RFI-002/23

Request for Information for end-to-end integrated Early Warning System

Closing Date and Time: 11h00 on 20 June 2023

BRIEFING SESSION

Date:	5 June 2023
Time:	10h00 (SAST)
Venue:	The briefing session will be held online (Microsoft TEAMS). Meeting ID: 328 643 265 165 Passcode: 2iWc7c
Compulsory:	No

SUBMISSION OF REPSONSES TO THE RFI MUST BE DEPOSITED IN THE BID BOX WHICH IS SITUATED AT:
South African Weather Service Eco Glades Block 1B Cnr. Olievenhoutbosch and Ribbon Grass Streets Centurion, 0157

ENQUIRIES:

Any clarification required by a bidder regarding the meaning or interpretation of the document or any aspect concerning the submission is to be requested **in writing** from:

SCM: Acquisition Department
South African Weather Service
Email: bids@weathersa.co.za

1 PURPOSE

This Request for Information (RFI) issued by the South African Weather Service (SAWS), is solely to conduct a market analysis to determine if there are providers that could provide an end-to-end solution for Early Warning Systems (EWS's).

2 INTRODUCTION

The South African Weather Service (SAWS) is a public entity of Department of Forestry, Fisheries and the Environment (DFFE) and derives its mandate from the South African Weather Service Act (No 8 of 2001 as amended). The public entity is listed as a Schedule 3A Public Entity in terms of the Public Finance Management Act (PFMA).

SAWS is tasked with providing timely and accurate scientific data in the field of meteorology to the broader South African society: a combination of both public good and commercial services. The organisation plays a vital role in South African public life, not just as a provider of key services, but also in empowering citizens to adapt the effects of the ever-changing weather.

3 BACKGROUND

Southern Africa is highly vulnerable to extreme weather, climate, and water-related events. These include droughts and floods; severe convective storms accompanied by heavy rain, lightning, hail, and strong winds; tropical storms and cyclones causing storm surges, strong wind and heavy rainfall; and frontal systems that bring freezing weather and snowfalls to the southern parts of the region.

Natural hazards in South Africa (e.g., droughts, floods, storms) have led to significant social and economic losses, which are anticipated to exacerbate as a consequence of climate change. During the period of 1900-2017, over 100 disaster events were reported, resulting in 2200 death as well as 21 million people affected and totaling roughly US$4.5 billion monetary loss (Climate Change knowledge portal, 2022).

To mitigate the above-mentioned disasters, South Africa need a robust end to end turnkey early warning systems that ranges from risk analyses, monitoring (observations) to transmission and dissemination. This will also be in line with the statement made by UN secretary General and supported by WMO secretary General that early warning systems should cover everyone around the world in the next five years.

The South African Weather Services (SAWS) is looking to improve its weather alert system through the development of end-to-end integrated Early Warning Systems. The system comprises the full value chain, from infrastructure maintenance and management, quality assurance and control, Data transmission, Data visualization and development and dissemination of user-defined data products.

SAWS collects data from various sources in different formats. These include measurements from weather stations, remote-sensing platforms (e.g., radar, lightning) and moving-point data (e.g., weather buoys, weather measurements from ships and aircraft). In addition, data sets are produced through climate and weather modelling and applications.

Solutions are needed to effectively manage the above-mentioned value chain. The proposed system(s) should be compatible with the current SAWS ICT infrastructure.

Being the authoritative voice of weather warnings, SAWS seeks to obtain information from relevant expertise in the marketplace pertaining the turnkey solution for maintenance of infrastructure, transmission of data, visualisation and dissemination of weather information.

4 OBJECTIVE OF THE REQUEST FOR INFORMATION

This Request for Information (RFI) issued by the South African Weather Service (SAWS), is solely to conduct a market analysis to determine if there are providers that could provide an end-to-end solution for Early Warning Systems (EWS's). This RFI is in line with the SAWS' Integrated Services Strategy (ISS) to develop a system or system of systems to effectively manage the wide range of observation data.

- In essence the broad delivery of the project should address amongst others:

a) Risk and vulnerability analyses
b) Design and maintenance of optimal infrastructure
c) Address gaps in infrastructure by conducting the condition assessment
d) Advice on the need for upgrade and /or sourcing of additional infrastructure etc
e) Management of radar products enabling effective retrieval, viewing, analysis and integration with other observing systems
f) Data Processing and Analysis
g) Applicable software for integrated infrastructure, data dissemination and visualisation.
h) Preparation of data for data assimilation into numerical weather prediction models.
i) Development and preparation of appropriate algorithms for developing products for specific applications.
j) Temporal and Spatial visualisation of data
k) Transmission of information and forecasts to various users including local communities
l) Feedback mechanism from users, including disaster authorities and communities to improve monitoring and forecasts.
m) Possible funding models for end to end early warning system
n) Role of SAWS as a National Met Service versus the role of possible partners/service providers

Please Note: that any software suggested should be compatible with the South African Weather Service data collection and processing software and data communication systems used for our World Meteorological Organization responsibilities of Weather Information System and Global Telecommunication System.

5 COSTS FOR RESPONSING TO THE RFI

The costs incurred by a service provider in respect of the preparation of any response to this RFI or the cost of attendance of any briefing session will be borne by the individual / organisation responding to this RFI. SAWS shall in no way be liable to reimburse any individual / organisation for such costs incurred.

6 SUBMISSION OF RESPONSES

Submission of responses to this RFI must be deposited before the closing date and time in the bid box of the South African Weather Service which is situated at the entrance foyer of the SAWS head office at:

Eco Glades Block 1B
Cnr. Olievenhoutbosch and Ribbon Grass Streets
Centurion, 0157

Responses must be submitted in a sealed envelope with the following information on the outside of the envelope:

- RFI number : RFI-002/23
- Closing Date: 20 June 2023
- Name of service provider e.g. XYZ Enterprises CC
- Contact Person e.g. J. Doe
- Contact number e.g. 012 555 5555

7 ENQUIRIES

Any clarification required regarding the meaning or interpretation of the document or any aspect concerning the submission is to be requested **in writing** from:

The Acquisition Administrator
South African Weather Service
Email: bids@weathersa.co.za