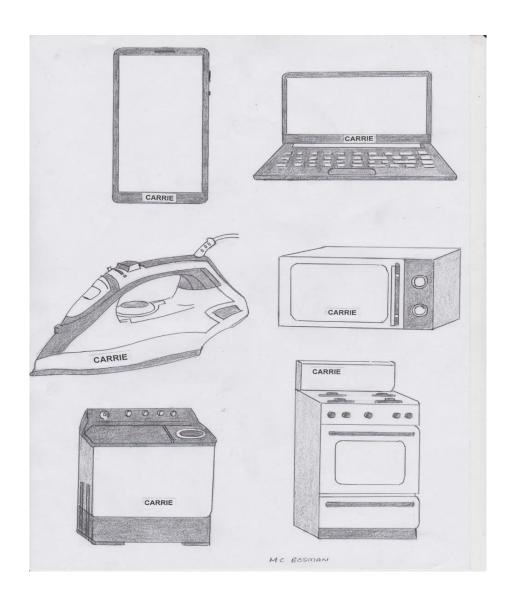
# Introducing CARRIE Research Labs And The Maths & Science Clinic System

# **An Executive Overview**



Salomo S. Mushinga

# The Purpose of this Article

This article is written for senior government officials and private sector business leaders. Its primary objective is to present a compelling business and investment opportunity currently open for acquisition and funding. The focus of this opportunity is **CARRIE Research Labs**, an emerging start-up actively seeking venture capital to begin is its operations and growth. The article serves as an invitation to potential investors, private companies and venture capitalists to look "under the hood" of CARRIE Research Labs, to explore and to evaluate the value proposition of CARRIE Research Lab's flagship product, *The Maths & Science Clinic System*, as a viable, profitable and impactful investment.

At the same time, this article is also written to serve as a brief summary of a comprehensive **Proposal** submitted to the Ministry of Education, Innovation, Youth, Sports, Arts and Culture. That Proposal recommends the integration of CARRIE Research Labs as a new department within the Ministry of Education.

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# 1. Introduction

On the 11<sup>th</sup> of December 2001, China became a member of the World Trade Organization (WTO). Immediately when the announcement was made, a Chinese manager in a fuel pump manufacturing factory in Beijing, decided to post the following African proverb on his factory floor (translated in Mandarin).

"Every morning in Africa, a gazelle wakes up.
It knows it must run faster than the fastest lion or it will be killed.
Every morning a lion wakes up.
It knows it must outrun the slowest gazelle or it will starve to death.
It doesn't matter whether you are a lion or a gazelle.
When the sun comes up, you better start running." 1

This story was originally narrated by Thomas Friedman in his epic book *The World is Flat* (2005). Before China joined the WTO, there was an expectation and a general feeling among Chinese entrepreneurs that the Chinese government and banks will always protect Chinese companies "from any crushing foreign competition." That all went away the day China became a member of the WTO. As WTO member, China now had a legal obligation to protect foreign firms via "international law and standard business practices." (Friedman, 2005:139). This meant that strong foreign companies would now flourish in China's economy, which was previously closed to foreign competition and hard to penetrate. (Friedman, 2005:138). This game-changing scenario also meant that the very survival of local Chinese firms was threatened. So, that Chinese manager was basically telling his workers: "Guys, with China a member of the WTO, we need to work as hard as we can, if we want to survive in this business. We need to run!!"

This proverb gives a very clear description of the economic realities of the 21<sup>st</sup> century. It is about the survival of the fittest. Nations and companies are running to be at the forefront of innovation, cutting edge technology, market share and economic competitiveness. Whether you are a lion (a multinational corporation) or you are a gazelle (a local small and medium enterprise), you need to run in order to survive in globalized markets. Since 2001, China, which is actually a lion, has been running ever since. Is Namibia running? And if so, are we running fast enough?

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<sup>&</sup>lt;sup>1</sup> Friedman, T.L. (2005). *The World is Flat: The Globalized World in the 21<sup>st</sup> Century*. New York: Penguin Books.

# 2. Namibia's New Think-Tank

On the 21<sup>st</sup> of March 2025, Namibia handed over the button of rulership to a new President, Her Excellency, Dr. Netumbo Nandi-Ndaitwah. One of her many responsibilities as President is to ensure that Namibia is running fast enough, and accelerate Namibia's speed of innovation and industrialization. Namibia needs a new racing car in this race of innovation. That racing car is a new think-tank known as the <u>Centre for Advanced Research on Radical Innovation and Engineering</u> (CARRIE). With a think-tank such as CARRIE, Dr. Nandi-Ndaitwah can slingshot Namibia into a whole new orbit of innovation, industrialization and prosperity never seen before on the African continent. CARRIE was founded by Salomo Mushinga and Ephraim Tutjavi – two mathematics teachers at Khomas High School in in 2014. CARRIE will be trading in the market place as CARRIE Research Labs (Pty) (Ltd).

In 2007, we began developing an educational innovation known as **The Maths & Science Clinic**. As math teachers, we saw a gap and a need in Namibia's basic education system. That need was that Namibia lacked a coherent and versatile after-school learner-support system that can help children improve their performance in school subjects outside the conventional school-hours. From 2007 up to 2011, we implemented a trial-run of the Maths & Science Clinic concept to determine proof-of-concept (PoP). The trial-run proved that the concept of the Maths & Science Clinic can indeed help school-going children to improve their academic performance at school. We looked at the big picture with regard to the future of the Maths & Science Clinic, and we saw a weakness in our design of the institution of a Maths & Science Clinic. We realized that the concept of the Maths & Science Clinic will indeed enhance the quality of Namibia's basic education system, leading to more learners qualifying for universities. That also means more university graduates in the long run. Where are we going to put all those graduates? Will the economy really have the capacity to absorb all of them? It doesn't help to have a great education system, but the economy has no capacity to provide jobs for graduates. We were then prompted to create a new R&D organization. We came up with CARRIE. CARRIE's core mandate is to provide jobs and creative opportunities to Namibia's scientific, engineering, and entrepreneurial talent coming out of our universities and vocational training centres (VTCs).

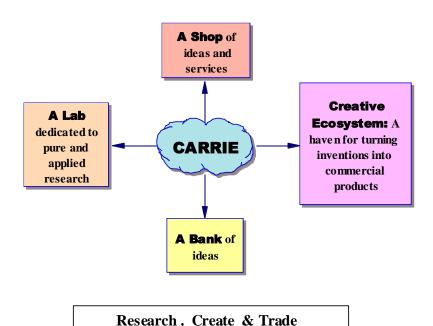
The slogan of CARRIE Research Labs is **Research**, **Create & Trade**. The slogan speaks directly to the human capital of CARRIE Research Labs, and it indicates the daily operational agenda of CARRIE researchers. The slogan is modelled on the classical linear progression model of innovation beginning with: Theoretical Conception (research) → Technical Invention (create) → Commercial Exploitation (trade). There is a place for everyone at CARRIE. You just need to know your passion, whether it is in **research** (scholars and scientists), in **creating things** (technicians, software developers, artists, designers and engineers) or **trading** (business professionals, lawyers, salesmen and entrepreneurs).

# 3. The Four Faces of CARRIE Research Labs

CARRIE Research Labs is designed to be a creative ecosystem. A haven for turning inventions and ideas into commercial products. A shop of ideas and services. A bank of ideas. A bastion of practical engineering and a creative space for those who have the imagination and the courage to wonder far beyond the **Adjacent Possible**.<sup>2</sup>

**Figure 1:** The Four Faces of CARRIE Research Labs

# CARRIE Research Labs (Pty) (Ltd)



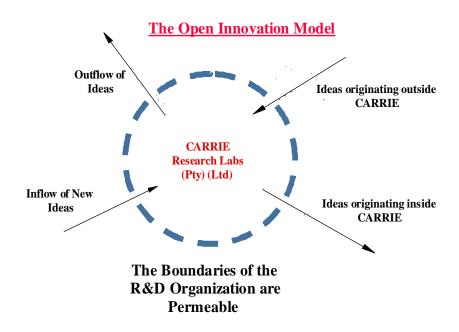
<sup>&</sup>lt;sup>2</sup> The Theory of the Adjacent Possible, was formulated by the American theoretical biologist, Stuart Kauffman in 1996. It states that not every innovative idea is immediately achievable. The only achievable ideas are those that are within the adjacent possible. "Adjacent Possible" means: That which is nearby or the next available (possible) step forward in the evolution of an organism, a natural ecosystem, an innovation or a technology. For example, for a learner who is in grade 12, the adjacent possible for him is to get a job or enrol for an undergraduate degree. These are the only adjacent possible steps forward in his career progression that are available for him to achieve. From grade 12, he cannot jump to a Master's Degree or a PhD without going through an undergraduate degree first. We say that a Master's Degree or a PhD is outside his adjacent possible. Many innovations and technologies follow the same path of progression. If an innovation or a technology is way outside its adjacent possible, it will take many years before it is commercialized, because it has jumped steps or stages that have not yet been achieved or invented. For an in-depth analysis or discussion on the theory of the Adjacent Possible, see Johnson, S. (2010). Where Good Ideas Come From: The Natural History of Innovation. London: Allen Lane.

CARRIE Research Labs will be driven by a strong focus on the commercialization of research output. It will pursue both basic and applied research in the ratio of 30%:70%, respectively. We want to see our research translated into tangible products and services that are selling well in the market and changing lives in our communities. *CARRIE's core mandate is the commercialization of research output to generate revenue and sustain jobs*. For this reason, what matters the most at CARRIE Research Labs is the idea you are working on. It is not so much about your qualifications that you bring to the table. We are interested in what you can create, and the idea you are bringing to the table. Is your idea unique enough? Is it within the adjacent possible or outside the adjacent possible? Can we create a blue ocean out of your idea? Can your idea go global? How can your research be translated into a tangible product or service? How does your research benefit the Namibia economy or the average person on the streets? How does your research contribute to Namibia's technological and scientific know-how? If you have any positive answers to any of these guiding questions, then you have a place at CARRIE. CARRIE Research Labs is all about great money-making ideas.

# 4. The Open Innovation Model

CARRIE Research Labs will pursue an open innovation model as shown in Figure 2 below.

Figure 2: A Representation of the Open Innovation Model.<sup>3</sup>



**Source:** Diagram adapted from Chesbrough, (2006:44)

In an open innovation model, the boundaries of the research organization are permeable. Ideas can flow in, and ideas can flow out. The open innovation model asserts that you don't have to originate every idea that you develop into a product or service.

Today's knowledge landscape has drastically changed, unlike the 1960s and 1970s, were leading tech companies of that era pursued a closed innovation model. In a **closed innovation model**, a company has to develop the entire product or technology all on its own. Every component of the product had to be developed in-house. There was no such thing as outsourcing the development of several components to outside contractors.

<sup>&</sup>lt;sup>3</sup> Chesbrough, H. (2006). *Open Innovation: The New Imperative for Creating and Profiting from Technology*.

Boston: Harvard Business Review Press.

Today, the R&D playing field is different. There is an abundance of technical knowledge outside of every R&D organization. There are deep level experts available for hire everywhere. Thus, as an R&D company, there is no need to adopt a *do-it-all-yourself* type of approach to R&D. Intel, for example, was founded in 1968, but only began building a formal R&D centre in 1989. "The company relied entirely on external research up to then, by scouting for and funding university basic research breakthroughs that were relevant and aligned to its core technology offerings."<sup>4</sup>

The open innovation model is an opportunity for innovators in Namibia. In the open innovation model, an idea will be originated by an outsider, but it can be brought inside CARRIE and developed there, with the originator of the idea still the retaining the majority ownership of the end-product. It means that even if you don't get a job at CARRIE Research Labs, you can still use CARRIE's development infrastructure to turn your idea into a commercial product. There are many people out there with great ideas, but they have no financial capacity, and access to incubation ecosystems to turn their inventions or ideas into successful companies or products. CARRIE Research Labs is created to provide a solution to this dilemma facing many Namibian innovators.

With an open innovation model, we are admitting that not every talented person will be employed by CARRIE Research Labs. We will not be a *know-it-all* and *have-it-all* company. There will still be geniuses outside of CARRIE Research Labs. How can we tap into that talent which is not employed by CARRIE Research Labs? The answer is to develop an open innovation policy – where CARRIE Research Labs will be open to ideas originating outside of CARRIE Research Labs and co-develop those ideas with their originators. We will implement this policy through our programme known as the **CARRIE Associate Researcher Programme.** 

<sup>&</sup>lt;sup>4</sup> Ibid, (pp. 50 - 51).

# 5. A Shop of Ideas and Services

CARRIE Research Labs is a shop of ideas and services. The first product to come out of CARRIE Research Labs is a complex innovation known as the *Maths & Science Clinic System*. The Maths & Science Clinic System is two things in one. Think of a coin. On one side it is an educational innovation, and on the other side, it is a complete new economic sector. The educational innovation is known as the *Maths & Science Clinic Franchise*, while the economic sector is called the *Maths & Science Clinic System* is a product that can only be sold to a government. Thus, in our shop of ideas, there is one product that is available for sale. It cannot be bought by an individual consumer or an individual company. Only a government can buy it, because it is so complex that only a Government has the resources to use this product. Figure 3 shows the graphical representation of the Maths & Science Clinic System.

Figure 3: A graphical representation of the Maths & Science Clinic System.

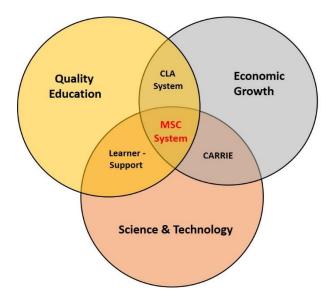


Figure 3 shows that the Maths & Science Clinic System will produce three benefits for the Namibian government in the long run. These benefits are: **Quality Education**, **Economic Growth** and a more advanced level of **Science and Technology** to drive Namibia's industrialization.

The Maths & Science Clinic System is not a "painkiller" innovation. Instead, it is what is known as a "vitamin" innovation. Unlike a painkiller (e.g. Panado) that can bring immediate relief from pain, such as a headache, a vitamin is something that is very vital to the biochemistry of the human body, but its effects are not experienced immediately like those of a painkiller. The effects of a vitamin are only experienced in the long-term. Most of the time we do not even feel the physical effects of vitamins in our bodies, but they are happening silently behind the scenes. The fact that a person can go for three to four months without getting sick is mostly because of vitamins working silently behind the scenes. Vitamins have a proactive and preventive function, creating infrastructures for our immune system to fight off diseases and infections. The value-proposition of a vitamin is that they specialize in solving subtle and long-term systemic problems. A government is the ideal customer for a vitamin innovation, because by their very nature, governments are in the business of solving long-term systemic problems, such as unemployment, housing, health care, education, food security, and climate change, amongst others. The Maths & Science Clinic System is an economic strategy. A government can use this strategy to solve many of these long-term problems. Vitamin innovations, although they do not produce immediate results, are nonetheless very important, especially for governments, who need to pursue a proactive and preventive approach towards systemic and structural problems. Painkiller innovations, on the other hand, are for companies and governments who wants to **react** to a painful problem which is already there.

<sup>&</sup>lt;sup>5</sup> The analogy of pain-killers and vitamins as business models that illustrates value proposition has been discussed in: Chesbrough, H. (2006). *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Boston: Harvard Business Review Press. (pp. 64 – 65).

# 6. The Structure of the Maths & Science Clinic Sector

The Maths & Science Clinic sector will be run and managed by a company known as **CARRIE Group International**. This company will be a new State-Owned Enterprise (SOE) that will be created with a mandate to develop the Maths & Science Clinic sector on behalf of Government. CARRIE Group International will be the parent company of all the other Maths & Science Clinic sector companies, including CARRIE Research Labs. In our original design of the Maths & Science Clinic System, we designed CARRIE Research Labs to be the R&D arm of CARRIE Group International. All the companies that will make up this sector will come out of CARRIE Group International. CARRIE Group will plan, finance and develop all these companies into fully functional companies that are subsidiaries of CARRIE Group International. The establishing law for CARRIE Group International will be the **Maths & Science Clinic Bill.** To create a new economic sector, you need a law that will govern and regulate that sector.

The Maths & Science Clinic Bill will assign seven mandates to CARRIE Group International. The first mandate is to develop the Maths & Science Clinic sector, while the second mandate is to run and manage the Maths & Science Clinic Franchise on behalf of the Government (or specifically, the Ministry of Education, Innovation, Youth, Sports, Arts and Culture). CARRIE Group will be given a serious mission: to go global and generate revenue for the Namibian government throughout the world. It will have the responsibility of exporting the Maths & Science Clinic System to other countries. CARRIE Group will also be given a very liberal and open investment mandate – to take risks, to be audacious, to be a pioneer of new markets, new industries and new frontiers of technologies and services. CARRIE Group's investment mandate is modeled on that of Warren Buffet's company – Berkshire Hathaway. In order to gain entrance into many of the competitive industries and sectors, CARRIE Group will use a strategy of acquiring emerging start-ups that are pioneering nascent and radical technologies. CARRIE Group will therefore be a multinational conglomerate with a geographic footprint covering all the continents and all industries. Most importantly, it will also function as a venture capital firm.

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<sup>&</sup>lt;sup>6</sup> Berkshire Hathaway, Warren Buffet's company invests in the following sectors: Diversified Investments; E-Commerce; Property and Casualty insurance; Utilities; Restaurants; Food Processing; Aerospace; Manufacturing; Toys; Transport and Logistics; Media; Automotive; Retail; Electronics; Sporting Goods; Consumer Products; Internet-based Innovations; Education; Telecommunications; Construction; Real Estate; Banking; Social Media; Healthcare; Energy and Agri business. (see **Berkshire Hathaway, Inc. 2024 Annual Report.** Retrieved from: <a href="https://www.berkshirehathaway.com/2024ar/2024ar.pdf">https://www.berkshirehathaway.com/2024ar/2024ar.pdf</a> ((see pages k-1 to k-23).

The Maths & Science Clinic sector will consist of **15 initial companies.** Five of those companies have a strong competitive advantage in terms of their core offering in the market. One of the companies in the Maths & Science Clinic Sector, is a company known as **The CLA Corporation**. This company provides a service that no other company in Namibia will be able to copy. That means that the CLA Corporation is what we call in business a "**Blue Ocean**" company – a company that operates in a completely uncontested market space. Our worst-case scenario estimates that the CLA Corporation will generate an annual turnover of about N\$ 400 million. This kind of revenue can sustain up to 200 jobs, and can easily return a net profit of anywhere between N\$ 10 to N\$ 20 million per annum.

Another interesting company in the Maths & Science Clinic sector is a company known as the **CLA United Trust Fund**. The CLA United Trust Fund, is an asset management company, which is also a blue ocean on its own, because it is designed to have the exclusive right to manage the assets of the Namibian citizens that are generated through a new financial innovation known as **Code 26**. The CLA United Trust Fund is estimated to generate an annual turnover of about N\$ 80 million per annum, and it could easily create up to 100 brand new jobs.

It is not enough to create a new economic sector without its own bank. The Maths & Science Clinic sector therefore comes with its own bank – known as the **CLA Bank**. The CLA Bank is designed to offer banking services to the Maths & Science Clinic Franchise as well as to all the Maths & Science Clinic sector companies. The CLA Bank will start very small, but it has an incredible growth potential. We have not yet critically analyzed and estimated its annual turnover, but we project it to be in the range of N\$ 50 to 100 million per annum.

The CLA Bank will face stiff competition from the well-stablished commercial banks in Namibia, but its annual revenue is expected to steadily grow overtime in proportion to the expansion of the Maths & Science Clinic sector both locally and internationally, as the Maths & Science Clinic System finds adoption in other countries around the world. The CLA Bank is going to generate most of its revenue from its flagship product: **The CLA Matrix**. The CLA Matrix is an uncontested market space. None of the existing commercial banks will be able to enter this market space because it is a market based on the CLA System – which up to now does not yet exist, and will only come into existence once the CLA Corporation is created.

<sup>&</sup>lt;sup>7</sup> Kim, W.C. <u>and</u> Mauborgne, R. (2015). *Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant.* Boston: Harvard Business Review Press.

Expanding the boundaries of this uncontested market space will result in a blue ocean market, which will be a great source of revenue and profitability for the CLA Bank in the years to come. In terms of job creation, the CLA Bank can create up to 40 new jobs, initially, but this number is expected to grow to more than 100 workers in five to ten years.

What is very unique about the CLA Bank is the fact that it will be owned by all the Namibian citizens. The CLA Bank will be a joint-venture between CARRIE Group International, the Namibian citizens (represented by the CLA United Trust Fund), and a private-sector player, probably a well-established local bank such as FNB, Bank Windhoek, Nedbank or Standard Bank – to come on board as a technical partner.

In 2017, we lost our beloved SME Bank due to oversight and management mistakes. Those mistakes will never be repeated again in the CLA Bank. The vision that the late Dr. Hage Geingob had for the SME Bank will live on in the CLA Bank. Whatever the SME Bank was supposed to do for the SMME sector, the CLA Bank will be able to do. The CLA Bank is therefore a consolation from Her Excellency, Dr. Nandi-Ndaitwah to the Namibian people – to return the jobs that were lost as a result of the failure of the SME Bank, and to create new economic opportunities for the Namibian people. The CLA Bank will be designed to create new markets, new demand and pursue divergent and non-traditional banking services.

It is therefore evident that any company choosing to acquire and provide funding to CARRIE Research Labs today will be strategically positioning itself for long-term, sustainable profitability. This is because such a company would ultimately gain ownership of all 15 companies that make up the Maths & Science Clinic sector. The Maths & Science Clinic System is more than just a business model—it is an economic strategy aligned with the vision of Her Excellency, Dr. Netumbo Nandi-Ndaitwah. It directly supports the successful implementation of the President's economic agenda for Namibia as outlined in the **SWAPO Party Manifesto Implementation Plan**.

The Maths & Science Clinic System even have instruments that can be used to raise capital and resurrect Air Namibia. Some Namibian analysts have commented that Air Namibia will never come back. 8 As CARRIE researchers, we tend to differ with that perspective. Air Namibia can be brought back. CARRIE Research Labs has designed a financing model that can be used to bring back Air Namibia. Our model will use the following financial instruments and companies: **The** CLA System, Code 26, The CLA United Trust Fund, The CLA Corporation and CARRIE Group International. It will take some time because we first have to create all these financial instruments and companies through the Maths & Science Clinic Bill. But it can be done safely, in a cost-effective way. But, there is a trade-off. If we use CARRIE Research Lab's model of resurrecting Air Namibia – the Namibian citizens will be the majority shareholders in the new Air Namibia. It will not be Government anymore. Government will only own 10% through CARRIE Group International. If Government is willing to live with this trade-off, then this model is the best the Namibian government has at its disposal to bring back Air Namibia without putting millions of taxpayers' money at risk. Instead, the Namibian citizens through their asset manager (The CLA United Trust Fund) will generate the capital to finance the development and growth of the new Air Namibia, through the financial innovation known as Code 26.

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<sup>&</sup>lt;sup>8</sup> For example, Namibian well-known economist – Omu Kakujaha-Matundu once commented in *The Namibian* newspaper that "No business plan or model would successfully bring back Air Namibian from the grave." See Tracy Tafirenyika. (Tuesday, 17 September 2024). "No plan can revive Air Namibia". *The Namibian*. (p. 3).

# 7. Who will finance the development of CARRIE Research Labs?

Two options are possible.

Option 1. CARRIE Research Labs can be financed by the Namibian government, which is the only customer that can buy CARRIE's product — The Maths & Science Clinic System. We developed the Maths & Science Clinic System as a product that must be sold and become the property of the buyer. Unfortunately, whoever wants to buy this product must also buy CARRIE Research Labs. The Maths & Science Clinic System includes an economic sector, and CARRIE Research Labs is one of the companies that make up this economic sector. The product and the company are one and the same thing. The success of CARRIE Research Labs depends on the successful development of the Maths & Science Clinic sector. We would love to retain CARRIE Research Labs so that it remains in private hands, but the Founders have no financial capacity to develop it to its full-potential. It requires incredible financial resources to pioneer an economic sector all on your own. For this reason, CARRIE Research Labs is fated to be financed and owned by the Namibian government.

A proposal in this regard has already reached the Ministry of Education, Innovation, Youth, Sports, Arts and Culture. This proposal strongly recommends the Minister of Education to take CARRIE Research Labs under her wings and incubate it within the Ministry of Education. There is a high probability that the Minister of Education will move very swiftly to acquire CARRIE Research Labs and make it a new department within her Ministry, to serve as the innovation arm of the Ministry of Education. This will indeed be a great **strategic move** from a Ministry that is entrusted with a task of cultivating and triggering innovation in Namibia.

The authors of *Blue Ocean Strategy* define a **strategic move**, from a business perspective, as a "set of managerial actions and decisions involved in making a major market-creating business offering." Managers in the Ministry of Education must therefore see the acquisition of CARRIE Research Labs as a strategic move that could return millions in profits in the years to come, especially when you factor in the fact that the Maths & Science Clinic System is a **market-creating innovation** that is designed to go global. We must not just look at the economic potential of the Maths & Science Clinic System from a Namibian perspective alone, because the Namibian economy is very small. We need to think in terms of the global scalability of the concept.

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<sup>&</sup>lt;sup>9</sup> Ibid, (p. 10).

If a country like Botswana, for example, were to implement the Maths & Science Clinic System, then it means that all the 15 companies that make up the Maths & Science Clinic sector will need to be replicated in Botswana. This means you will have a CLA Bank in Botswana; A CLA Corporation, a CLA United Trust Fund and a CARRIE Research Labs in Botswana as well. Now, visualize this: what if massive economies such as India, Nigeria, South Africa, or even China were to also implement the Maths & Science Clinic System? It means that you are replicating all these 15 companies in all these major economies of the world. The level of return on investment for whoever owns the Maths & Science Clinic sector companies will be exponential.

# 8. What about Private-Sector Players who might be interested in acquiring CARRIE Research Labs?

This is **Option 2.** If it happens that the Government is too slow or it is completely unwilling to acquire CARRIE Research Labs, then the Founders are left with no choice but to look to the private sector for funding. We are placing CARRIE Research Labs at Government's door step (The Ministry of Education), so that the government can acquire it and finance its development. However, should the Government fail to act swiftly or completely fail to see the economic potential of the Maths & Science Clinic System – then the private sector will step in to grab this opportunity. CARRIE Research Labs may be acquired by a private company and such a private company will end up owning all the intellectual property of CARRIE Research Labs, including the Maths & Science Clinic System. Since the Maths & Science Clinic System is a market-creating innovation, foxy private companies will not hesitate to acquire such a market-creating framework. Because there is no private company that will be able to commercialize the Maths & Science Clinic System on its own – whichever private company acquires CARRIE Research Labs will have to form a joint-venture partnership with Government to develop the Maths & Science Clinic sector. Generally, private sector companies try to avoid getting into business with Government as much as possible, because they see Government as inefficient when it comes to sustaining profitability and high-performance corporate cultures. However, the success story of the joint-venture between the Namibian government and De Beers Group in the diamond sector shows that partnerships between Government and private-sector companies can turn out to be successful collaborations in developing economic sectors. Thus, there is a possibility that CARRIE Research Labs could end up being owned by a private-sector player, if Government is failing to act on this opportunity. If a private company acquires CARRIE Research Labs now before the Government does, then such a private company will be a co-shareholder in CARRIE Group together with the Government, just as Government came together with De Beers Group to form NAMDEB. And if a private company is not interested in forming a joint-venture partnership with Government – then such a private company can always sell CARRIE Research Labs to the Government at a later stage and make a profit in the process.

Listed companies such as FirstRand Namibia Holdings, Capricorn Group, SanlamAllianz, Old Mutual, O&L Group, MTC – have the financial capacity to acquire CARRIE Research Labs. The Founders are therefore inviting the private sector to come and take a look "under the hood" of CARRIE Research Labs, and found out exactly how profitable the Maths & Science Clinic System is as a market-creating innovation. Any private company that is interested, please invite the Founders to came and make a PowerPoint presentation on the Maths & Science Clinic System. If we really want to help the President to create jobs, then the best thing the private sector can do is to acquire CARRIE Research Labs, develop it, and form a joint-venture partnership with Government and create CARRIE Group International.

Figure 4 below, gives a graphical representation of this process.

Figure 4: How the Maths & Science Clinic Sector will be created in Namibia.

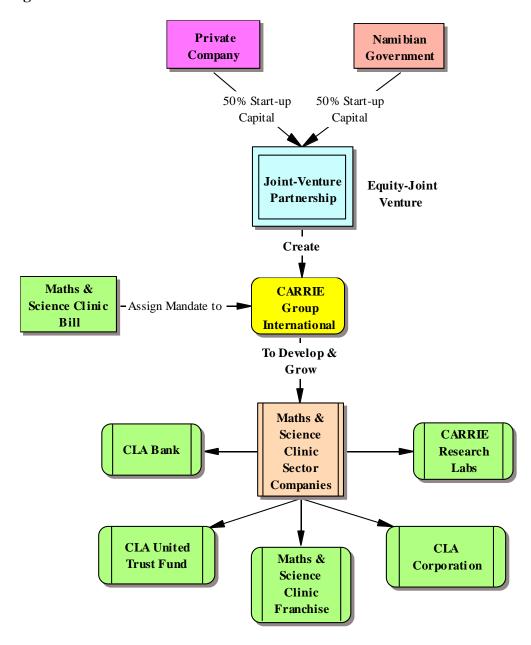


Figure 4 shows us that if Government (through the Ministry of Education) acquires CARRIE research Labs first, then officially, the Maths & Science Clinic System will become the intellectual property of the Namibian government. Government will then have the power and control of the process, and decide which private-sector partner to invite to the table. However, if a private company acquires CARRIE Research Labs first before the Government does, then such a private company will officially be the owner of the Maths & Science Clinic System. Such a private company will then invite Government to the negotiating table and take the lead in creating CARRIE Group and the entire Maths & Science Clinic sector in general.

What is interesting about Figure 4 is that even if the Government is first in acquiring CARRIE Research Labs, it seems that we will always come back to this Figure 4, where the Government will again go to the private sector and find a private-sector partner. So, whoever comes first, whether it is Ministry of Education or a private company – the outcome will be Figure 4. There are some things that Government is very good at, such as creating laws to govern and regulate economic sectors, creating legislative frameworks to protect nascent industries or reaching the masses with new services. But there are also things that private-sector companies are very good at. They are very good at cultivating and nurturing high-performance corporate cultures that are focused on profitability and long-term sustainability of business operations, and creating organizational efficiency in terms of service or product delivery to the market. We need each other. The Government will need the help of the private sector in building highly profitable companies in the Maths & Science Clinic sector. The private sector will need the help of Government to put in place the legislative infrastructure that will ensure the continued sustainability of the sector for generations to come. The outcome is a new company – **CARRIE Group International** – that will be given a mandate by the Maths & Science Clinic Bill to manage, develop and expand the Maths & Science Clinic sector locally and internationally on behalf of the Namibian government.

At the moment, CARRIE Research Labs is just a tiny start-up company that is need of venture funding. We really need Government to pronounce itself on how it feels about the Maths & Science Clinic System innovation. We have been knocking at the doors of Government (through the Ministry of Education) since 2022, inviting them to come and take a look "under the hood" of CARRIE Research Labs, but response and progress has been very slow. Highly profitable SOEs such as NAMDIA, The DBN, NAMDEB, Telecom Namibia, are also welcome to assist the Ministry of Education in acquiring CARRIE Research Labs on behalf of the Government.

#### 9. A New Economic Sector of Virtual Assets.

One of the economic frontiers that we really want the Maths & Science Clinic sector to open up is the development of a cryptocurrency ecosystem in Namibia. As the world advances technologically, cryptocurrency is the next adjacent possible step in the evolution of money. Namibia already has the legislation that can regulate and govern cryptocurrency trading. This legislation is known as the Virtual Assets Act (Act No. 13 of 2021). According to this Act, the Government is supposed to create a regulatory institution that will be responsible for regulating the virtual assets sector. In the Act, this entity is simply referred to as the **Regulatory Authority**. <sup>10</sup> It has not been given a specific name yet. It will have the same role that NAMFISA has over the regulation of non-banking financial institutions. Even though the Virtual Assets Act already became operational in July 2023, the Ministry of Finance and Social Grants Management (which is still responsible for Public Enterprises) still has to create this Regulatory Authority. The Bank of Namibia is moving very slow in implementing a sector of virtual assets. Now that we are developing a brand new economic sector (the Maths & Science Clinic sector), we hope that the Bank of Namibia will see this sector as an opportunity to implement this Act, and use the Maths & Science Clinic sector as an experimental space to test the ground by developing a pilot programme that can be used to roll out a fully-functional virtual assets trading ecosystem. According to the Virtual Assets Act, companies that want to operate in the virtual assets sector will have to be registered with the Regulatory Authority as Virtual Assets Service Providers (VASPs). A VASP is the only economic agent authorized by the Regulatory Authority to handle and manage virtual assets on behalf of individuals who wants to conduct some form of trading using virtual assets. The key responsibilities of VASPs, according to the Act, includes: (a) Safe keeping and protection of client virtual assets; (b) prevention of market abuse, and (c) transfer of virtual assets.11

We need to create this Regulatory Authority first before the CLA Bank comes into existence. Once the CLA Bank is created, we must then allow the CLA Bank to operate both as an ordinary commercial bank and also as a VASP. The new companies that we are creating in the Maths & Science Clinic sector will then be created with facilities to receive payment for goods and services either with fiat currency (ordinary cash) or with cryptocurrency, because we will have the CLA Bank operating as a VASP, and providing intermediary interface between customers and companies that accepts virtual assets as a form of payment for goods and services.

<sup>&</sup>lt;sup>10</sup> Virtual Assets Act 2023, (Act No. 10 of 2023), *Government Gazette* 8143 (Namibia) Retrieved from: <a href="https://www.lac.org.na/laws/2023/8143.pdf">https://www.lac.org.na/laws/2023/8143.pdf</a> (see Chapter 2, Sections 5 and 6).

<sup>&</sup>lt;sup>11</sup> *Ibid.* (see Part 5, Sections 16, 17 and 18).

One of the companies that CARRIE Group is going to finance and bring in existence in the Maths & Science Clinic sector is a company known as **CARRIE Motors**. We are designing CARRIE Motors to be a company that accepts payment for goods in fiat currency as well as in cryptocurrency. So, if all goes well, in three to four years, you might be able to buy a Toyota bakkie at CARRIE Motors using your cryptocurrency. The CLA Bank will be there for you as a cryptocurrency exchange centre, helping you to convert your cryptocurrency into a virtual asset that is accepted by CARRIE Motors, and recognized as legal tender by the Bank of Namibia.

First, it is important to understand what is a virtual asset. A **Virtual Asset** is defined as a "digital representation of value –

- (a) that can be digitally stored, transferred or traded;
- (b) that uses a distribution ledger technology or similar technology; and
- (c) that can be used for payment or for investment purposes." 12

There are currently seven types of virtual assets that are recognized in the world. These are: 13

- (a) Cryptocurrencies
- (b) Stablecoins
- (c) Utility Tokens
- (d) Security Tokens
- (e) Non-Fungible Tokens
- (f) Central Bank Digital Currencies (CBDCs)
- (g) Wrapped Tokens.

Examples of cryptocurrencies includes **Bitcoin**, **Ethereum**, **Pi**, **Litecoin**, **Dogecoin**, **Cardano**, etc. These are digital currencies that use cryptography and are not issued by a central authority such as the Central Bank. In most countries, they are not recognized as legal tender. So, even if you have Bitcoin or Etherium or Pi in Namibia, you cannot directly buy anything with these cryptocurrencies, because the Bank of Namibia does not recognize them as legal tender. But with the Virtual Assets Act in place, the Bank of Namibia can create what is called a Stablecoin.

<sup>&</sup>lt;sup>12</sup> Virtual Assets Act 2023, (Act No. 10 of 2023), *Government Gazette* 8143. Retrieved from: https://www.lac.org.na/laws/2023/8143.pdf (page 7).

<sup>&</sup>lt;sup>13</sup> OpenAI. (12 June 2025). *Examples of virtual assets and definitions based on Namibian law*. ChatGPT [Large language model]. https://chatgpt.com/c/68386b8f-3a60-8001-8d91-080bffc7b2df.

**Stablecoins** are cryptocurrencies that are pegged to a stable asset such as the fiat currency (ordinary cash) of a specific country. The two most popular Stablecoins in the world currently are the **Tether** (**USDT**), which is pegged to the US dollar, and **USD Coin** (**USDC**). Namibia's stable coin can be called **NamCoin**. So, if CARRIE Motors only accepts NamCoin, then it means that if you have Bitcoin, or Etherium or Pi, you will then go to the CLA Bank and exchange your specific cryptocurrency that you have into NamCoin, and only then will you be able to buy a product at CARRIE Motors or at any other company that accepts NamCoin.

The Bank of Namibia also has another option. Instead of creating a Stablecoin, the Bank of Namibia can create its own **Central Bank Digital Currency** (CBDC), which is also a type of virtual asset. Central Bank Digital Currencies (CBDCs) are digital currencies that are issued by a specific Central Bank, and they are recognized as legal tender by that Central Bank in that specific country. Unlike cryptocurrencies like Bitcoin, CBDCs are centralized and fully controlled by the central bank. Nigeria is the only African country that has launched a CBDC, known as the **eNaira**. The eNaira was launched in 2022. <sup>14</sup> The first country to launch a CBDC in the world is the Bahamas (known as the **Sand Dollar**) in 2020, followed by Jamaica's **Jam-Dex** in 2021. China's CBDC known as the **Digital Yuan**, is still in a pilot testing phase. <sup>15</sup>

Either way, whether we go with the Stablecoin option or the CBDC route – Namibia has the capacity to open up a virtual assets sector and give the people new economic opportunities. We have the CLA Bank (the people's bank) that is ready and submitting itself to be used by the Bank of Namibia as an experimental space to try out systems and infrastructures through a pilot programme. We have a series of new companies coming into existence in the Maths & Science Clinic sector. Let us put these companies to use as testing grounds for virtual assets trading.

Establishing a fully functional virtual assets sector represents a critical step toward meaningful economic diversification. Economic diversification lies at the heart of the SWAPO Party Manifesto, which is structured around five themes of economic development. President Nandi-Ndaitwah is committed to seeing the full implementation of this Manifesto by the year 2030. Developing a successful virtual assets sector is therefore very important to the President. The President will not hesitate to join hands with a private company that is willing to join hands with Government in developing the Maths & Science Clinic sector, because the President wants to see jobs being created.

This analysis shows that the CLA Bank will indeed be a profitable investment for whoever is willing to invest in the Maths & Science Clinic System. The CLA Bank will be designed to pursue two revenue streams: revenue from the virtual assets sector as well as from the traditional commercial banking sector.

<sup>&</sup>lt;sup>14</sup> Jookyung, Ree. (2023). "Nigeria's eNaira, One Year After." IMF Working Paper WP/23/104. Washington, DC: International Monetary Fund.

Miguel Benitez. (03 October 2023). "Global CBDC Development: First Movers and Progress." CoinGecko. Retrieved from: <a href="https://www.coingecko.com/research/publications/global-cbdc-development">https://www.coingecko.com/research/publications/global-cbdc-development</a> (accessed: 20 June 2025)

#### 10.CONCLUSION

In today's globalized markets, it doesn't matter whether you are a lion or a gazelle.

When the sun comes up, you better start running. The Namibian government is a lion. If we are too slow to take hold of an innovation such as the Maths & Science Clinic System, what does that say about our running speed as a nation (as a lion)? Will we catch anything to eat? Namibia needs to accelerate her speed in the race of innovation in the global village. Let us provide our President with a new race car that she can use to propel Namibia into a new orbit of prosperity. This race car is **CARRIE Research Labs**. CARRIE Research Labs will be a gold mine of ideas and innovations that will never run dry. The first product of CARRIE Research Labs (The Maths & Science Clinic System) is a **market-creating innovation**, that will give birth to a whole new economic sector. Fifteen new companies will come into existence to provide jobs to the Namibian people. The Maths & Science Clinic sector companies will be profitable. There is no doubt there. Any investor who takes the initiative to acquire CARRIE Research Labs today will position themselves to own the Maths & Science Clinic sector — a sector that will be replicated in many countries around the world. The return on investment from all the companies that make up this sector will be exponential.  $\Box$