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# SECTION 1 Introduction PAGE 4



### Introduction

Many countries around the world have been amending their regulations around cannabis, a once-prohibited and somewhat niche industry. The legal cannabis market is expected to grow to USD166 billion by 2025. While the legal global market is still relatively small compared to industries, such as tobacco and alcoholic drinks, its potential to grow is far greater.

Worldwide, the pace of cannabis legalisation is such that, within a decade, cannabis will be impacting an increasing range of consumer products, from beauty and personal care products to beverages, food and consumer health. Legalisation is also gathering momentum across sub-Saharan Africa (SSA), which now has more than five legal producer countries, including South Africa, Lesotho and Zimbabwe. However, cannabis is still illegal in most African

countries and the laws governing it are both unclear and open to interpretation. Based on this, how will cannabis transform future African consumer markets?

### **Defining cannabis**

Cannabis refers to a group of three plants known as *sativa*, *indica* and *ruderalis*. All cannabis plants are made up of more than 100 different chemical components, which are known as cannabinoids. Cannabinoids interact with the human body's endocannabinoid system (a complex system of cells that transmit signals in reaction to cannabinoids).<sup>2</sup> Experts are still not sure what each cannabinoid does; however, they have a fairly good understanding of two of them, cannabidiol (CBD) and tetrahydrocannabinol (THC).



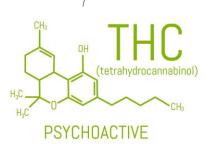
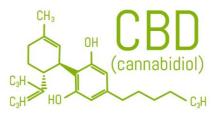


Figure 1: Chemical components of cannabis

Source: Euromonitor International



NON - PSYCHOACTIVE

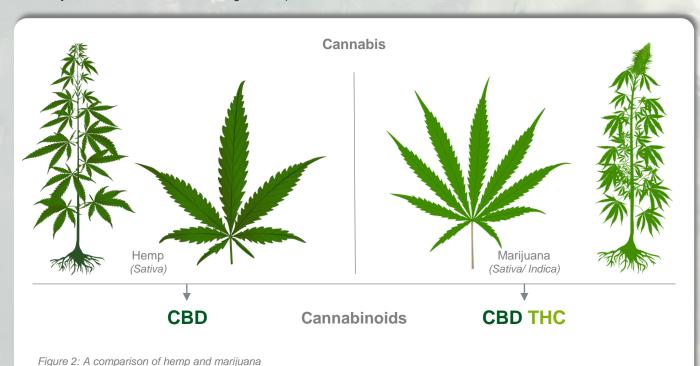


CBD is a compound that is common in hemp and marijuana plants. It is not psychoactive (which means that a person who takes it will get no 'high' effect), and therefore there are not many restrictions on its use. It is known to promote a feeling of relaxation and has a growing reputation for its ability to help provide relief from pain, anxiety, insomnia and inflammation. CBD is used as a functional or medicinal ingredient in a variety of products, from cosmetics to foods. It is said to work best when combined with THC, which is the psychoactive compound in cannabis.

Because of the psychoactive compound (usually sought after by recreational users for the 'high' effect), THC is

largely illegal around the world. It is usually restricted to medical use only, although recreational use is beginning to be legalised in some regions (for example, in Canada and some states in the United States.)<sup>3</sup>

The therapeutic effects of cannabis compounds come from their ability to bind with endocannabinoid receptors in the brain and throughout the central nervous system. The human endocannabinoid system is designed to link with cannabinoids produced by the body, but compounds found in cannabis plants can also bind with these receptors just as efficiently.



What is the difference between hemp and marijuana?

As mentioned, two plants in which cannabinoids are commonly found are hemp and marijuana. The differences and similarities between these two plants can be summarised as follows:

### Hemp

- Hemp has a high concentration of CBD and a low concentration of THC (less than 0.3%).
- It is commonly grown for its medicinal benefits –
  hemp oil can also be used for packaged foods,
  such as cooking oil and snacks. Hemp fibre can be
  used for fabric and car parts.
- It is not classified as a Schedule 1 drug in South Africa or the United States.

### Marijuana

- Marijuana has a high concentration of THC.
- It is commonly grown for recreational use because of its psychoactive properties.
- It is classified as a Schedule 1 drug in South Africa and the United States.

### The focus is on CBD benefits for now

Many of the current references to cannabis are actually limited to CBD. CBD is the functional ingredient of choice, since it is non-psychoactive and therefore legal in some countries (legality is determined by the sourcing and concentration of THC). CBD is also starting discussions around cannabis as a whole, as many consumers become more educated about the potential benefits of the plant.

### The entourage effect

A growing number of researchers believe THC and CBD produce better results when given in a more natural form, either with each other or in combination with other compounds found in cannabis plants. These are often referred to as full-spectrum or 'whole plant' products and these combinations are also known as the entourage effect.<sup>4</sup> According to its advocates, the dynamics of the entourage effect can unlock properties that would otherwise not be present in pure THC or CBD. Many who work closely with cannabis believe that the entourage effect can increase the medicinal utility of THC and CBD intensely, either by magnifying their known effects or even by expanding their set of therapeutic uses.

# Full-spectrum CBD, CBD isolate and broad-spectrum CBD

CBD can occur in various combinations with other chemical compounds. The main distinctions are as follows:

- Full-spectrum CDB this is a less-refined product that contains CBD as well as other compounds from the plant.
- CBD isolate this is what is left when CBD is extracted from cannabis plants and when all other cannabinoids, terpenes (aromatic oils that give cannabis varieties distinctive flavours)<sup>5</sup> and other compounds are removed (meaning there is no entourage effect).
- Broad-spectrum CBD this is similar to full-spectrum in the sense that both contain many beneficial compounds of the cannabis plant in addition to CBD. The difference between these two forms is the THC content. Broadspectrum CBD does not contain any traces of THC.

### **CBD** dosage

CBD is currently not regulated by most food and drug administrations and there are, therefore, no official recommended dosages. According to a 2017 study by Healthline, humans can use dosages of anywhere between 20mg and 1 500mg per day. 6 It is recommended that individuals start with a small dosage and gradually increase the dose until they achieve the desired effects.

CBD units are usually listed either as milligrams of CBD or the percentage of CBD. For example, 500mg of CBD in a 10ml bottle of CBD oil results in 5% CBD strength. The quantity of 500mg denotes the total CBD content, while 5% denotes the CBD concentration.

### **Exploring cannabinoids of the future**

In recent decades, we have learned much about CBD and seen it in a diverse range of products, from food to cosmetics. As a major cannabinoid, CBD has a range of functional benefits such as anti-inflammatory, anti-anxiety and anti-nausea properties. However, CBD and THC are not the only cannabinoids. Scientific research is turning towards understanding the potential of minor cannabinoids like cannabinol (CBN) and cannabigerol (CBG) in specific combinations with each other, and with THC for specific health problems.

### Could cannabinol be a game-changing sleep aid?

Some medical researchers claim that cannabinol has sedative qualities that could help it function as a sleeping aid. Other claimed benefits include antibiotic potential, pain relief and anti-ageing potential.

### The potential of cannabigerol

For a long time, it was hard to isolate cannabigerol. Promising studies have found that cannabigerol decreases inflammation associated with inflammatory bowel disease. It could also protect against brain degeneration diseases, such as Huntington's disease. Other potential uses include its use as an antibiotic and an anti-fungal treatment. Cell and bone growth trials are also ongoing.<sup>7</sup>

Other cannabinoids currently being studied include cannabichromene (CBC), a major non-psychotropic phytocannabinoid. Like CBD, CBC has anti-inflammatory, anti-tumour and anti-depressant qualities. There are also suggestions that it may promote brain cell regrowth. Another cannabinoid that is currently being studied is tetrahydrocannabivarin (THCv), a well-studied appetite suppressant that may offer support for people suffering from obesity. There is also evidence that THCv may help those who suffer from Type 2 diabetes.<sup>8</sup>

In addition, THCv is said to counter the psychoactive effects of THC, which could assist in balancing a THC overdose.



# **Cannabis product categories**



### Recreational cannabis

From food and drink to substances that can be smoked, the recreational market is growing even in countries such as South Africa. People are consuming cannabis products in social settings or for personal enjoyment. Mixed THC and CBD, and other THC-based products are the main attractive force in this market because of their intoxicating

and psychoactive properties. This category also has the most in common with other regulated products aimed at adult consumers, such as tobacco and alcohol. However, many African countries have outlawed any recreational THC products.<sup>9</sup>



Figure 3: A counter of cannabis products



Figure 4: A close-up of an exhibition of cannabis products



### **Medicinal cannabis**

This market is highly regulated and usually requires companies to go through a lengthy process to be able to launch, market and sell products. Very few clinically tested medicinal cannabis products are currently available on the market. In the United States (US) and Canada, these are usually sold in the form of capsules and other oral solutions. In South Africa to date, no CBD- or THC-containing medicines have been registered with the South African Health Products Regulatory Authority (SAHPRA), which is responsible for the registration and regulation of cannabis-containing medicines.

For illnesses and medical procedures, there must be clinical evidence that these cannabis medications relieve symptoms. <sup>10</sup> Many countries allow medical practitioners to prescribe medicinal cannabis; however, patients have limited access to many of these medications because of strict eligibility criteria and supply shortages.





### Cannabis for health and wellness

Cannabis for health and wellness can be found in cosmetics, oils and creams and other wellness products. Products in this section of the market are typically marketed as health enhancement products or for self-care uses; companies are often not allowed to make any specific health-related claims. Consumers often use these products for health maintenance or relief of minor symptoms, such as treating sleep issues or inflammation. Additionally, the use of hemp as a protein product has also gained traction in this market.

Examples of cannabis for health and wellness



Figure 5: Cannabis bath oil



Figure 6: An advertisement showing the benefits of CBD



Figure 7: Cannabis skin patches available at Dis-Chem stores





### World map showing legal status of cannabis





### **Cannabis regulation**

Cannabis regulation is currently divided into recreational and medical use, with medicinal use only allowed on prescription or for persons registered as medical patients. Recreational use allows for cannabis products containing THC to be sold freely at a taxable price through licensed outlets. Governing authorities control either the production or the sale of the products.

The passing of the US 2018 Farm Bill to legalise hemp farming opened the door to nationally retailed CBD products that contain less than 0.3% of THC. These products have made a quick and considerable impact on the market. CBD quickly grew from a substance that was relatively unheard of, to a unique product category, with the result that CBD merchandise became available in outlets ranging from whole-food stores to hair salons and from Amazon to farmers' markets. At present, Canada and the US are at the forefront of legal recreational use, and recreational use is legal in 15 US states including California, Massachusetts and Washington. Medicinal cannabis is legal in 33 states (a good indication that cannabis will be legalised for recreational use).<sup>11</sup>

The US cannabis market remains highly fragmented. While legal in many states, cannabis remains illegal at the federal level and it remains classified as a Schedule 1 substance under the Controlled Substances Act (Schedule 1 substances are considered to have a high potential for dependency and are not accepted for medical use), making the distribution of cannabis a federal offence. One of the most important areas anyone should be cautious of when entering the US market is the matter of federal legality and its impact on commerce between the states. <sup>12</sup> At a federal level, US citizens cannot be involved in setting the strategic

direction of cannabis businesses or in their day-to-day operations. The proceeds of cannabis businesses are not allowed to move through US banks and business operations cannot be funded in US dollars or with the proceeds of any US investment. Since financial institutions report to the Federal Deposit Insurance Corporation (FDIC), and the FDIC is a federally created agency, most US banks and credit unions do not offer services to cannabis companies because they fear that this will have financial or legal consequences. However, in early 2019, the Secure and Fair Enforcement (SAFE) Banking Act was established to protect financial institutions that want to offer basic banking services to businesses in states where cannabis is legalised.

Euromonitor International expects federal legalisation of recreational cannabis in the US within the next seven to eight years. <sup>13</sup> In February 2021, US Senator Booker and other top Democratic lawmakers released a joint statement declaring their intention to push forward and advance comprehensive cannabis legislation reform. <sup>14</sup>

Medicinal cannabis is a stronger prospect in most countries and the global market is expected to reach USD49 billion by 2028 from USD9 billion in 2020. Developing countries in South and Central America, Asia and the Middle East, North America and Europe have legalised the use and cultivation of medical cannabis. In sub-Saharan Africa, we are also starting to see more countries moving forward with more liberal structures. If laws are introduced in some of the continent's major markets, Africa's legal cannabis industry could be worth more than USD8 billion a year by 2023





### **South Africa**

Legal status of cannabis					
Recreational	Medicinal				
It is legal for possession and private cultivation but not for sale.	Its use is legal, but no system exists for dispensing medicinal cannabis.				

In September 2018, the Constitutional Court of South Africa unanimously ruled to decriminalise the private possession, consumption and cultivation of cannabis for private use, making it the first African country to legalise the private recreational use of cannabis. However, the Constitutional Court did not define the scope of private use, leaving it at the discretion of those who enforce the law - the courts and the police. The quantity of cannabis an individual can grow and use in private, and what 'private' actually means, were also not specified. In late 2020, the proposed Cannabis for Private Purposes Bill was published ahead of its submission to Parliament and it specified what quantity would be considered 'for personal use'. This bill allowed a maximum of 1.2kg of self-grown cannabis for two adults. Any use in public, around children or sale is still criminalised, with those convicted facing up to 15 years in jail. However, the commercialisation and licensing of cannabis still remains unclear. 15

### Medical use

Currently, the medical use of cannabis is under strict regulation that, among other things, requires registered GPs to request permission from SAHPRA to use it under certain exceptional circumstances. Under the Medicines Act, the use, cultivation and harvesting of cannabis and the manufacture of products containing cannabis for medical use may only occur through a licence issued by SAHPRA and a permit in the case of manufacturing, issued by the Department of Health. As mentioned earlier, no CBD- or THC-containing medicines have been registered with SAHPRA to date.

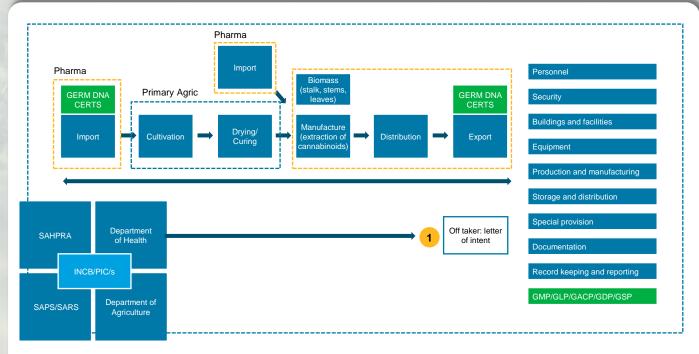


Figure 8: The medicinal cannabis value chain (seed to sale)



### **Exempted CBD-containing products**

The following categories of products containing CBD are exempt from being registered with SAHPRA:

- Complementary medicines containing no more than 600mg CBD per sales pack, providing a maximum daily dose of 20mg of CBD and claiming only that it generally enhances health or relieves minor symptoms.
- Processed products made from raw cannabis plant material intended for ingestion, containing 0.0075% CBD or less, and containing only the naturally occurring quantity of cannabinoids found in the source material.<sup>16</sup>

These are known as Schedule 4 products, CBD for therapeutic use. Schedule 0 products (CBD as a supplement in a limited dose for a limited health claim;

THC and CBD in processed products within prescribed limits. Products containing less than 0.2% THC or made from cannabis containing less than 0.001% intended for industrial purpose only) are also exempted.

The Cannabis Development Council of South Africa (CDCSA) has projected that the South African recreational and medical industry will be worth R27 billion by 2023, and the World Health Organization (WHO) estimates that South Africa is one of the top producers globally. The country is estimated to have over 900 000 cannabis farmers, not to mention 350 000 traditional healers who also grow the plant. If this unregulated market were legitimised, this industry could become a huge revenue earner for the government.



### Lesotho

Legal status of cannabis			
Recreational	Medicinal		
Illegal (but tolerated)	Legal		

Cannabis cultivation has long been a vital part of the fabric of life in Lesotho. It is estimated that this industry will, in the near future, have a similar impact on the local economy as the diamond-mining and textile industries now have. Cannabis remains a leading crop grown for survival by small-scale farmers. Part of the reason why there has been no formal steps to legalise or regulate the country's network of existing farmers and traders is that they would be unable to afford the infrastructure and licensing costs required by legal trade. Currently, only large corporations can afford the hefty licence fee of USD37 000.

In May 2017, Lesotho became the first African nation to grant a licence to grow medicinal cannabis. The licence

permits the manufacture, supply, export and transport of medicinal cannabis and cannabis products from the country, and Medigrow Lesotho was the first company to set up legal plantations in the country. Since then, other companies have followed suit. Lesotho's climate and low cost of labour make it attractive to Canadian, Israeli and European investors looking to expand their businesses. In order to encourage the foreign investment, the government has taken steps to build regulatory infrastructure, such as establishing the Lesotho Narcotics Bureau (LNB), which is responsible for the issuing and renewal of licences.













Figure 9: Key companies in the sector

Table 1: Increase in foreign investments in Lesotho's cannabis market<sup>17</sup>

HALO Bophelo BIOSCIENCE	In 2019, a US manufacturer of cannabis oil and concentrates, Halo Labs, announced plans to buy one of Lesotho's largest cannabis-producing companies for USD18.4 million.  In terms of the deal, Halo acquired 100% of shares in Bophelo Bioscience & Wellness and took over the production of their five-hectare cultivation and production site.  Once fully operational, Bophelo's site is expected to produce almost 5 000kg of cannabis, worth around USD46 million per year.
CANOPY GROWTH  COMPAGNITOR  COM	In May 2018, the Canadian company, Canopy Growth Corporation, announced that it had bought Daddy Cann Lesotho (trading as Highlands) for USD28.8 million. Highlands holds a licence to cultivate, manufacture, supply, hold, import, export and transport cannabis and its resin.
Supreme.	In March 2018, Canada-based Supreme Cannabis invested USD10 million in Lesotho's licensed producer, Medigrow. Supreme Cannabis and Medigrow have established a global distribution partnership of medicinal cannabis oils.  Supreme Cannabis now owns about 10% of Medigrow and expects a strong
Medigrow  AHIZOSCIENCES	demand for medicinal cannabis oils. It believes that Lesotho is well-suited to produce quality cannabis oil and that Medigrow possesses the expertise to meet the highest quality standards.
medi kingdom	In 2017, US-based Rhizo Sciences partnered with Medi Kingdom Holdings to build a medicinal cannabis export facility in Lesotho worth USD45 million.





### eSwatini

Legal status of cannabis			
Recreational	Medicinal		
Illegal	Illegal		

Despite its illegal status, cannabis is grown throughout the country and exported mainly to its neighbour, South Africa. Poor farmers grow it to sustain their families, as it produces a higher profit than any other cash crop. The local strain, referred to as Swazi Gold, is renowned for its potency and

fetches a premium price. The government has been exploring the possibility of legalising the sector in a bid to boost the economy. Members of parliament estimated that legalising cannabis could add a healthy USD1.63 billion to the economy.<sup>18</sup>



### **Zimbabwe**

Legal status of cannabis			
Recreational Medicinal			
Illegal	Legal		

In April 2018, Zimbabwe became the second African country to legalise the cultivation of medicinal cannabis. Its recreational use, however, remains illegal. Zimbabwean individuals and businesses can apply for a producer's licence, which is only valid for five years and has to be renewed before its expiry. Licence applications can only come from those who can prove citizenship or residency; however, the health minister retains the right to permit exemptions. These licences allow growers and businesses to own, sell and transport cannabis in dried form or as an oil for medical and research purposes only.

Furthermore, in September 2020, the industrial hemp regulations were gazetted. These regulations provide an environment that promotes the production, procurement, distribution, possession, sale and transportation of industrial hemp. According to the regulations, the plant's THC concentration cannot be higher than 0.3% on a dryweight basis<sup>19</sup>



### **Zambia**

Legal status of cannabis			
Recreational Medicinal			
Illegal	Legal		

In 2019, the Zambian government approved a proposal to legalise the production of cannabis for exports and medical purposes. Companies hoping to trade cannabis in the

country will be charged USD250 000 for an annual licence fee.<sup>20</sup> No further information has been released about the sector.



### Malawi

Legal status of cannabis			
Recreational	Medicinal		
Illegal	Legal (legislation recently passed)		

As attitudes towards the crop slowly change and investments in its medical use grow, Malawi has joined the list of African nations legalising cannabis to some degree. In February 2020, their parliament passed a bill for the legalisation of medicinal cannabis in the country. When this bill comes into effect, growing and processing cannabis will become legal as long as the crop is used for medicinal or vegetable fibre purposes. In addition, the Cannabis Regulatory Authority (CRA) will have the authority to allow certain individuals to consume cannabis for therapeutic purposes.<sup>21</sup>

The agriculture ministry announced that the licence fees will range from USD100 to USD10 000 a year for the cultivation, selling, storage and distribution of either class of industrial or medicinal hemp. Public hospitals will pay USD100 and private hospitals will pay USD200 in licence fees to dispense cannabis medicines.<sup>22</sup>

With tobacco being one of the country's major foreign exchange earners, its economy has been negatively affected by the global trend of reduced smoking. As a result, the country hopes that turning to cannabis farming will help to boost its economy.

Much of the country is suitable for cannabis cultivation: from the hot, humid lowlands of the Great Rift Valley, to its more temperate upland regions. A World Bank report described one of its strains, Malawi Gold, as "among the best and finest" cannabis strains in the world, and is generally regarded as one of the most potent psychoactive pure African *sativas*.



## Uganda

Legal status of cannabis			
Recreational Medicinal			
Illegal	Legal		

Uganda's Narcotic Drugs and Psychotropic Substances Act of 2015 allows the cultivation, production and exportation of medicinal cannabis, and mandates the Health Minister to issue written consent for the use of medicinal cannabis.

Growing cannabis for the purpose of treating severe medical conditions such as cancer, Parkinson's disease, Alzheimer's disease, arthritis and other neurological conditions is already a current practice in Uganda.

As of February 2020, there were over 100 companies awaiting government approval for their projects, which have been delayed due to the absence of guidelines. In January 2020, Uganda's cabinet was assessing a set of guidelines

before seeking parliamentary approval. These guidelines included a requirement for companies seeking to grow or export medicinal cannabis to present a minimum capital amount of USD5 million and a bank guarantee of USD1 million, a tax clearance certificate from the Uganda Revenue Authority, audited accounts, a list of employees and job descriptions, a valid trading licence and evidence of value added to cannabis.<sup>23</sup> The cannabis sites must also not be located near schools, hospitals or residential areas and the details of any associates or business partners and of the designs of cannabis sites, as well as evidence of a robust security and access control system must be disclosed to the government.





### Ghana

Legal status of cannabis				
Recreational	Medicinal			
Illegal	Legal (only the hemp variety)			

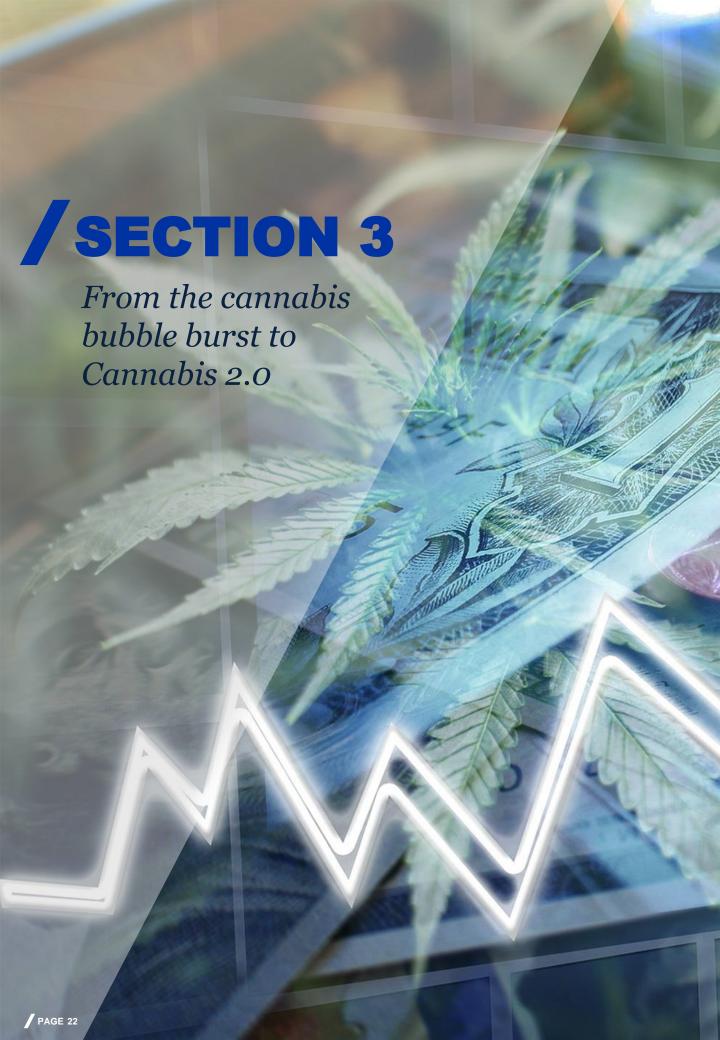
Ghana legalised cannabis after its parliament passed the Narcotics Control Commission Bill of 2019 in March 2020. It further saw the formation of the Narcotics Control Board (NACOB), which will oversee the industrial use of narcotic substances, such as cannabis. However, the bill only

allows the hemp variety to be used and cultivated for medical and industrial use. The new law limits the allowable THC levels to lower than 0.3%. That is the same level that was made legal for cultivation in the US by the 2018 Farm Bill. Recreational cannabis use still remains illegal.<sup>24</sup>

### Other countries in sub-Saharan Africa

In other countries, such as Mozambique, Kenya and Nigeria, cannabis remains illegal. However, several petitions in Kenya have been tabled in parliament and the country could follow in the footsteps of Uganda and South Africa in the near future. In Nigeria, cannabis is widely grown and consumed across the country despite its illegal status.

Sub-Saharan Africa could reap significant rewards through the legalisation of cannabis, with international demand offering a strong opportunity to unlock the potential value of legal cannabis from the region.





### From the cannabis bubble burst to Cannabis 2.0

Following the legalisation of recreational cannabis in Canada, cannabis stocks reached an all-time high, yet missteps sent the industry tumbling down during the following year. The average share price of Canada's six largest cannabis companies plummeted by more than 50% in 2019.

The crash in 2019 and 2020 can be attributed to multiple factors, including the COVID-19 crisis, high capitalisation rates (essentially overvalued companies), slow regulatory responses (regulations were incomplete, contradictory or both), cultivation issues, and hype and excitement similar to what was experienced during the technology sector's dot-com bubble in 2000.<sup>25</sup>

Legalisation in more markets caused a surge of cannabisrelated activities, attracting many investors to this emerging sector. Ambition for further global expansion led to an increase in corporate activities and substantial investment in the sector, which in turn led to high valuations of cannabis companies. The sector's rapid rise sometimes resulted in missteps such as poor due diligence, not prioritising proper integration of companies after mergers and acquisitions and, sometimes, operational inefficiencies. Many cannabis companies began to fall short of investor expectations and therefore filed for bankruptcy, which led to a fall in share prices for the remaining companies in 2019 and 2020.

However, since the beginning of 2021, we have seen cannabis stocks begin to recover some of the losses they suffered over the past two years. With President Joe Biden in power, there are greater hopes that the US will legalise cannabis at federal level (this could happen as early as 2022), which will create better opportunities for cannabis companies to expand their businesses.

	_	-	_	-	_	Shares	Change	
#	Company	Symbol	Market cap	Price	Volume (24h)	outstanding	(24h)	Price (30d)
1	The Scotts Miracle-Gro Company	SMG	\$9 907 852 987	\$178.53	\$72 869 083	55 496 852	-0.88%	~~~
2	Curaleaf Holdings Inc.	CURA	\$7 686 397 041	\$12.62	\$10 222 458	609 192 566	-4.11%	~~~
3	4 Aurora Cannabis Inc.	ACB	\$7 157 490 277	\$7.03	\$43 993 447	1 017 438 714	0.90%	
4	GW Pharmaceuticals plc	GWPH	\$6 778 799 142	\$219.48	\$320 090 471	30 885 726	0.00%	
5	Canopy Growth Corporation	WEED	\$6 709 769 347	\$19.36	\$81 851 168	346 658 913	0.04%	
6	Green Thumb Industries Inc.	GTII	\$5 477 690 010	\$29.54	\$14 316 388	185 452 943	-2.81%	~~~~
7	Aphria Inc.	АРНА	\$3 425 761 921	\$13.65	\$131 109 024	251 039 120	-5.59%	~~~
8	Arena Pharmaceuticals Inc.	ARNA	\$3 144 964 225	\$63.12	\$15 526 881	48 825 162	-1.88%	
9	& Crones Group Inc.	CRON	\$2 398 789 892	\$7.14	\$16 525 079	336 151 502	0.55%	
10	GrowGeneration Corp.	GRWG	\$2 321 079 699	\$38.97	\$60 802 635	59 560 680	1.02%	~~~

Figure 10: top 10 cannabis stocks<sup>27</sup>



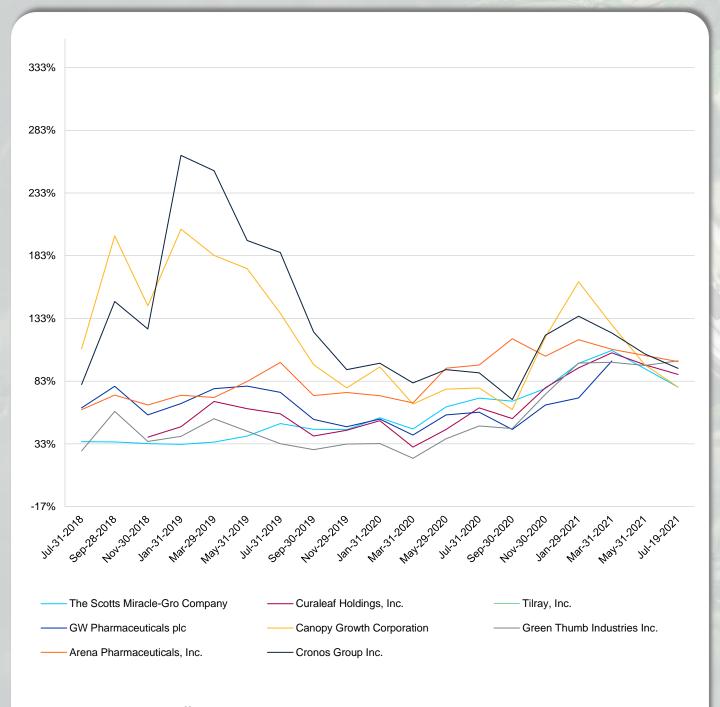
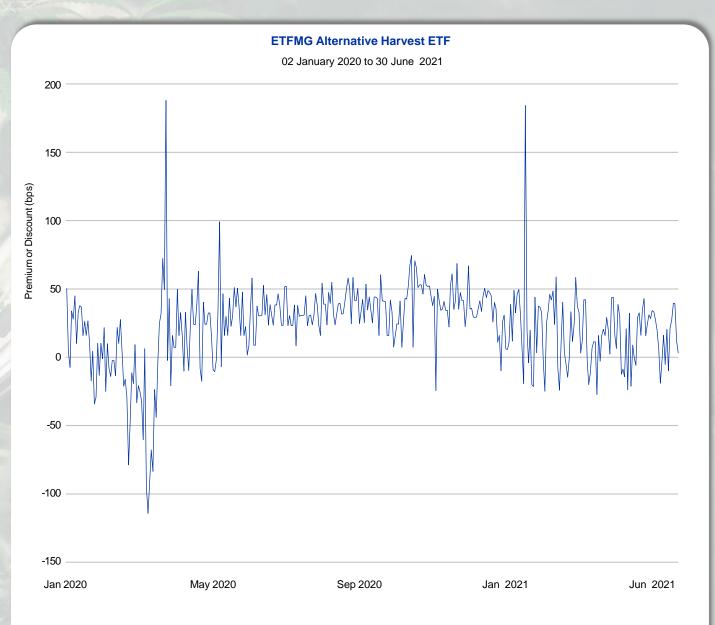


Figure 11: Share price movement 28

### Exchange-traded funds (ETFs) in the cannabis industry

The ETFMG Alternative Harvest (MJ) tracks the Prime Alternative Harvest Index, which measures the performance of companies that benefit from the legalisation

of cannabis for medicinal and recreational use across the world.<sup>29</sup> This is the world's largest ETF to target the global cannabis industry and it is the first in the US.



	Calendar Year 2020	Calendar Year 2021 through 30 June 2021
Days traded at premium	173	69
Days traded at net asset value	15	5
Days traded at discount	65	50

Figure 12: ETFMG Alternative Harvest ETF



### **Month-end performance**

### **Quarter-end performance**

LAST UPDATED 06/30/2021	NAV%	MARKET VALUE%	LAST UPDATED 06/30/2021	NAV%	MARKET VALUE%
Cumulative			Cumulative		
1 Month	-4.03	-4.36	1 Month	-4.03	-4.36
3 Months	-9.35	-9.87	3 Months	-9.35	-9.87
6 Months	44.36	43.95	6 Months	44.36	43.95
YTD	44.36	43.95	YTD	44.36	43.95
Since Inception Cumulative	12.95	8.60	Since Inception Cumulative	12.95	8.60
Annual			Annual		
1 Year	65.05	64.67	1 Year	65.05	64.67
3 Years	-7.80	-7.71	3 Years	-7.80	-7.71
5 Years	-1.19	-1.76	5 Years	-1.19	-1.76
Since Inception Annualised	2.21	1.49	Since Inception Annualised	2.21	1.49

Figure 13: Fund performance data

We still believe that the future of the cannabis sector continues to hold tremendous opportunities and growth potential, especially now that the industry has established itself and begun to tackle its growing pains. According to a report by the Brightfield Group, the legal recreational cannabis market is still underdeveloped. Medicinal cannabis is also expected to receive more attention and be legalised more widely, especially in developing countries. Growth is also expected from the market disruptors within the consumer sector, particularly from consumer-packaged goods (CPG) and pharmaceutical companies, as cannabis regulations become clearer and the risk of entering the market becomes lower.<sup>30</sup>

As mentioned above, the market has seen increasing consolidation from 2018 to 2019, with a number of mergers between cannabis producers, most notably Aurora's acquisition of MedReleaf and Tilray's acquisition of Natura Naturals, both of which were aimed at increasing overall production capacity.

The market also has high levels of vertical integration, with cannabis producers not only involved in the processing, extraction and branding of cannabis, but also consumer sales, with several companies owning the retail stores that distribute their products. The cannabis industry is expected to become less integrated over time as producers shift to becoming brand owners.





# Top consumer trends that are driving the cannabis momentum



### **Health and wellness**

This global consumer trend has facilitated growth in the medicinal cannabis market and the use of CBD in particular, and there is a growing body of research that indicates the potential benefits of cannabis, with many possible uses in various forms. Cannabis is often referred to as a natural super-ingredient that promotes health and wellness.



### Sustainability

Outdoor cannabis growing needs very little in terms of pesticides, herbicides and water (hemp can grow on very dry land and uses far less water than cotton does).

Consumers are also going back to basics: they want to use and consume natural products that do not have a negative impact on the environment and other living organisms. The rise of vegan and plant-based diets and products is expected to further drive the cannabis demand.



### Tobacco decline

Globally, tobacco volumes have been declining, which leaves room for a new stress reliever or product with a social function. Vaping has become very popular and as more countries legalise recreational cannabis use, vaping is becoming a key way in which cannabis is used.



Cannabis is poised to disrupt virtually all sub-sectors within the consumer sector, from agriculture, consumer-packaged goods and beverages to retail apparel and footwear.



### **Tobacco**

Due to social and ethical pressure, the consumption of tobacco (mainly through cigarettes) is declining in most developed countries. As a result, the industry is examining its options to branch out into other segments, such as the delivery of reduced-risk nicotine or other substances. International players in the tobacco and cigarette market

have recently moved into or expressed interest in legal cannabis. Could cannabis be an alternative or complementary avenue for continued revenue streams into the medium term<sup>31</sup>? considering a declining market for tobacco, the increasing acceptability of cannabis and the emergence of less risky ways of delivering cannabis.

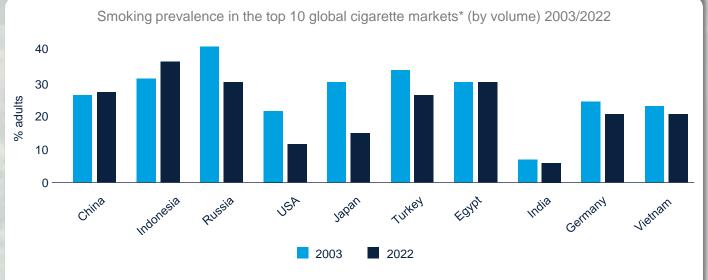


Figure 14: Smoking prevalence

Note:\* Excl. Bangladesh

Source: Euromonitor International

Cannabis legalisation is expected to transform the tobacco industry. Some smokers will experiment with CBD products or low-CBD and low-THC cannabis products, mainly through vaping, as a form of smoking in moderation. The tobacco industry should see legal cannabis as both an opportunity and a threat: the consumer bases for tobacco and legal recreational cannabis appear to overlap, which means it might be possible for the recreational cannabis industry to start taking over the tobacco industry a little bit at a time. However, the tobacco industry is also uniquely positioned to take advantage of the shift in consumer preferences because it understands the restrictive legislation and taxation. Cannabis is also produced in a

similar way to tobacco. The tobacco industry's main consumer mission is to deliver moments of pleasure and stress relief. The current transformation of the industry, which is driven by both the changing attitudes and preferences of consumers and the emergence of vapour technology. This change gives this industry the opportunity not only to continue providing nicotine to consumers in a manner that carries less risk, but also to become providers of a range of pleasure substances, including legal cannabis and other stimulants not limited to nicotine. Many consumers are already using cannabis with tobacco in roll-your-own cigarettes.



Today, the tobacco industry invests in producers of medicinal cannabis and cannabis consumption devices. In the future, cigarette manufacturers may even become cannabis brand owners as the industry continues to promote its associations with substances that cause less harm than traditional forms of tobacco.<sup>32</sup>

### Table 2: The activities of corporate cannabis companies in the tobacco industry



In 2016, Philip Morris International (PMI) invested USD20 million in SYQE Medical, an Israeli company developing a medicinal cannabis inhaler. This was the second-largest cannabis investment in 2016. Since then, PMI has not publicly spoken about that investment and it says the cannabis market remains too risky for it to make further significant investments in the sector.



In 2017, Altria made an investment of USD1.8 billion for a 45% stake in Cronos Group, a cannabis producer licensed in Canada. In its '10 Year Vision' released in 2020, Altria said it wants to help position Cronos as a leader in a highly regulated and legalised US cannabis market. However, in November 2019 Altria declared that its investment had decreased in value by USD731 million due to the complicated regulatory procedures surrounding cannabis products.<sup>33</sup>



Imperial Tobacco recently rebranded to Imperial Brands in search of opportunities for high growth, such as cannabis, and to remove the tobacco-only association. In 2018, the company invested in UK-based Oxford Cannabinoid Technologies, a biotech company researching medicinal cannabis. Imperial said its investment would give it "a deeper understanding of the medical cannabis market". In 2019, the company increased its stake in the cannabis market by investing GBP75 million in Auxly, a Canadian leader in branded cannabis products. Imperial described these moves as an expansion of their next-generation product portfolio.



In February 2020, BAT announced that, while they were researching CBD and THC flavourings for their Vype and VUSE e-cigarettes at their research facility in Southampton, they were not yet actively pursuing these flavours for sale. In January 2021, the company began test-marketing a range of CBD products called VUSE CBD Zone in Manchester, UK, stating that this was part of its efforts to go beyond nicotine. They mentioned that a nationwide roll-out of VUSE CBD Zone may occur later in 2021.<sup>34</sup>



Pyxus first entered the cannabis industry in 2018, when it purchased Canada's Island Garden and an 80% stake in Goldleaf Pharm. At the time of the acquisitions, Island Garden was one of three licensed producers chosen by Canadian regulators to supply Prince Edward Island with cannabis, and Goldleaf Pharm had applied to become a licensed medicinal marijuana cultivator in Ontario, Canada. As the first big tobacco company to enter the cannabis sector and one of the world's largest tobacco suppliers, Pyxus was hard hit by declining tobacco consumption and supply disruptions caused by the COVID-19 pandemic, it filed for bankruptcy protection in 2020. In January 2021, Pyxus said it planned to sell its cannabis segment to focus on its more profitable tobacco and e-liquid businesses. The CEO said that exiting the cannabinoid operations, which had caused a negative cashflow, would help reduce Pyxus's operating expenses. In addition, the company said that it had taken steps to restructure its industrial hemp and cannabidiol operations in order to cut financial investment in that business.

### Examples of products found in different countries



Figure 15: CBD cigarettes available at the Swiss supermarket chain Coop. Swiss law allows the sale of products containing less than 1% THC, in contrast with laws elsewhere in Europe, which limit THC to 0.2%.



Figure 16: Examples of vaping e-liquid cartridges available in South Africa





Figure 17: Prerolls available in California, US





# **Alcoholic beverages**

Today, the cannabis industry is introducing more and more ways to consume the plant. It started with the pure cannabis plant as we know it, then went on to cartridges and other goods, and now cannabis beverages are also on the rise. The alcoholic beverages sector is already starting to reduce the alcohol content of their products (beverages with low or no alcohol) and industry enthusiasts believe that THC could replace alcohol by volume (ABV) in the future, and function as an alternative source of social lubrication.<sup>36</sup> Cannabis should be viewed as either an opportunity or a potential rival for an already defensive alcoholic beverages industry.





Figure 18: Hi-Fi Hops, a cannabis-only product introduced by Heineken







Figure 19: Rethink's range of CBD-infused products

### Table 3: The activities of corporate cannabis companies in the beverages industry



Constellation Brands first invested in Canopy Growth in October 2017, purchasing a 9.9% stake for GBP141 million. In August the following year, it increased its stake in the company, investing around USD4 billion. In January 2019, it announced that it would be building a hemp extraction and product manufacturing facility in New York. In a statement issued in May 2020, the company said it had made a further investment through its subsidiary company, Greenstar Canada Investment. It had exercised warrants for shares worth around C\$245 million, originally issued in November 2017. With this investment, it has increased its total stake in the cannabis company to 38.6%. Constellation Brands' President and CEO Bill Newlands said, "While global legalisation of cannabis is still in its infancy, we continue to believe the long-term opportunity in this evolving market is substantial. Canopy is best-positioned to win in the emerging cannabis space and we are confident in the strategic direction of the company under David Klein and his team".



In June 2018, Heineken launched Hi-Fi Hops, a cannabis-only beverage, in a handful of dispensaries in California under its Lagunitas brand. Currently, the beverage comes in a 10mg version of THC and a hybrid version with 5mg of THC and 5mg of CBD. Although the drink costs USD8 per can, sales continue to rise according to reports.<sup>36</sup>





Molson Coors Canada announced a joint venture with the Hydropothecary Corporation, a recognised leader in Canadian medicinal cannabis, to develop a line of non-alcoholic cannabis-infused beverages. The Molson-HEXO deal is structured as a standalone start-up company called Truss, complete with its own management team and board of directors. Molson Coors Canada will retain the majority controlling interest, with a 57.5% ownership stake.



Canadian cannabis company, Tilray, entered into a USD100 million joint venture with ABInBev to study cannabis-based beverages. Fluent Beverage Company, the joint venture, plans to sell non-alcoholic, CBD-infused beverages in the Canadian market and said it would also continue to research THC beverages.<sup>37</sup>



Two South African companies, Distell and venture capital firm, Invenfin, partnered to invest in cannabis wellness brand Rethink. Invenfin is part of South African investment company Remgro. The two firms each acquired a 20% stake in the brand through a partnership with Rethink's owner, Releaf Pharmaceuticals. The deal will see Distell, Invenfin and Releaf work together to build a portfolio of cannabis-based brands across various product categories. Rethink's current range of products includes CBD oils, capsules, teas and skin care goods. Distell says its investment is in line with its strategy to explore new growth opportunities.<sup>38</sup>

# **DIAGEO**

Diageo is reportedly in talks with Canadian cannabis companies about potential partnerships or investments.



In 2018, there were rumours about Coca-Cola partnering with Aurora Cannabis to develop CBD-infused beverages with functional attributes. Nothing came out of it, although multiple sources reported it, but in 2020, the company announced that it was going to offer its first alcoholic beverage in decades, a hard seltzer. The reason behind this was the incredible growth hard seltzer achieved during the lockdown periods. "We're going to follow the consumer," Coca-Cola CEO James Quincey told CNBC in a recent interview when discussing the move. And, if that is the motivation, it may only be a matter of time before cannabis ends up on the company's radar as another significant growth opportunity.<sup>39</sup>

#### **Examples of products found in different countries**







Figure 20: South Africa's first cannabis beer

Figure 21: Cannabis vodka from the Netherlands

Figure 22: De-alcoholised cannabis (CBD-and THC-infused) wine from California



## Non-alcoholic beverages

Low- or no-alcohol beverages are growing in popularity while the popularity of sugary drinks is declining, mainly because of the global health and wellness trend. This trend is also a natural driver for the development of CBD-infused soft drinks (for now). These drinks are gaining popularity as they are usually positioned as naturally sourced relaxation beverages that provide health benefits. Over the past few years we have also seen the launch of bottled water, carbonated soft drinks, juices, ready-to-drink tea and energy drinks infused with CBD.

In those countries where the recreational use of cannabis is legal, there have also been launches of several THC-infused beverages, such as Lagunitas' Hi-Fi Hops sparkling hoppy water (with 5mg and 10mg THC versions).

When it comes to hot drinks, tea is currently the most popular category for CBD products, and this is particularly true for herbal teas, such as green tea, as these also form part of the growing health and wellness trend.

#### **Examples of products found in different countries**



Figure 23: South African sparkling water infused with CBD



Figure 24: Cannabis energy drink manufactured in the Netherlands and sold in SA



Figure 25: THC drink by VCC Brands







## Packaged food

Euromonitor International expects global sales of CBD packaged foods to double over the next three years as consumer awareness of the plant's benefits grows. As CBD and THC become more widely accepted, the market will be dominated by products that aim to address a specific condition.

CBD products, both internationally and in South Africa, are currently concentrated in confectionery and other sweet categories, which highlights the element of indulgence.40 As the ingredient becomes more mainstream, it is expected to extend to other food categories, including savoury snacks and daily foodstuffs such as pasta and cereals.

Similar to the way plant-based foods disrupted the packaged-food sector, cannabis is expected to bring a new edge to mindful consumers. Functional and moodenhancing foods are expected to increasingly become a substitute for prescription drugs.

#### Examples of cannabis sold in the form of packaged food



Figure 26: CBD-infused chocolate sold in South Africa



Figure 27: Cannabis pop-up store at a mall in South Africa











Figure 28: Other CBD- or hemp-infused products sold on the international market



CBD-infused products are also appearing in pet care products, such as cat and dog treats, capsules and oil, as well as toiletries such as shampoos. They are marketed for the relief of anxiety, itching (shampoos), joint mobility and stimulating appetite in sick animals.





Figure 29: Cannabis pet products available on the international market





## Beauty and personal care

Hemp seed oil products have been on the market for decades; however, hemp-derived products have become much more popular over the past few years. CBD-infused beauty products have also become more common in skin care products and cosmetics that promote its antiinflammatory and anti-oxidising properties.

As health and holistic wellness become essential in every beauty and personal care brand's strategy, the therapeutic and remedial properties of cannabis present an immediate investment prospect that will be hard to resist.







Figure 30: The Body Shop's hemp range

Figure 31: Alchemy Elixzar has launched South Africa's first CBD-infused skincare range

Figure 32: Hemp lip balm available in South Africa



### Consumer health

Many CBD and THC products exist in an expanding variety of consumer health categories, from pain relief pills and sleep aids to dietary supplements and topical pain relief treatments. Cannabinoids' anti-inflammatory properties can be used for skin conditions such as eczema, while its high antioxidant, omega oil and protein content makes it suitable for dietary supplements. Cannabis is expected to drive demand as a natural, homoeopathic alternative to wellknown pharmaceutical drugs when it comes to the relief of anxiety and pain.41

According to Euromonitor International, the market for dietary supplements is expected to be the largest cannabis-driven, over-the-counter market by 2025. The global value sales of all these categories stood at USD205 billion in 2018.

In addition to clinical trials, another area in which work is being done for all medicinal cannabis products is the process of determining the dosing indications and frequency. Clarity on these matters will enable doctors to prescribe products confidently and safely.

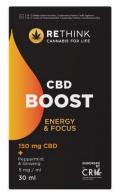








Figure 33: CBD dietary supplements and topical products found in South Africa





# Retail: Apparel and footwear

As the global focus on sustainability grows, hemp-based clothing is gaining more popularity. Conventional crops, such as cotton use large amounts of water and pesticides. Hemp requires less water and can grow in almost all types of soil.

Hemp fabric also has excellent antimicrobial properties that make it last longer than other textile fibres, such as cotton or polyester. In addition, hemp clothes do not become distorted even after multiple usage and washes. However, while hemp clothing is more versatile and long-lasting, it is more expensive to produce, although an increase in hemp production could change this.<sup>42</sup>





Euromonitor International estimates that the global legal market for cannabis will grow to USD166 billion in total sales by 2025. Although today the market consists mainly of CBD-infused products, by 2030 it will be transformed by outcomes-based brands, and the growth of THC-infused products or products infused with a combination of CBD and THC.

Although illegal in most African countries, cannabis is widely grown across the continent. At the moment, regulations in most countries remain unclear. The high costs of licensing across Africa also contributes to the high level of illegal trade. It is estimated that Africa's cannabis industry will reach USD8 billion by 2023 and it is believed that the pace of legalisation will speed up within the decade as more countries and jurisdictions realise the potential tax revenue they can gain from formalising this industry and the potential medical benefits of cannabis.

Federal legalisation in the US is also expected within the decade, following on from the hemp cultivation legalisation in 2018 and, based on that fact, more countries are also expected to follow in the US's footsteps after federal legalisation. In addition, the legal cannabis industry is expected to grow African economies by attracting lucrative foreign investment.

We remain optimistic about the future of the global cannabis industry despite the recent downturn. As Deloitte indicated, this optimism comes from the parallel to the technology sector's dot-com bubble, which provides us with the necessary experience to deal with the downturn in the cannabis industry.

While further research, regulation and education are crucial, legal cannabis may well be part of consumers' daily lives in the near future, from taking a shower using cannabis toiletries, to eating a cannabis snack and ending the day with a THC sleeping aid. We believe that with the right leadership from industry, government and regulators, cannabis will affect almost every consumer and become an important ingredient for consumer sector products.



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