TERMS OF REFERENCE

A. BACKGROUND.

This initiative is based on international experience which demonstrates that the supply chains are characterized by the coexistence of large corporations and SMMEs in vertical networks, primarily in relation to supplying systems, and it has been proven that integrating SMMEs in the supply chains is the most effective way of integrating them in the globalized economy for them to benefit from the flow of technological innovation. The model establishes mutually beneficial and sustainable business relationships between large corporation and SMMEs in existing supply chains but in new projects and strategic development. The relationship goes beyond a relationship for a single link to the large company in order to allow SMMEs to diversify their business partnerships.

The methodology has been tested and with satisfactory results in more than 600 SMEs in 62 chains, located in 24 States in Mexico and has been transferred to other countries like El-Salvador, Honduras and Haiti.

The program operation is remotely managed because consultants worked in different parts of the country and use a digital electronic system on the WEB called "Management - Control and Linkage Portal" that allows the asynchronous reporting of interventions.

The scope of the tender is to develop the project management electronic system, in order to be able to:

A)   Provide a more effective follow-up at the interventions.
B)   Create a knowledge centre where consultants share their experiences and provide added value to new interventions.
C)   Be able to perform a more efficient operation and generate timely data to identify interventions needed to implemented and thus can give greater focus on the needs and real problems that SMMEs face on a day-to-day basis.
D)   Link supply with demand in a more agile, efficient and timely manner using a standard tool.
E)   Facilitate Project Administrative Control
F)   Share electronic documents of any type
G)   Link supplying offers with client companies through the exchange of electronic information.

B. RESPONSIBILITIES.

- Have capacity / sufficient server infrastructure to withstand high levels of visits via the Web and transfer of emails.

- Run processes and have the ability to convert them into electronic workflows applications that run on an independent reading data.

- Build database that will enable the generation and consultation of information registered in the system to create reports and take advantage of the rational data exploitation (*data mining)*

- Develop a system that has mechanisms of backing up files as audio files, documents and images.

- Have a security and support plan for databases to protect and maintain the availability of information.

- Develop a system that must also have processes and network firewall and IDS for information security.

- Have a power backup (UPS and generator) to ensure the system operability at all times.

- Offer the possibility of having a Support Centre in case it is needed

- The possibility of integrating existing Web technologies such as PHP and Flash, to form very agile applications and integrate it with databases such as Oracle and MySQL.

- The selected company must submit a work program every month for the 10 weeks months. The first module design and implementation should be ready in a period of time no longer than 5 weeks.

- From the specified contract signing date, the product must be developed under the parameters used by the Supplier Development Program, a task for which it should include a line of work that involves the databases integration.

- Document all programming stages, preparing system manuals.

- At the end of the project, the system, including source code and all the information, databases, backups, which is generated throughout the project, must be delivered to UNDP.

Timetable Example

Activity	Week 1	Week 2	Week 3	4	5	6	7	8
IP1	X							
IP 2		X		X				
IP 3						X		
IF							X	

C. EXPECTED ACTIVITIES AND PRODUCTS.

N	Activities	Products to be delivered
1	**Workshop - System Planning with SDP Consultants**	Determination of the current requirements. Stages definition, responsible, documents, requirements, project frequencies and information flow. Proposed System Development, supported with a mind map. Work Program supported with Project Management Methodology.
2	**System Programming**	Develop a system with WEB interface, No module will be accepted in the client server. Must have ADO databases system, to interact with different databases if necessary. The system must use an end-user interface Web, so that it can be viewed in an Internet browser such as Internet Explorer, Firefox and Safari. The programming system in which the software will be developed will need favourable characteristics for WEB areas. Recommended: PHP, Ruby, Python. Generation of electronic documents with their respective screens capture in the system. Use of Secure Servers based on Open BSD and Linux to generate greater efficiency. Generation of special modules and that can be updated in Web security, Database and operating system, to front-end and back-end level. The system should allow electronic documents capture, shifts of various types (type of topic or document), capacity for incorporation of scanned documents, as well as the incorporation and annex

N	Activities	Products to be delivered
		of all types of files, including electronic or digital (e.g. : files on the floppy disk, CD, USB memory, e-mail, .docx, .xlsx, .pptx, jpeg. .PDF, TIF, GIF, BMP, mp3, mp4 etc.), Capture should be done under a practical display design, easy to read with good visibility, agile and simple.
3	**Development Validation**	System test running with system documents. Integration of simulated consultation of databases. Generation of reports in the electronic system with ability to print clear, orderly and efficient. Verification of information flows according to map of the system. Progress Documentation.
3	**Tuning and Adjustment**	Compilation of the observations generated during the system validation test. Elaboration of a Work Plan to respond to the required needs. Correct and adjust the programming lines, tables, and routes of access to databases to ensure a 100% performance in accordance to the requirements of the system.
4	**System Release**	In a maximum period of 5 weeks the first system module must be completely ready and running according to the defined requirements. The first required module is the linkage between corporate purchasers and potential suppliers. The second priority is the projects management which the operators, consultants, administrative staff and institutions should have immediate visibility of the information generated by the project.
5	**Operational support throughout the Project**	Operational support is required over the estimated 12 months project duration, this support will provide service to the needs of consultation, registration, attention to users, preparation of reports, and settings that the same operation go demanding.
6	**System Delivery**	Delivery of the operating manuals system, source

N	Activities	Products to be delivered
		code, databases, and migration to the server that the Supplier Development Program determines.
7	**Maintenance Policy**	The supplier must deliver a quote (separately) that includes the policy maintenance system to ensure the functionality and the agreed level of service offered.

MODULES TO DEVELOP

SWystem required Modules:

- ***Supply – Demand Linking Module***

- ***Interventions Control and Monitoring Module***

- ***Budgetary Control Module***

- ***Electronic assessments online Module***

- ***Virtual Training Module***

- ***Knowledge Network Module***

These modules should be developed in English, and must respond to the accepted international classification codes and should also comply with the South Africa business environment

D.   MINIMUM REQUIREMENTS, SKILLS AND PROFILE.

INFRASTRUCTURE

The Bidder must have the required operating system (hardware, software and bandwidth with capacity to host video conferencing and virtual training) for installation and operation of the system, ensuring efficient operation for a period of three years. The company must have the necessary assets to ensure this service.

The hardware the bidder must is : an application server, database server and a computer for storage of digitized documents or provide a solution that will run on cloud computing system)

Expected specifications are minimum 96GB RAM, processor Optetron, Xeon or similar, 1 Terabyte of capacity expandable up to 3 terabytes. Bandwidth of at least one E1 (2.048 Mbps full duplex), for the project.

Mirror System, to avoid that the system is out of service in case of any contingency or update.

In addition must have:

- The necessary infrastructure to ensure the functioning and operation of the system in a 24/7 way throughout the year, must have the following characteristics:
    - Servers to support high levels of visits via the Web and emails transfer.
    - Separation of the process in different Database servers, one for reading and one for writing.
    - Backup Server for files as Audios, documents and images.
    - Database servers to backup data and to keep the information protected.
    - Process monitoring network and firewall and IDS for information security.
    - Power Backup (UPS and generator).
    - Support Centre (Contact Centre) with capacity of at least up to 3 stations.
    - Development Centre (Area Code) with a capacity of at least 5 modules.
    - E1's voice (with at least 10 lines calls for input or output).
- Programming in open languages that allow the compatibility and exchange of information with external databases.
- Development of templates to replace electronic documents and that feed databases for which the information can be consulted according to multiple search criteria and reference.
- Ability to deploy system security mechanisms.
- Ability to provide technical support on an on-going basis.
- Ability to identify manufacture problems, in case if it has chosen to integrate a third-party product under the conditions described above.

SYSTEM REQUIRED CHARACTERISTICS.

The supplier hosting service must have a capacity of approximately 5,000 users. It should have more capacity for expansion as we will have regional operations. Number of registered users expected 5,000 and will rise to 10,000.

Number of visitors expected 5 to 7 per user per month.

Number of documents per user 30 documents per user

Average size of document annexes 1 mb.

It is required that the system uploads formats as attachments such as images, electronic files, videos, so that the more modalities of files, pdf, office, mp3, WAVI, etc. can be handled as an annex the better.

The Module does not required documents digitization.

Hosting service is required. The current domain is www.undp-sdp.org.za when the system is ready we'll unsubscribe from the current system and it will enable the new development in this domain.

It is a system of 6 modules and each module has its report, what we are looking for is that it will be able to make cross reference between the databases of each module to provide the

necessary information for decision-making and generating reports to the project management board. If should be exportable but mainly we want an online graphic report.

Operational support is for 3 years and it is basically to ensure the user (consultant, company, and visitors) can access the modules/sections according to their status. a 24/7 service 365 days a year is needed, because the work is asynchronous and on many occasions the consultants use weekends to upload their reports.

System maintenance of at least 3 years is required, so you need to specify what will be the monthly cost to maintain the system for this period of time. This should consider having a support station for users to see any support in the capture, recording, and so on.

The mirror server is a back-up in real time, so that should there be any major incident, information is not lost. The availability, location, and number of servers are open to the discretion of the supplier.

The proposal must include total costs (developments, licenses, programming, equipment etc.) A Lump Sum proposal (total amount) is expected for the system operation.

Separately the supplier shall submit the monthly - annual cost proposal policy for the system maintenance.

Security is the highest priority at all levels of the system, because we want to avoid information leaks or expose the information that is delivered by the companies. It is also very important that the access keys are safe. In the past, we have had information leaks and some of the competitors have copied our system easily.

PROGRAMMING

Demonstrate competence in the systems development according to the specifications in section C2 of this document.

- Programming based on the Extreme Programming Methodology.

- Use of the technologies recommended and recognized for the Web i.e PHP and Flash, interacting to form very agile applications and integrating with databases such as Oracle and MySQL.

- Use of Secure Servers based on OpenBSD and Linux to generate greater efficiency.

- Generation of special modules and updateable in Web security, Database and operating system, frontend and backend level.

- Generation of reporting systems that are updated in real time as is the case of follow-up processes and resolution of problems of users of the system (companies and consultants).

- The programming system in which the software is going to be developed will need to have favourable characteristics for areas WEB, recommended PHP, Ruby, Python.
  .
- The system should allow the electronic capture of documents, issues and shifts of various types (type of subject or document), ease in direct incorporation of scanned documents, as well as the incorporation and annex of all types of files, including

electronic or digital (e.g.: .doc, .xls, .ppt, .pdf, tif, gif, bmp, .avi .mp4 .mpeg etc.) of any size, which shall take place under an environment and practical design of screens, easy to read with good visibility, fast and easy.

SECURITY

- You will need to perform a security test to the current system (www.undp-sdp. org.za) to determine vulnerabilities present; your proposal should incorporate the recommendations and solutions for the creation of a site with the highest standards of safety.

- User authentication will be carried out through a combination of unique identification for username/password; any attempt to access by brute force must be blocked by the Capcha system; the system must enforce the expiration of user sessions, i.e. the system administrator will have the ability to define the time period after which an inactive user will be disconnected from the system.

- Add protection of SQL-injection registering any type of attempt to access or change any information from the database.

- Identify and assess any shipment of POST or get information by avoiding any attempt of XSS or cookie theft.

- Have the certification of the W3C standards for generation of web systems.

- You must have a log of registered users which will record all attempts to authenticate to the system, including failed authentication attempts and satisfactory ones. This will allow you to analyse the behaviour of user interaction with the system.

- With the objective of ensuring the privacy of the data, the system must be able to use the standard SSL (Secure Sockets Layer) in some specific areas, with the objective that all data traffic between the content management server and the users' browser is encrypted.

- The system must provide mechanisms to minimize the risk of viruses from received files. These mechanisms should be included in the file servers and be executed and only allow clean files.

TECHNICAL SUPPORT

- The Technical Support offered by the bidder must have the following characteristics:
  - o Telephone: Must be unrestricted on work days. The bidder must append the telephone numbers, including a mobile number of project leader for requesting the support when required
  - o Electronic: Must be unrestricted on work days. The bidder must append the electronic addresses assigned to request support. The maximum response time

is two hours after the date of the issuance of the request, during which time the supplier must communicate by telephone with any of the authorized contacts.

- When the situation is not of critical importance or emergency will be considered in accordance with the following:

  - Severity 3: The problem is attributed to one of the software components offered by the bidder and does not affect the operation of any of the modules; it is an isolated case where the maximum response time will be 12 hours from the time of the report.

  - Severity 2: The problem is attributed to one of the software components offered by the bidder, affects a module but somehow its business secrets and users may continue with their work. In these cases, the maximum response time is 8 hours from the time of the report.

  - Severity 1: The problem affects all the users and they cannot continue with their work, the server is down. In these cases, the maximum response time will be 5 hours from the time of the report.

- Support Scheme offered.

- The Technical Support must be provided constantly from the commissioning of the system and acceptance of the same and be available from Monday to Friday from 8:00 a.m. to 18:00 p.m.

- The support must be available in English

COMPANY PROFILE

- Having a commercial prestige demonstrable with at least 3 references of clients served (clearly indicates company, contact name, phone, mail and description of the project or service provided).

- Have the sufficient financial solvency to ensure the operation of the system (copy of the financial statements of the past two years).

- Demonstrate at least 2 similar experiences in the development of portals that allow the electronic management of operation or commercial links between different actors or firms in a 100% electronic environment.