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Editor's Message

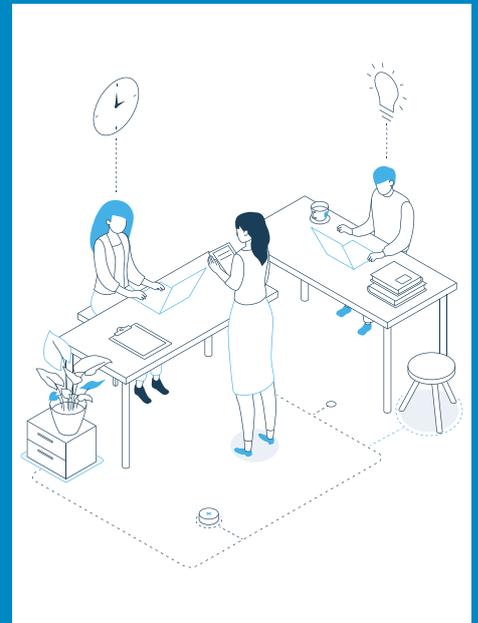
Tian Alberts

In our first newspaper publication, I wrote that Nova Mentis was the future of new ideas and facts, and that we were to promote shared accountability, emphasise growth and development instead of transformation and redistribution and announce an equal stake for all in a truly non-racial state. This vision is more than alive today, and we have sought to promote it in a new way that keeps up with modern trends and realities. This pilot magazine is to be exclusively distributed to our loyal supporters, prospective supporters and advisors. We look forward to receiving feedback and criticism as we start preparing our first issue, to be published in 2020. The aim of the Nova Mentis magazine is to creatively give expression to the best ideas of our youth thinking tank, consisting of members all over the country. This magazine will indeed be presented as a manifestation of prudent solution-based analyses by South Africa's leading youth intellectuals and academics, and shared to those individuals and organisations that influence discourse and policy in South Africa. I invite you to privately share this pilot publication with colleagues, friends and others without publishing it in the public domain.

We believe that this endeavor is well-suited to influence policy and decisions that leaders make, and to sway discourse in South Africa away from ideology and politics – especially identity politics – towards future-focused solution-seeking.

We therefore believe that this publication is critical for the future and we rely on your support to sustain and improve this endeavour.

The failures that we observe around us can be undone. We can change our minds, change our decisions, change our course, change our way of thinking about past and future, and save ourselves. Or, we can acquiesce in the ideological, solution devoid winds of destruction that, if left unattended, will destroy our country. Nova Mentis chooses the former, and my hope is that you will join us on this journey.



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Hope & fortune needed

South African sun shines sharply for solar

George van Dyk

It is no secret that the state of South Africa's national power system is one of utter destitution. Taking cognisance of the environmental woes facing humanity as a whole only compounds this melancholic conundrum. Thankfully, the novel work and research conducted by the Centre for Renewable and Sustainable Energy Studies (CRSES) at Stellenbosch University (SU) makes it abundantly clear that the African sun shines brightly for South Africa's renewable energy future. A quantitative description of the aforementioned destitution is easy enough

to produce, but difficult to stomach. Reiterating a few concerning certainties in this edition of Nova Mentis reveals Eskom is some R450bn in debt whilst suffering a loss of R20bn for 2018/2019.

Despite these harrowing figures, Eskom, a company reliant on electricity sales and government bailouts, has had to increase tariffs by 340% over the past 10 years. The gloom only worsens upon consideration of the conservative estimate that South Africa's energy demands will double by 2025. Electricity is, of course, integral to any economy and Eskom's desolate state allows for a maximum of 1.5% growth in the economy.

As it stands, renewable energy accounts for approximately 6% of the South African electrical grid. The National Development Plan (NDP) of 2013 set a fairly ambitious goal of having 20 000 megawatts (MW) – 40% of the total capacity – of electricity sourced from renewable sources like wind and solar energy. In more concrete terms, 1 MW of electricity can power roughly 1 000 homes (another conservative estimate), so the NDP would like to see 20 million homes powered by renewables. According to Professor Sampson Mampheleli, director at CRSES and full professor in process engineering at SU, this goal has since been adjusted to 32%, as set out in the Integrated Resource Plan (IRP).

3X

The amount of times that the solar irradiance of the Northern Cape exceeds that of Europe.

This gargantuan task seems unassailable, but South Africa might just be able to pull off this urgent feat owing to its meteorological proclivity towards solar power. Although a region's proclivity towards and subsequent feasibility of solar power presents as a complex, multivariate function, solar irradiance is a particularly useful indicator

South Africa's urgent need to invest in solar power is vindicated by large economies like Germany and China, who are also ardently investing in solar power, only having a third of the solar irradiance available to South Africa. In fact, China and Germany have respectively installed 130 200 and 42 339 MW of solar power, virtually all photovoltaic (PV)

energy is converted into heat energy to create steam and ultimately drive an electrical turbine to generate electricity. According to the National Energy Regulator (NERSA), South Africa's installed CSP capacity has steadily grown by 100 MW each year, from a total installed capacity of 100 MW in 2015, to a total of 400 MW in 2018.

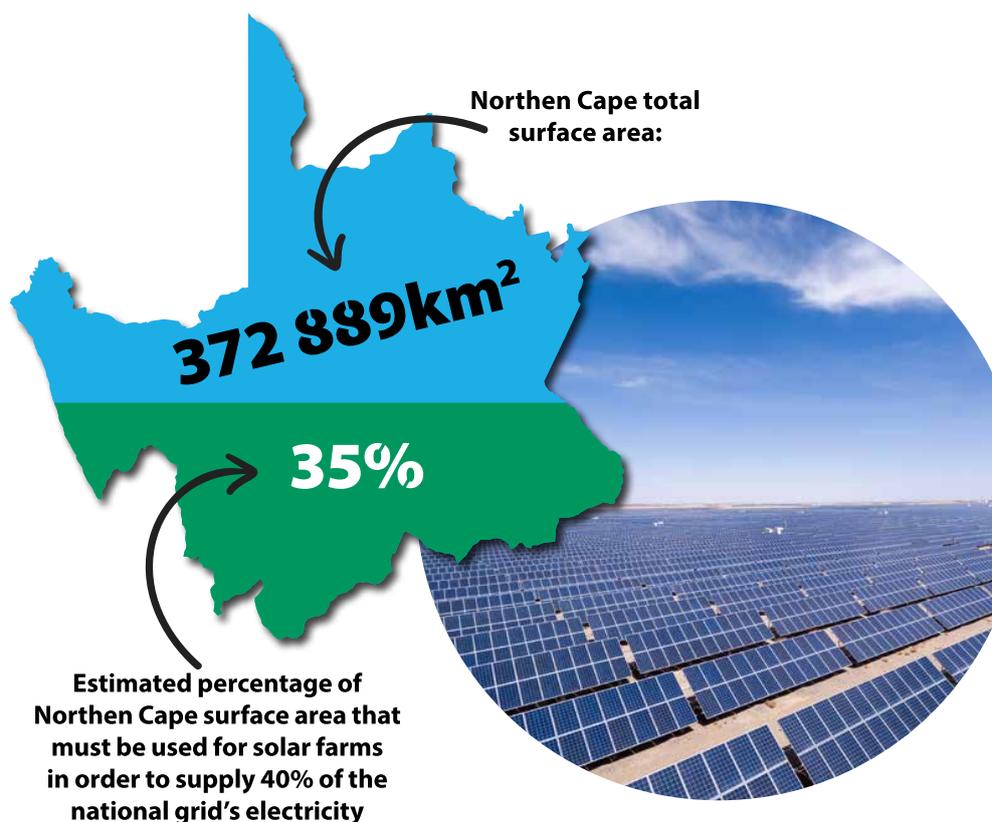
plant, capable of producing a mere 1 MW of electricity, entering into operation in 1968. Furthermore, CSP invariably requires favourable, unmodifiable conditions like high solar irradiance levels, making it difficult to implement. Despite this, it is critical to note that capital costs for CSP have fallen by 50% over the past five

178%

Growth of combined capacity from solar power and CSP in South Africa, from 2014 to 2018.

40%

Percentage of the national electricity grid's supply to be derived from the production of 20 000MW of PV solar panels (about 50 million solar panels).



in this regard. Solar irradiance, measured in watt per square meter (W/m²), details the electromagnetic radiation received from the Sun within a specific measuring instrument's wavelength range.

More specifically, the Northern Cape is a potential goldmine for solar energy, with solar irradiance measurements ranging from around 2.5 MWh/m² to as high as 3.2 MWh/m². To put this in perspective, this is amongst the highest recorded solar irradiances in Africa.

cells, as of 2017; imagine what South Africa could do with sufficing investment and appropriate management. However, it should also be noted that Germany is more aggressive with its renewable energy contribution goal setting and is set on 50% renewables contribution by as early as 2030.

It therefore comes as no surprise that the CRSES has multiple concentrated solar power (CSP) systems in the Northern Cape. CSP uses mirrors to focus light onto a single smaller area, where solar

Overall, South Africa's combined capacity from solar power, that is, PV cells (which directly convert light energy into electrical energy) and CSP, has grown from 1 063 MW in 2014 to 2 959 MW in 2018. While it is comforting that 3 million homes are powered by solar energy alone, South Africa is comparatively behind schedule. Evidently, PV cells still dominate the solar market holistically.

It is critical to note that CSP is a relatively novel technology with the first CSP

years and will only continue to fall as the technology is rigorously researched and improved.

Although no two countries will have the same renewable energy make-up in the future, governments and society have no choice but to embrace renewables with urgency. Fortunately, in a country where much hope and fortune is needed, the South African sun demonstrably shines sharply on the prospects of solar power.

Entrepreneurship a remedy for South Africa's socio-economic woes

“A critical paradigm shift concerning the state's role in development is necessary.”

Tariq Khan

South Africa's unemployment rate has increased to 29% during the second quarter of 2019 – the highest figure since the first quarter of 2008. South Africa will not succeed in overcoming poverty unless its policymakers take a deeper, more substantial approach to creating economic opportunities. One characteristic of this suggested approach is that it assists entrepreneurs in becoming successful by reducing red tape and other burdensome regulations.

Salient South African politicians tend to view the state as the major catalyst for economic development, but in light of research by the World Bank, a critical paradigm shift concerning the state's role in development is necessary. This research found that New Zealand, Singapore, Denmark, China, and South Korea are the five top countries to start a business in. South Africa dismally comes 82nd on this list. Significantly, all of the countries that fall under the top five have unemployment rates below 6%. Thus, a major catalyst for the creation of economic opportunities



there is not the state, but rather an economy that welcomes free agency. Ostensibly, there is a link between a country's ability to fight unemployment and the ease of starting a business there. South Africa's high unem-

ployment rate validates this link. Succinctly, millions of South Africans are locked out of the economy due to difficulties in starting a business.

Universities are failing to make students aware of the role that free market policies

can play in delivering the population from conditions that are barren in the context of opportunity. Practically, South Africa can create conditions that are favourable for fighting unemployment in three important ways.

Universities are failing to make students aware of the role that free market policies can play in delivering the population from conditions that are barren in the context of opportunity. Practically, South Africa can create conditions that are favourable for fighting unemployment in three important ways.

Three practical ways in which conditions can be created to fight unemployment.

AGOA

Firstly, South Africa should take a proactive step in using the African Growth and Opportunities Act (AGOA). This law was passed in 2000 to promote economic cooperation between the United States and Africa. South Africa is not appreciating the benefits that it could accrue from the full utilisation of this law. Minister Ebrahim Patel admitted that sub-Saharan Africa only uses 13% of AGOA tariff lines. When these tariff lines are used, products may enter into the United States' market duty-free.

SMMEs

Secondly, South Africa needs to create a major programme that will overhaul the small-medium enterprise (SMME) sector. The World Bank conducted a survey among entrepreneurs in Gauteng in 1999 to ascertain what their challenges were relative to the goals of growing in the market and being able to hire more workers. The survey found that many entrepreneurs struggled with accessing capital, that government contracts and procurement systems were insufficient, and that the influence of international trade in South Africa's domestic SMME environment was limited. The latter finding enhances understanding of the way in which South Africa underperforms in utilising international trading opportunities.

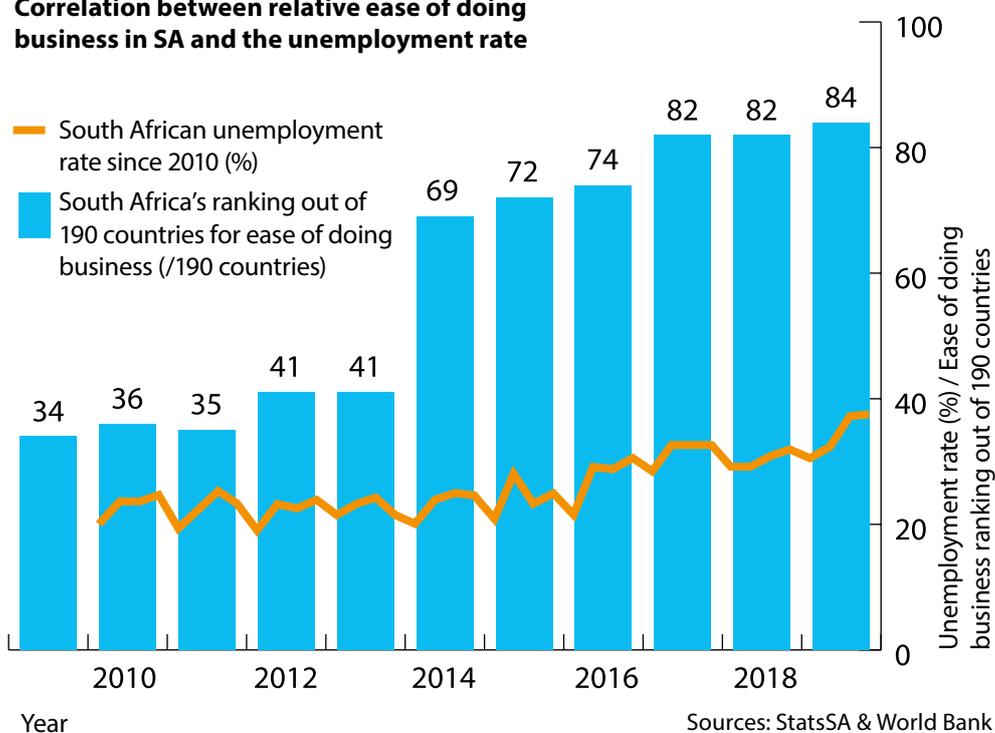
South Africa is ranked 84 among 190 economies in the ease of doing business, according to the latest World Bank annual ratings. The rank of South Africa deteriorated to 84 in 2019 from 82 in 2018.

Source: World Bank

Fiscality

Finally, South Africa needs to ensure that it remains hospitable to and fiscal for international investors. According to research conducted by Daron Acemoglu and James Robinson, a cardinal pillar in flourishing economies across

Correlation between relative ease of doing business in SA and the unemployment rate



The unemployment rate in South Africa increased to 29.1 percent in the Q3 2019, its highest level since comparable data began in Q1 2008. The unemployment rate in South Africa averaged 25.77 percent from 2000 until 2019, reaching an all time high of 31.20 percent in the first quarter of 2003 and a record low of 21.50 percent in the fourth quarter of 2008.

Source: Statistics South Africa

the world is a system of private property rights. Over the last year, South Africa's government has been gambling with the country's future prospects at eradicating poverty with plans to implement expropriation without compensation.

Even though South Africa is burdened with high levels of unemployment, this problem is not untouchable and immune to solutions that ordinarily create jobs. Through the implementation of policies that can unlock the potential of individuals with a keen interest in entrepreneurship, South Africa can overcome one of its biggest socio-economic obstacles.



Quantifying a greener future for South Africa



“ Although activism of this nature is morally laudable, it is improbable that it will be constructive in the grander scheme of things ”

Tyren van der Spuy & George van Dyk

Despite somewhat lacklustre economic growth, South Africa still boasted a GDP of 376 million USD in 2018, making it the second largest African economy. This is naturally tied to a high level of consumption and production, which in turn

places a heavy toll on the environment and those who reside here.

The engine which drives the country is as good a place to start. South Africa, like many other developing countries, is heavily reliant on coal; Eskom's website indicates that they are currently utilising this resource for 77 percent of energy pro-



2 MW
POWER FROM TYPICAL WINDMILL

The typical windmill provides about 2 MW of power, which can power about 2000 homes.



#1 in Africa
SOLAR DISPOSITION

The Northern Cape has the greatest disposition to solar power in Africa. Powerful economies such as Germany and China only have access to a third of the raw solar irradiance that South Africa receives from the Sun, making South Africa a looming solar goldmine.



2239
DEATHS FROM COAL

2239 death per year may be attributed to the burning of coal alone.



4.2 million tonnes

GENERAL WASTE

According to the South Africa state of waste report of 2018 South Africa generated 4.2 million tonnes of general waste. It is estimated that 38.6% of general waste was recycled during this period.

>1 million tonnes
PLASTIC

Over 1 million tonnes of plastic are thrown away in South Africa each year.



<5%
SEPARATE WASTE
Less than 5% of people in the South Africa separate their waste at household level.

Source:
Clean SA campaign
on Property24

duction. This has numerous negative effects on the health of those near mines and power generation facilities alike. According to a report by Dr Mike Holland on the health impacts of coal fired power plants in South Africa, 2 239 deaths per year may be attributed to the burning of coal alone.

The pollution caused by power generation, mining, heavy industry, services, and even the activities South Afri-

situation, the enemy is ignorance. An uneducated man is less likely to think about the consequences of his pollution, but perhaps of graver consequence, he is unlikely to question government policy or business activity when either results in pollution on a much grander scale.

Of course, this is not to say that South Africa does not holistically hold any care for the environment. Numer-

vows to clean up the environment. Furthermore, the state-school system does not equip students with the tools to make informed decisions regarding the preservation of the environment.

As for the private sector, it is easy enough to sympathise with local businesses who, in the process of making every effort to stay afloat, happen to overlook their impact on the environment.

windmill produces 2 MW of power is only useful if bundled with the knowledge that this could power roughly 2 000 homes. If people can better understand and relate to the fundamentals of environmentalism and its tenets, like renewable energy, they are more likely to adopt and support it on an individual level, thus increasing the positive influence of this important philosophy.

Likewise, South Africa has massive renewable energy potential, which is encouraging considering Eskom's overbearing reliance on coal. Although many South Africans are aware of this renewable energy predisposition, the reach of this information could doubtless be increased if it were adequately quantified.

The Northern Cape, for example, has solar irradiance levels of 3.2 MWh/m², which is pretty meaningless for the average South African. However, informing a South African that the Northern Cape, for all practical purposes, has the greatest disposition to solar power in Africa, would without question drive the message home. Expanding on this, South Africans could (and should) be informed that powerful economies such as Germany and China only have access to a third of the raw solar irradiance that South Africa receives from the Sun, making South Africa a looming solar goldmine.

Although it may be a tall order when numerous other topics require critical attention, it is crucial to remain conscious of the impact that anthropic activities have on the world and to ensure that South Africa follows suit.

NUTSHELL

Better quantification needed

Activism is not per se wrong and can lift spirits, but it is not constructive or sustainable in the grander scheme of things. Institutions and activists should focus on better quantifying waste and the environmental impact of anthropic activities. South Africa also has great renewable energy potential and leading global potential to derive energy from PV solar facilities. The Northern Cape is an example of an area with extremely high solar irradiance levels and solar farms in this area could potentially provide renewably generated energy to large parts of the country.

cans carry out on an individual basis, is a serious problem. It is, however, a problem which does not frequently disturb the minds of the broader public, with the more affluent members of society bearing the greatest apathy as not everyone experiences the immediate effects thereof.

Examples

As a tangible example, litter is an incredibly pervasive ramification of pollution which invariably disconcerts communities at large. However, it ceases to concern most individuals once collected and deposited somewhere out of sight. On the other hand, individuals may be less concerned about pollution if unaware of its ill effects. In either

ous successful conservation efforts are worthy of praise, especially in the safeguarding of indigenous flora and fauna. Regrettably, the dominant political rhetoric has little concern for such matters. Ultimately, however important the contributions of such efforts may be, an overwhelming feeling of incompleteness exists.

It is hardly surprising that issues such as pollution and environmental degradation are not heatedly debated when economic, political, and various other crises dominate the stage. Political leaders are not incentivised to touch on the topic, as claims such as improving job creation are far more appealing to the public than solemn

Activism?

The overarching philosophy currently used by environmental organisations places pressure on educational institutions and political parties to enact pragmatic policies which mitigate waste and increase the proclivity towards sustainability. Although activism is not per se wrong and ardently lifts spirits (and this is by no means an attack on the modus operandi of these activists), institutions and the powers that be might only yield for the sake of satisfying demands, if they even yield at all. Consequently, although activism of this nature is morally laudable, it is improbable that it will be constructive or sustainable in the grander scheme of things.

Instead, institutions and activists alike should focus on quantifying waste and the environmental impact of anthropic activities in a sensible manner. This is not to say that the aforementioned parties are not doing this already, but rather that this simply is not being done well enough.

Quantify...

It is of critical importance that such quantifications be made in layman's terms: informing the public that the typical

State dependence, Eskom and privatisation

Paul Maritz

South Africa is rightly referred to as the “protest capital of the world” on various online platforms. Whoever makes the most noise here usually holds the upper hand. This phenomenon poses various problems for South Africa as a political unit, the main one being ungovernability. Aside from the problems caused by protest-driven power grabbing, this approach is also a prominent symptom of a crippling phenomenon that is referred to as “state dependence”. State dependence becomes the order of the day when a country’s citizens respond to challenges by pointing the finger at the state.

The most important manifestation of state dependence is presented in the form of Eskom – a de facto monopolistic energy supplier in South Africa. On 16 October 2019, South Africans, like so many times in the past, learned that in future they will again be held hostage by Eskom’s load shedding and will have to watch intensive care patients die in hospital due to faulty generators, and businesses and malls close their doors for many hours a day. Of course, it is unnecessary to explain

Community approval should be regarded as the primary criterion and regular review of tenders will have to be done. With the right negotiation strategy, we could be looking at a South Africa in which external suppliers will be providing electricity to small towns in the near future. Towns in arid areas with nearby farms covered by solar panels and the entire town being supplied with electricity may not be that far-fetched after all.



the effects of load shedding on the economy and the well-being of citizens, or to examine them too closely. Rather, we should take the time to turn our eyes to countries that succeed in providing energy to all their citizens without interruption, and even develop consistently in order to switch over to sustainable and renewable energy sources.

The German system in particular should be considered in a South African context. In Germany, several private companies generate electricity in various ways and consumers can choose the provider whose services they want to use. Part of the consumer’s fee is channelled to the overhead system. Naturally, Germany does not grapple with an electricity

shortage. While this may sound like an ideal solution for South Africa with various private players ready to enter the market, the country is in an iron grip of state power that reinforces state dependence.

Former US President Ronald Reagan’s sentiment in 1986 that “I am from the government and I am here to help” may be the most

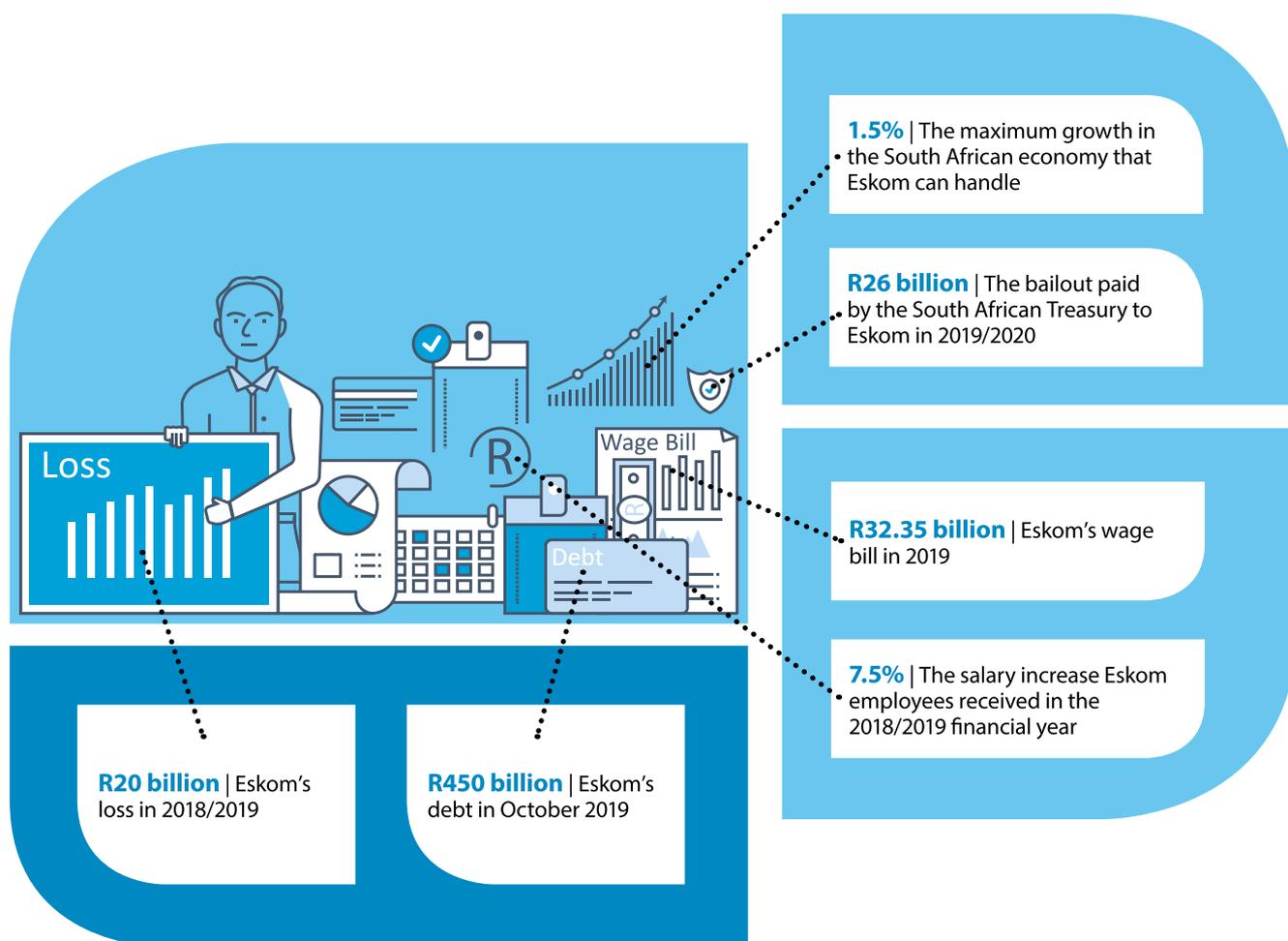
frightening words in the English language. South Africans have no choice but to reject the state's perverse offer of "help". No, here we have been given little hope that state-owned enterprises – monopolies in important areas – will do their part.

retrench redundant and incompetent staff.

Centralisation lies at the heart of the problem – the state does not want to share power, while businesses and communities remain dependent on the state for solutions. The yearning for

mand. In the Western Cape, the provincial government is already signalling that it will allow alternative suppliers to sell electricity to the electricity grid. As more of these alternative suppliers emerge, more pressure will be exerted at national level to allow

communities, and proper negotiation will result in tenders being called for power supply by external suppliers to these towns. Community approval should be regarded as the primary criterion and regular review of tenders will have to be done.



State power makes the cooperation and political will of the government a prerequisite for any change in infrastructure. The unbundling of Eskom would mean the temporary loss of work for many, as experts say Eskom is over-staffed by 300%. We have come to this point because unions enjoy far too much power and, in turn, may exert pressure or use strong-arm tactics on the state in cases where the state intends to

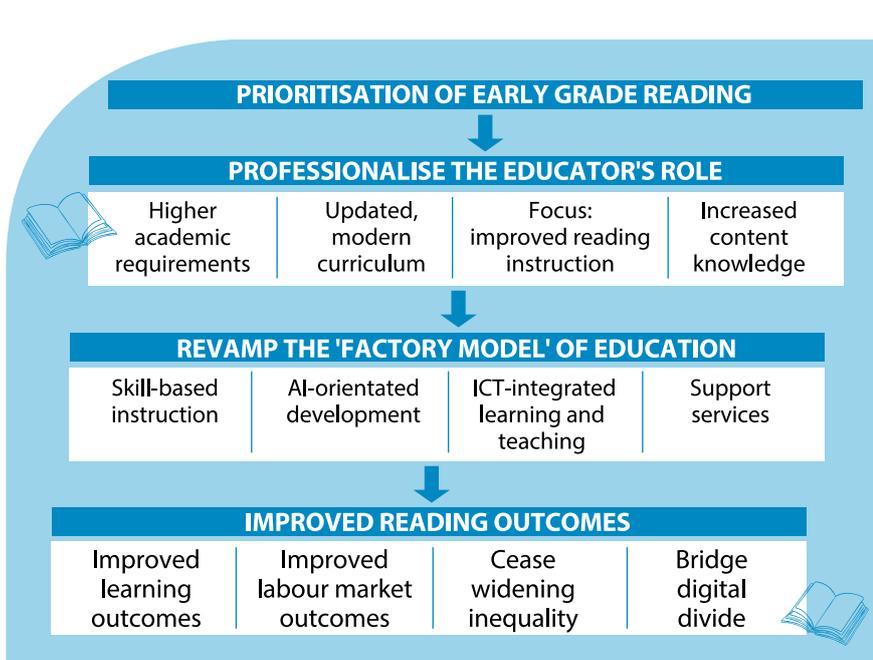
solutions from the ranks of the state reinforces state power. Why would the state feel compelled to share power when citizens are constantly turning to it for solutions?

So, what needs to be done? The solution can be found in economic principles. The lack of competition in a monopoly means that rates are set in boardrooms and not naturally determined by supply and de-

alternative suppliers into the "market". Private companies will be able to buy power stations, and pressure to privatise Eskom will increase. The functioning of the market, regulated by an effective competition commission, will be able to keep prices as low as possible.

The process of alternative energy supply should start in small towns and remote communities. The state has little interest in these towns and

With the right negotiation strategy, we could be looking at a South Africa in which external suppliers will be providing electricity to small towns in the near future. Towns in arid areas with nearby farms covered by solar panels and the entire town being supplied with electricity may not be that far-fetched after all. However, first we need to get rid of the paradigm of state dependence.



Programmes, budget reallocation, and policy that redefines the educator’s occupation as a profession should be concomitant with specialised academic degrees for educators, equipping them to thrive in an updated and more advanced curriculum. No longer can we turn a blind eye to empirical evidence dictating that professionalising of the educator’s occupation will result in higher productivity at schools and higher salary incentives for prospective educators.

Professionalising of the educator’s occupation key to solving reading problem

Wihan Marais

Local and international research on South African schooling has characterised it as underperforming, underdeveloped, and unequal, amongst other things. The South African government spends approximately 15% of its total expenditure on education, making it the largest single-line item in the budget. Despite this public investment in education, South Africa is still producing learners with comparatively and exceedingly low literacy and numeracy skills. Succinctly, South Africans just are not getting bang for their buck regarding education. The inequality characterising the bi-modal education system in South Africa is sur-

prising even on the backdrop of the level of educational underdevelopment in the country. The bi-modal system indicates the massive divide between well-functioning, fee-charging schools and underperforming, non-fee charging schools. Despite evidence of specific systematic improvements in the system as whole, literacy and numeracy performance levels in the country indicate that the South African schooling system is failing its learners. The reading problem is central to the South African schooling system’s learning outcome woes. A child’s ability to read is essential to their future academic success. In short, one must first learn to read in order to read to learn. Without this crucial skill, learners may not enjoy the benefits

NUTSHELL

Policy interventions

Solving a problem of this magnitude requires that it be acknowledged by all the key players in the South African schooling system and give lead to fundamental policy interventions – in line with recent studies that have indicated the need to prioritise the development of early grade reading and the recommendation of positioning the development of the ability to read for meaning by the end of Grade 3 as a central focus.

from systematically progressing through the schooling system while engaging with their curriculums in every subject. Studies have shown that reading outcomes in the country improved between 2006 and 2011 but stagnated between 2011 and 2016. In 2016, Spaull and Pretorius found that 58% of South African children cannot read for meaning by the end of Grade 4. This is troublesome considering that the country’s curriculum is based on the unsubstantiated assumption that pupils would have learned to read by the end of Grade 3. Regrettably, Spaull and Pretorius later found in 2019 that learners are still under-equipped to read in any language, including home languages. These results are not to be ignored. Solving a problem of this magnitude requires that it be acknowledged by all

Meaningful reading?

Studies have shown that reading outcomes in the country improved between 2006 and 2011 but stagnated between 2011 and 2016. In 2016, Spaul and Pretorius found that 58% of South African children cannot read for meaning by the end of grade 4. This is troublesome considering that the country's curriculum is based on the unsubstantiated assumption that pupils would have learned to read by the end of grade 3.



the key players in the South African schooling system and give lead to fundamental policy interventions – in line with recent studies that have indicated the need to prioritise the development of early grade reading and the recommendation of positioning the development of the ability to read for meaning by the end of Grade 3 as a central focus. Should this not be addressed promptly, most learners will never be able to fully and meaningfully engage with their educational subject matter. In terms of the current curriculum, ne-

glected learners will never be exposed to reading lessons once they have passed grade three – regardless of their ability or inability to read meaningfully.

It is abundantly clear that teachers – especially early grade teachers – have failed to teach learners to read effectively. Because reading is taught and not learnt, reading development is strongly associated with teacher competence. Further interventions should aim to improve the capacity and monitoring of teachers, as well as monitoring of the progress asso-

ciated with implementation of a new curriculum that provides for a continual emphasis on teaching and solidifying reading skills. Any training program for early grade teachers ought to emphasise early literacy development and instruction.

It is recommended that South African authorities research, plan, and implement proactive measures to professionalise the teacher occupation. Programmes, budget reallocation, and policy that redefines this occupation as a profession should be concomitant with those meas-

ures, along with specialised academic degrees for educators equipping them to thrive in an updated and more advanced curriculum. No longer can we turn a blind eye to empirical evidence dictating that professionalising of the educator’s profession will result in higher productivity at schools and higher salary incentives for prospective educators. Acknowledging this and transposing this knowledge into policy is crucial when it comes to tackling the reading problem underlying the broader educational crisis in South Africa.

All-out warfare against preventable poverty

South Africa’s need for financial literacy education

Philasande Shongwe

Perhaps it is time we considered rigorous and intense dialogue as a precursor to the pursuit of truth. Perhaps we have been too preoccupied

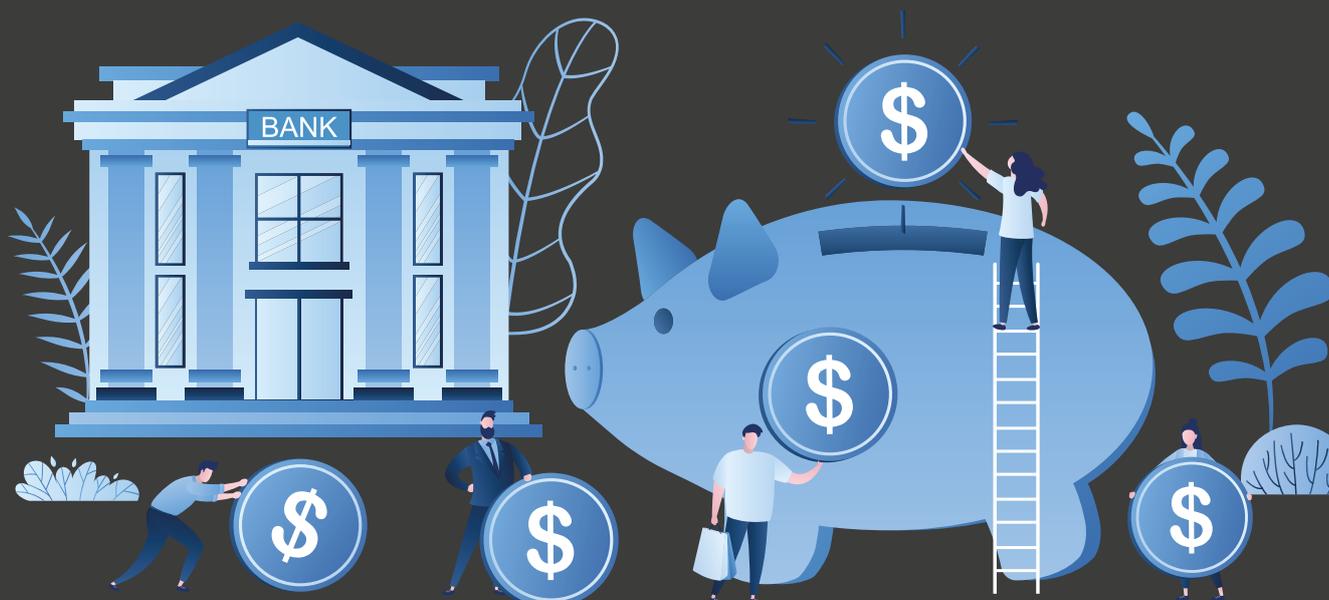
with telling people what they want to hear, instead of what they need to. Perhaps, in the way that a teacher often sacrifices expedient “kindness” when disciplining a pupil in order to align the pupil with

the trajectory of long-term meaning and responsibility, South African education ought to follow suit.

The issue of personal financial literacy is paramount to the process of combatting

preventable poverty. The supposed differences between “adults” and “children” when it comes to decision making about money are not as conspicuous as most people would like to believe. In fact, the polarity might be vague, if it even exists. Consider that when children are given a cash allowance they frequently fixate on how much instant gratification this can afford them. Regrettably, this allowance invariably increases over the years without greatly improved accompanying financial astuteness.

Recent statistics provide an insightful look into the financial disposition that South African adults face. On average, South African households save less than 5% of their disposable income. In the broader scheme of things, only 16% of the annual GDP is saved. Similarly, only 19% of South Africans have an emergency fund that can sustain them past a



three-month threshold of unemployment. In the light of this, it should come as no surprise that South Africans are amongst the worst at saving money in the world.

Adding to this calamity is the fact that roughly 86% of members of the workforce borrow money merely to sustain themselves and that 55% of the workforce are engaged in the “rat race” of living from paycheque to paycheque.

All this strongly points to a disconcerting hypothesis that the overwhelming majority of South Africans lack financial literacy and predominantly use money for the purpose of instant gratification. Financial illiteracy is not unique to any one population and is holistically detrimental to society.

These generational maledictions need to be shattered. It is patently unacceptable that about 40 000 loan sharks, who offer loans averaged just under R5 000 at interest rates from 30% to as ludicrously high as 50%, are exploiting the financially vulnerable.

Taking cognisance of the aforementioned difficulties South Africa faces and its unjust past, which only compounds the issue, it is clear that the onus of teaching financial literacy must

themselves – an unworkable model.

Financially literacy can be pushed in schools through a compulsory subject with theoretical and, importantly, pragmatic overtones. Pre-ex-

decisions, in addition to monetary autonomy.

Most South Africans would thoroughly enjoy some decent asset price growth, the ability to save on taxes and retire comfortably, and appreciation in property prices. More immediate and apparent benefits would include sustained inflation rates and the ability to distinguish between financial products in an era in which a myriad options are available.

Ultimately, it is supremely distressing that the South Africans who stand to benefit the most from these potential benefits lack comprehension of what they truly entail and how to capitalise on them in their individual lives. The grassroots solution lies in teaching financial literacy in creative and interactive ways from a young age in school programmes. This is neither expensive, nor impractical. In fact, the opposite is true and government can outsource implementation of the programmes to outside groups while even sharing the credit of improved results.



rest on someone or something's shoulders. Frankly, this should be a standalone subject in the national school curriculum. Unfortunately, this onus has fallen upon parents and children

isting interactive programs, such as *digemy.com's* BeS-marta app, should be embraced in the classroom to facilitate this shift. Emphasis should be placed on the impact of individual monetary



The Facts

At least one significant reality of underdevelopment in South Africa is that of the 3.3 million unemployed young people, only a small number possess the necessary skills to participate in the Fourth Industrial Revolution that is driven by robotics and cyber-physical systems. In fact, the majority of them do not even possess the basic numeracy, literacy and critical-analytical skills to obtain a matric certificate – much less to make use of the much-lauded ‘free’ tertiary education. The root of this problem lies with the neglected primary education sector where eight out of ten Grade 4 learners cannot read and write.

Tian Alberts

The solutions for basic education

While it should be crystal clear that South Africa is light years behind when considering development at basic education level, there is no indication that the national budget’s huge allocation to basic education supports objectives that will be able to renew basic education.

Furthermore, the ANC government’s socialist conception of transformation – which seeks equality of outcomes and symbolic victories (it wins many votes) and has overlooked long-term processes of renewal from the outset – has unfortunately devolved to a youth who will not know where to start renewing basic education to tackle unemployment and poverty. In addition, the

youth, which is highly susceptible to the sounds of populism, is not even interested in the state of basic education. A surge of political party populism, fuelled especially on university campuses by young people’s distinctive need for instant gratification at any price, stirs the sentiment that it is access to tertiary education that will ‘liberate’ the youth. It will not.

Although politicians and the media have, as with land reform, transformed tertiary education into a moral and emotional issue, the reality is that access to tertiary education and education is generally not a moral or emotional issue but rather a developmental one that must be dealt with and understood within the framework of overall underdevelopment in South Africa.

At least one significant reality of underdevelopment in South Africa is that of the 3.3 million unemployed young people, only a small number possess the necessary skills to participate in the Fourth Industrial Revolution that is driven by robotics and cyber-physical systems. In fact, the majority of them do not even possess the basic numeracy, literacy and critical-analytical skills to obtain a matric certificate – much less to make use of the much-lauded ‘free’ tertiary education. The root of this problem lies with the neglected primary education sector where eight out of ten Grade 4 learners cannot read and write.

South Africa’s inability to seize the Fourth Industrial Revolution and to teach 80% of our children to read and write so that they can em-

“ 80% of Grade 4 learners can't read and write... ”

power themselves and the people around them economically will paralyze our country and its young people indefinitely.

However, if the youth can develop the knowledge, interest and political will in time to recognise the renewal of basic education as a fully fledged goal, the ideals of a better South Africa will be realised.

The objectives that will support the renewal of our basic education system are literacy programmes for pre-school and foundation phase learners at an unprecedented scale, reliable and modern transportation systems for scholars, and high-quality teacher education coupled with better monetary incentives for teachers to truly encourage them to invest in the future of children.

Literacy programmes should be launched with a specific focus on mother-tongue education. However, the implementation of successful and viable mother-tongue education goes hand in hand with the standardisation of African languages. For example, foundation phase learners who take Xhosa as home language will tell you that their birthday is in iJanuary (instead of EyomQungu). The revolutionary potential of mother-tongue education that can provide a much-needed boost to the South African economy in the long term is not to be ignored, and the standardi-

sation of African languages is therefore an ideal to which academics, with the support of their institutions, will have to commit themselves fully.

Due to a lack of funding, poor planning and government corruption, the majority of South African scholars must contrive to find their way to school themselves – in many cases by using unreliable minibuses. This state of affairs, as well as inhuman conditions in schools, encourages pupils to stay on the streets instead. Modern bus systems for scholars such as those in America and Europe should be a viable objective for the DA-led metropolises of Cape Town, Johannesburg and Tshwane. DA governments can be pioneers in this regard.

A massive shortage of teachers is preventing the Department of Basic Education from getting rid of thousands of unqualified teachers. Poor pension prospects and low salaries force teachers to leave the occupation, and about three times fewer teachers than required qualify annually. Where there are teachers, South Africa maintains the highest rate of teacher absenteeism in the Southern African Development Community (SADC) at an average of almost 20 days per teacher per year – almost double the SADC average. The state will simply have to create better monetary incentives for young people to become qualified and dedicated teachers.



Unfortunately, all these objectives that can support the renewal and modernisation of basic education, to promote South Africa's compatibility with the objectives of the Fourth Industrial Revolution and long-term economic growth, remain subordinate to the prerogative of local and national governments. These objectives can take years to be implemented, if ever, and the crippling effects of corruption and empty promises must be taken into account.

However, if the already empowered proportion of the youth can replace meaningless, divisive battles over identity, oppression and privilege with meaningful discussions about the possibilities of basic education, to understand the importance of the goals underlying the renewal of basic education and to effect practical solutions to pursue these goals themselves, then we pursue true, government-independent transformation.

In the spirit of true transformation, universities will need to facilitate practical solutions to make much-needed investments in the disadvantaged corners of our society. This means, among other things, that they

have to set up large-scale programmes to drop off their students at underprivileged schools to support teachers. Discounts on student fees will encourage students to participate in this, and this exchange will enable universities to directly address the issue of unaffordable student fees – a classic win-win situation.

However, worthy goals and practical solutions around education and training that could save South Africa will come to a dead end unless they are unleashed in a culture that embodies John F Kennedy's famous words: "Ask not what your country can do for you; ask what you can do for your country."

The empowered youth on campuses, in colleges and in the corporate world can do remarkable things for South Africa. They can invest in the literacy, numeracy and critical thinking skills of the eight out of ten Grade 4 learners who cannot read or write. In doing so, we surpass symbolism and truly empower. Failure to do so will turn our country into an underdeveloped obscurity at the southern tip of Africa. This is possibly the most important paradigm shift that South Africa can make today.

Transforming from symbolism
to meaningful multilingualism

Why Bilingual?



At Nova Mentis, we offer our readers a full bilingual experience, because we believe that multilingualism is vital for the future. We envision our publications being printed in many more South African languages going forward.

Multilingualism is a Constitutional promise, but research also accentuates the importance of learning and reading in a mother tongue language. As much as language is an important cultural component, it also goes to the heart of educational and economic development. Mother tongue education – especially at early stages in life through to tertiary education – enhances the prospects of meaningful educational success, translating into a more industrious society and greater economic growth.

What about the scarcity of resources, you might ask?

Contrary to popular belief, duplicating content in multiples languages is neither expensive nor significantly depriving of resources. It can even increase profits, if you are a profitable company (unlike Nova Mentis, which is a non-profitable company)! As an example, at Nova Mentis we encourage our au-

thors to write in their mother tongue. This ensures better formulation and higher quality content for our readership. We send the content off to one of the many companies in the business of translating content, and pay them to translate the content into the language that it was not originally authored in (English or Afrikaans). This expense, and the expense associated with more pages required to be printed in the magazine deprives less than 10% of our production budget, and is to be recovered by the increase in financial support from readers that can now choose to read in their home language. Riveting stuff.

What do we make of the fact that English is the de facto official language of South Africa and commercial language of the world, with Afrikaans being a local language gradually disappearing from commercial, judicial, educational and other spheres?

The answer is simply that learning and reading meaningfully in Afrikaans – or any other mother tongue that is not English – does not preclude being fully proficient in English in the subject matter. In fact, it has been

proven that learning and reading subject matter meaningfully first in a mother tongue and then in English not only enables better eventual understanding of the English subject matter, but also enhances more profound acquaintance with the substance of the subject matter. In contrast, where subject matter is learned in English only, where the learner is not an English mother tongue speaker, the understanding of the subject matter is likely to be more superficial.

But, bilingualism is not the same as multilingualism. Why only Afrikaans and English?

Multilingualism subsumes bilingualism. Multilingualism is a “higher form” of bilingualism. We believe in getting bilingualism right before we throw other languages into the mix as well.

The answer to “why bilingual” is simply that bilingualism, or multilingualism (even better), is the smart thing to do – whether you are a learner, a company, a non-profitable organisation and especially if you are a school or university responsible for nurturing generations of meaningfully educated citizens. Trust us with this one!