern Corridor Development (MEACRD) and the East African Community Affairs of Kenya and Rwanda. At the time of submitting this report, ASSL had received guidance from GIZ on how to reach out to the regulators. This shall be highly prioritized in the next phase in order to ensure that all stakeholders are engaged from the beginning.

- 2. The results from phase one of the project, encouraging support and the positive response from the distributor and pharmacies in both Kenya and Rwanda demonstrate the great need for such a strategic and timely platform to solve some of the major problems that exist within the pharmaceutical retail sector. Most pharmacists willingly registered onto the platform and have traded within the short project period, despite the project being a piloting phase and having developed a minimum-viable-product. In order to scale and develop an enterprise grade and secure platform that is of global stature, ASSL will necessitate additional investment. ASSL is seeking further funding support of an estimated \$200,000 in order to reach all the disadvantaged communities in both Kenya and Rwanda to improve their healthcare standards and life in general through the Rephas platform.
- 3. Knowledge is power! In order for more pharmacies, health workers, distributors and patients to gain the power and benefit from the creation of such a human-centred platform aimed at improving the healthcare status of the EAC communities, there is need for increased publicity. This publicity will create more awareness on the existence of the platform which is aimed at benefiting communities. With this knowledge, the beneficiaries can take advantage of the life-changing opportunity in order to embitter their lives. The publicity can be achieved through further and consistent digital marketing activities in collaboration with other traditional marketing activities in order to reach a wide range of beneficiaries within EAC. With further funding support, this objective will be achieved.

15. Next Quarter Work Plan and Budget as per the agreement

This is the final project report with all activities having been accomplished as planned.

ASSL is seeking further funding support of an estimated \$200,000 in order to reach all the disadvantaged communities in both Kenya and Rwanda to improve their healthcare standards and life in general through the Rephas platform. In order to scale and develop an enterprise grade and secure platform that is of global stature, ASSL will necessitate additional investment.

16. Conclusion and Way Forward

ASSL highly appreciates the consideration, funding and support from GIZ, GIZ-EAC programme through the incubator for the Integration and development in East Africa (IIDEA). The SmartPharma project achieved great success within the short project period and we look forward to scaling it to other EAC countries in order to solve the challenges within the pharmaceutical retail sector for a healthier region.

Though it seemed very ambitious at the beginning, the SmartPharma project has:

- 1) Innovatively delivered one integrated platform that will allow health centres to seamlessly connect with their supply chains from the EAC under a pooled procurement system.
- 2) Successfully ensured that he health centres also have access to a regional essential medicines list from the East Africa Drug Index.
- 3) Successfully ensured that the health centres can manage their sales and inventory functions via a mobile based Point of Sale (POS) application. Pharmacies lack an easy-to use tool that allows them to understand sales, margins, and stock-levels. The lack of basic business and logistical insights can lead to stock outs of essential medicines and limits their ability to generate information needed to apply for business loans or access preferential discounts from suppliers.
- 4) Successfully ensured that the POS will be able to analyse patients' prescriptions for potential drug-related problems hence aiding in drug dispensing decision making process by the pharmacist.

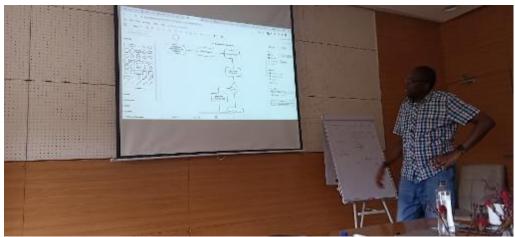
This is a huge milestone for the pharmaceutical sector and ASSL will continue to create and improve a harmonised East Africa Pharmaceutical Product Catalogue that will allow for free trade and information exchange within the EAC resulting to improved healthcare outcomes.

17. Pictures

Please included some pictures of different activities from your project with a brief description.

1. SmartPharma Technical and project leads alignment Workshop held on 23rd November, 2021 at Golden Tulip, Nairobi - Kenya.





2. SmartPharma Project showcased during the 21st East African Community MSMES Trade Fair 2021, Mwanza, Tanzania.





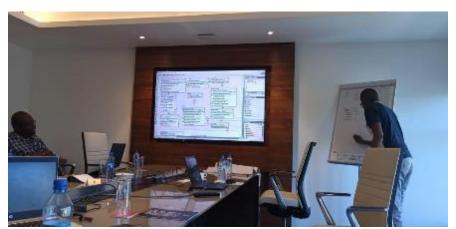
3. User experience exercise with a pharmacy in Thika, town to allow the project team gain onsite experience.



4. Pharmacy registration in Rwanda.



5. SmartPharma product review workshop held on 16th January, 2022 at Ole Sereni Hotel, Nairobi - Kenya.





6. Philips Therapeutics Top 100 Webinar held on 21st April, 2022; '<u>Disruptions In Retail Sector</u>

<u>Through Digital Innovations & Enhancing Customer Experience'</u>

The recording can be viewed through https://rephas.com/digital-innovation-to-drive-customer-experience/)

