



korwe

DST Tax Rebate Comments

By Dr DJ Hislop
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Introduction

The world has changed in the last 5 years. The “internet economy” is worth a significant portion of the South African GDP and this is set to eclipse the mining sector, eventually. Big Data is now a thing. Software companies sell services transparently across borders and software startups are able to list for huge values “from nothing”.

In this response we consider the Guidelines for applicant of the Scientific and Technological Research Development Tax Incentive as issued for comment in October 2015. This is not the first time we have responded to documents of this nature:

- * we commented on the DTI’s “Towards a Competitive South African Software Industry” 2011
- * the DTPS “ICT Policy Review Discussion Paper” 2015

We are cognisant of a number of other programs of government, and have followed their fortunes such as Meraka / AAICT. Furthermore, we have actively contributed to the debate such as hosting four (published) colloquia on Software Engineering in South Africa and contributed to alternative innovation / design programs such as running the Software Design Program at the World Design Capital 2014.

The author has a PhD in theoretical high energy particle physics from UCT (supervised by an A-rated NRF scientist, Professor Jean Cleymans); has engineering certification as a software engineer through being a Senior Member of the IEEE and Certified Software Development Professional and has won awards as a programmer since he was 13.

As a company we intend to apply for the tax rebate. However we are concerned by the guidelines because we have just been rejected and because the guidelines contain numerous confused and old-fashioned ways-of-thinking.

The author believes that this Tax Rebate scheme is absolutely critical for the country. Furthermore, as a scientist, engineer and programmer working in business, is excellently positioned to comment.

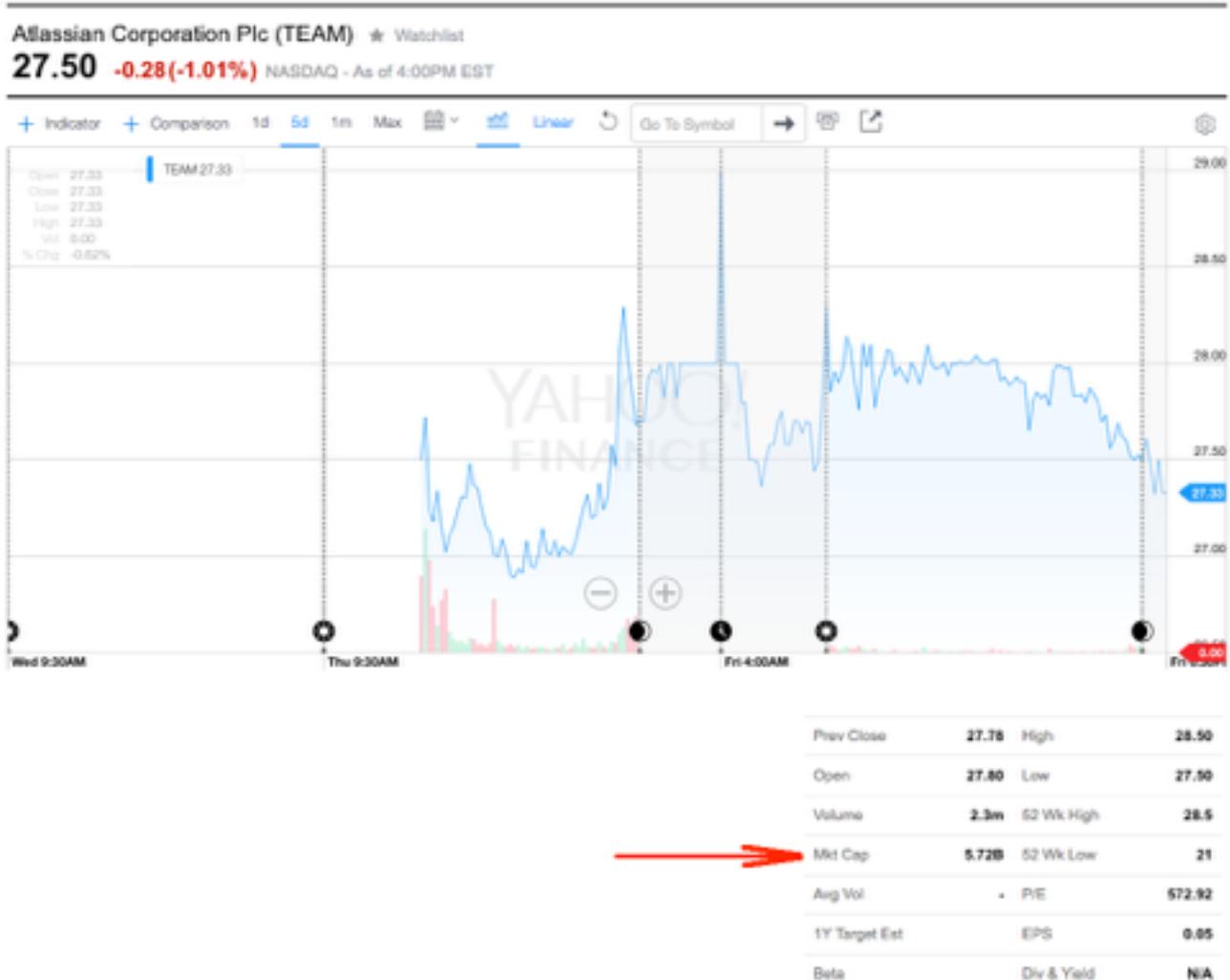
This author does not believe that innovation is a spontaneous creation of business, but emanates from risk tolerant government.

Philosophical Context

The author does not proposed to weigh the merits of Karl Popper or Thomas Khun or Paul Feyerabend in this response. However, numerous questions of a philosophical nature do come up, and the author wonders as to the credence given to their consideration.

Commercial Context

Software is a huge economic force and as an example we refer the reader to Atlassian's recently listing¹.



Thus with respect to R&D in software there is a lot of work being done and a lot of value being derived. South Africa squanders a huge amount of money “importing” software, and the flood has not been stemmed.

Management of R&D and Transformation

It is of some concern that South Africa has remained stubbornly stuck in a top-down view of science: “we will provide and the people will come”. Our science is measured and managed according to various metrics determined by government form time-to-time. To contrast this with the free-wheeling devil-may-care-attitdde of Richard Feynman is instructive.

¹ Disclosure: Korwe is an Atlassian Expert partner. Atlassian is a SaaS company,

Recommendations

- (1) Mandate the researcher select a Software Research Process. Furthermore, a person competent in research should lead the research, being suitably qualified.
- (2) The DST should use a lottery process akin to the US Green Card Lottery. Applicants should go through a screening process to enter the lottery. Successful applicant should be vetted in detail in exiting the lottery. And entry into the lottery is weighed according to arbitrary criteria the DST may set. (For example should you have PhD you are more likely to get a Green Card. Or not.) The point of this exercise is to expedite the process and to remove the dependence on 'unqualified' experts (such as academics) in the monitoring committee.
- (3) Social Science has become quite a rigorous field of science, with mathematical techniques and statistical tools at least on a par with Biology. Moreover, an understanding of the collective behaviour of people is important and valuable.
- (4) The DST should be located with the DoC / DTSP in the DTI as a valid self-sufficient entity. This is to create alignment with programs such as SPII and to set the right context for R&D.

Conclusion

Korwe Software has already experienced bureaucratic failure in administering this program, which is a red flag, in that the ability to execute a program is as important as creating a good program as the intentions of the program. Furthermore, in an attempt to be rigorous, the department has opened up a can-of-worms in terms of definitions, competing philosophies, etc. We have suggested a lottery approach to get around this Pandora's Box.

In getting clear criteria, the problems in this regard are exacerbated by attempts to produce 'neutral' policy document that deliberately seeks to isolate it from commercial context. Thus we proposed that the DST needs to work even closer with the DTI.

Finally, in order to build on technology people, we would suggest that a trained researcher or engineer sits on company's boards (executive & full-time) to as to help validate research.

We do regard ourselves a a leading software research organisation. Certainly other local and international organisations do too. We are mortified that (1) our opinions were never considered and (2) our application was rejected.