

Information Builders enables agile information solutions with business intelligence (BI) and integration technologies. WebFOCUS – the most widely utilized business intelligence platform – connects to any enterprise system or application and enables simple and intuitive interaction with information.

### Provincial Government of Western Cape

#### Snapshot

##### Organization

The Provincial Government: Western Cape Education Department, South Africa, a second-tier government department responsible for over 1,500 public schools.

##### The Challenge

Analyze and distribute information from thousands of schools in a consistent, cost-effective way to help prioritize investments and allocate funds.

##### The Strategy

Supply flexible, simple, self-service reporting via an intranet and extranet so managers have immediate and accurate answers to their questions. In addition to textual reports, make the data available graphically through geographical information system (GIS) views.

##### The Results

Better communication and cooperation between sections within the Education Department.

##### Information Builders Solution

WebFOCUS (including ReportCaster, Maintain, and the Oracle and ESRI Adapters).



**Augi De Freitas, ICT solutions delivery manager; Kevin Tabisher, head of education management information systems (EMIS); Peter Present, research director; and Chris van Wyk, deputy director of applications development, Center for e-Innovation.**

## South Africa's Western Cape Education Department

### Shares and Manages Information With WebFOCUS

Since the first democratic government was established in South Africa in 1994, the country has worked hard to overcome challenges of poverty, unemployment, and social inequality. Education is an important agent in addressing these social issues, but prioritizing the needs of more than 1 million students at over 1,500 schools is an immense task. How should teaching posts be allocated annually for each public school across the province? Which schools have unacceptably high student/teacher ratios and what can be done to redistribute the student population? Which grades have the highest attrition rates, and how can administrators reduce the number of dropouts?

The Western Cape Education Department is finding answers to these and other questions with business intelligence (BI) and reporting technology from Information Builders.

"Our district and circuit managers need flexible, self-service reports in a variety of formats in order to quickly view and analyze a great deal of information pertaining to

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each educational institution,” says Kevin Tabisher, head of the Education Management Information Systems (EMIS) for the Western Cape Education Department. “These issues must be addressed to ensure a bright future for all South African citizens. This is particularly the case in rural areas, where distances between residents are large and communication challenges are sometimes extreme.”

The Western Cape Province is home to almost 4 million people residing in an area of nearly 130,000 square kilometers. It has a strong network of higher educational institutions, comprising universities, technical trade schools, and many other training institutions.

With a budget of just 5 billion rand (about US\$740 million), the Education Department must balance its role as an agent for social change with limited financial resources. It supports a staff of 29,000 educators and 8,000 staff responsible for schools throughout the province. In addition, the department coordinates and monitors many adult education programs, early childhood development centers, and further education and training colleges.

### **Reporting for the Masses**

EMIS is responsible for all management information at the department. They, in turn, are supported by the Provincial Center for e-Innovation. When it came time to purchase an enterprise reporting solution, IT professionals within these groups took a close look at the up-front licensing costs as well as the ongoing cost of maintaining the associated hardware, software, and networking resources. According to Augi De Freitas, Information Communication Technology (ICT) Solutions Delivery Manager at the Center for e-Innovation, WebFOCUS was chosen because of its strength as an information management platform, scalability, and ease of deployment.

“WebFOCUS gives us strong parameter-driven reporting, flexible report outputs, and the ability to support an unlimited numbers of users,” De Freitas says. “We were very impressed by its performance, the ability to directly access our source systems, and especially its light hardware requirements.”

Working with Fujitsu Services, the sole representative for Information Builders in Southern Africa, developers from the Center for e-Innovation and EMIS created a self-service reporting system that is available to authorized users throughout the province. Decision-makers at the Center for e-Innovation had several important criteria for the new BI system:

- Users should get immediate answers to their questions
- Data quality should be improved so managers receive the same answers to specific questions
- Managers with limited IT skills should be able to conduct their own analysis, reducing dependency on EMIS staff
- Management decisions should be made on accurate information rather than hunches or feelings
- Data should be properly integrated regardless of its source

“After a short time, we were able to produce reports that could be rolled out to the management at the head office,” says Chris van Wyk, deputy director of Applications Development. “Staff in my section were immediately able to produce a number of reports for use by the Education Department, and had no trouble deploying them on the Web.”

**“Thanks to the new reporting environment, managers throughout the province have a common understanding of the issues and problems facing the organization as a whole. The WebFOCUS solution has proved to be extremely cost-effective.”**

### Tallying the Data

The Education Department sends out detailed surveys each year, which are completed by the various institutions. The data is captured and stored in an Oracle database maintained by the Center for e-Innovation.

WebFOCUS is used to access this Oracle data, empowering end users to satisfy their own information needs by using flexible self-service reporting, in-depth analysis and powerful mapping capabilities. Data can be shared as soon as it has become available – making it accessible when and where it’s needed most.

Some reports access data from the Oracle-based survey results; others come from a special data mart, created to improve performance and simplify the reporting process. WebFOCUS Maintain is used for closed-loop processing and collaboration, which means managers can not only read information in the database, but interact with it as well.

“Thanks to the new reporting environment, managers throughout the province have a common understanding of the issues and problems facing the organization as a whole,” says De Freitas. “The WebFOCUS solution has proved to be extremely cost-effective.”

### Working With IT Experts

Fujitsu Services was involved in the initial implementation of the reporting system. Working with in-house developers at the Center for e-Innovation, they used WebFOCUS Reporting Server, WebFOCUS ReportCaster, WebFOCUS Maintain, and the WebFOCUS Read/Write Adapter for Oracle to build the self-service BI environment. They also provided training for staff in the Center for e-Innovation and EMIS sections.

“We have developed a strong partnership with Fujitsu Services as our service provider,” says Tabisher. “They have provided valuable advice and delivered useful, cost-effective solutions – on time and within budget. Their service and availability has helped us deliver critical solutions in short timeframes.”

Today, district and circuit managers have a better handle on a wide variety of educational issues. They can track urgent needs within the province, such as which schools lack basic services like water and electricity and how long it will take to provide these services.

### Putting Data on the Map

More recently, the Western Cape Education Department deployed geographical information system (GIS) technology from the Environmental Systems Research Institute (ESRI), along with the WebFOCUS ESRI Adapter, to perform mapping and spatial analysis.

According to Research Director Peter Present, being able to analyze GIS data will have a huge impact on the decision-making process. “Managers can verify possible solutions and more quickly identify trends,” he says. “The maps reveal factors such as infrastructure, roads, rivers, and mountains, which directly affect the provision of education in the diverse geographical areas within the province.”

## Find Out More

To find out how our solutions can help your company succeed, talk to an Information Builders representative today.

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The ERSI adapter is unique in providing dynamic, bidirectional integration with many useful GIS functions. For example, users can apply spatial selection criteria to produce reports or map schools.

"Our vision is to provide fast, easy access to reporting information for managers," explains Present. "WebFOCUS has done a good job of delivering the information, and the addition of a GIS system has helped us achieve a unique and fresh view of the status of our schools."

### **A Democratic Information Exchange**

Since deploying the WebFOCUS BI environment, managers and staff have witnessed better communication and cooperation between sections within the Education Department. Information can be viewed in any reporting format and can be mapped and spatially analyzed to suit a wide variety of purposes.

For example, managers can access information, detect trends, and analyze solutions to problems encountered at the school level. The data from the reporting system allows them to successfully manage their schools by sorting through mountains of information, synthesizing results, and distributing information by e-mail. "If our research reveals that there will be a shortage of teachers in the near future, we can quickly determine which subject areas will be most affected," says Present.

As business users become more and more familiar with submitting queries and running reports to get the information they need, the pressure on the EMIS and e-Innovation departments is decreasing, allowing staff in these departments to apply themselves to more urgent and strategic tasks.

Of course, there is always more to be done. The education department plans to extend the information provided by WebFOCUS to its schools via a secure extranet and to the public via the Internet. UAS and analytic reporters will be deployed to enable business users to create and share their own ad hoc reports and enhance their data visualization capabilities. Additional capabilities will be continually added to facilitate management decision-making.