



# **SORTING THE WEED FROM THE CHAFF**

## Separating the weed from the chaff

July, 2018

The global political and public climate recently took a major step forward in relaxing attitudes to cannabis laws with Canada the first G7 nation to legalise recreational cannabis use, serving as a catalyst for further worldwide liberalisation.

In parallel, the tide of opinion in Europe is turning in favour of medical cannabis, with new horizons in the UK as its Government works towards a full legislative review. Forecasts point to a total value of the Canadian cannabis market approaching **C\$6bn in 2017 to at least C\$9bn by 2025. With cannabis now fully legalised, that means its market value could match the size of the wine sector in Canada.**

Following the path set by some larger companies seeking to gain exposure to the fast-growing European medical cannabis market (estimates of a core market size as high as €20bn in a fully legalised scenario), **a first wave of smaller medical cannabis companies is moving onto the NEX London market to gain an early foothold and to attract new capital.** There could be unprecedented investment opportunity arising in this 'new' UK sector.

Canada's recent grant of Royal Assent enacting the change in Criminal Code comes as a part of Prime Minister Justin Trudeau's commitments to stimulate economic growth, to restrict black markets and underage use, and to invest tax proceeds for public good.

In the UK, paradoxically the largest *exporter* of the drug (**contributing over 95 tonnes or 75% to world exports in 2016**), cannabis cannot be legally used in medical therapy, apart from the licensed MS medicine **Sativex**. However, the recent high-profile case of childhood epilepsy sufferer Billy Caldwell, granted access to cannabis medicine by UK Government because of his acute therapeutic need, highlights the value of medical cannabis and has helped to expedite the Legislative review.

There are also huge political and financial gains that can accrue from legalisation. This could be a feature of Trump's next campaign, as public opinion in the US appears to be swinging in favour, potentially putting an end to the clash between State and Federal law, with 61% supportive according to recent polls. In the US, the first FDA approval of a cannabinoid-based pharmaceutical, for the childhood epilepsy drug Epidiolex, adds scientific weight in support of legalisation.

Law changes in Canada opens the gate to multiple investment angles arising from the nascent industry. **The size of services, products and related industries is estimated to be up to three times the value of the core C\$8bn production revenues for the recreational market.** While in the medical market demand is also growing for consistent pharmaceutical quality and delivery precision. Some estimates show the medical cannabis market in Ontario alone could exceed C\$2bn per annum.

Shares in dominant Canadian-listed Licensed Producers have already seen enormous increases, reflecting optimism ahead of legalisation of recreational cannabis. At the same time, a diversified group of smaller companies is emerging across a myriad of subsectors. As these new companies and investment vehicles emerge on public markets, they provide an opportunity for investors to gain exposure to a range of cannabis industry companies in both mature and newer markets.

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## Investment Case

**A highly regulated Cannabis sector is gradually being opened-up, starting in Canada. The market there is not only a source of capital for Canadian companies, but provides a home for the public listing of US companies as well. In our view, recent developments mark a new era for the sector and bring the potential for a revolution in the scope and scale of the global industry. European markets are already established, with the formal reimbursement of medical cannabis in Germany helping to legitimise large-scale investment. Other existing markets include Australia, which hosts a range of listed cannabis stocks that has seen a boost of over 90% in stock prices since the start of 2018 when Federal law moved to legalise cannabis exports.**

**Whereas UK exchanges are only just starting to admit companies beyond those involved in drug development and biotech. The NEX is providing a route to European markets and capital, opening the doors to companies that operate legally in their own jurisdictions. Imperial Brands Ventures, a subsidiary of tobacco giant Imperial Brands, recently invested £7.6m into Oxford Cannabinoid Technologies, a medical cannabis biotech: confirmation, if needed, as to how 'real' interest in cannabis is.**

**It is still early days for the sector in the UK, but the potential returns for investors could be substantial judging by the past performance of Canadian producers. Even recent months have seen some 100%-plus increases in share values in response to the Royal Assent. The upside potential would be enhanced if the UK government moves to legalise medical cannabis, and the chance of this happening has certainly strengthened recently, with a review scheduled for this month.**

## Cannabis is 'highly' sought after

The use of Cannabis has long been part of human culture, with applications that range from the medical, spiritual and recreational right across to industrial, wellness and cosmetic uses. The current estimated value of the North American cannabis markets is over \$10bn and some forecasters<sup>1</sup> estimate it will reach over \$60bn by 2025 as markets expand alongside cannabis liberalisation.

Cannabis is the most widely used illicit drug in the world according to the Global Drug Survey, with around 6.5% of the global population having taken the drug during 2016. The versatility of the plant and increasing knowledge of its scientific and therapeutic qualities means that, while cannabis remains largely illegal for recreational use, the stigma surrounding it is starting to lift. In particular, its medicinal qualities are gaining increasing scientific recognition.

Cannabis is a fast-growing, annual plant, with a seed-to-bud harvest lifecycle of between two to four months, and which is suited to propagation in temperate and tropical climates. Cannabis can also be cultivated extensively in cooler climates thanks to the advent of specially adapted temperate greenhouses.

The principal chemical properties of cannabis extend to a range of over 100 compounds known as **cannabinoids** including;

- **THC**  $\Delta^9$ - tetrahydrocannabinol or dronabinol, which is the major psychoactive substance in cannabis as it is stimulating and promotes euphoria; and
- **CBD** or cannabidiol, is the most abundant of the cannabinoids and known for its sedative and calming effects.

Cannabis strains can be bred to produce a specific ratio of THC to CBD, which determines the pharmacological effect of the plant, a ratio that can be tailored using genetics or propagation methods. An example is to increase the stimulating or sedative properties of the plant.

On the other hand, CBD oil, extracted from marijuana leaves and buds and from the hemp plant, a close relative of cannabis, generally contains lower levels of THC<sup>2</sup>. CBD is widely used for its health-giving properties; to alleviate symptoms of a growing range of conditions including epilepsy, anxiety, sedation and pain relief; and as a food supplement.

**Prospects were reinforced by the recent US FDA approval of GW Pharma's Epidiolex, a purified cannabidiol, for childhood epilepsy.**

Botanists disagree on the total number of recognised species of the plant, which is noted for its distinctive leaf pattern, although The best known are *Cannabis Sativa* L and *Cannabis Indica* along with many hybrid forms. Generally, these species are differentiated by the height of the full-grown plant and leaf size length of the growth cycle and by the CBD/THC ratio.

<sup>1</sup> GrandView Research, Arcview

<sup>2</sup> CBD oil at THC<0.2% is legal in UK and <0.3% in many EU countries.

### Growth cycle of cannabis strains



Source: Skunkology

### Cannabinoids and their role in the body scientifically proven

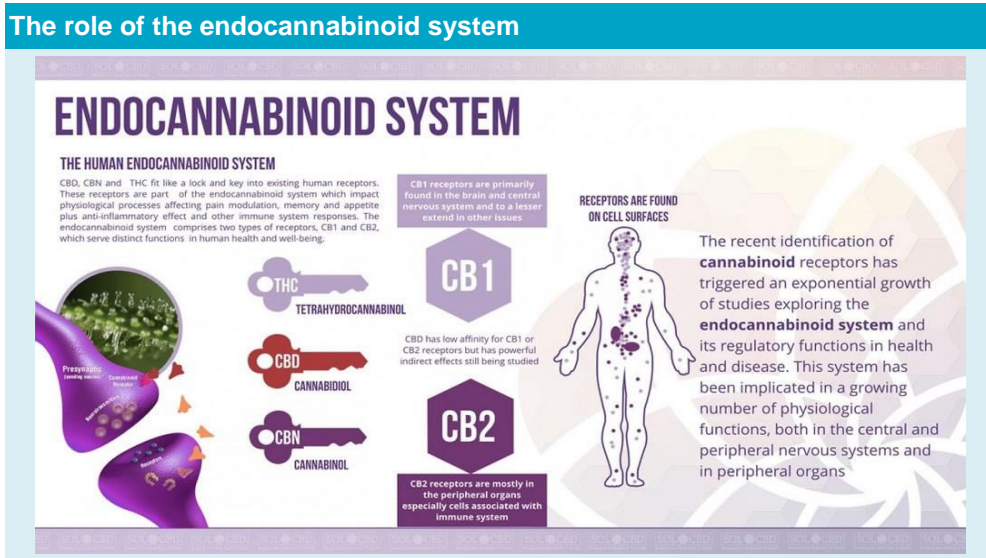
Cannabinoids interact with the human immune and nervous system by means of a complex biological system called the human endocannabinoid system (ECS). The ECS has a key role in maintaining multiple endocrine, brain and immune functions. Its biological activity includes balancing the hormones in the human body responsible for immunity, stress and appetite and for a wide spectrum of other functions. The main and most researched elements of the ECS include:

- Endocannabinoid receptors, notably the CB1 and CB2 receptors;
- Endocannabinoid antagonists;
- Enzymes.

The ECS receptors are located throughout the body; the CB1 receptors are located primarily in the Central Nervous System, including in the brain, and CB2 receptors are located mainly in the cells of the immune system. For this reason they are implicated in many biological functions.

Endocannabinoids found naturally in the human body are similar in structure to the plant cannabinoids, and fulfil the same function, and they act to 'unlock' the action of the receptors. For example, there is promising evidence of the important role of endocannabinoids in regulating the neurological functions involved in stroke and Alzheimer's disease by interacting with CB1 receptors.<sup>3</sup>

<sup>3</sup> 'Endocannabinoid signalling as a synaptic circuit breaker in neurological disease': Nature Medicine; Katona, Freund.



Source: Cannabis Digest

The versatility of the ECS means that it is a very promising therapeutic target for a whole range of conditions. Formal research supports the scientific and biological rationale for using cannabis as a medicine. This includes:

- Five licensed pharmaceutical products approved following formal regulatory processes. The next table shows licensed medicines including the first FDA approved, cannabis-based pharmaceutical, Epidiolex.

Drug name/company	Uses	Notes
Epidiolex/GW Pharma	Paediatric epilepsy	In combination with SoC, 44.2% of CBD pts saw ≥50% reduction in drop seizures compared to 23.5% placebo
Nabiximols/Sativex/GW Pharma	MS spasticity/Oromucosal spray contains 1:1 THC/CBD	Clinical trials >2,500 subjects, significant and consistent improvement in MS spasticity scores with no evidence of substance abuse or addiction.
Dronabinol/Marinol/Syndros/ PAR Pharmaceuticals/INSYS/ synthetic Δ9 tetrahydrocannabinol	Treatment of anorexia in patients with AIDS/Nausea in chemotherapy	Schedule III drug in US – with low potential for abuse – covered by Medicaid. Av cost of \$392/60 2.5mg tablets or \$30 per scrip after co-pay. INSYS FY17 sales \$800k - launch in mid-2017.
Cesamet/Nabilone/synthetic THC	Cancer treatment	
Bedrocan/dried flower tips	Including appetite stimulant, anxiety, depression, pain	First GMP compliant, THC-rich, active pharmaceutical ingredient. Licensed technology in Europe. Dutch parent company acquired by TWEED.TSX

Source: Company websites/Clinical Trials.com

- Medical cannabis, which can be obtained on prescription from a qualified physician, comes in many forms: notably dried, capsule or oil, and is derived from the natural plant. Medical cannabis is defined by Health Canada as 'constituents of cannabis, THC and other cannabinoids, as a physician-recommended form of medicine or herbal therapy.'

Medical marijuana strains tend to be high in CBD and usually have lower amounts of psychoactive cannabinoids.

#### The most popular forms of cannabis in North America

Application	Forms	Popular methods
Recreational	Dried flower, edibles, hashish	Smoking, inhalation
Medical	Quality-controlled fresh or dried marijuana or cannabis oil or starting materials	Inhalation, smoking, water pipe vaporisation, vaping, oral ingestion, topical application
CBD	Oil, capsule	Oral ingestion, vaporisation, rectal/topical application

Source: ED, Health Canada

In addition to the 'legitimate' approved uses, a whole spectrum of other applications (across CNS, mood, pain, palliative care and gastro-intestinal diseases) have been studied or applied - providing extensive anecdotal evidence of its benefits. However, work remains to be done to substantiate the benefits of medical cannabis by means of 'gold standard' randomised controlled studies.

This is largely a question of costs versus returns and the rejection of **Sativex** based on the lack of cost efficacy by the National Institute for Clinical Excellence (NICE) highlights European price sensitivity and could determine how far big pharma will commit capital into the field. Progress has also been held back in the past by the availability of cannabis cultivated to the exact and consistent Good Manufacturing Practice (GMP) standard required of active pharmaceutical ingredients, but that has now become possible because of new cultivation techniques.

Canadian insurance companies reimburse for medical cannabis in respect of some of the best researched conditions and diseases, and these include:

- cancer with severe or refractory pain, nausea and/or vomiting;
- multiple sclerosis with neuropathic pain or spasticity;
- rheumatoid arthritis with pain;
- HIV/AIDS with anorexia;
- Neuropathic pain and for palliative care.

Opponents of medical cannabis cite the dangers of its side effects, notably its psychoactive potential, and this is a particular concern because of the risk to young people. Tobacco use can be a harmful factor when smoked with cannabis, although this risk is thought to be lessened by either vaping or smoking raw, dried cannabis.

Nevertheless, such harms need to be weighed up against the side effects and potential for abuse associated with alternative, approved medications such as anti-epileptics, opioids and NSAIDs, which include liver failure, weight loss allergic reaction and addiction.



## Global cannabis regulatory backdrop

The global cannabis market is a vast and complex landscape. Recent years have seen balance of public opinion tip in favour of legalisation in parallel with recognition of its therapeutic value. Canada is the first G7 nation to legalise cannabis for recreational use following the grant of Royal Assent for adult use in June. The legalisation of medical cannabis in Canada in 2001 led the way for legitimate recreational use, and it was also part of Justin Trudeau's commitment to "legalize, regulate, and restrict access".

While grey areas continue to exist, not least in USA with its conflicting Federal and State laws, world opinion continues to move in favour of legalising medical cannabis. This includes the UK's review of cannabis triggered by the high-profile Billy Caldwell case. For the purposes of this report, we discuss the legal status in the main regions and the largest visible markets.

### Canada - the backdrop to legalisation

The formal medicinal cannabis market in Canada is now well established after being legalised in 2001. Health Canada lists 111 (at the date of this report) Canadian-based companies that are 'Licensed Producers' who may sell or provide *'dried marijuana, fresh marijuana, cannabis oil, or starting materials to eligible persons.'* There are also a growing number of overseas companies that can export cannabis to Canada, and Australia is the most notable recent addition to the list of approved export regions.

According to Health Canada, the number of people registered to receive medical cannabis stood at roughly 300,000 at the end of December 2017 with c 11,000 registered medical practitioners having sent a professional document to a Licensed Producer. However, the total size of the cannabis market that year was much larger with over 90% of the total C\$5.7m value consumed estimated to have been for non-medical (and therefore illegal) purposes.

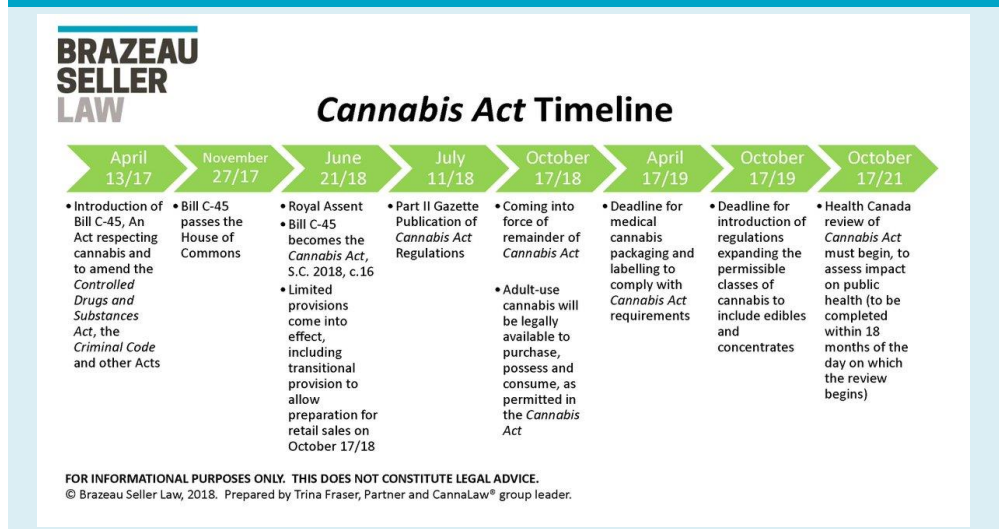
One of the key objectives of the government's full legalisation policy is to cut down the illicit market, indeed levels of use of the drug among youths as young as 15 are among the highest in the world. Studies show that Canadian youths are more likely to consume cannabis (21% of those aged 15-19, and 30% of 20 to 24-year olds in the past year) compared to around 13% of European peers.

**This shows that prohibition has failed to prevent cannabis consumption for non-medical purposes.**

Another aim of the legislation is to reduce the burden on the criminal justice system in relation to cannabis, with judicial sources reporting 60,000 arrests per year at a cost of over C\$1bn. A set of strict regulations were laid down in the framework set out by the Canadian 'Task Force on Legalization and Regulation' in its [final report](#) launched in 2016.

The timeline to full legalisation has effectively taken two years and with the launch date for retail sale of recreational cannabis now set for 17 October 2018. The next steps in the process are set out in the following timeline.

## The process of legalisation in Canada



Source: Brazeau Seller Law

## The legislative process

In the latter stages of the approval process, Bill C-45 (known as the Cannabis Act) was passed by the House of Commons of Canada in late November 2017, and recently moved back to the Senate of Canada on 7 June 2018 and was passed by a vote of 56/30. Following reconciliation of House and Senate bills, C-45 was granted Royal Assent, the final step in the process taking it from being an act of Parliament to being written into law, legalising adult use of cannabis nationwide in Canada, and amending the Criminal Code

The new strict national framework aims to control the production, distribution, sale and possession of cannabis in Canada. The Bill sets the minimum age for legal use at 18. Provinces, municipalities have the right to determine individual ruling including increasing, not lowering the minimum legal age.

## Full legalisation

Upon coming into force of the Cannabis Act, adults in Canada can legally;

- Purchase fresh or dried cannabis, cannabis oil, plants and seeds for cultivation from either a provincially or territorially regulated retailer, or directly from a federally Licensed Producer;
- Possess up to 30g of dried legal cannabis or equivalent in public;
- Share up to 30g or equivalent of legal cannabis and legal cannabis products with other adults;
- Cultivate up to four plants per household; and
- Alter cannabis at home to prepare varying types of cannabis products (e.g., edibles) for personal use, provided that no dangerous solvents are used in the process.

The official launch date has been set for 17 October 2018 to enable individual Territories and Provinces time to prepare and transition in time for a simultaneous launch.

A large amount of control does lie with the Provinces and Territories, including the ability to lift the minimum age limit from 18 years, deciding how cannabis can be consumed in public and private places, setting limits on the number of plants per household, and agreeing the type of distribution and retail channels to be set up. Under the ACMPR (Access to Cannabis for Medical Purposes Regulations), individuals can register to cultivate limited amounts of cannabis for personal use.

Most Provinces, including Ontario, have initially opted to distribute by means of a combination of online and public channels – with a minority deciding to go through private retail channels, leaving control of the production and supply chain largely in Government hands.

Dispensing of medical cannabis requires a prescription from a qualified doctor supplied by a Licensed Producer. Up to now, Licensed Producers have been limited to the production of Dried and Fresh Marijuana, and Cannabis Oil for Medical Purposes.

The terms of the new law include enforcement of plain packaging and an initial focus on oils, seeds, dried and fresh cannabis. **The sale of edibles is not yet legal** as there is potential for accidental use and a much greater risk in respect of children, although the variety of products is likely to increase over time.

## The US paradox

In the United States, Federal law bans cannabis under the Controlled Substances Act, classing it as a Schedule I substance, defined as having no medical value, and prohibits its use for both recreational and medical purposes.

Yet, because of individual State autonomy, 29 States plus 2 territories have legalised medical cannabis (starting with California in 1996) and 13 have decriminalised the use of cannabis and allow the use of CBD-based products with low THC content. A total of 9 States have legalised the use of recreational cannabis, the first being Colorado and Washington in 2012.



Source: Business Insider

The political environment in the US features an ongoing offensive by conservative factions in the Senate who wish to overturn steps towards legalisation taken under the Obama administration.

The so-called 'Cole memo' issued under the former US President was a move towards providing individual States with the authority to control and regulate legal marijuana use.

**In January 2018**, Senator Sessions rescinded the memo to return decision-making to Federal level and with the aim of '*identifying and prosecuting those who create the greatest safety threats to our communities around the state.*'

**In a further twist, in June 2018** Senators Cory Gardner and Elizabeth Warren introduced a bill intended to protect the laws of States that have legalised some form of marijuana from federal intervention.

The main concerns appear to be associated with the potential for abuse, for major crime, trafficking and cartels - as opposed to full-scale opposition. The state of play therefore leaves ambiguity surrounding State as opposed to Federal powers. This has not prevented cannabis use and the total market value in the US in 2017 is estimated to be over \$7bn (according to Arcview).



Source: Bud Life

Medical cannabis is dispensed under State marijuana programs with most States opting to allow sale in dispensaries, rather than online and sales are usually cash-only. The legal grey area causes a lack of supply chain visibility and causes bottlenecks, plus it limits corporate access to funding and banking services.

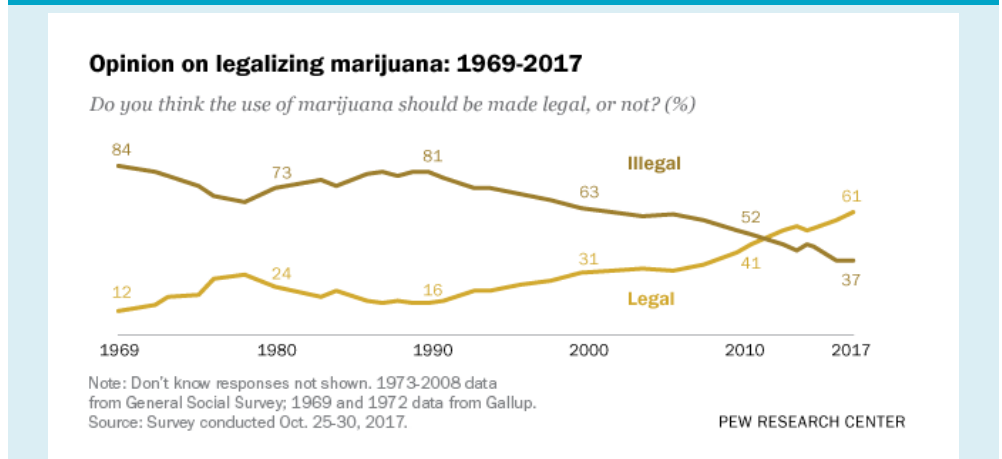
### So, what might be the potential swing factors?

Future decisions are likely to be influenced by a desire to reduce the huge financial burden that cannabis legislation and its enforcement creates. The Drug Policy Alliance estimates that, at the peak in 2010, more than 650,000 people were arrested for cannabis offences, including c 90% for possession charges, at a total cost of around \$3.6bn.

In fact, the Rohrabacher–Farr amendment passed in 2014 bans the use of public funds to enforce prosecution of those observant of state law. A relaxation of laws by means of decriminalisation - removal of custodial penalties - in 13 states where small amounts of cannabis are involved, illustrates a preferred focus on wider abuse and drug trafficking.

There are also huge political gains to be made with voters - depending on public opinion, which appears to be swinging in favour of legalisation or return of State power, with 61% in favour according to recent polls. Not least, for government this also includes the potential financial gains from collecting tax revenue, fees and licenses by taking money out of the black market. Some data suggest that US tax revenue from cannabis could be worth more than \$1.8bn<sup>4</sup> by 2020 just from states that have already legalised cannabis.

### Shifting US public opinion



Source: Pew Research Center

**Furthermore, reports show that organised crime, violence and homicide rates fell in states where medical cannabis was legalised** – in a study of FBI records of crime rates in States bordering with Mexico over the period from 1994-2012 entitled 'Is Legal Pot Crippling Mexican Drug Trafficking Organisations? The Effect of Medical Marijuana Laws on US Crime.'<sup>5</sup> In the Border States studied, the impact of legalisation was largest in California, where the rate of violent crime fell 15%, robbery was down by 19% and murder by 10%.

Opponents argue that cannabis attracts crime or that legalisation will push the black market into other types of more harmful illicit drugs. Other concerns include use by minors and the dangers of driving and operating machinery whilst under the influence of cannabis.

The recent US FDA approval cannabis-derived medicine Epidiolex is truly ground breaking and should add additional weight in favour of federal legalisation. President Trump's recent apparent support of relaxing federal law, plus political pressure from pharmaceutical companies could also be swing factors in favour of legal cannabis.

### A patchwork of European laws

Europe represents a very large potential market, with Prohibition Partners estimates as high as €20bn for the core medical market, in a fully regulated scenario assuming that cannabis is legalised in all European countries, owing to its large population and driven by the ongoing ripple effect from countries where medical cannabis is already legalised. European responses are characterised by a lack of consistency and harmony: there is no central EU cannabis policy and individual Member States are developing their own legislation.

<sup>4</sup> New Frontier Data

<sup>5</sup> Economic Journal, 9 June 2017: UK

In this respect, the situation reflects EU pharmaceutical regulation and reimbursement rules, in that each country has a specific set of regulations.

Germany is one of the largest markets and with the highest growth potential, having legalised medical cannabis in 2017. There is wide variation in attitudes and opinions and overall a lack of formal infrastructure which has so far restricted the visible and reimbursed markets.

Recreational cannabis is illegal in Europe, although inconsistencies exist - possession of cannabis for recreational use in Germany is illegal for example, although the consumption of 'small amounts' is legal. The famous Dutch 'coffee shops' tolerate the sale of cannabis to customers including tourists, although the number of these shops has fallen steadily to around 580 now from a peak of 850 in 1996 because of concerns around youth access to cannabis and the negative aspects of cannabis culture.

As in the US, cannabis is decriminalised in certain countries when small amounts are involved. The following table illustrates the legal status across the larger and most advanced EU countries:

Summary of cannabis laws in Europe		
Country	Legal status Medicinal cannabis	Legal status Recreational use/personal cultivation
Germany	Legal prescribed under Federal Institute for Drugs and Medical Devices.	Consumption is legal. Possession is Illegal.
Spain	Private possession/consumption is legal. Public possession/consumption decriminalised <100g	Possession/consumption is legal in private areas.
Netherlands	Legal as prescribed medication since June 2003.	Possession of <5g decriminalised for public use and for 'coffee shops'.
UK	Illegal except the rarely prescribed Sativex.	Class B - illegal
France	Legal as a prescribed medication since June 2013.	Illegal
Italy	Legal as a prescribed medication since 2013	Possession/cultivation/consumption is illegal outside of cannabis social clubs.
Denmark	Sativex, Marilone, Nabilone on prescription	Illegal
Switzerland	Illegal, BUT cannabis containing <1% THC is legal for medical use.	Possession and consumption are decriminalised. Cannabis <1% THC is legal.
Czech Republic	Legal as a prescribed medication since 1 April 2013.	Cannabis consumption and cultivation are illegal. possession of <15 grams/cultivation of <5 plants decriminalised

Source: Prohibition Partners

Germany outlines around 30 diseases and conditions that be treated using cannabis. Legalisation means the German healthcare agency BfArM established a Cannabis Agency to organise and control the cultivation of cannabis for medical use, and cannabis is available on prescription through regular pharmacies.

To date, Germany's top 3 health insurance companies have already received over 13,000 applications although as yet there have been very few claims paid. Medical cannabis mostly tends to be imported, due to a lack of definition on licensing for growers, and this is mainly from Canada and the Netherlands.

In the Netherlands, there is an established medical market and cannabis is available at pharmacies on a prescription basis. The grey areas include private member clubs and coffee shops, such as those also found in Barcelona and Copenhagen.

Sativex and Bedrocan are both widely approved in Europe although uptake to date has been relatively low because of pricing, despite the therapeutic benefit seen in trials.

**Paradoxically, the UK is the single largest exporter of legal cannabis, at around 70% of the world total, and it grew around 45% of total global production of cannabis in 2016.** Much of this is used for research purposes, which can legally be carried out in the UK if a license from the Home Office is acquired.

In contrast, medical cannabis is illegal there apart from GW Pharma's approved medicine Sativex for multiple sclerosis, a schedule 4 drug. Recently, the high-profile case of Billy Caldwell attracted attention after his medicinal cannabis containing THC, prescribed in Canada for his epilepsy, was seized at the UK border and subsequently returned to him on medical grounds, adding weight to the argument of those who support use of medical cannabis. The case has triggered a review of medical cannabis by the UK Government that has garnered support from both health professionals and politicians alike.

In 2016 a report by think-tank the Adam Smith Institute claimed that legalisation of cannabis in the UK would reduce organised crime, improve the quality (and therefore safety) of cannabis and generate £1bn for the British Treasury and over £6.8bn in sales. In the meantime, the European market for pharmaceutical grade CBD oil is already worth €2bn<sup>6</sup> and with many countries allowing use of products with THC <0.3% and <0.2% in the UK.

### Potential next steps

With growing acceptance of medical cannabis in Europe, other countries can look to Germany as a model for introducing a formal infrastructure of reimbursement for medical cannabis. This could help cement acceptance of cannabis as a therapy and reduce stigma, potentially leading the way to full legalisation. However, further formal studies on the benefits of the drug are necessary to support full adoption.

In the meantime, potential job creation and greater understanding of the economic benefits of the industry are likely to become clearer as other nations prepare to legalise medical cannabis, including France and Spain.

On the other hand, opponents cite concerns such as potential addiction - NHS reports that around 10% of regular users become dependent or lethargic, added to the dangers of smoking cannabis with tobacco and the effects on the developing brain.

### Australia's legislative backdrop

The Federal government in 2016 legalised patient access to Australian-grown and manufactured medicinal cannabis, subject to state and territory regulations. Victoria became Australia's first state to legalise cannabis for medical use.

However, the recreational use of marijuana remains illegal under all federal, state, and territory laws in Australia.

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<sup>6</sup> EIHA, Nova-Institute and HempConsult

### Australia - the regulatory position on medical cannabis

**Victoria:** Legal for use by children with severe, treatment-resistant epilepsy, from early 2017

**NSW:** Legal for use by adults with end-of-life illnesses, from July 2016: Poisons and Therapeutic Goods Amendment Regulation 2016.

**Queensland:** Legal by prescription from specialists for use by patients with a range of conditions including MS, epilepsy, cancer, and HIV/AIDS, from March 2017:

**ACT:** People who fall into category of serious illnesses

**Tasmania:** Controlled Access Scheme began in 2017 to allow patients to access unregistered medicinal cannabis.

**Western Aus:** Legal by prescription from doctors under certain conditions, from November 2016:

**South Aus:** Legal by prescription from doctors under certain conditions, from November 2016.

**Northern Territories:** The Australian Government Department of Health regulates therapeutic medicines containing cannabinoids through the Therapeutic Goods Administration – access is restricted to patients with certain medical conditions

*Source: Canstar Health Insurance*

It is still early days in Australia for growers, but the country is taking steps towards liberalising cannabis exports to help boost its economy. In early 2018, the Australian government announced a motion to begin exporting medicinal cannabis although Federal approval is still pending today.



## Structure of international cannabis markets

With the Canadian recreational market recently legalised this provides a catalyst for the restructuring of the market and additional avenues of growth including innovation of products and technology, plus new ancillary industries. In fact, research done by the Government there suggests that the impact on the economy will be to create more than 100,000 new jobs.

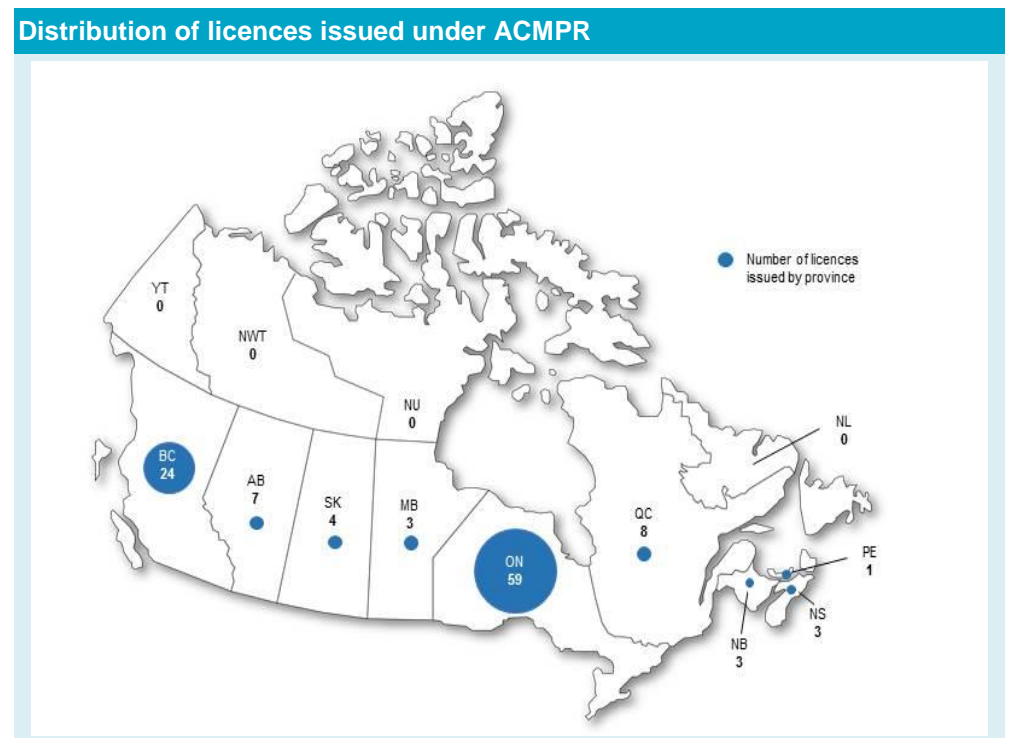
With most production licenses set to remain in the hands of Licensed Producers and a proportion of supply from the regulated cultivation by individuals, the near-term goals are to convert the C\$6bn black market into visible sales.

The outlook for the USA is also buoyant with a range of market growth estimates suggesting that the total North American market could reach up to \$60bn by 2027.

'Rest of World' markets are predicted to grow fastest from a lower base as medical cannabis becomes more widely accepted, although these markets are fragmented, with Germany expected to be the largest European market. We examine the market structure in these key regions, and discuss key growth drivers and potential areas of innovation in each market.

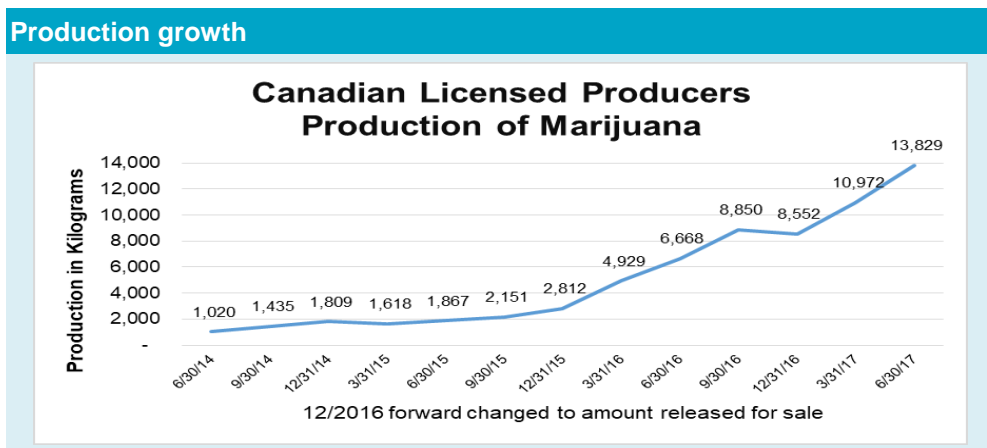
## Canada looks forward to economic boost

The legal cannabis production industry is dominated by the Licensed Producers whose sales generated a fraction of the estimated total \$5.7bn market value in 2017. These Producers are authorised to produce and/or sell dried or fresh cannabis or cannabis oil or seeds - to authorised persons. Collectively, Health Canada has issued 111 licenses with a rapid uptick in quarter on quarter inventories of dried marijuana and cannabis oil throughout 2017.



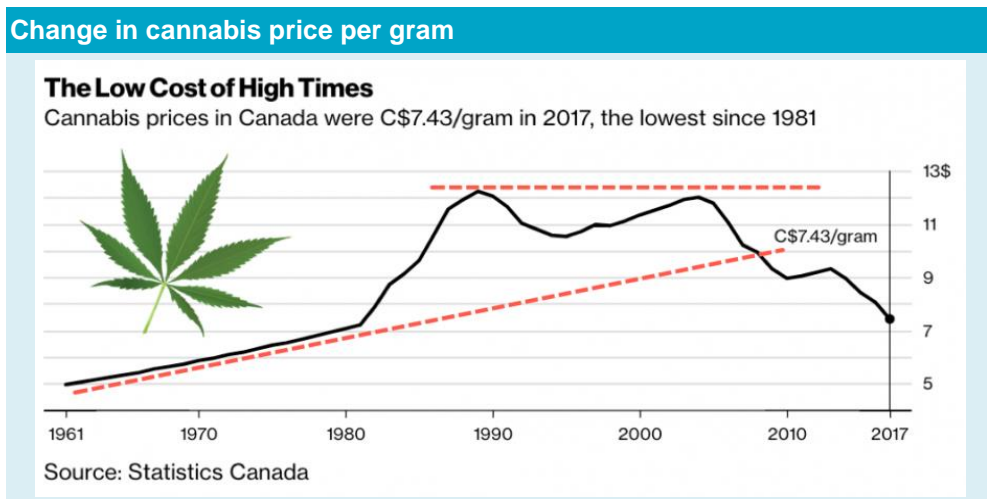
Source: Health Canada

The market has benefited from a plentiful supply of cannabis both from private and public sources. Under the Access to Cannabis for Medical Purposes Regulations (ACMPR) law, Canada widened affordable access to its citizens by authorising them to cultivate up to four plants per household. Over 95% of the cannabis consumed in Canada, is produced in the country. The following chart shows the rate of buoyant output growth by Licensed Producers from 2014-2017:



Source: Statistics Canada

The movement in price per gram in line with tightening and relaxation of regulations has diverged from supply and Health Canada states that, so far, demand for prescribed cannabis has been very well matched to supply in the legal licensed market, contributing to the fall in price over recent years below the rate of price inflation:



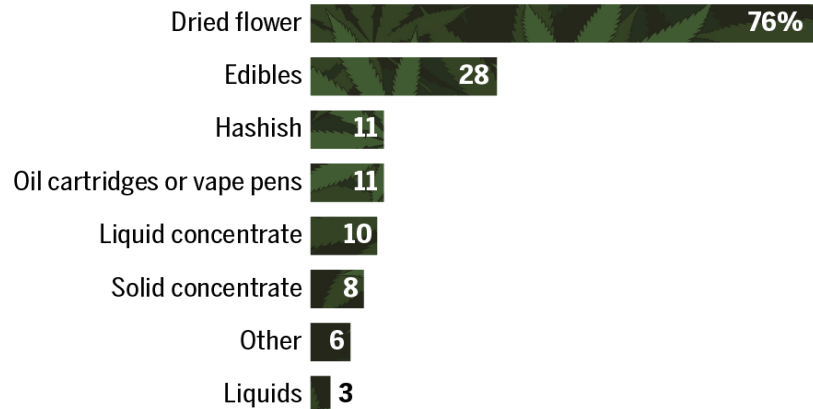
Source: Statistics Canada

Health Canada reports that the market in 2017 included 5m users aged 15-64. This was equivalent to around \$1,200 per cannabis consumer. Up to 90% of spend by purchasers is estimated to have been spent on non-medical, and therefore illicit, use of the drug.

As noted, definition of 'medical cannabis' is quite limited for now, and recreational cannabis products are being tightly controlled with limits on packaging and advertising, although the range of products could expand over time, albeit not until 2019 at the earliest according to the provisions of the Bill. For now, the results of a survey carried out by Health Canada in 2017 show that respondents were most likely to have used dried flower over other forms of, with edibles being the second most popular category.

### Popularity of types of cannabis

#### Types of cannabis products used



Source: Health Canada

### Recreational use could increase market by over 30%

Canada is in the process of compiling a Cannabis Account to provide visibility and statistical measurement of both the recreational and medical markets and to quantify the scale of the black market. It will use product categories broadly divided as follows:

- Dried cannabis
- Cannabis oil
- Fresh cannabis
- Cannabis plants and seeds
- Other cannabis products.

Growth estimates for the market, and the likely split between recreational and medical cannabis vary, with pricing liable to continue to fall if the current trend continues, but with a potential increase in the number of people open to using it, according to the Health Canada market report.

Surveys indicate that of the approximate 5m adult users of cannabis, up to 30% more people are likely to try cannabis on legalisation. If the amount per user remains constant, the value of the total market could approach \$7bn in 2019, rising to **\$9bn<sup>7</sup>** in 2025 at a constant growth rate. **To provide context, in 2016 consumption of tobacco in Canada was worth C\$16bn and of wine C\$6bn.**

The expected ratio of recreational to medical users is hard to predict, although this seems to us likely to shift in favour of the recreational segment, as current 'non-medical' users shift into the newly legal category. Taking an average from leading reports suggests that the total market value will split 20/80 and in the US, the split trends towards 50/50 over time in more established states.

<sup>7</sup> New Frontier Research

We calculate that if a total of up to 25% of Canadian adults would use legal cannabis at an average annual spend of \$1,200 in line with the Health Canada survey responses this is equivalent to an C\$8bn market, which supports the market research estimates.

Apart from an expansion in the number of cannabis users, product market dynamics will be governed by a host of other factors, not least Provincial regulation, and with higher margin, value-add products and innovation all needed to counteract any raw cannabis price deflation. Vaping continues to be popular while edibles and ready-rolled cannabis are likely to be among the most popular products, overtaking dried flower. In this sense, the US has a more developed branded market, suggesting that the growth potential in Canada is huge.

Product categories are expected to become increasingly diversified and the number of new industries and services are likely to carry on expanding across production, processing, distribution & retail, ancillary and digital segments. It is likely that these types of products and services will provide the highest growth and job creation potential, equivalent to around 3x the size of the base industry according to Deloitte Canada.



Source: Deloitte Canada

Apart from the size of the core and ancillary industries, cannabis is a potential boost to the economy from associated tax revenues. The current tax rates are c 10% excise rate per gram on wholesale cannabis. Using the US as a proxy, Colorado was the first US state to legalise in 2012 causing tax revenue to grow from 0 to \$200m in 2016. The Canadian government initially expects to collect around C\$400m a year in tax revenue. Canada’s Provinces will get the lion’s share of annual receipts: these will be invested back into education and public services.

The future dynamics of the black and home-grown markets are another key factor potentially influenced by the Licensed Producers’ ability to adjust to the demands of a broader customer base. Evidence from one Health Canada survey showed that over 50% of respondents got their cannabis from a friend or family member, or an acquaintance, compared to dispensaries (19%), online producers (14%) and retailers (11%). Taxation and pricing are other factors that deter consumers purchasing from public suppliers.

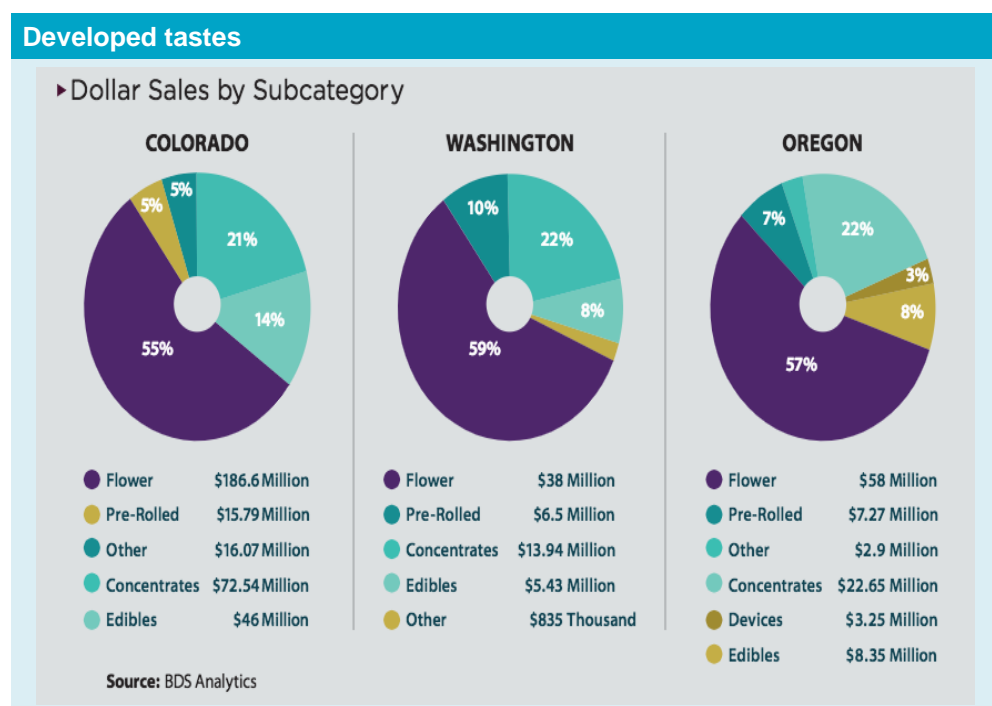
Logically, the key to pushing up demand away from the black market is in lowering prices and improving the shipping times of online retailers, which could create further price competition. This suggests that the shift to a more visible, as opposed to underground, market will take time to transition.

The breadth of the market, as well as the scope to expand vertically and horizontally across the value chain to garner a share of an expanding branded market, are illustrated by some of the dominant Canadian players.

**Canopy Growth (TWEED.TSX)**, the bellwether of the Canadian industry, sees huge scope to diversify including into the burgeoning sleep aid and drinks markets. There has been a flurry of deals, including by Constellation Brands of Corona Beer fame, which acquired a 10% stake in TWEED in 2017. Its next largest competitor, **Aurora Cannabis (ACB.TSX)**, is diversified across facility design, genetics and breeding, production and extraction as well as in cannabis wholesale and retail distribution.

### US has a thriving \$7bn+ cannabis economy

The cannabis industry (both medical and recreational) in the USA was estimated at \$7.1bn<sup>8</sup> in 2016 and it is reported to have risen more than 25% over 2015. Growth was linked to a surge of growth in Colorado, Washington, Oregon and from other newly legalised states.



Source: BDS Analytics

One of the largest and most established states is Colorado. Its marijuana market was valued at \$700m in sales in 2015 rising 42% to \$1bn in 2016, and over US \$135 million was collected in state tax. Current estimates suggest that combined taxes and license fees are three times the value collected from alcohol sales.

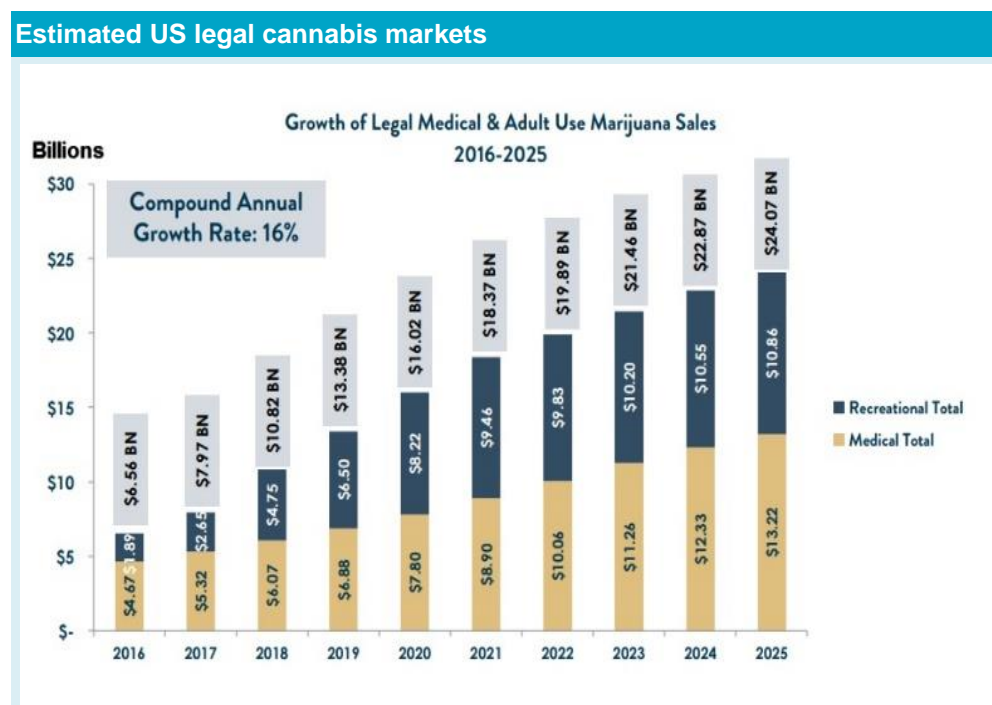
<sup>8</sup> Arcview

Some reports show that in Colorado<sup>9</sup> legalization has led to \$2.4bn in turnover, considering not only the sales of legal marijuana, but the boost to other industries because of legalisation, including rental of equipment and warehouse spaces. They estimate that over 18,000 jobs have been created within marijuana-related businesses, despite it being illegal.

### Upside from State and/or Federal legalisation

The political battle in the US continues and the main trigger for further upside in the market will be a legalisation of cannabis or, second best, a clear reinstatement of State autonomy to allow freedom to operate.

In either scenario, the US looks set to continue to legalise cannabis in more areas, with Michigan and New Jersey touted as the next States with a favourable view. Arcview estimated that the US legal cannabis markets will grow at a CAGR of 16% to 2016-2025 with the split trending towards a 50% recreational market share, up from 20%.



Source: Arcview Group

Data registered in the three largest and most established recreational cannabis States in 2016 illustrate that the highest growth rates were in favour of edibles, concentrates, pre-rolled products as opposed to 'traditional' dried flower products:

<sup>9</sup> The Marijuana Policy Group

**Product popularity**

► Growth Rates by Category

	COLORADO	WASHINGTON	OREGON	ALL 3 STATES Wtd. Avg.
Whole Market Growth	32%	94%	112%	47%
Flower	17%	68%	90%	31%
Pre-Rolled	63%	318%	236%	121%
Concentrates	57%	194%	105%	75%
Edibles	50%	69%	127%	53%

Source: BDS Analytics

Source: BDS Analytics

The fast growth in concentrates could be linked to the development of vape devices, since these offer a convenient method of consumption and avoid tobacco use. Such products are a value-add and therefore provide a higher margin for manufacturers than dried flower.

The prohibition of cannabis has clearly not held back the tide of growth, although the rate of expansion will be dictated by Federal decision-making. Not least because market participants, from growers and distributors to start-ups, are hamstrung in their ability to access mainstream capital markets and banking facilities.

## Europe’s medical cannabis set for exponential growth

**Europe offers potential for very high growth – initially in the medical cannabis market – given that it accounts for nearly 10% of the world population and is double the size of US.**

Prohibition Partners estimates that the total core medical cannabis market potential in Europe is €20bn by 2020 in a fully legal scenario, with upside from branded and value-add products and ancillary services. In our view, the growth drivers will be further legalisation and liberalisation, increasing social acceptance and scientific evidence of the medical value, along with more widespread reimbursement. Growth rate is also dependent on European infrastructure and its ability to produce, rather than import, sufficient raw material.

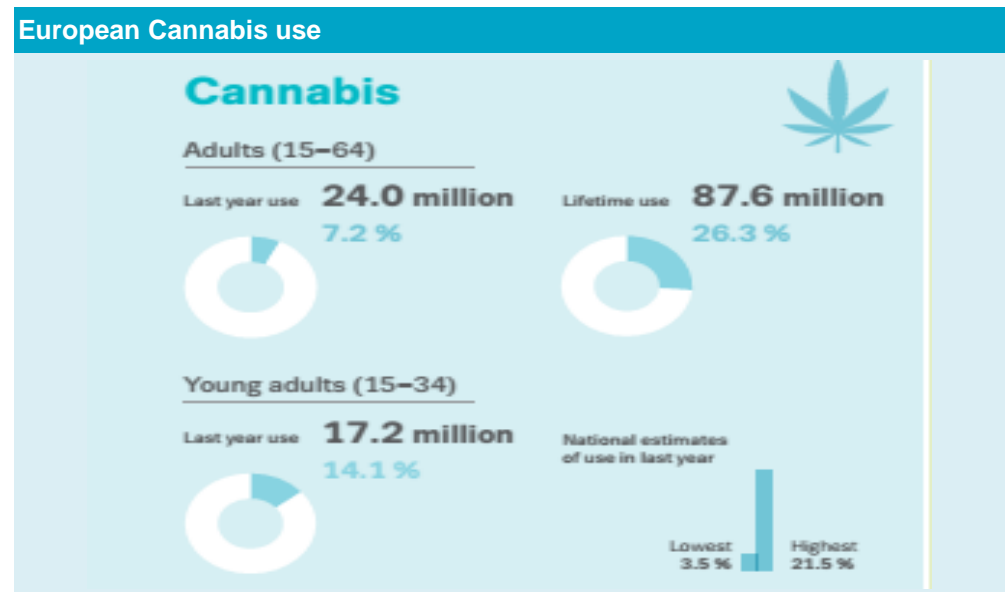
The size of the illicit market for cannabis products in 2017 was estimated to be worth at least €3bn, or 38% of the c €9.3bn illicit drug market in the European Union, according to the European Monitoring Centre for Drugs and Drug Addiction. This meant that up to 24m people, or 7.2% of the total population, used the drug illegally.

At the same time, some countries are seeing very high demand growth for medical cannabis. For example, in the Netherlands where over the past five years the number of doctor’s prescriptions for medical cannabis increased fourfold, according to figures from the foundation of pharmaceutical statistics.

Germany is the largest and most advanced country and we have seen that the legalisation of medical cannabis brought the initial number of insurance claims to more than 10,000 shortly

after the law changed in 2017. Sativex and Bedrocan are widely approved in Europe, although uptake to date has been relatively low because of pricing, despite the therapeutic benefit seen in trials.

The size and scale of France also makes this market one of Europe's key markets for economic opportunity.



Source: European Monitoring Centre for Drugs and Addiction

As mentioned, the UK is the single largest exporter of legal cannabis, despite Sativex being the only legal THC-based cannabis medication *inside* the UK.

For now, the main prospects are in the medical market which is set for further regulatory approvals, although clearly the significant appetite for recreational use given the illicit market converts in a fully legal scenario. **The potential to convert at least a portion of the €3bn proceeds into legal taxable market could be a great incentive for Governments to legalise medical cannabis. Estimates suggest that UK tax receipts could reach over £1bn<sup>10</sup> per annum.**

At the same time, short supply in Germany because of lack of definition on licensing means that prices have remained high relative to North America, perpetuating the black market. For example – supply shortage in Germany leads to pharmacy charges of up to €125 (C\$192) for 5g (vs. C\$40 in Canada).

However, this appears to be changing as countries such as Canada and Australia are making an early move into exporting or establishing subsidiaries or acquiring local companies to take advantage of the potential upside. Aurora Cannabis' takeover of CanniMed Therapeutics was motivated by its intent to penetrate the burgeoning medical cannabis markets of Denmark, Italy and Germany.

European countries themselves are also responding to growing demand and to avoid reliance on imports and so therefore, the quickest growing sector in the past 12 months has been production and processing. With existing demand vastly outgrowing existing supply, both production and processing are expected to see rapid growth in 2018.

<sup>10</sup> Adam Smith Institute



Just as in North America, the widespread adoption and reimbursement of medical cannabis relies on boosting the availability of medical grade product, backed by more solid evidence to justify uptake for conditions and diseases beyond the most established MS, pain and epilepsy.

## CBD and Hemp boosted in parallel with cannabis

Hemp has a myriad of uses spanning across health, wellness and nutrition. It is typically retailed in infused water, sprays, topical creams and cosmetics and in oil form. A legal substance at low THC (generally less than 0.2%), cannabidiol is one of the most widely accepted and studied of the cannabinoids. CBD oil is separated from the leaves and flowers of the hemp plant, which is bred specifically to have a low THC content, using extraction and distillation processes, generally using solvents.

When sold online and in health shops in the UK, CBD oil is **classed as a food supplement** although it is used widely for wellbeing and medicinal purposes. The high fatty Omega-3 content also offers nutritional value. CBD oil was recently launched in the leading UK high street shop **Holland & Barrett**, selling at up to £20 for a 10ml bottle with demand quickly outpacing supply and sales doubling in the first year of launch.

Currently, there are around 30 countries around the world which are legally regulated to cultivate hemp, and China has the highest output. However, hemp production in Europe is increasing rapidly, and the focus is on providing purity and quality, with c 250 million pounds of hemp cultivated on 70,000 acres on land. Leading hemp cultivators are Germany, Italy, Poland and France and the Netherlands is also strengthening its position. The value of the production is already estimated to exceed €2bn. In 2016, the Netherlands become Europe's third largest cultivator of hemp-based materials, increasing its output by 50% or 600 hectares compared to the previous year. Canada is the largest hemp producing country in North America, with 108,000 acres of hemp being grown and over 20 different varieties in 2014.

It is an important distinction that CBD sold OTC as a *food supplement* is **less strictly regulated** than as a *pharmaceutical*, and requires a Hazard Analysis and Critical Control Points (HACCP) food production safety license in Europe. Whereas pharmaceutical grade CBD such as the recently FDA approved Epidolex is produced via the more onerous Good Manufacturing Practice GMP route.

Important growth trends in the hemp and CBD industries include more focus on higher quality extracts, in purer or organic form, and in improving yield and cost of production. This can help to provide a stronger basis for health and wellness claims. CBD extract is a valuable commodity priced at over €6,000 per kg.

## Demand for precision fuels innovation in medical cannabis

Growing recognition of the role of the ECS has spurred on the research efforts into plant cannabinoids due to the growing understanding of the pathways involved. There are over 100 trials underway of cannabis-based medicines in ClinicalTrials.gov with hundreds of legitimate scientific studies including by the WHO and Nature.

However, despite the approval of GW Pharmaceuticals' Sativex, which was the first plant-derived cannabinoid prescription drug, a NICE review deemed the drug to be uneconomic at a cost of £125 for a 100ml spray, or an annual cost of up to £5,500. This is despite its formal regulatory approval in over 30 countries, excluding the US, which throws into question the commercial potential of high priced pharmaceutical products in Europe at least.

A second product from the GW pipeline, Epidolex, received FDA approval in June 2018 after unanimous recommendation by the review panel. The CBD-only product is touted by analysts to reach up to \$50,000 cost per annum per patient, albeit for a patient group with high unmet need in rare childhood diseases. Epidolex is manufactured according to gold standard GMP methods. This is distinct from medical cannabis available via pharmacies in Canada at around C\$25 for a daily 2.5g dose of dried flower.

The number of pharmaceutical companies entering the field is continuing to expand and clinical R&D trials are being enabled by increasingly sophisticated techniques, selection and growing GMP standard material. The progress of Epidolex could well serve as a bellwether for other biotech and big pharma groups looking to go via the pharmaceutical route.

At the same time, medical cannabis is moving beyond simple dried and oil forms into new methods of delivery such as sprays, patches and inhalers such as the Syque Inhaler – a pocket sized device marketed by **TEVA Pharma**. The inhaler enables precision dosing of medical cannabis, one of the greatest challenges to date in garnering widespread support from doctors, and initially in the Israeli market.

Within the medical market, the demand for consistent blends, pharmaceutical quality and tailored products is growing rapidly. The requirement for formal evidence of the therapeutic value of cannabis including from clinical studies is creating new demand for consistent GMP crop. While new methods of ingesting and absorbing it such as sprays, drops, patches and vaporisers in precise doses are also forecast to become very large markets.

## Surfing the cannabis investment wave

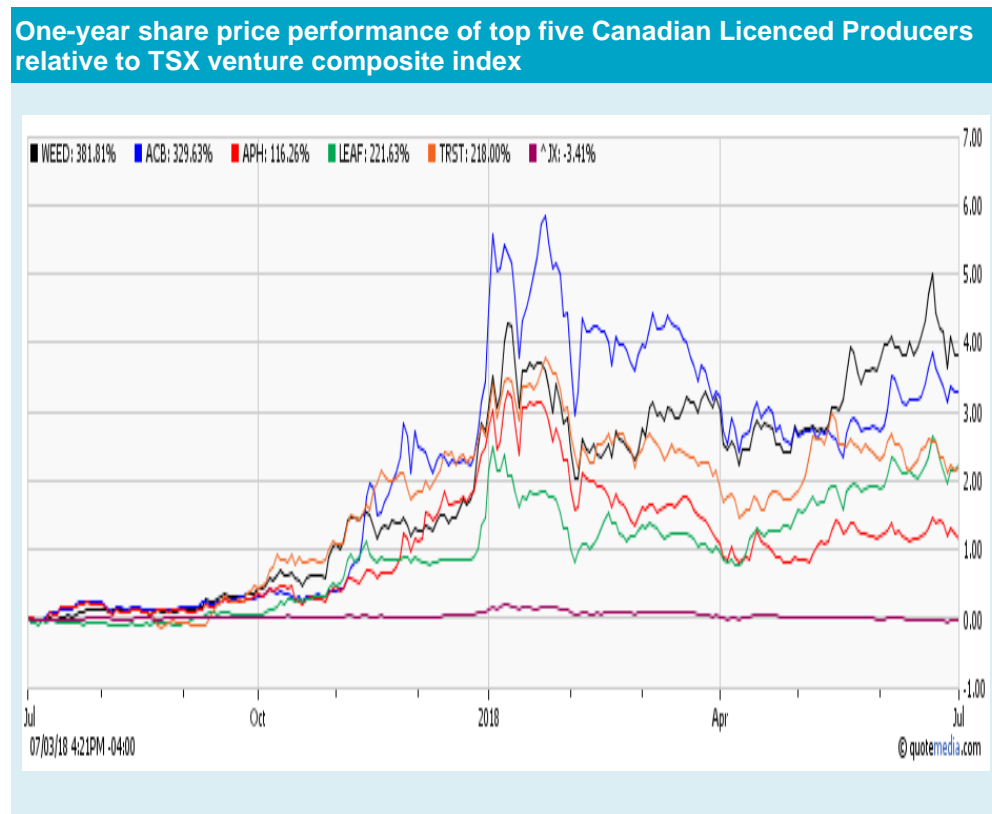
A highly regulated Cannabis sector is steadily being opened-up, with Canadian legislators now adding momentum in sector recognition to established markets such as Australia.

Meanwhile, the UK is only just starting to admit companies through the NEX, providing a route to European markets and capital, opening the doors to companies that operate legally in their own jurisdictions. Upside potential could come if the UK moves to legalise medical cannabis and remove its class B schedule, possibly opening the door for mass investment suitability, including by institutional investors.

## Canada looks to innovate, diversify and consolidate

We note that there has been considerable corporate activity including: both cross border and domestic M&A, new listings and funding over recent period – all reflecting optimism in the lead up to legalisation of recreational cannabis. This activity reveals important trends relating to cannabis production, exportation and expectations in the overseas and Canadian market. It also gives an insight into future directions for innovation and new product development.

The following chart illustrates the significant share price outperformance of the top five Canadian Licensed Producers in relation to the TSX Venture Composite Index, with Aurora Cannabis and Canopy Growth over 300% higher share price returns compared to the index, quantifying the impact of sector optimism:



Placing this performance in context of the sales and earnings expectations, the valuations in the following table suggest that high expectations are built into the stock prices of these companies.

#### Valuation matrix top five Licensed Producers

Name	Market Cap C\$m	Last reported FY sales C\$	Share price C\$	52-week high C\$
<b>Canopy Growth</b>	7,709	76.0	38.4	48.7
<b>Aurora Cannabis</b>	5,249	18.0	9.3	15.2
<b>Aphria</b>	2,684	20.4	11.6	24.8
<b>MedReleaf</b>	2,802	43.7	27.7	32.2
<b>CannTrust Holdings</b>	825	20.7	7.8	12.6

*Source: TSX/Companies/Based on 3 July close prices*

High valuations have helped to drive M&A.

For example, in May the C\$5.7bn market valuation of Aurora Cannabis Inc (TSX.ACB) helped provide the firepower to enact all-share acquisitions, including a stand out deal valued at **C\$3.2bn** for MedReleaf. This deal is the largest to date in the sector and values the acquired company on a EV multiple to FY17 sales of over 70x. MedReleaf is one of the first Canadian GMP standard growers and the deal was motivated by Aurora's ambition to boost production in response to anticipated demand for medical grade cannabis.

Other deals in 2018 include ACB's acquisition of Anandia, an industry leader in science, genetics, and independent cannabis product testing. The C\$115m deal value represents a large premium to Anandia's c\$3.5m 2017 revenues.

Aurora Cannabis' competitor Canopy Growth (TWEED. TSX) announced the C\$2.5m cross-border acquisition in April of private company Annabis Medical, a leader in the Czech Republic's medical cannabis industry, partly to reinforce supply of medical cannabis across Europe including in other key markets, Germany and Denmark.

**IPOs** in 2018 include The Green Organic Dutchman (TGOD.CSE) which listed on TSX's sister Canadian Securities Exchange in May. TGOD raised gross proceeds of C\$132.3m in the IPO, and it listed at a price of C\$3.89 (now risen by c 60% since IPO) valuing the company at C\$1.2bn. TGOD is a Canadian producer of Organic Cannabis under the ACMPR with a federally licensed 100-acre facility in Hamilton, Ontario and a 75-acre site in Quebec.

#### US offers OTC and biotech investment opportunities for now

The US clash of Federal and State laws means that companies are excluded from the NASDAQ exchanges and therefore mainstream investors are largely excluded from investing in cannabis, although there is a range of so-called Pink Sheet and OTC stocks. We show a cross section of companies to illustrate the diversity in the next table.

### Relevant companies

Company/Activity	Sales FY17 \$USm	EV/Sales
<b>Massroots MSRT</b> mobile technology platform for cannabis industry	0.3	116.0
<b>General Cannabis Corp CANN</b> services and products to the cannabis industry.	3.5	35.3
<b>MCig MCIG</b> electronic cigarettes, vaporisers, and accessories	4.8	25.5
<b>Kaya Holdings KAYS</b> distributes and sells premium cannabis brands	1	22.8
<b>Grow Generation Corp GRWG</b> hydroponic and organic specialty gardening retail outlets	14.4	6.2

Source: Reuters/ED/ Based on 3 July close prices/EV/sales on a trailing basis

Investors can participate in the cannabis industry by means of cross-border listings including Canadian companies listed in US and vice versa. For example, California-based producer MedMen Enterprises is the first to list on CSE, while Cronos Group was the first Canadian company to list on NASDAQ. Since research into cannabis is legal, this also means that US cannabis biotech companies have attracted mainstream investors:

### NASDAQ quoted US cannabis biotech companies

Company	Institutional holders as % of shares
Zynerba ZYNE	22%
INSYS Therapeutics INSY	19%
GW Pharma GWPH	76%
Abbevie ABBV	71%

Source: NASDAQ

### ASX triggered into action by growing exports potential

The January 2018 announcement of the decision to open Australia to exporting cannabis triggered a flurry of trading activity, acquisitions and deals in the rush to access to the medical and recreational cannabis markets in Canada.

The following chart shows the impact of the decision to review exports by the Australian federal government in January, on the share price of leading Australian producer Cann Group which rose over 36% on 4 January:

**CANN Group 12-month share price performance**



Source: ASX/Based on 3 July close

A smaller market than TSX, of around 12 listed biopharma companies that focus solely on cannabis markets, this news could be a trigger additional listings or merger activity in the Australian markets. The top five companies (by market capitalisation) are described below:

The largest Australian cannabis producers and developers			
Company	Ticker	Market Cap A\$m	Activity
Cann Group	CAN.AX	413	Holds cannabis research and Australia's first Medicinal Cannabis Cultivation Licence
AusCann Group	AC8.AX	354.4	GMP supplier of high quality medicinal grade cannabis
Creso	CPH.AX	70	Develops and commercialises pharma grade, innovative cannabis and hemp derived products
MGC Pharmaceuticals	MXC.AX	63.1	Diverse pharmaceutical and medical cannabis developer
Hydroponics Company	THC.AX	62.4	Develops medicinal cannabis, manufactures and distributes hydroponics equipment, materials and nutrients

Source: ASX/ED Based on 3 July close prices

M&A during 2018 includes Creso's acquisition of Canadian-based Mernova Medicinal, giving it access to medical and recreational markets in Canada, for an estimated C\$1.8m and C\$8.3m in Creso shares. The deal means that Creso is the first medicinal cannabis company listed on the ASX with the capacity to commercially cultivate medicinal-grade cannabis in the Canadian federally regulated environment.

The ASX requires companies to provide evidence that their business can be lawfully carried out in home jurisdictions, limiting US companies from listing on that exchange for now.

## Opening the markets for mass investment suitability

The legalisation of cannabis in Canada signifies a major milestone as it is the first G7 nation to do so and opens the gate to multiple investment angles arising from the nascent industry. New companies are moving onto public markets, including investment vehicles providing an opportunity for investors to gain exposure to a range of cannabis industry companies.

Initially at least, the US market appears to be the most restricted because of its conflicting approach. For now, the most widely available sources of capital appear to be: personal finance, founders, private venture capital and angel investors. With the Canadian now fully legalised, this opens the sector up to a flow of mainstream investors with potential participation by leading institutions.

## UK investment opportunities are about to rocket

Until recently, there have been very limited opportunities to invest since AIM and the Full Market do not admit overseas cannabis stocks, even from jurisdictions where cannabis is legal. Consequently, investing in the sector had generally been limited to legitimate channels such as in biotech or pharmaceutical developers - although GW Pharma, which markets licensed medicines, delisted from the UK exchange in 2016 to gain access to North American capital, after failing to gain traction in European markets with Sativex. The legalisation of cannabis in Canada could be the turning point and the profile of the sector is improving as the UK moves towards legalisation.

**Indeed, in March this year we saw the listing of shares in Sativa Investments PLC. Sativa is the UK's first medicinal cannabis Investment Vehicle, again highlighting the paradox of it being legal for investors to back a UK plc focused on a product that is illegal in the UK.** Peterhouse Corporate Finance led this deal, and Sativa listed on NEX.

The NEX exchange is a trading platform for SMEs that wish to raise capital by means of equity or debt and which enables earlier stage companies to achieve a public listing. The fast-track admission process, which enables companies that already trade on **qualifying overseas markets** which include AIM Italia, ASX, Canadian Securities Exchange, Börse München, as well as those already listed on the London AIM and Main Markets, means that new opportunities to invest in companies in the cannabis industry are expanding fast. NEX provides an opportunity for companies that only develop medicinal cannabis or CBD based products **that can provide evidence of legal operations in their home jurisdictions.**

Following the larger players seeking to participate in new geographic markets through M&A – a first wave of smaller companies is moving onto the London market to gain early foothold in European markets and to attract new capital. These include new investment funds being set up on NEX signalling potential future directions as well as those related to the CBD industry. **European markets are already established with the formal reimbursement of medical cannabis legitimising large-scale investment.**

The risk profile and restriction on AIM or full listing limits the participation by larger institutions for now, although the number of funds specialising in cannabis is likely to continue to increase and particularly in the event of UK legalisation.

We next look at some companies that investors might want to study further if they share hopes for the cannabis sector's potential.

## Selection of active companies

### Ananda Developments

- Sector: Financial Services (ANA.NEX)
- Market capitalisation: £3.2m<sup>11</sup>
- IPO date: 4 July 2018

Ananda is a London-based investment vehicle, established to invest in therapeutic cannabis derivatives, or related products, including nutraceuticals, dietary supplements and cosmetic products which contain cannabis or hemp-derived cannabinoids.

The initial focus will be on investing in products or companies in established markets where medical cannabis and derivative products are well-regulated and approved in their own jurisdictions, including in Israel, Canada and the Netherlands. It is also positioned to make strategic investment in markets where cannabis products are more recently legalised. Ananda seeks to identify and invest in companies and projects related to the development or commercialisation of medical cannabis-related products, with a view to providing strategic funding to accelerate their commercial progress.

The directors will draw on a broad network of contacts within these markets, including that of the Senior Investment Adviser, to help identify and assess appropriate investment opportunities. The focus at the moment is more on investing in suitable private companies although listed companies may also be considered. In parallel with admission to the NEX, the Company is issuing gross funds of £930,000, placing 206.7 shares at 0.45p per share.

### Management biographies

- **Melissa Josephine Sturgess, Executive Director:** many years of experience as a director of AIM and ASX quoted companies, mainly involved in the acquisition, structuring and financing of natural resources deals across Africa.
- **Charles Waite Morgan, Executive Director:** resources and technology venture capitalist in emerging sectors; former securities broker including at Morgan Grenfell, BZW.
- **John Michael Treacy, Non-executive Director:** experienced small cap financier; former solicitor specialised in M&A and capital markets.
- **Dr. Inbar Maymon Pomeranchik PhD, Non-executive Director:** PhD in plant sciences molecular biology from the Hebrew University of Jerusalem; founder of Biodiligence consultancy providing service in biotechnology, agricultural technology within the medicinal cannabis field.
- **Plus Dr. Eli David Schmell PhD, Senior Investment Adviser:** former Senior Staff Fellow at the National Institute of Child Health at the NIH; postdoctoral fellowship at the John Hopkins University; over thirty years of global and senior management experience in all aspects of the BioPharma/Biotechnology industry.

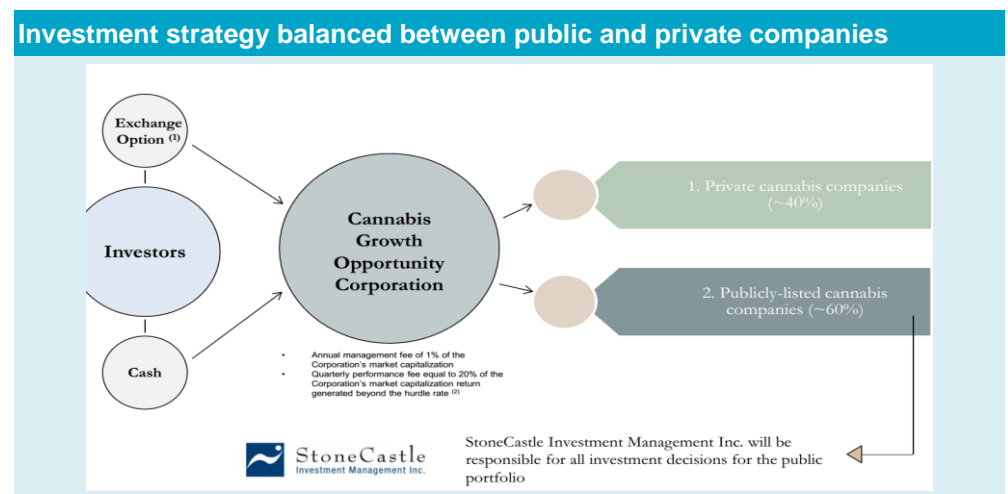
<sup>11</sup> Market capitalisation as per 4 July close in this section



## Cannabis Growth Opportunity Corporation

- Sector: Financial Services (CGOC.CSE)
- Market capitalisation: C\$29.4m
- Last reported cash: C\$3.5m

CGOC is an investment corporation that seeks to give its shareholders long-term total return through capital appreciation. They invest in an actively managed portfolio of securities of public and private companies operating in, or that derive a significant portion of their revenue or earnings from, products or services related to the cannabis industry.



Source: CGOC

The strategy is predicated on gaining early mover exposure to unlisted investments in a high growth, multifaceted global cannabis industry before large institutional investors recognise the opportunity or take the investment mandate. It also actively manages investments in public cannabis companies.

With its access to early and Pre-IPO Deal Flow (because of the Investment Manager's early and extensive experience investing in the cannabis sector) the Corporation will see regular and meaningful amounts of deal flow.

An experienced Investment Team is a key USP. A focused group of individuals provide due diligence reviews of investment opportunities and ongoing monitoring of investments.

The key features of the investment approach include:

- a rigorous approach with top-down and bottom-up screening techniques part of the Investment Process
- an Aligned Fee Structure with no management salaries or bonuses paid. Performance fees and personal compensation will be based on the Corporation's share price.

The corporation has a mix of public and private investments and at 30 May 2018 was over 95% invested and its top ten holdings represented 47.5% of the overall portfolio.

### Top ten public holdings

<b>ABCANN Global</b>	<b>Indiva</b>
<b>Cannex Capital</b>	<b>Organigram</b>
<b>CannTrust</b>	<b>Ravenquest Bio</b>
<b>Canopy Growth</b>	<b>Sunniva</b>
<b>Hydrothecary</b>	<b>Valens Groworks</b>

Source: CGOC

### Management biographies

- **Bruce Campbell, Chief Investment Officer:** Founder and Portfolio Manager of StoneCastle Investment Management; over 24 years of investment management experience and an active cannabis investor since 2013; through StoneCastle, Bruce oversees Redwood Equity Growth Fund, Redwood Income Growth Fund and the StoneCastle Fund.
- **Jamie Blundell Director, President & COO;** extensive experience in senior leadership roles; extensive corporate finance experience including in M&A, private equity and large corporate divestitures; currently a director of Legend Power Systems Inc., a TSX-V listed company.

### Cannex Capital Holdings

- Sector: Life Sciences (CNNX.CSE) (CNXXF.OTCQB)
- Market capitalisation: C\$87m
- Last reported net cash: C\$3.3m

Cannex Capital Holdings, founded in 2017, specialises in providing cultivation and processing services, plus real estate to serve the medical and recreational cannabis markets in North America. Vancouver-based Cannex also provides operational infrastructure and long-term advisory and consulting services to the industries.

Its strategy is to develop a high value portfolio of diversified operations and assets with a core focus on customer experience and premium consumer brands. This is achieved by:

- Providing a wide range of services to leading cannabis business operators in the US.
- Focusing on all aspects of the industry including premium indoor cultivation, extraction, manufacturing of edible and other derivative products, and retail operations.
- Through its wholly-owned US subsidiaries Cannex provides real estate, management, financial, branding and IP services to licensed and state compliant operating cannabis businesses.

**Strategic targets:** Cannex intends to facilitate growth through cash flow from operations, strategic acquisitions and partnerships and by leveraging the expertise of its experienced operational team.

Cannex will focus on providing a range of comprehensive and flexible growth options for licensed cannabis cultivators, processors and/or dispensaries, including providing real estate with operational infrastructure as well as long term advisory and consulting services.

**Recent investments in North America;** after raising C\$48.2m Cannex acquired BrightLeaf, a holding company that has developed two turnkey indoor cannabis facilities, a cannabis processing facility, and owns popular cannabis brands. BrightLeaf’s strategic operating tenant is Northwest Cannabis Solutions - Washington’s biggest grower and processor of cannabis, which is also a leader in the sales, branding and marketing of cannabis products. Its Washington-based sites include:

Cultivation Tumwater & Elma	Cultivation and processing Tumwater
<p>State of the art indoor facilities 30,000 ft<sup>2</sup> of canopy at each facility 9,000 AMPS of power with 2,200 (1,000W) flowering lights Perpetual harvest cycle Total capacity of 19,000 kg/yr</p>	<ul style="list-style-type: none"> <li>▪ 40,000 ft<sup>2</sup> of processing space</li> <li>▪ Washington Department of Agriculture approved kitchen</li> <li>▪ CO<sub>2</sub>, volatiles, and ethanol extraction plus molecular distillation facilities</li> <li>▪ Packaging, distribution and administration</li> <li>▪ Cutting edge equipment</li> <li>▪ Significant expansion potential</li> </ul>

Source: Company

Cannex entered the Californian market through its acquisition of Jetty Extracts for a total consideration of \$22.5 million in cash and stock, with additional consideration of \$7,500,000 payable based on performance targets. California has an estimated medical cannabis market of around **1.5m patients valued at \$2.8bn** which, following recreational approval in January, is predicted to expand to **\$6.8bn by 2021**.

**Jetty Extracts portfolio and facilities**

Cannex Enters California Market

**annex enters into agreement to purchase alifornia producer/processor Jetty Extracts**

Founded in 2013, Jetty operates a leading cannabis extraction and processing facility in Oakland, California, producing one of the most trusted cannabis extract brands, distributed to over 600 California dispensaries in 2017.

Jetty has a licensed 12,000 ft<sup>2</sup> facility in Oakland, California’s “Green Zone” incorporating extraction, manufacturing, product development and administration, with 60+ employees.

Has its own cannabis distribution license, no need for a third-party distributor.

Jetty has strong brand recognition across the Golden State.

Partners and 50% ownership in award winning MindTricks™ edible brand.




High quality extracts and applicators. Recognized brands.

- Vape Juice
- CO<sub>2</sub> Wax
- Pure blend
- Gold blend
- CBD blends
- Dablicator™ oil dispensers
- Vape Pens
- PAX vaporizer blends

Source: Cannex/Jetty Extracts

### Management Biographies

- **Anthony Dutton, CEO & Director:** has over 25 years as corporate financier and business development; Principal at Delu Corp strategic financial advisory.
- **Leo Gontmahker, COO, President & Director:** co-founder of NWCS, CEO of BrightLeaf; extensive experience in cannabis facility design, branding, marketing and sales.

## Green Sky Labs

- Sector: Health Care

Based in Victoria, British Columbia, and founded in 2012, GSL is a vertically integrated private company focused on applying innovative technologies for cannabinoid extraction and isolation. Other activities include the cultivation and development of medical grade cannabis, pharmaceuticals and nutraceuticals facilitated through its strategic partnerships. GSL is developing a digital diagnostic tool in tandem with IBM Watson.

**Vertically integrated**

<p><b>Extraction &amp; Isolation</b></p> <ul style="list-style-type: none"> <li>• In addition to the Petro Sep membrane technology, GSL has proprietary small scale extraction and isolation technology in development.</li> <li>• Currently exploring options for expansion of our Health Canada licensed R&amp;D lab.</li> </ul> <p><b>Ask Watson Pain</b></p> <ul style="list-style-type: none"> <li>• Partnership with IBM Watson to develop an effective diagnostic support tool – a web portal for pain mitigation.</li> <li>• Patients enter pain symptoms and the app will create a query and recommend treatment options including both complementary and alternative medicine.</li> <li>• Incorporates use of Block Chain Technology for security.</li> </ul>	<p><b>Pharma &amp; Nutraceuticals</b></p> <ul style="list-style-type: none"> <li>• Focused on R&amp;D and development of clinical trials.</li> <li>• Disease-specific custom cannabinoid pharmaceutical formulations: post-operative pain and PTSD.</li> <li>• Development of a generic formulation for all-natural alternative Δ9-THC.</li> <li>• Joint Venture with ICCT</li> </ul> <p><b>Cultivation</b></p> <ul style="list-style-type: none"> <li>• Cultivation site in Barriere, BC has received priority security clearance from Federal Regulators.</li> <li>• GSL is in negotiations with a strategic joint venture partner for this site.</li> <li>• Cultivation sites, built out through strategic partnerships, would supply feedstock for Extraction &amp; Isolation.</li> </ul>
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Source: Company

GSL’s initial focus is on developing a combination of in-licensed and proprietary technologies to enable it to respond to projected demand growth for high quality forms of medical grade THC and CBD isolates and extracts. GSL recently acquired the exclusive 25-year global rights to Ontario-based custom engineer Petro Sep Corp’s extraction membrane technology. GSL is pioneering the use of the technology for the extraction and isolation of cannabinoids from hemp and marijuana.

GSL is pursuing a differentiated approach by targeting higher purity and quality at lower cost than standard distillation techniques. The unique patent-protected membrane technology enables the separation of complex liquid components at scale up to 100,000 kg per day. GSL aims to overcome some of the challenges of current technologies such as CO<sub>2</sub> and butane extraction through its ability to break down azeotropes, to achieve concentrated solvent-free cannabinoid extracts.

Green Sky Labs differentiated approach to CBD extraction	
Challenges	Response
Harmful contaminants/bacterial growth	Organic solvents/up to 99% purity retained
Explosion hazard	Water based extraction
Use of toxic chemicals	Potential to remove and isolate all toxins
High cost of production/limited scalability and variable output/costs	Scalable from 5-100 tonnes per day/reduction in cost per kg/lower input costs
Loss of cannabinoids	Cannabinoid/terpene profile retained

Source: GSL

Their next target is to construct and scale-up an Extraction and Isolation plant, providing output of between 5-100 tonnes of CBD extract per day.

To date, GSL has raised C\$15m and now requires an estimated \$23m for capital and equipment to cover the cost of extraction plant construction. GSL is targeting rapid expansion in year two of operations and at full efficiency aims to achieve gross margins ahead of the current industry average.

### Management biographies

- **Greg Baron, President:** over 25 years of experience in commercial real estate including \$600m of real estate financing and acquisitions; extensive background in both equity and debt finance, operations and administration.
- **Rehan Huda, CEO:** broad background in structuring and funding innovative technology and biotech companies in his capacity as a corporate financier and entrepreneur; previous roles include Senior Economist for the Department of Finance and Senior Analyst for the Natural Resources and Industry Departments of Canadian Federal government.

### High Growth Capital

- Sector: Financial Services (HASH.NEX)
- Market capitalisation: £1.0m
- Estimated gross cash: £0.55m
- IPO: July 2018

Their initial investment strategy is to invest in UK, Canadian and Australian-focused medicinal cannabis and related products. The Company will aim to track companies in the sector whose shares are either quoted or listed on public company stock exchanges and Recognised Investment Exchanges.

The Company aims to provide investors with direct exposure to such companies, developing a fully balanced and weighted tracker fund covering such UK listed cannabis companies admitted to all UK public markets.

### Management biographies

- **Malcolm Burne, Executive Chairman:** founder of a broad range of financial companies in stock broking, fund management and venture capital firms, and a former equity analyst and FT journalist.
- **Samantha Roman, Strategic Advisor:** a founder of Spot Therapeutics Inc., (2013) an early collaborator in the cannabis ecosystem (since acquired by Canopy Growth Corp). She is the President of 'Credible Cannabis' advising industry, ancillary companies and private clients driven by science and sound business practices.

## Sativa Investments

- Sector: Financial Services (SATI.NEX)
- Market capitalisation: £29.5m
- IPO date: March 2018

Sativa Investments is an investment vehicle, incorporated in December 2017, which seeks to invest in companies positioned to leverage off the dynamic regulatory environment surrounding medical Cannabis. The first medical cannabis company to IPO on NEX, Sativa is initially targeting the well-established Canadian market with a view to facilitating their European expansion, and then to invest in new opportunities alongside the expanding European and global markets. Sativa's investment strategy focuses primarily on taking controlling stakes in companies active in production, pharmacology, testing and compliance, R&D, and sales and marketing of medical cannabis.

With prospects of a sustained expansion of the medical cannabis sector across the globe, including in Canada where the medicinal cannabis market in Ontario is projected to grow almost five-fold from C\$379 million in 2018 to C\$2.22 billion by 2021, according to Brightfield Group. In parallel Sativa has invested in companies that are responding to the demand for greater precision and consistent quality required of medical cannabis by payors, physicians and patients.

In the UK, upcoming review of the Legalisation of Cannabis (Medicinal Purposes) Bill 2017-19 in Parliament on Friday 6 July 2018, could be the catalyst for legal change across Europe.

**Investments and rationale;** operating a strict due diligence policy in compliance with the UN narcotics conventions in the country of origin, Sativa has since flotation taken stakes in three medical cannabis companies;

- In April 2018 it acquired 100% of George Botanicals Ltd, a UK-based manufacturer, wholesaler and distributor of wellness CBD products, for £415,000 (£215,000 in cash and £200,000 in shares at £0.04 per share).
- There are 365,000 confirmed users of CBD oil in the UK today and the market over the next two years will be worth £100 million, according to the Cannabis Trades Association. George Botanicals is well placed to gain a significant market share.
- In May 2018 Sativa acquired 500,000 shares at C\$ 0.40 per share, for C\$ 0.2m cash, in Canada-based emerging global pharmaceutical company Veritas Pharma which is tri-listed on the CSE, OTC US and the Frankfurt Stock Exchange.
- Veritas, through its subsidiary company, Cannevert Therapeutics Ltd., develops and commercialises effective patented Medicinal Cannabis therapies for healthcare professionals with a reliable therapeutic effect on patients. Targeting the areas of chronic pain, senior long-term and palliative care.
- Sativa subscribed to 400,000 shares in a private placing for C\$0.2m cash, in Toronto-based Rapid Dose Therapeutics Inc.

- RDT has a patent-pending proprietary QuickStrip™ technology, a fast-dissolving strip that is placed on, or under, the tongue, or inside the cheek, thus enabling rapid ingestion of active pharmaceuticals, emulsified oils and over-the-counter medicines. Already sold across North America, RDT is targeting the roll-out of QuickStrip™ in Europe.

**Market capitalization and last reported cash;** Sativa had gross cash and equivalents of £1.5m including IPO proceeds on listing. The passing of Bill C-45 triggered a c 94% rise in the share price of Sativa in just one day. The group had raised £1.1m via the IPO at a market capitalisation of £4m.

### Management biographies

- **Jeremy Thomas, CEO:** co-founded The Carphone Group Plc in 1980 which was sold to Cable & Wireless for £16m; led start-up and IPO of PNC Telecom Plc, valued at over £200m at peak; co-founded TMTI Ltd a profitable technical support business; started George Banco Ltd, a consumer Finance business in 2013, recently sold to Non Standard Finance Plc for £53m.
- **Sir Alisdair Breckenridge, Advisor:** around 60 years career as a pharmacologist; liaises with the Home Office and the Medicines and Healthcare Products Regulatory Agency (MHRA), for the legalisation of medicinal cannabis in the UK.

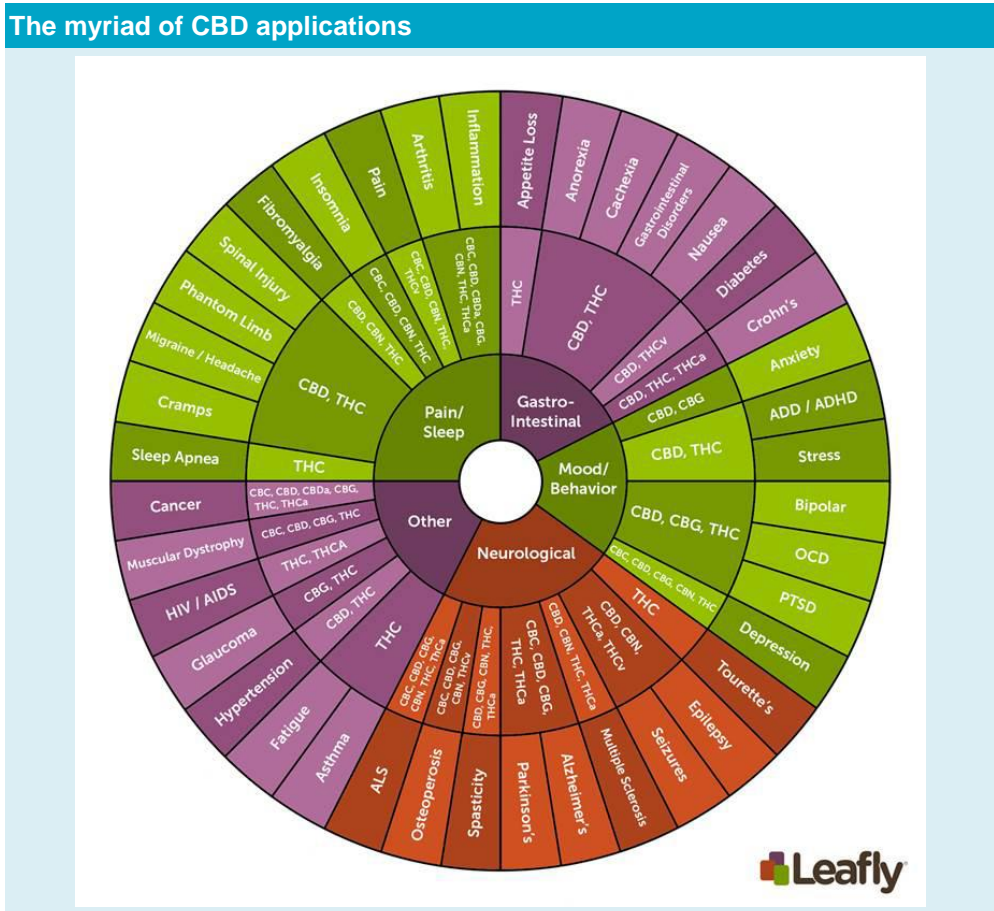
### XtraBio BV

XtraBio is a Netherlands-based private company located in Rotterdam, funded to-date by its founders. Its focus is the supply of a consistent supply of raw CBD oil, initially for use in food supplements, nutraceuticals and OTC markets. It aims to satisfy demand for a stable and source of raw oil. The oil is for use in research in response to a growing market and greater knowledge of the properties and therapeutic uses of CBD.

Initially, XtraBio is focused on growth markets in CBD, derived from industrial hemp which has garnered widespread regulatory approval in Europe (having minimal THC content of <0.2%). CBD is developed through the less onerous HACCP route (expected to be granted in 2019) as opposed to the MHRA approved medical cannabis. Longer term, the aim is to supply the pharma market with GMP-certified Active Pharmaceutical Ingredients (API's).

Collectively, management has over four decades of experience in the field of botanical extraction, the company benefits from a technology transfer agreement whereby the IP of leading scientists, Vadim Krotov and Vasyl Serhieiv, has been transferred into XtraBio. The Company has developed a unique process to extract CBD from hemp. This method, for which a patent application has been made, brings a range of potential benefits compared to standard CO<sub>2</sub> extraction processes.

The technology provides a high quality, high volume CBD extraction methodology and XtraBio has a fully "permitted" R&D facility in Rotterdam comprising an incubator facility including engineering and development capabilities.



Source: Leafly

The next stages and financing required to fund the growth strategy is up to £5m net in staged funding including;

- £1m immediately to enable the company to produce a useable sample to allow us to convert Letters of Intent to offtakes.
- £2m – at useable sample stage to purchase the extractor plant and ancillary kit and fund overheads through to production in Q219.
- £2m – at Q4 2019 to replicate this plant thereby doubling production in 2020.

The Board, who have residency permits from the Netherlands, is comprised of industry specialists with a successful track record.

**Management biographies**

- **Alexander Ferman, Chief Executive Officer:** founder of XtraBio, he led negotiations with Government, other professionals, scientists, Universities, potential trade partners and customers. Mr Ferman has BA in Pharmacology, and he both owned and operated retail Pharmacies in Pennsylvania, including a closed-door facility producing compound formulations for physicians in the USA.



## In Summary

The cannabis industry offers the chance to invest in a high growth sector which has already delivered very attractive returns in North American markets, despite the attached stigma. In one sense, this is comparable with other 'taboo' industries such as gambling, tobacco and alcohol. Despite being highly regulated and considered unethical by certain investors, these industries have delivered very high investment returns and have become part of the mainstream investment landscape.

Comparisons might also be drawn with the cryptocurrencies market, which while volatile has provided attractive returns and high growth opportunities, and the launch of a Bloomberg tracker index in May constitutes the first 'institutional grade' benchmark in the sector.

Changes in legislation and tighter control of the Gaming industry in the UK in the mid-2000's meant that most forms of gambling became legitimised, so opening up new markets and creating a path to mainstream investment in the sector. More recently, the improving prospects of changes in US legislation have helped share prices of companies with US gaming exposure to rise – a rally echoing the increases in Canadian cannabis shares in the run up to recreational approval.

Uncanny similarities with the cannabis proposition? Only time will tell, but 'excitement' for early stage investors seems inevitable.

## Appendix

### Legal aspects

NEX has in place protocols to ensure that, so far as it is able, there is no breach of relevant UK Legislation relating to Medicinal Cannabis.

Medical cannabis companies in the UK are subject to specific regulation under:

- The [Misuse of Drugs Act MDA 15 1971](#),
- The [Misuse of Drugs Regulations 2001](#),
- The [Serious Organised Crime Act SOCPA 2005](#),
- the MDDO 2001 and the
- [Proceeds of Crime Act POCA 2002](#) in the UK.

Therefore, NEX provides a forum for companies operating or investing in target companies operating lawfully in jurisdictions that are internationally recognised as having well-developed and reputable laws and regulations for the research and production of Cannabis and comply with the United Nation's conventions on narcotics.

### Sensitivities

The size and scale of the investment opportunity in the cannabis industry itself appears to be at a turning point, allowing UK investors a chance to participate in the sector if they so choose. However, any companies mentioned in the report are subject to individual and specific risk factors related to their own operations or through their investments in target companies in the cannabis industry.

**Such companies are subject to the typical risks and opportunities faced by SME's, including:**

- The competitive environment and the existence of barriers to entry, which in the case of developers of new technology includes the ability to develop and protect IP around these processes on a timely basis, to operate a differentiated and cost-effective approach.
- The ability to develop and retain partners is imperative in an international and multi-faceted business environment.
- Such companies need to comply with the regulatory norms in the relevant countries in which they operate which are subject to fluctuating regimes including tightening and loosening and potential changes in taxation.
- Other potential challenges include ability to penetrate new markets and geographies, and as in the case of most start-up companies, limitations include those associated with the need to raise funds particularly as the cannabis industry is not yet mainstream and therefore access to capital can be limited.

Many of the companies included in our report are young companies with limited trading records and could face cashflow issues in the start-up phase. Such challenges can sometimes include the ability to scale up and to manage costs effectively.

In the case of investment vehicles, liquidity and ability to identify and invest in suitable target companies and to sell in a timely fashion are key success factors.

**Industry-based risk factors include, but are not restricted to:**

- regulatory changes and alteration of existing laws or tightening of rules. In the case of medical cannabis this is particularly affected by the mainstream attitudes of the regulatory bodies and of the medical profession and payors, and the extent of scientific evidence to support medical cannabis, in turn affecting reimbursement of such products.
- Change in the political climate and the weight of public opinion will be factors that determine take up of products in each geography, and will also affect how investors view the market.
- The size of the black market is a key determinant of future visible investable market size.
- Price erosion or under or over-supply affect the market dynamics in cannabis as well as the ability to develop new techniques to lower the cost of production.
- Rate of acceptance of new types of products and brands will rest on policy decision making and consumer choice and the ability to effectively market such products. Due diligence must be thorough to ensure no breach of legislation in home markets or in UK law.

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