**Terms of reference (ToR) for the
procurement of services (ANNEX 1)
Contract 83432078**

**To support development of electronic tendering
portal for the Lesotho National Drug Service
Organisation (NDSO).**

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General information

a. Brief information on the project

The programme "Cooperation for the Enhancement of Southern African Development Community (SADC) Regional Economic Integration" (CESARE) supports the SADC in economic development as well as good governance. Its main cooperation partner is the SADC secretariat in Gaborone, Botswana. The programme is further implemented in cooperation with national governments of SADC member states, associations and companies of the private sector, and civil society. One of the four measures of the programme is composed of the Joint Action "Support towards Industrialisation and the Productive Sectors (SIPS) in the SADC region". The EU and the German Government finance this Private Sector Development Action. GIZ is responsible for the implementation of two result areas of SIPS: To enhance the Private Sector Participation in Regional Medical and Pharmaceutical Value Chains, in this case specifically the Anti-Retroviral (ARV) and COVID-19 relevant medical and pharmaceutical products (CMPP) Value Chains (VC), and to enhance the Private Sector Participation in the Regional Leather Value Chain.

b. Context

The Joint Action SIPS is supported by the European Union (EU) under European Development Fund (EDF) 11 as approved by the European Commission in October 2018. The Action has been initiated to support the SADC Industrialisation strategy through developing and strengthening selected regional value chains.
The overall objective of the SIPS Programme is to contribute to the SADC industrialisation and regional integration agenda. Therefore, the project purpose (specific objective) is:

To improve the performance and growth of selected regional value chains and related services within the agro-processing, pharmaceutical and medical products sectors.
The SIPS Program addresses critical concerns of the private sector that are currently impeding industrialisation in the SADC region by addressing both market failures and coordination and linkages failures between the national and regional levels as well as between the public and private sectors.

Accordingly, the programme aims to achieve its objectives through two mutually reinforcing components:
Component 1 (Result 1) enhances the policy, regulatory and business environment at national and regional levels for developing and sustainable operation of regional value chains (for selected products) in the agro-processing and pharmaceutical sectors.
Component 2 (Results 2 and 3) enhances private sector participation in regional pharmaceutical, medical, and leather value chains.

More specifically, result two exclusively aims at enhancing private sector participation in regional antiretroviral (ARV) and Covid-19-relevant medical and pharmaceutical products (CMPP) value chains (results 2.1 and 2.2, respectively).

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1. **The Antiretroviral Value Chain**

    The antiretroviral value chain is an important focal area given the impact of the HIV pandemic globally, over five decades after it emerged as a significant disease threat. The highest burden of HIV/AIDS resides within the African continent, particularly Sub-Saharan Africa, where approximately 67% of HIV-positive cases are found. Effective antiretroviral therapies (ART) do not cure the infection but offer long-term remission and reduction in viral load. Most ARVs used in SADC are imported, and there is a clear economic opportunity for the region by increasing the local capture of this market through investment in pharmaceutical manufacturing in the ARV value chain.

    The Joint Action SIPS aims to support private sector participation in the antiretroviral value chain (ARV) value chain as follows:

    i.   Evaluate and promote the production of inputs such as active pharmaceutical ingredients (API) and packaging materials,
    ii. Strengthen market access and ARV market information
    iii. Improve the manufacturing output and business operational efficiency,
    iv. Attain and maintain acceptable good manufacturing practice (GMP) standard
    v.   Link private-sector pharmaceutical manufacturers and academic institutions to develop academic programmes that address the existing skills gap in the sector and
    V.   Facilitate access to affordable, flexible, innovative financing arrangements for spearheading ARV manufacturing projects.

2. The Joint Action SIPS aims to support Central Medical Stores (CMS) in the SADC region, one of the primary buyers of ARVs in the region, in availing quality tender information to suppliers on their procurement requirements. Strengthening the availability of market information will improve business operational efficiencies and ensure that the private sector collaborates effectively with this market segment, thereby enhancing the ARV value chain (ARV VC). Findings from the ARV VC analysis's inception phase revealed a lack of market information data. Working with CMS on improving procurement processes is a step towards increasing market access by the private sector and enhancing the internal operations of CMSs.

    Specifically, the Joint Action SIPS will support SADC member states, Lesotho National Drug Service Organisation (NDSO) and potentially Botswana to develop electronic platforms for managing the procurement processes in line with modern trends. In addition to the platform, the CMSs will receive capacity building through training on product specification, legal issues in pharmaceutical procurement and contract management.

    This assignment aims to provide the Joint Action SIPS team with technical services to support project stakeholders in the SADC region with public online procurement platform development. The contracting company will also train the host organisation's IT team to maintain and upgrade the developed online platforms and recommend any IT infrastructural upgrades required to host the designed online platforms. The term online platform shall be used herein refers to electronic procurement portals.

3. GIZ shall hire a company within the SADC region for the anticipated contract term **17 April to 31 October 2023. The exact start date will be agreed upon during the contracting stage**. The assignment will be up-to 32 days home-based for developing a single online platform including development of user specifications, up-to 8 days onsite to assess existing servers, if necessary, handover of source code and training and up-to 14 days for maintenance and support after handover. The total number of days for this assignment is up-to 54 days which will be shared amongst the team members and must not be exceeded.

Place of Assignment / Site in the Kingdom of Lesotho.

c. Service required
    The company shall provide the following work/service:

1. Development of user requirements
    1.1. Engage with stakeholders to determine the user requirements
    1.2. Write the user requirements and system specifications.

2. Development of an online platform
    2.1. Design a concept note including wireframes and draft designs for the online platform to be shared with the Joint Action SIPS team and all relevant stakeholders.
    2.2. Recommend an appropriate and economical web-hosting platform and/or, if necessary, advise on server upgrades if required.
    2.3. Write well-designed, testable and efficient front-end and back-end code using the best software development practices.
    2.4. Create website layout or user interfaces using standard Javascript /HTML /CSS and SQL practices that align with the host institution's public relations (PR) guidelines and marketing team.
    2.5. Integrate information from back-end services and databases where necessary.
    2.6. Enhance search engine optimisation (SEO) to increase visits and ensure high, relevant traffic from regional search engines to strengthen the visibility of tender information within the SADC region.
    2.7. Ensure that the public procurement platform is integrated with any relevant external or existing platforms if necessary.
    2.8. Ensure that the design of the online platform is accessible using various devices (mobile devices, laptops, desktops).
    2.9. Optimise the online platform for low-bandwidth users and ensure compatibility with modern browsers.
    2.10. Optimise the online platform according to the recommendations provided by the cybersecurity and usability assessments.

3. Testing of the online platform
    3.1. Usability assessment of the online platform
        3.1.1.1. Develop test plans and test scenarios for the developed software.
        3.1.1.2. Review the user requirements and ensure that the online platform meets all specifications.

3.1.1.3. Conduct stress testing on the online platform to ensure robustness during peak traffic or other limits of regular operation.

3.1.1.4. Review user guidelines/ help page to ensure the guidelines/help page is user-friendly and provide recommendations where necessary.

3.1.1.5. Identify training needs and train the technical IT staff on identified support areas.

    a) Modern technics on how to fetch portal usage statistics and other specified areas of focus.

    b) Best server, database and application optimisation for robust performance.

3.2. Cybersecurity penetration testing

3.2.1. Develop a security and penetration test plan and scenarios for the online platform based on ethical hacking principles.

3.2.2. Identify errors and vulnerabilities, and provide recommendations to improve the quality and security of the online platform

3.2.3. Identify training needs and train the technical IT staff on identified support areas, including;

    a) Cybersecurity for web-based systems and solutions.

4. Knowledge transfer and source code handover

4.1. Develop a user manual and deliver training for the support staff and system administrators to upload content, system maintenance and administration.

4.2. Provide complete technical documentation (source code and system design) to the host institution's IT team, including all developed libraries.

4.3. Develop user manuals/help page for the electronic public procurement platform.

5. Support and maintenance

5.1. Provide administrative, technical support and maintenance for six months after the online platform is live. The contractor will arrange monthly support meetings with the IT staff to identify any logged errors, identify system errors and perform system upgrades where necessary

5.2. Provide support and maintenance monthly. In addition, maintenance reports will be provided monthly.

6. Monitoring and Evaluation(M&E) and Reporting

6.1. The company shall complete monitoring reports using templates developed by the SIPS Monitoring and Evaluation Specialist.

6.1.1. 1 M&E report for online platform development and 1 M&E report per training conducted

6.2. The company shall provide a final report upon the conclusion of the project.

d. Timelines and deliverables

Tasks	Deliverables	Deadlines	Comments
Kick-off meeting	-	1st week	To be organised by SIPS Team
Development of an online platform	User requirements and system specifications	One week after the kick-off meeting	User requirements to undergo 2 document revisions by SIPS Team and Central Medical Stores representatives
	Concept note and draft designs	Two weeks after the finalisation of user requirements	Concept Note to undergo 2 document revisions by SIPS Team and Central Medical Stores representatives
	Website 1st version	Six weeks after the finalisation of the concept note	Comments provided within seven working days
	Website 2nd version	Two weeks after the review of version 1	
	Website final draft	One week after the review of version 2	
Testing of the online platform	Test plan and test scenarios	Two weeks after finalised concept note	Comments are provided within seven working days.

The Joint Action SIPS team will support the arrangement of an in-person meeting for the training. |
	Report on findings of usability assessment and stress testing, including recommendations.	Two weeks after 1st website draft has been submitted for review to project stakeholders.	
	Summary of identified training needs	Three weeks after the kick-off meeting	
	Training plan and training material	Two weeks after 2nd final draft	
Cybersecurity penetration testing	Test plan and test scenarios	Two weeks after finalised concept note	Comments are provided within seven working days.

The Joint Action SIPS team will support the arrangement of an in-person meeting for the training. |
| | Report on findings and recommendations of cybersecurity weaknesses. | Two weeks after 1st website draft has been submitted for review to project stakeholders. | |
| | Summary of identified training needs | Three weeks after the kick-off meeting | |

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Tasks	Deliverables	Deadlines	Comments
	Training plan and training material	Two weeks after 2nd version of website	
Knowledge transfer and source code handover	Source code	Two weeks after the final website draft	Comments are provided within seven working days.
	Help Page/ Q&A/ user manual for the electronic public procurement platform		
	Training for system administrators		
Support and maintenance	Provide six support maintenance reports. The report must outline the errors logged, identified software errors and any system upgrades that have been conducted.	Two weeks after maintenance/support.	Maintenance support to be scheduled on a monthly basis. Reports are to be shared with both the SIPS team and the project partner
Monitoring and Evaluation(M&E) and Reporting	M& E report for online platform development	Two weeks after handing over the source code.	The report will undergo two (2) revisions if necessary, and comments will be provided within
	M& E report per training conducted	Two weeks after the training has been conducted	Comments are provided within seven working days.
	Final report	Three weeks after handing over the source code	

Tender requirements

1. Appropriateness of the proposed concept

The bidder is expected to provide a concept note on the following:
1. The proposed concept must have the following sections:
    1.1. Strategy
        1.1.1. Interpretation of the objectives of the ToR, critical examination of tasks (1.1.1[1])
        1.1.2. Description and justification of the contractor's strategy for delivering the services put out to tender.
    1.2. Cooperation (1.2): Will not be assessed.
    1.3. Steering Structure
        1.3.1. Approach and procedure for steering the measures with the project partners (1.3.1)
        1.3.2. Description of contractor's contribution to results monitoring and associated challenges (1.3.2)

    1.4. Processes
        1.4.1. Presentation and explanation of the implementation plan: work steps, milestones and schedule. Bidders are also expected to provide a brief summary of the method used to determine the user requirements, methodologies of usability assessments and cybersecurity penetration tests. (1.4.1)
        1.4.2. Presentation and explanation of the integration partner. (1.4.2)

    1.5. Learning and Innovation
        1.5.1. Contractor's contribution to knowledge management at the partner and at GIZ (1.5.1)
        1.5.2. Presentation and explanation of the measures undertaken by the contractor to promote scaling -up effects (1.5.2)

    1.6. Project Management of the contractor
        1.6.1. Approach and procedure for coordination with/in GIZ project (1.6.1)
        1.6.2. Personnel assignment plan (who, when, what work steps) (1.6.2)
        1.6.3. Contractor's backstopping strategy (including technical and administrative backstopping) (1.6.3)
    1.7. Further requirements (1.7)
        1.7.1. List of online platforms that have been developed, including links if available

The concept should be **no longer than 20 pages and use Arial 11 with a minimum line and paragraph spacing of 1.15.**

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[1] These numbers refer to a specific criterion on the technical assessment of bids. The weighting of each criterion is provided in the technical assessment sheet.

2. Qualifications of proposed staff

2.1 Expert 1: Lead Developer and Team Lead

2.1.1 General qualifications
Education (2.1.1[2]):

University qualification (first/master's) in Computer Science, Software Engineering and a second qualification in Project Management

Language Skills (2.1.2):
- C1 English language skills required
- Knowledge of Sesotho and Setswana is an added advantage.

Professional experience (2.1.3):

- Ten years of experience in web-based software development with experience in project management.

Specific Professional experience (2.1.4)
- At least eight years of experience in web-based software test development, with in-depth knowledge of developing and testing code using Java/ Javascript/ HTML/CSS/PHP and SQL.
- Demonstrated experience gathering and refining specifications and requirements based on the users' needs.
- Has experience developing websites, dashboards or online portals for governments.
- Adequate knowledge of relational database systems and object-oriented programming.
- Good problem-diagnosis and creative problem-solving skills.
- A solid understanding of web applications, including security, session management and best development practices.

Leadership/ Management experience (2.1.5)
- At least five years of experience in project management or leadership experience.

Regional Experience (2.1.6)
- At least four years of work experience in Africa and/or SADC member states.

Development Experience (2.1.7)
- Work experience with regional/ international (industry) development organizations (e.g. UNIDO, GIZ, Sida, AFD, USAID) is an added advantage.

2.2 Expert 2: Junior Developer

2.2.1 General qualifications
Education (2.2.1):

University qualification (first/master's) in Computer Science, Software Engineering

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[2] These numbers refer to a specific criterion on the technical assessment of bids. The weighting of each criterion is provided in the technical assessment sheet.

Language Skills (2.2.2):
- C1 English language skills required
- Knowledge of Sesotho and Setswana is an added advantage.

General Professional Experience (2.2.3):
- Five years of proven experience in web-based software development

Specific Professional Experience (2.2.4):
- At least three years of experience in web-based software test development, with in-depth knowledge of developing and testing code using Java/ Javascript/ HTML/CSS/PHP and SQL.
- Has a good understanding of search engine optimisation processes.
- A good understanding of databases and hands-on experience in network diagnostics and network analytics tools.
- A solid understanding of web applications, including security, session management and best development practices.

Leadership/ Management Experience (2.2.5)
- Not Required

Regional Experience (2.2.6)
- At least two years of work experience in Africa and/or SADC member states.

2.3 Expert 3: Software Verification Specialist

2.3.1 General qualifications
Education (2.3.1):
University qualification (first/master's) in Computer Science, Software Engineering

Language Skills (2.3.2):
- C1 English language skills required
- Knowledge of Sesotho and Setswana is an added advantage.

General professional experience (2.3.3):
- Eight years of proven experience in web-based software development with a focus on software verification.

Specific professional experience (2.2.4):
- At least six years of experience in web-based software test development, with in-depth knowledge of developing and testing code using Java/ Javascript/ HTML/CSS/PHP and SQL
- Demonstrated experience in developing and implementing test plans and test scenarios.
- Demonstrated experience in web development and adequate knowledge of database systems and management of servers.
- Good problem-diagnosis and creative problem-solving skills.

- A solid understanding of web applications, including security, session management and best development practices.
- Has a good understanding of analysing software requirements

Leadership/ Management Experience (2.3.5)
- Not Required

Regional Experience (2.3.6)
• At least two years of work experience in Africa and/or SADC member states.

2.4 Expert 4: Cybersecurity expert

2.4.1 General qualifications
Education (2.4.1):
University qualification (first/master's) in Computer Science, Software Engineering

Language Skills (2.4.2):
- C1 English language skills required
- Knowledge of Sesotho and Setswana is an added advantage.

General professional experience (2.4.3)
- Eight years of experience in web-based software development.

Specific professional experience (2.4.4)
- At least six years of experience in cyber security, with in-depth knowledge and understanding of ethical hacking.
- Certifications in cybersecurity, such as CompTIA Security+, are an added advantage
- Demonstrated experience in performing research, testing, evaluation and deployment of security technology and procedures.
- Have an in-depth understanding of OWASP testing methodology, Dynamic and Static Application Security Testing, re-engineering, automation or other penetration test methodologies and tools (Burp Suite, Nmap, Nessus, Qualys, and Metasploit, etc.).
- Good problem-diagnosis and creative problem-solving skills.
- A solid understanding of web applications, including security, session management and best development practices.

Leadership/ Management Experience (2.4.5)
- Not Required

Regional Experience (2.4.6)
• At least two years of work experience in Africa and/or SADC member states.

NB: The Proposed Team **must not** exceed 4 (One Team Leader and Three experts)

3. Specification of inputs

Fee days	Number of experts	Number of days per expert	Comments
• Preparation/debriefing	4	1	This is one day, where 4 experts are expected to participate
• Implementation	4	Refer to Comments	The overall total number of days is 36 which may be used according to the discretion of the contractor.
• Maintenance and Support	2	Refer to Comments	The overall total number of days is 14 which may be used according to the discretion of the contractor.
Travel expenses	**Number of experts**	**Number of days/nights per experts**	**Comments**
• Per-diem allowance in country of assignment	4	8	All the experts will be expected to travel to the site. Calculated according to the GIZ rules (**Refer to ANNEX 3)**
• Overnight allowance in country of assignment	4	8	All the experts will be expected to travel to the site
• Travel costs (train, private vehicle)			
Flights	**Number of experts**	**Number of flights per experts**	**Comments**
• Regional flights	4	1	Depends on location of experts, location of training is Lesotho. Economy flights ONLY
• Domestic flights			

4 Payment Schedule for design consultancy

The Payment Plan shall be agreed upon at the contract stage

5 Option

1. Type and scope

The contractor may be requested to support another SADC Member State with services to train the identified host organisation's IT team to maintain and upgrade the developed online procurement platforms and recommend any IT infrastructural upgrades required to host the designed online procurement platforms.

This additional service anticipated to run up-to 31 October 2023 and will take place in Gaborone, Botswana, should the need arise, the necessary documentation may be requested.

2. Requirements

The option becoming effective is subject to the successful completion of online platform in Lesotho and the partner organisation in Botswana requesting the support of the Joint Action SIPS.