



EVALUATION OF FREE STATE PROVINCIAL
GOVERNMENT WEBSITE.

Submitted to the Public Protector

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1 INTRODUCTION

As part of an investigation into alleged irregularities into the awarding of a tender (reference RFP 2011/06/21) to redesign the Free State Provincial Government website, AfriForum conducted an evaluation of the website in order to do a comparative analysis of industry trends in terms of web development and pricing.

2 SCOPE AND OBJECTIVE OF EVALUATION

The objectives to the evaluation were to determine: (i) if the services that were rendered by CIJ were in line with the specifications of the tender; and (ii) whether the Free State Provincial Government, and by implication the fiscus, derived the extent of the benefit as envisaged in the request for proposals and, lastly (iii) if the costs were commensurate with industry standards.

3 LIMITATIONS

AfriForum did not have access to financial information of CIJ and our assessment is based on the industry norm for similar services, not only in South Africa, but internationally.

4 METHODOLOGY

AfriForum analysed documentation received from the FSPG in terms of an information request submitted in terms of Section 18(1) of the Promotion of Access to Information Act, Act 2/2000 and conducted a technical evaluation of the Free State government website, as well as related sites, to determine the software that was utilized, unique design artefacts and security features. The assessment compared this with the scope of services as outlined in the SLA and other documents of the FSPG. The collected data was collated and analysed to determine what the average costs would have been and whether this was commensurate with the amount paid by the FSPG.

5 BACKGROUND

During June 2011, the Free State Provincial Government issued a request for proposals for the development, re-design, implementation and maintenance of its website. This request for proposals was carried in the print media as well as a special Free State Province Tender Bulletin, No.14 dated 10 June 2011. Bids were received from eleven (11) bidders that included CIJ. In its report dated 25 August 2011, the Bid Evaluation Committee (BEC) scored CIJ the highest and recommended that the tender be awarded to this entity. At its meeting of 26 August 2011, the Bid Adjudication Committee (BAC) endorsed the recommendation of the BEC and awarded the tender to CIJ. The budget implications were as follows:

- 2011/2012: R37,518,151.80
- 2012/2013: R41,081,040.00
- 2013/2014: R41,081,040.00

6 SCOPE OF SERVICES TO BE PROVIDED BY CIJ

6.1 Service Level Agreement

In order to develop an understanding of this matter, it is important to analyse the requirements of the Free State Provincial Government that formed the scope of its engagement with CIJ. In this regard we note the provisions of the Service Level Agreement (SLA) that was entered into between the FSPG, represented by the Office of the Premier, and CIJ, latter represented by S Ntsele, on 12 January 2012. The preambular section of the SLA outlines the desire of the FSPG to have a website that is

“respected, comprehensive and a useful source of information for the provincial and local sphere of government in the Free State Province, including provincial public entities” and that the site “should incorporate the latest technological advancements as well as industry-standard best practices” and, lastly, that the site “should utilize a robust database-driven engine to efficiently store and organize all pertinent information relevant to the broader provincial and local government sector”.

6.2 Service provider’s obligations in terms of SLA with Provincial Government

The performance milestones for the service provider is set out in Sec 4 of the Service Level Agreement (attached hereto). These are:

- Design, testing, implementation and maintenance.
- Content generation and management of the website
- Design and optimize content

- Optimize the management of information by adapting forms already in use and transferring existing content to the new site
- Optimize the use of the search engine
- Online advertising
- Incorporating social media

7 DESIGN AND OPTIMIZING CONTENT

Design artefacts are detailed functional design documents that contain specifications about the design, generally with some diagrams and/or software technical design documents.

Actual designing of a website is the process of creating/designing the look and feel of a website around the tasks they are supposed to perform. These will normally relate to how it will be used and the user experience, considering both aesthetics and brand identity. In simple terms the phone number at the top of the home page may be required because a company may want customers to call them rather than emailing so they can contact them on the phone and build a rapport; or the e-commerce system home page being full of products so the users are presented with options to purchase as soon as they land on the home page. This cannot have been considered in these government sites as the Service Provider used a template without changing its design.

The website <http://www.freestateonline.fs.gov.za> (“Free State website”) is built on the very popular platform WordPress. WordPress is a free and open source blogging tool and a content management system (CMS) based on PHP and MySQL, which runs on a web hosting service. The use of WordPress on the Free State website is confirmed by visiting <http://www.freestateonline.fs.gov.za/wp-login.php> where the



Figure 1 WordPress Logon Screen

WordPress Logo appears. It appears that all the pages (under the “Departments” tab of the Free State website) are built in WordPress (see example <http://www.premier.fs.gov.za/wp-login.php>).

The website design layout is based on a standard WordPress template that is available in the market for about \$40¹. The developers of the Free State website simply changed the existing theme template’s main colour scheme to blue. No functional design was done.

No special site navigation tools were designed as the buttons, menu bars, icons etc. are those which are contained in the template.

Help pages are part of the functional design of a website, but no such pages could be found on the Free State website as required by the SLA. The site contains active content such as a photo slide feature which is included in the template, but it does not work properly on all browsers. The page (http://www.freestateonline.fs.gov.za/?page_id=2670) displays differently in Firefox (doesn't work), Chrome, IE and Safari (works).

The striking similarities between the Free State website and the <http://www.londonthemes.com/themes/londonlive/> sites as can be observed from the pictures below.

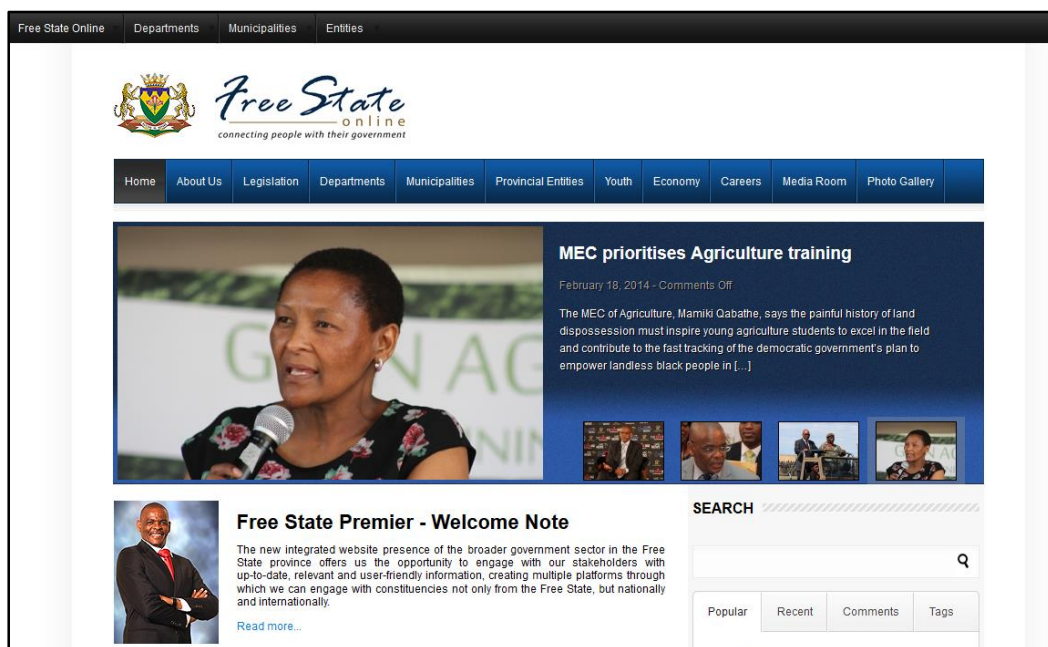


Figure 2: <http://www.freestateonline.fs.gov.za/>

¹ See <http://themeforest.net/search?utf8=%E2%9C%93&term=CMS> and <http://londonthemes.com/london-live-3-in-1-news-magazine-and-blog-for-sale/> where this template can be bought.

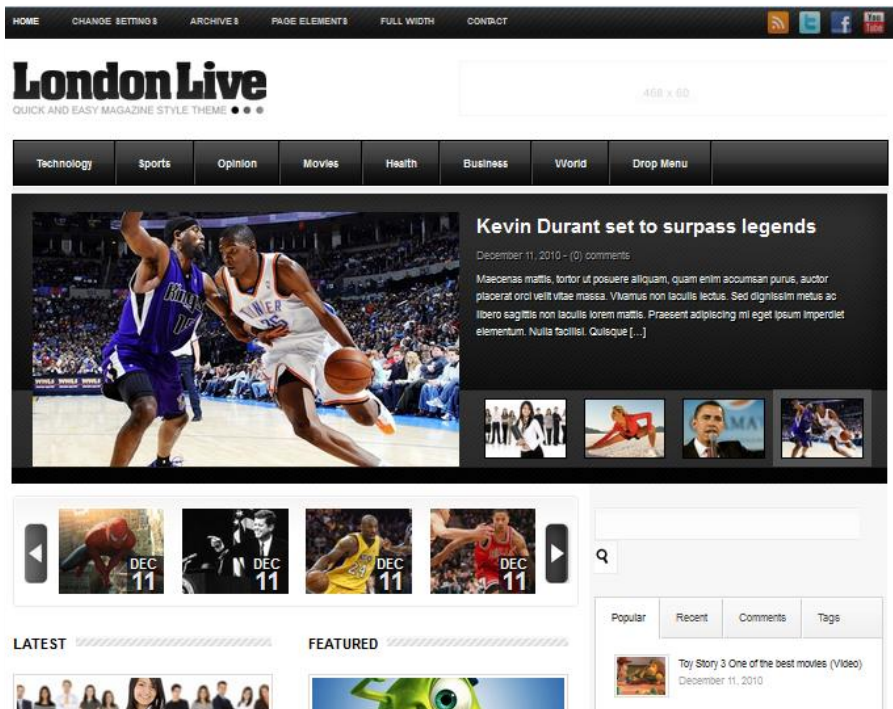


Figure 3 <http://www.londonthemes.com/themes/londonlive/>

The developers of the Free State website even failed to mask the name of the theme in the code. A screenshot of extracted code thereof is shown hereunder²:

```

www.freestateonline.fs.gov.za/wp-content/themes/LondonLive/style.css

/*****

Theme Name: London Live
Theme URI: http://londonthemes.com/index.php?themeforest=true
Description: News style theme, but works well with everything.
Author: Skyali
Author URI: http://londonthemes.com/index.php?themeforest=true
Version: 1.2

*****/

```

Figure 4 London-Style Code contained in Free State website

8 SEARCH ENGINE OPTIMIZATION

Links have been created to related internet sites. However, the Free State website is badly optimised for search engines as there are no SEF (search engine friendly URLs), e.g. <http://www.freestateonline.fs.gov.za/about-us>. This was an express requirement of the SLA.

² See <http://www.freestateonline.fs.gov.za/wp-content/themes/LondonLive/style.css>

There is further no site map and only the title Meta-tag is filled in. We were unable to find keyword analysis and linking on the site.

9 SOCIAL MEDIA

Links to Facebook and Twitter are contained on the websites. These pages have posts³ but they are old, dating back to October 2013 and December 2013. This feature could be improved upon and updated daily or weekly. The Bid Evaluation Committee recommended CIJ to be the service provider⁴, *inter alia* because their submitted proposal stated that utilisation of social media would include, amongst others, RSS feeds. It is noteworthy to mention that no option could be found on the websites to subscribe to the RSS feeds. 'Subscribing to a website RSS removes the need for the user to manually check the web site for new content. Instead, their browser constantly monitors the site and informs the user of any updates. The browser can also be commanded to automatically download the new data for the user.'⁵

The social media pages, by their very nature, do engage with new audiences and the opportunity for people who wouldn't usually take part in consultation is made possible through the site, save that automated RSS updates are not functional.

10 SECURITY

Administrator areas are not hidden on the website or series of websites of this size and importance. Many simple plugins are available that hide the standard login from would-be hackers.⁶ If the link to the administrator panel is not known, an attack thereon is made more difficult and makes for a safer website. For example, the UK government websites hide the admin area and one would get a '404' Error page⁷.

Using the standard link to the administrator panel also opens the sites for brute force attacks. 'A Brute Force Attack aims at being the simplest kind of method to gain access to a site: it tries usernames and passwords, over and over again, until it gets in. Often deemed 'inelegant', they can be very successful when people use passwords like '123456' and usernames like 'admin.'⁸

WordPress security is often in the news. All Content Management Systems, due to their open source nature, are never 100% secure. We have, however, only heard of WordPress sites being hacked on mass⁹.

³ <https://www.facebook.com/pages/Ace-Magashule/355355867932817>

⁴ See Bid Evaluation Committee Recommendation, page 5, par 3 (a)(i)

⁵ <http://en.wikipedia.org/wiki/RSS>

⁶ See <http://wordpress.org/plugins/lockdown-wp-admin/faq/>

⁷ See <http://www.leeds.gov.uk/wp-admin>, <http://www.leeds.gov.uk/login>, <http://www.leeds.gov.uk/admin>

⁸ http://codex.wordpress.org/Brute_Force_Attacks

⁹ See article at <http://www.bbc.co.uk/news/technology-22152296>

Paragraph 4.2 of the Service Level Agreement between the Free State Provincial Government and CIJ states that “It is specifically agreed that although the RFP No. 2011/06/21 made provision for the security of the website, the security of the website is not the responsibility of the Service Provider as it will be done by SITA.” CIJ describes in their tender proposal that they will factor in security standards during the 2011/2012 Phase two of the design of the website.

In terms of the Service Level Agreement between FSPG and SITA, SITA’s responsibility in respect of website security is limited to backups¹⁰, not to allow access to the Website hosting server and info, data or printed matter through its facilities to any persons who are not authorised, in writing, by FSPG¹¹, and shall deny any identified virus infected data and access on the Website hosting server, to prevent the distribution of viruses¹².

We are of the view that security of websites being hosted on a security provider’s servers (in this case, SITA) makes sense in respect of the backup, recovery and protection of data of which they are the custodian of, but it can hardly be expected to secure open source development code used by another service provider, in this case Cherry Online.

11 FUNCTIONALITY IN TERMS OF INTEGRATION WITH OTHER FEATURES

WordPress can be extended to incorporate other features although no particularly special or custom plugins are being used on the Free State website. There are roughly 30,000 plugins available for WordPress to extend its functionality. The use of such plugins naturally depends on the needs of the client.

WordPress is probably the most widely used Content Management System, taking up as much of 60% of the market trend as at February 2014¹³. This does not necessarily mean that it’s the right tool. Most government websites are custom coded and do not use WordPress.

A possibly custom built elementary database can be found under the Free State website’s ‘Careers’¹⁴ tab. It is a rudimentary Microsoft ASP coded job database.

¹⁰ See par 6.1.1.3 of the SLA between FSPG and SITA

¹¹ See par 6.1.1.6 of the SLA between FSPG and SITA

¹² See par 6.1.1.11 of the SLA between FSPG and SITA

¹³ http://w3techs.com/technologies/history_overview/content_management

¹⁴ <http://www.interapps.fs.gov.za/Webapps/Jobseekersv91/vwQualpers/ShowVwQualpersTable.aspx>

12 COMPATIBILITY WITH SMARTPHONES

Most of the websites load fairly properly on smartphones, but it has not been optimised for smart phones. Some of the websites are unresponsive and they do not adjust to the device they are being viewed on e.g. iPad vs iPhone may look different. Some pages don't load properly on a smart phone, for example http://www.freestateonline.fs.gov.za/?page_id=2803. On an iPhone you will get a big white square in the middle at the bottom of the screen.

Moreover, the following page doesn't even work properly on a PC. (See http://www.freestateonline.fs.gov.za/?page_id=2846). The image below demonstrates the problem.

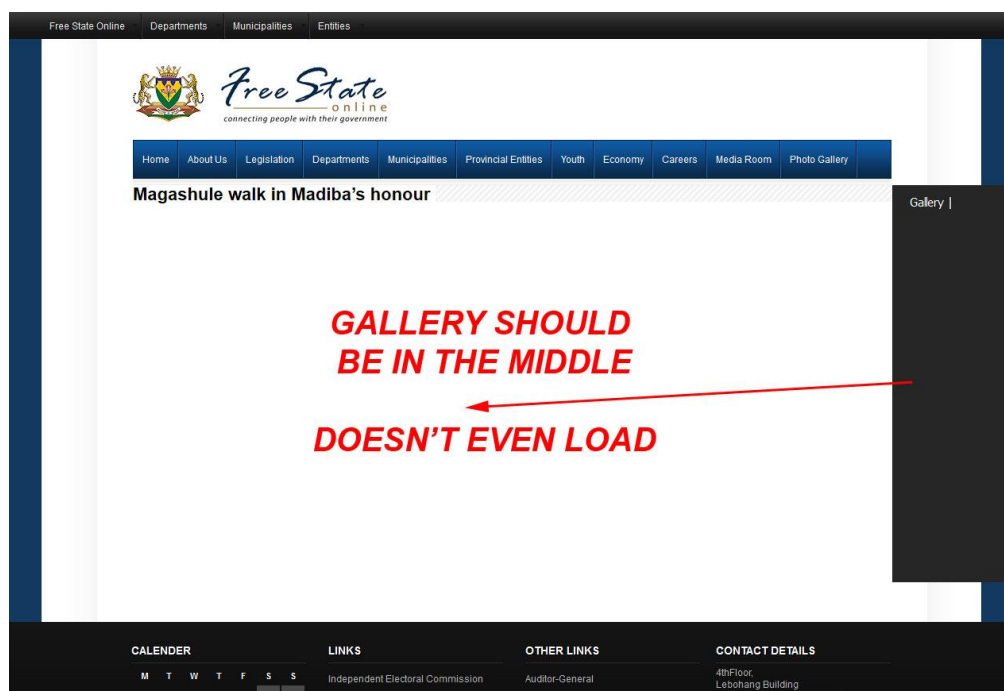


Figure 5 Improper loading of page

The link to the Mangaung Metro page produces an unfinished product with a login message that work is in progress.

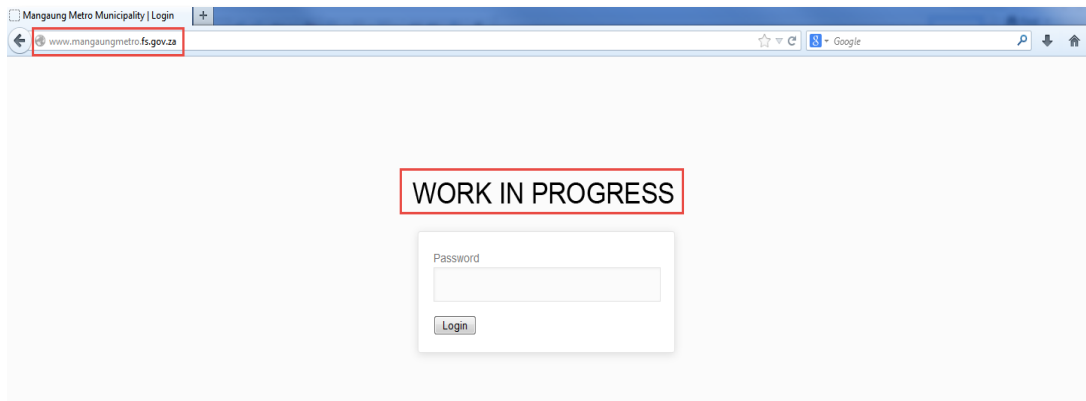


Figure 6 <http://www.mangaungmetro.fs.gov.za/>

13 AVERAGE TIME FOR THE DESIGN AND DEVELOPMENT OF A WEBSITE

Experienced web developers spend an average of 2 to 4 hours to produce a bespoke design using a template. Tight brand guidelines set by Clients may take longer to design.

In the case of designing the Free State website, very little time had to be spent on its design as it is a standard WordPress template which was purchased and of which the colour scheme was changed. All the other sub sites use the same design. Market indications show that one day per design per designer using a template are reasonable. The site under review consists of 38 pages and should not take a single designer more than 38 days to complete. As for developing, building and filling in content should take four developers approximately one week to complete the site from start to finish.

13.1 What are the normal costs for such a service?

An article published by Webpagefx¹⁵ demonstrates what one can expect to pay for a website. High end website development costs fluctuated over the past decade. Many websites now require responsive website design. Responsive design means that a website is designed for functionality on desktops, tablets and mobile devices. With 232 possible screen sizes in 2014, it isn't difficult to understand why responsive design has driven the high end of website cost upwards. The necessity of having a website with responsive design is one reason for the widening gap between the highest and lowest possible costs for a website.

¹⁵ <http://www.webpagefx.com/How-much-should-web-site-cost.html>

On the lower end of Web design pricing, competitive industry pressure and advancements in Web design tools pushed pricing down by about 10% in 2014. Webpagefx published the following table showing the price fluctuations since 1995.

Time Period	Expected Cost
1995 – 1997	\$7,500 to \$12,000
1998 – 2000	\$6,000 to \$10,000
2000 – 2004	\$2,500 to \$4,500
2004 – 2009	\$2,000 to \$7,500
2010 – 2012	\$2,500 to \$8,500
2013- 2014	\$2,250 to \$10,000

By using Webpagefx’s cost calculator, an estimated price for a similar design and feature contained on the Free State website, could be between \$12,000 for a low end site and \$22,000 for a high end site.

PROJECT QUOTE CALCULATOR

Here is your free quote! This quote is an estimate.

[CLICK HERE FOR ANOTHER QUOTE.](#)

		LOW	HIGH
Number of pages	10 - 50	\$ 2,000	\$ 3,000
Style of design	Moderately stylized	\$ 3,000	\$ 5,000
Copywriting # of pages	None	\$ 0	\$ 0
SEO w/ Placement Guarantee	30 keywords	\$ 2,000	\$ 4,000
Flash or Multimedia	Simple Header	\$ 1,000	\$ 2,000
Database Integration	Basic	\$ 2,000	\$ 4,000
e-Commerce Functionality	None	\$ 0	\$ 0
CMS	Standard	\$ 2,000	\$ 4,000
Total Estimated Quote		\$ 12,000	\$ 22,000

Figure 7 *www.webpagefx.com calculator screen shot*

Another website calculator tool found at <http://www.grandallwebdesign.com/calculate.html> estimates the design of a website

GRandall Web Design » Pricing » **Web Calculator**

Web Design Calculator

Use this calculator to get a quick estimate of your custom web design cost. NOTE: This calculator is designed to give you a rough estimate, your actual price could vary according to the web work performed.

Estimate Your Web Design Costs		
How many pages do you require? (Home, About Us, Catalog, Contact, etc.)	39	5900
CGI/PHP Contact/Feedback Form?	<input checked="" type="checkbox"/> Yes	100
Shopping Carts – How Many? (Includes image and catalog setup.)		0
Additional Graphic Design Services		
Scan and resize photos. How Many?		0
Design new logo for web use? (Includes up to four hours work time, \$40.00 hr. afterwards)	<input checked="" type="checkbox"/> Yes	100
Custom Flash Animation? (each) (Includes up to four hours work time, \$40.00 hr. afterwards)	<input checked="" type="checkbox"/> Yes	180
Custom Animated Gifs? (each) (Includes up to four hours work time, \$40.00 hr. afterwards)	<input checked="" type="checkbox"/> Yes	120
Interactive Graphics Scripts? (Image Maps, Rollover Effects, Slide Shows, Popup, etc.)	<input checked="" type="checkbox"/> Yes	160
Your Custom Site Design and Layout	Total	6560
<input type="button" value="Estimate Cost"/>		<input type="button" value="reset form"/>

Figure 8 Screen shot of grandallwebdesign calculator

containing 39 pages with additional graphics designs services at about \$6560, 00, as can be seen below.

Enquiries into website development charges based in the United Kingdom showed that custom designed CMS sites are charged at approximately £1000 per page for a design that is completely unique in look and feel. The amount is roughly broken down as £300 in design time and £700 in template build and setting up the pages and content. If a client requires wants customisation over the standard features of the CMS this costs extra. The average site costs around £1500 GBP with high end sites topping out around £5000 GBP. Applying these figures to the Free State websites will equate to a minimum of £39,000 (£1000 x 39) and a maximum of £195,000 (£5000 x 39) for a high-end site.

13.2 Comparative quotations received during tender process

Several companies tendered for the development of the Free State website. The discussion in this part of the report is limited to those companies who qualified for the Stage 2 evaluation as specified in the tender documents, i.e. Functionality criteria. Matsapa Trading & Tawana Business Projects JV, IOX Consulting and Cherry Ikamva Jugganaut Joint Venture were scored in terms of their proposed framework of content, their business plan outlining the project proposal, implementation of project and initiative, as well as their efficiency gains through competitive and holistic solution that they offered in line with the Free State Provincial Government

Criteria for functionality	Score		
	Matsapa Trading & Tawana Business Project JV	IOX IT Solutions	Cherry Ikamva Jugganaut JV
Proposed framework of Content	3	3	13
Business Plan outlining project proposal, implementation of project and initiative	1	2	8
Technical capacity	4	1	8
Efficiency gains through comprehensive and holistic solution offered in line with the Free State Provincial Government Communication Strategy	3	2	8
TOTAL	11	8	37

In terms of the bid document, a proposal will be disqualified if it fails to achieve the minimum threshold of 18 points for functionality as indicated in the document and will not be considered further.

In terms of the above, IOX IT Solutions and Matsapa Trading & Tawana Business Project JV are disqualified as they did not achieve 18 points. Cherry Ikamva Jugganaut JV qualifies for further evaluation.

Figure 9 Extract from the Report of the Bid Evaluation Committee (page 5)

Communication Strategy. Both Matsapa Trading & Tawana Business Projects JV and IOX Consulting scored about 60% less than Cherry Ikamva Jugganaut Joint Venture.

The tender process was flawed in its designed to look at price as a last criteria and this elevated CIJ to the final stage, regardless of price. Although no pricing schedule proposed by Matsapa Trading & Tawana Business Projects JV was available to the writer at the time of writing this report, IOX Consulting's pricing schedule was available. IOX Consulting's proposed cost to develop and maintain the same work equated substantially less to R4,5m in total.

9.1 Payment Terms

A 30% deposit is payable upon acceptance of this proposal. The remaining 70% can be split up into 6 monthly payments over the course of the 3 year period.

Payment can be made within 30 days of invoiced date for the 6 month period. Interest will be charged on outstanding payments at 15.3% per month.

Redesign / Re-Launch of a Comprehensive and Integrated Website

Webhosting

	Payment Method	Amount
Monthly Subscription	Per Month	R 350.00
Database Administration	Per Month	R 100.00
Total		R 450.00

Website Design

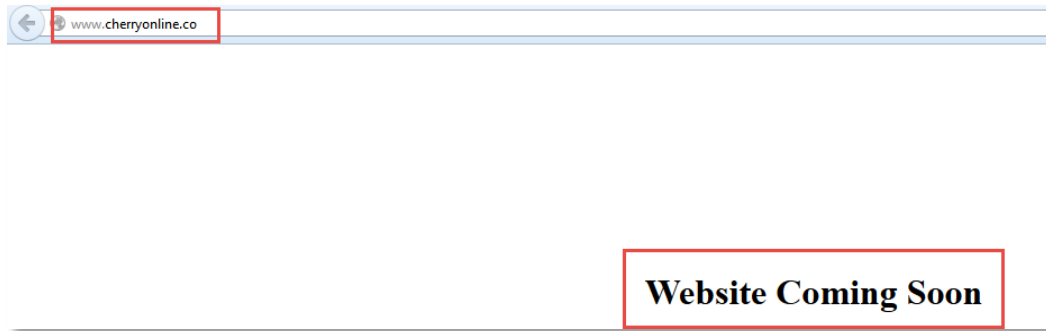
	Payment Method	Amount
Initial Payment (30% of Total)	Acceptance of Contract	R 1 350 000.00
Option 1: Quaterly Payment	Every 3 Months	R 262 500.00
Option 2: Monthly Payment	Monthly	R 90 000.00
Total Price of Contract		R 4 500 000.00

Figure 10 IOX Consulting - Bid document page 18

The substantial difference between R4,5m and about R140m is noteworthy and glaringly incomparable with market trends.

The fact that a series of websites that could comply with the specifications laid down by the Provincial Government for the Free State site using the technology and templates that have been implemented, could cost anything from \$6560 to 195,000 GBP in 2014, the resultant amount of R120m awarded to CIJ seems excessively expensive.

14 CIJ'S PRESENCE ON WEB



CIJ's website is not functioning. The Free State website link takes a user to a seemingly incomplete address, ending with .co only, which informs the user that the "Website [is] Coming soon".

A search on www.cherryonline.co.za produces a similar result.



Desktop research revealed that CIJ has a Facebook¹⁶ page, of which the comments thereon are mostly negative. The last activity on the site from CIJ was in 2011, the same year that they were awarded the tender to set up the Free State website.

¹⁶ <https://www.facebook.com/cherryonlinedesign>

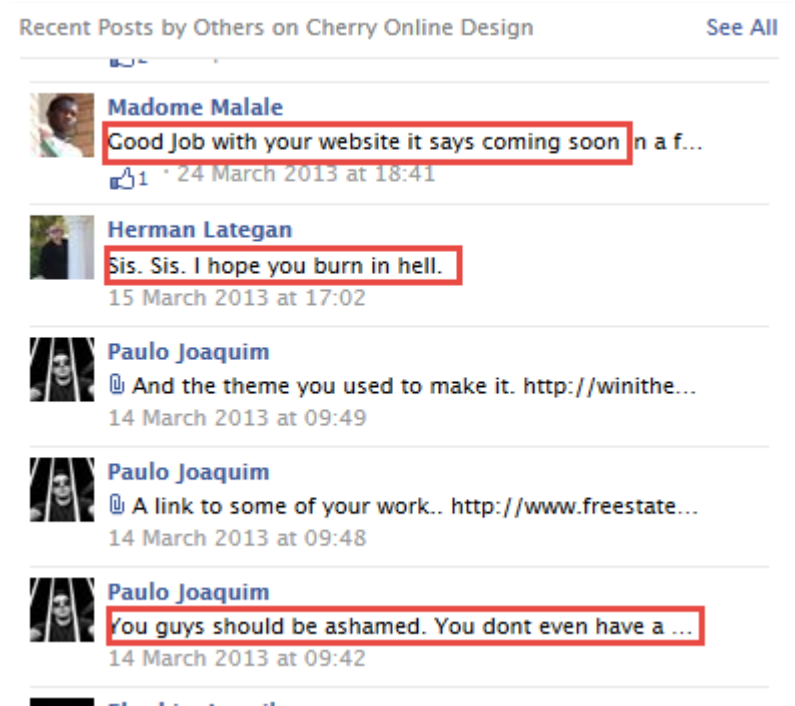


Figure 11 Cherry Online Facebook - comments

15 EVALUATION

When one is spending about R140m on a website, one would spend considerable time on design, functionality and security. It is highly unlikely that CIJ spent much time on functionality design as the templates were purchased off the shelf. It appears as if CIJ must have thought "how can we use this template to display the information" rather than "how can we design a template around the information we need to display".

A good user experience comes from thinking about how you want to display the information and then moving things around to position them where you need them to best display that information.

The Free State website was simply shoehorned into the template.