



# New kid on the block?

Insights on CBD in the  
consumer health market  
Whitepaper



# Preface

A central challenge for success in consumer health is not so much the shortage of innovative ideas, but rather determining which ideas to support and scale. CBD – cannabidiol, a non-psychoactive component of the cannabis plant – has experienced a greater hype on the consumer market than almost any other product over the last two to three years. However, the extent to which CBD will be the driving force in the consumer health industry is yet to be seen.

Consumer health is a US\$250+ billion global industry and is expected to continuously grow. Key categories are over-the-counter (OTC) and vitamins and dietary supplements (VDS), fueled by demand from health-focused consumers, an ageing population and growing wealth in emerging markets.

In terms of market share, CBD currently plays a minor role, accounting for less than 5% of the global consumer health market. Nonetheless, CBD consumer health products, focusing on VDS and OTC, have paved the way for strong sales growth in the past three years, outstripping the growth in the global consumer health market by roughly 40%.

Besides these promising growth rates, the CBD consumer health market is a fragmented industry in upheaval, challenged by a confusing regulatory landscape. While the industry is expected to continue to display strong sales growth in the future and many market participants are currently growing, most companies have been unprofitable over the past several years. Proving to be a winner in this industry thus remains exceedingly difficult in the current market climate.

So which attributes will define the winning players in the CBD consumer health market?

This paper examines the when, where and how when it comes to planning an entry into the CBD consumer health market. We collected data, conducted research, spoke to market participants about its regulatory status and drew out potential market entries. Furthermore, we surveyed (potential) customers in the USA and Germany, because however good the theory on the success of CBD in consumer health might be, it cannot be effective and sustainable without considering the customer.

The outcome is clear. A lack of dominant players, a currently fairly valued market climate after years of CBD “hype” and a promising regulatory scenario, in which future regulatory developments are likely to open up the market, form the basis for a market entry. And the customer? Well, while efficacy and price are currently important, successful claims with regard to safety and trustworthiness will become key.

It is therefore now the time that consumer health companies should explore the opportunities of CBD, play to their strengths and make their move.

For their support and invaluable discussions, many thanks goes to my colleagues Harry Mulgrew and Jan Bruening.

**Meino Mueller**  
Partner  
Deal Advisory, Strategy



# Executive Summary



## What is CBD?<sup>(2)</sup>

The active ingredient of cannabis, which is derived directly from the hemp plant and indirectly stimulates the endocannabinoid system to produce its own cannabinoids rather than directly interacting with the cannabinoid receptors (CB1 and CB2). CBD is non-psychoactive and has not shown evidence of abuse potential nor any public health-related problems according to the WHO. Studies have indicated its potential in several areas such as mental health and chronic pain.



## What does the CBD market look like?<sup>(1)</sup>



The global CBD market has grown by 43% since 2016, reaching a **market volume of \$8.2 bn in 2019**. Vitamins & dietary Supplements (VDS) is the dominant market segment.



The **CBD consumer health market is currently highly fragmented**, with no player gaining more than a 5% market share. Major players, mostly cannabis-only companies, follow a vertically integrated operating model.



**Positive regulatory development in the key markets of North America, Latin America and Europe.** Regulations around standardised labelling and marketing of consumer health products predicted to open up by 2023.



Potential **customers are equally represented across gender, all ages and social classes**. Their perception of CBD has continued to increase positively over recent years.



## What are customer preferences?<sup>(a)</sup>

- Recommendation (42%), social media (36%) and online advertising (33%) are the most recognised information channels for CBD
- There is no clear picture about whether CBD user/insiders prefer to purchase the product from an online or stationary retailer. One in two participants prefer both equally (44%)
- Currently, one in every two CBD user/insider (48%) prefer products from a specialised market player
- Most CBD users/insiders (40%) do not mind whether CBD comes from the producer or if it is being supplied by a specialist
- Today, more than half of CBD users/insiders rates the efficacy (54%) and the price (53%) as relevant factors for their purchase decision, followed by trustworthiness of the brand (43%)
- One in three CBD users/insiders either prefer oil (33%) or tablets (33%) as the dosage form. For one in four, it makes no difference (25%)

Note: (a) Insights based on a customer survey conducted by Bilendi, asking a sample representative of the CBD markets in the US and Germany (sample = people currently using or considering using CBD)

Sources: (1) Grand View Research Inc. 2020; (2) World Health Organisation 2017; KPMG, Germany, Research 2020



# Executive Summary

## What are the key stages for a successful market entry?



### Decisive Timing

Now is the time for an early entry. Consumer health players will benefit from entering the CBD market in a developing stage where they can establish a dominant position.

- Customer surveys and strong sales growth in recent years indicate a high consumer demand
  - **Capture this growing customer base now**
- Markets are currently highly fragmented and are likely to consolidate in the years to come
  - **Enter the market while the competition is not fully developed**
- Regulatory scenarios are promising and will likely open up the market by 2023
  - **Establish a dominant position in the market before new companies join the playing field**



### Strategic Entry

Target a particular geographical market and penetrate it to reach significant market share rather than expanding too quickly.

- Regulations on CBD differ by country or state
  - **Understand the specific market to avoid getting caught up in legal obstacles**
- Business models shift from an inefficient global format towards a lean and local setup
  - **Learn from this and avoid spreading operations across geographical regions upon initial market entry**
- Markets are currently overrun with numerous CBD products
  - **Penetrate the market and create a brand that stands out**



### Operational Expertise

Specialise in end-product sales, rather than vertically integrating along the value chain, in order to benefit from higher margins and end-customer contact

- Profit margins in cultivation and processing are currently low
  - **Focus on activities close to the customer that result in higher margins**
- Cultivation and processing require investments in extrusion plants, production facilities and specialist personnel
  - **Outsource these early steps in the value chain and leverage local suppliers**



### Unique Selling Point

Leverage margins through creating derivatives-based products and develop a well-thought-out brand based around safety and trustworthiness by incorporating consumer health expertise and reputation.

- CBD derivatives can achieve up to 2-3x higher margins than CBD oil
  - **Offer products that combine CBD with the benefits of existing consumer health products**
- Customers are currently sensitive to efficacy and price of CBD products. Highly developed CBD markets indicate an additional interest in the trustworthiness of brands
  - **Combine a strong, reputable brand with CBD products that are scientifically backed**

Source: KPMG, Germany, Research 2020

Overview of the CBD  
Consumer Health  
Industry

01

Regulatory  
Challenges and  
Future Developments

02

Performing a Market  
Entry: Key Stages for  
Success

03

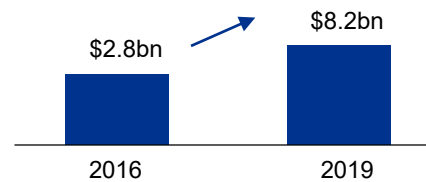
01

# Overview of the CBD Consumer Health Industry

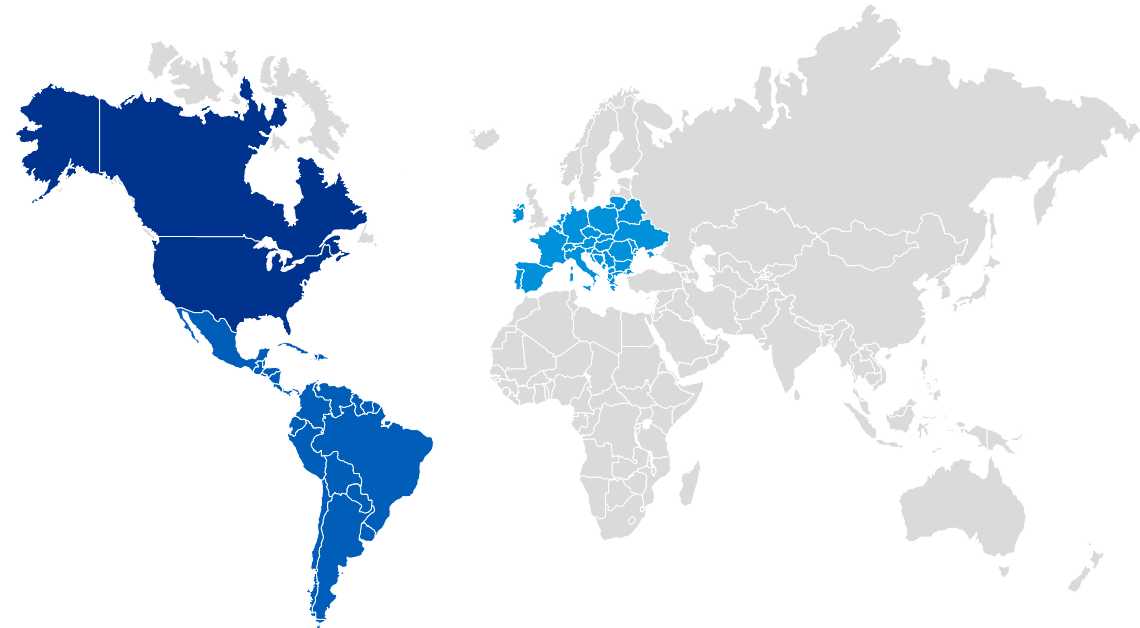
# The rise of CBD...

## What is CBD?

The active ingredient of cannabis, which is derived directly from the hemp plant and indirectly stimulates the endocannabinoid system to produce its own cannabinoids rather than directly interacting with the cannabinoid receptors (CB1 and CB2). CBD is non-psychoactive and has not shown evidence of abuse potential nor any public health-related problems according to the WHO.<sup>(2)</sup> Studies have indicated its potential in several areas such as mental health and chronic pain.<sup>(3)(7)(9)(10)(11)</sup>



- Loosening of CBD regulation and increasing awareness of the consumer health benefits have led to strong sales growth
- Global CBD market is now penetrating 3.2% of the global consumer health market, at USD 8.2 billion<sup>(1)</sup>
- Realised CAGR of 42.8% compared to 2.9% in overall consumer health market from 2016 to 2019<sup>(1)</sup>



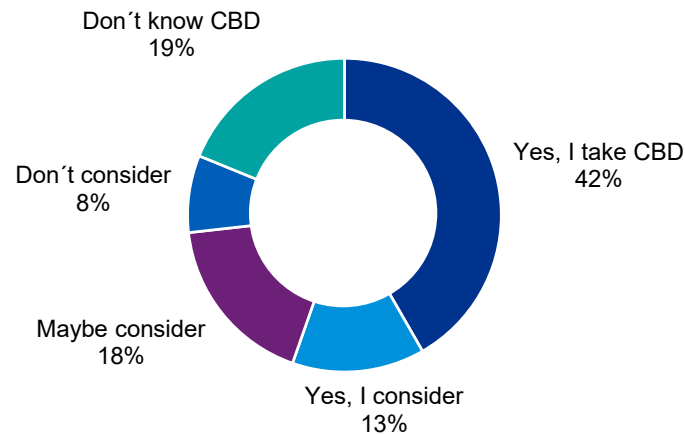
- 1. North America** North America offers the largest markets for CBD end users (USD 4.9 bn). US and Canada account for 60% of the market after loosening regulation in 2018<sup>(1)</sup>
- 2. Latin America** Latin America is positioning itself as a second market-in-the-making with 14% of the market share in 2019 (USD 1.2 bn)<sup>(1)</sup>
- 3. Europe** Europe is the third-largest market with a 12% market share (USD 0.9 bn) and a rapidly developing regulatory climate<sup>(1)</sup>

Sources: (1) Grand View Research Inc. 2020; (2) World Health Organisation 2017; (3) Hammel, D. et. al. 2016; (7) Gamble, L. et. al. 2018; (9) Russo, E. 2008; (10) Carr, D., Schatman, M. 2019; (11) Health Europa 2020; KPMG, Germany, Research 2020

...is heavily based on customer acceptance across gender, all ages and all classes...



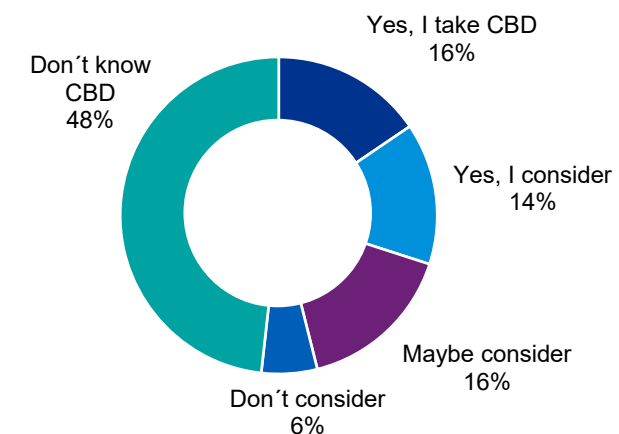
### USA: CBD users/insiders in the population



- High awareness of CBD in the US (representing a mature market) – 3 out of 4 people have taken or would consider taking CBD
- CBD insiders/users are represented equally across the population of the United States in terms of age, gender, income and education – CBD is accepted across all social classes
- General perception of CBD has experienced a positive change over recent years – less than 1 in 10 would not consider using CBD at all



### DE: CBD users/insiders in the population



- Medium awareness of CBD in Germany (being a more premature market) – around half do not know what CBD is, which in turn indicates greater potential once customers are educated
- CBD insiders/users are represented equally across the population of Germany in terms of gender, income and education with the exception for age – younger people are currently more likely to be CBD users
- General perception of CBD has experienced a positive change over recent years – just about 1 in 20 would not consider the using CBD at all

Note: Insights based on a customer survey conducted by Bilendi, asking a sample representative of the CBD markets in the US and Germany (sample = people currently using or considering using CBD)

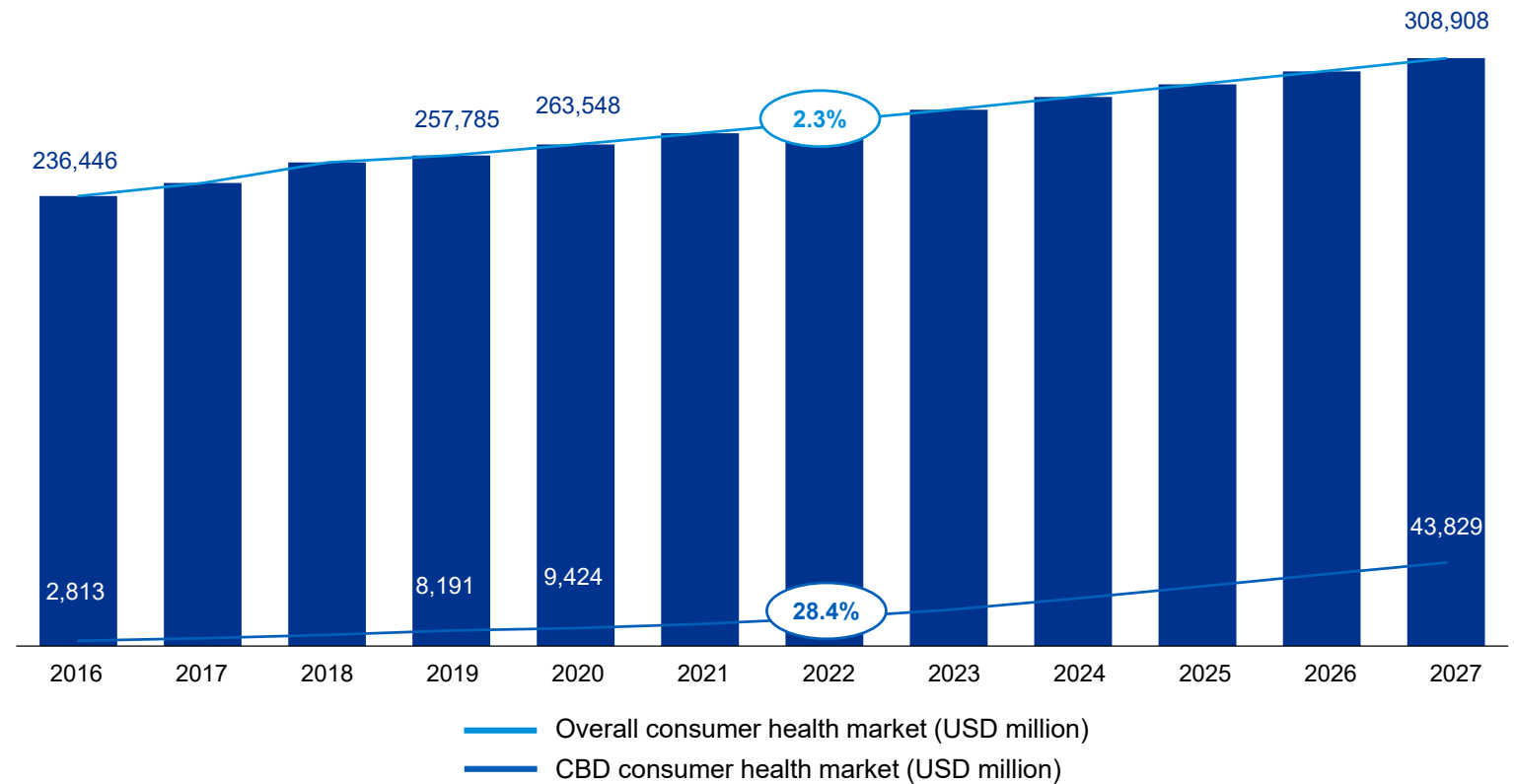


...leading to significant growth of the CBD market outpacing the consumer health market in the coming years

**CBD CH market to grow to USD 43.8bn with 2016-27 CAGR of 28.4% outstripping CH CAGR of 2.3%<sup>(1)</sup>**

**What are the drivers behind such tremendous growth?**

- Regulation is on the move in countries across the globe, legalising CBD and opening new potential markets
- Increasing customer awareness of the health benefits experienced from taking CBD is driving consumer demand
- General acceptance is increasing, with a growing number of studies showing positive efficacy of CBD



Sources: (1) Grand View Research Inc. 2020; KPMG, Germany, Research 2020

CBD products in consumer health are segmented into two main categories, both of which will further penetrate the overall market in the years to come

### OTC

- Over-the-counter (OTC) drugs are medicines sold directly to the consumer without a doctor's prescription
- Over-the-counter CBD sales are categorised under the product subsegments of analgesics (pain remedies), mental health, dermatology, sleep aids and others

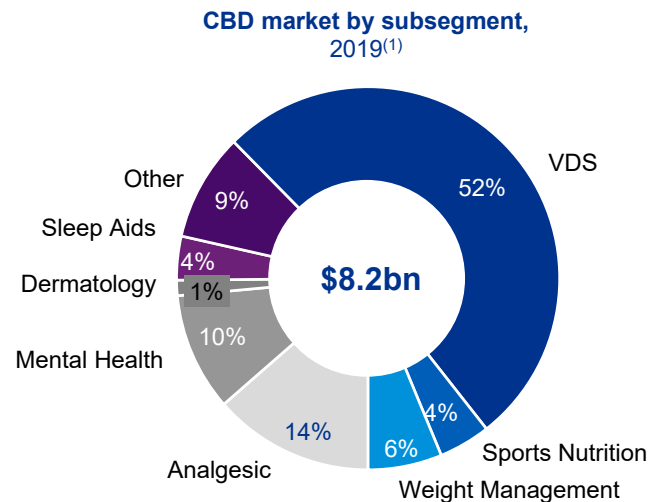
### Nutraceuticals

- Nutraceutical CBD products are prophylactic and wellness products, typically incorporated into nutritional products and supplements
- Nutraceutical CBD sales are further subsegmented into vitamins & dietary supplements (VDS), sports nutrition and weight management & well-being products

Of the CBD consumer health segments, nutraceuticals are expected to be one of the fastest growing, due to a growing product range combined with the deregulation of the vitamins & dietary supplements industry.

### CBD penetration of consumer health market, 2019 – 2027<sup>(1)</sup>

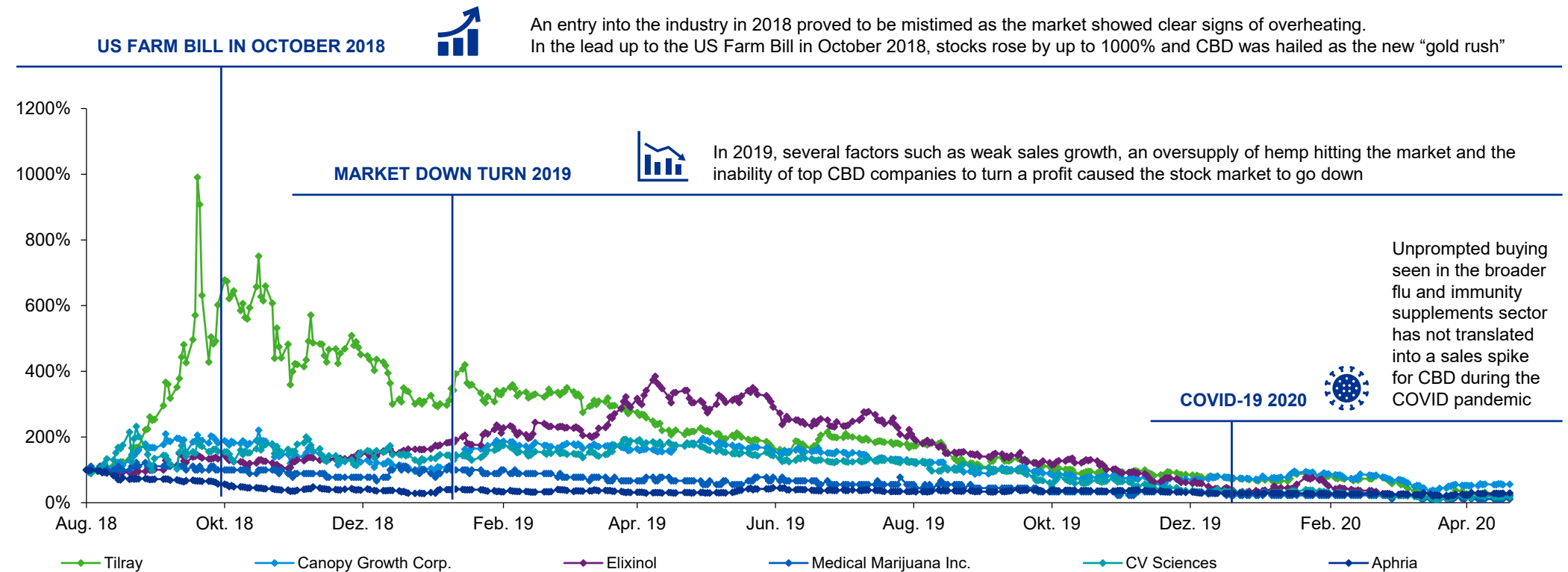
USD million				Market penetration (%)	
OTC	2019	3,082	114,014	2019	2.7%
	2027	13,635	129,520	2027	10.5%
VDS	2019	4,241	105,730	2019	4.0%
	2027	25,363	126,127	2027	20.1%
Sports	2019	358	20,928	2019	1.7%
	2027	2,234	32,126	2027	7.0%
Weight	2019	511	17,113	2019	3.0%
	2027	2,597	21,134	2027	12.3%



Sources: (1) Grand View Research Inc. 2020; KPMG, Germany, Research 2020

Despite growth, stock prices plummeted in 2019 due to overestimated potential, oversupply and lack of profits following initial legalisation

### Normalised stock price change of top listed CBD companies (% change to August 2018)



Sources: Company stock prices sourced from Yahoo Finance from August 2018 to April 2020; KPMG, Germany, Research 2020

# As stock prices and multiples continue to fall, the CBD market is slowly consolidating with a large number of M&A deals in recent years



## Market player landscape

- The market player landscape is fragmented
- No single player captures a significant market share
- Estimates put market leaders (Canopy Growth Corporation, CuraLeaf Holdings and Trulieve Cannabis) at less than 5% of market share each



## Market valuation

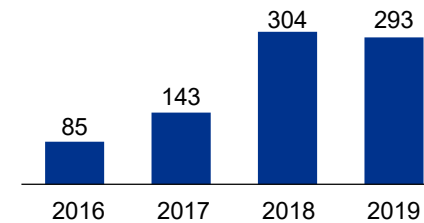
60% of market participants have experienced a decline in market capitalisation over the past year.<sup>(20)</sup>

Average EV/S multiples amongst the largest Canadian operators have started to decrease after an initial heap reaching >100x:

- 2018: 103.4x due to the extreme levels of anticipated sales growth post hemp legalization<sup>(23)</sup>
- 2019: 55.8x with growth realised and falling market cap<sup>(21)</sup>
- 2020: 5.7x with equilibrium reached as market settles<sup>(22)</sup>



## Number of M&A cannabis deals in the US and Canada 2016-2019<sup>(54)</sup>



- Number of M&A deals in the cannabis industry has experienced a strong ramp-up in recent years
- Bolt-on acquisitions are the common theme, with larger players focusing on the strategic value by integrating certain steps of the value chain and the respective know-how of smaller but specialised companies



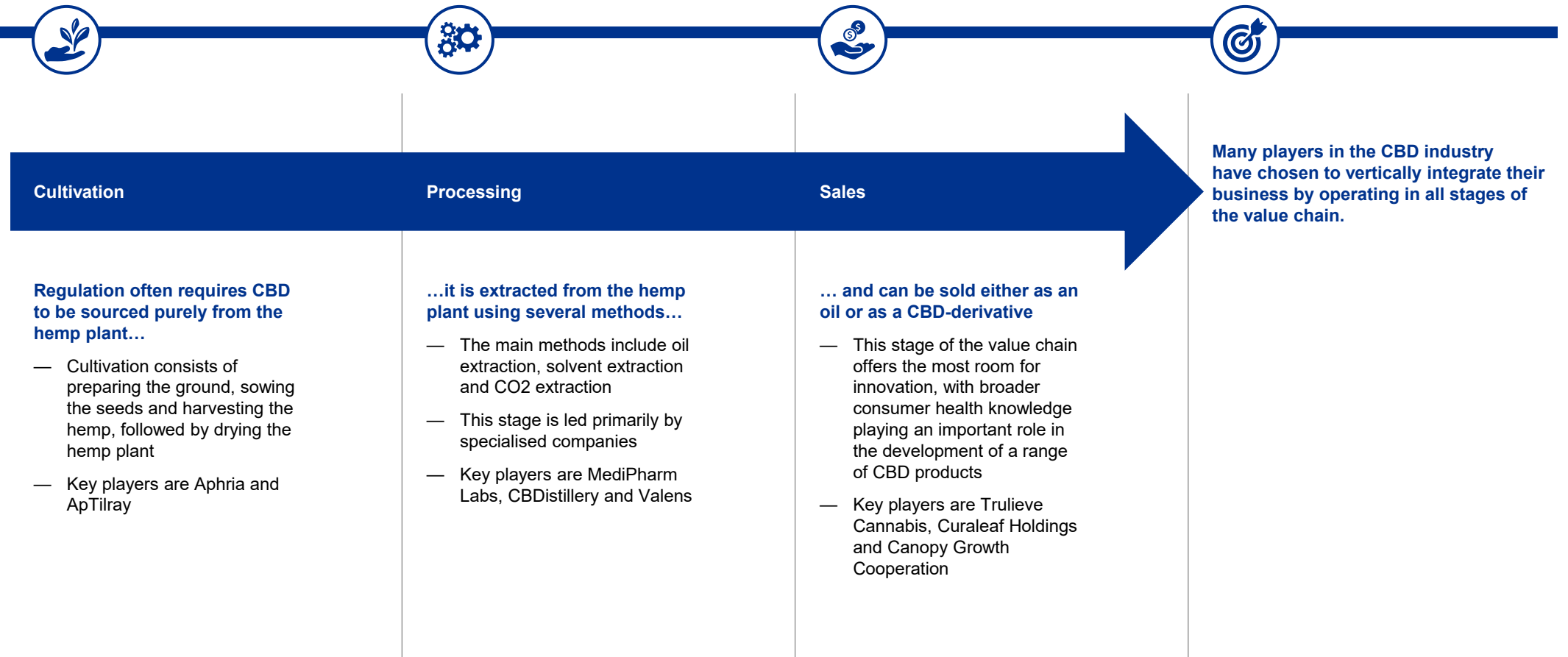
## Path forward

After a quick uptick in M&A activities across the CBD industry, with large CBD players acquiring specialised targets, the market is predicted to settle from 2022 onwards as consolidation finalises and product awareness grows. However, some companies will struggle to break even if they do not rein in their costs now and begin to focus on profitability.

Note: The relevance of multiples is currently limited in the cannabis industry due to the degree of variability and growth in sales and profit. Note that the companies used in each of these timepoint averages differ, due to the changing competitive landscape from 2018 to 2020. Furthermore, note that the 2018-2019 multiples are enterprise value to revenue multiples, where it is assumed that revenue is comparable to sales

Sources: (20) Ernst & Young 2019; (21) FTI Consulting 2019; (22) MJ Biz Daily 2020; (23) PWC 2019; (54) Viridian Deal Tracker 2020

As part of industry consolidation, major players have chosen to vertically integrate and operate in all three stages of the value chain



Source: KPMG, Germany, Research 2020

02

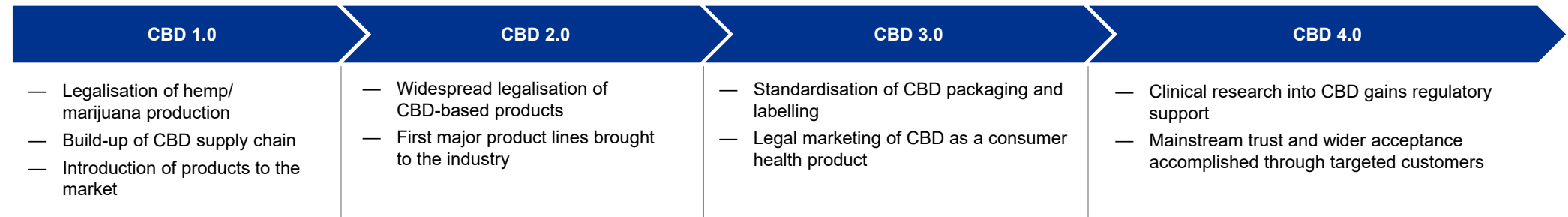
# Regulatory Challenges and Future Developments



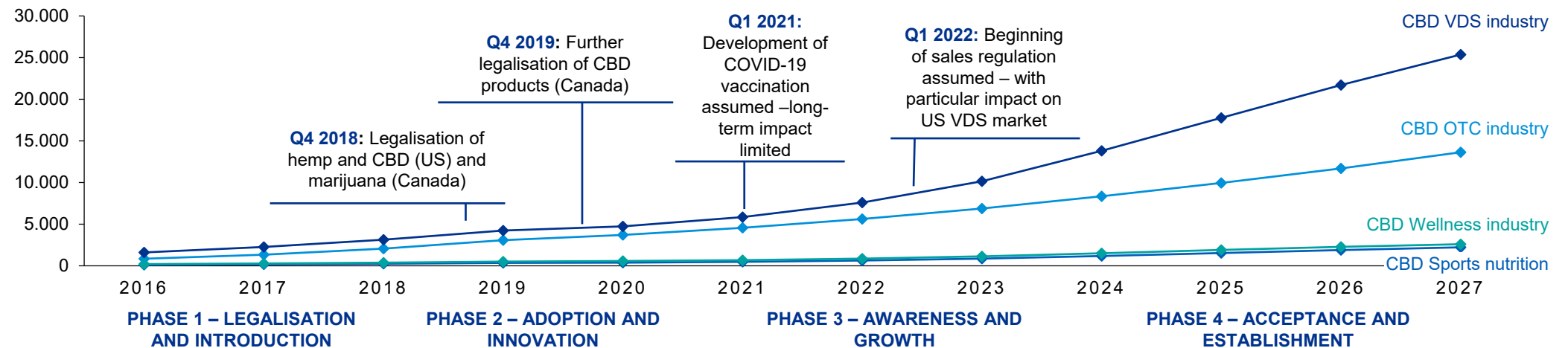
# Customer development & market potential strongly depend on the regulatory timeline through the different stages

## Established regulatory stages

## Next stages in regulatory process



## Expected sales (USD M)<sup>(1)</sup>



Sources: (1) Grand View Research Inc. 2020; KPMG, Germany, Research 2020

# CBD 3.0 in selected markets



## USA

- Production of hemp as well as CBD-based products is legalised on a federal level<sup>(1)</sup>
- Regulation may be passed either directly by the FDA or by a governmental body such as Congress<sup>(27)</sup>
- It is expected that the next wave of OTC and VDS CBD products will become legal by 2023<sup>(28)(29)</sup>

“The way the states ultimately legalised marijuana at the state level was largely through voters’ initiative. [...] I think that it is the people’s voice which has had the most impact over the last few years.”

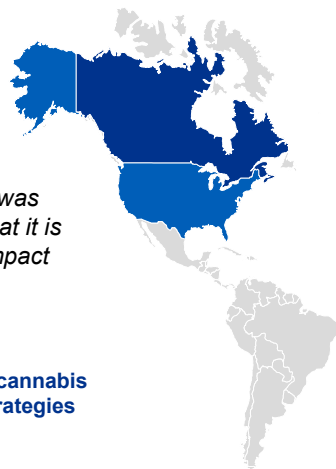


**Lilly Lentz, General Counsel at the cannabis consulting firm Gateway Proven Strategies**



## Canada

- In Canada, hemp as well as marijuana are legalised on a federal level
- Canada is considering a new class of cannabis health products allowing OTC sales with legal health claims
- CBD 3.0 regulation is expected to take hold within the next two to three years<sup>(20)(23)(24)(25)(26)</sup>



## Europe

- CBD was labelled as “Novel Food” by the EFSA, restricting the industry and requiring market participants to go through an extensive process to obtain authorisation to sell ingestible CBD products<sup>(15)(16)(17)(18)(19)</sup>
- Currently no unified approach across countries in Europe
- It is expected that markets will begin to grow by 2021



“I think we need to see greater understanding and more guidance as to what the recommended dosage levels should be for certain CBD products. It’s about educating and keeping the consumer safe.”



**Ricardo Geada, Head of the Cannabis & Regulatory Team at Mackrell Solicitors**

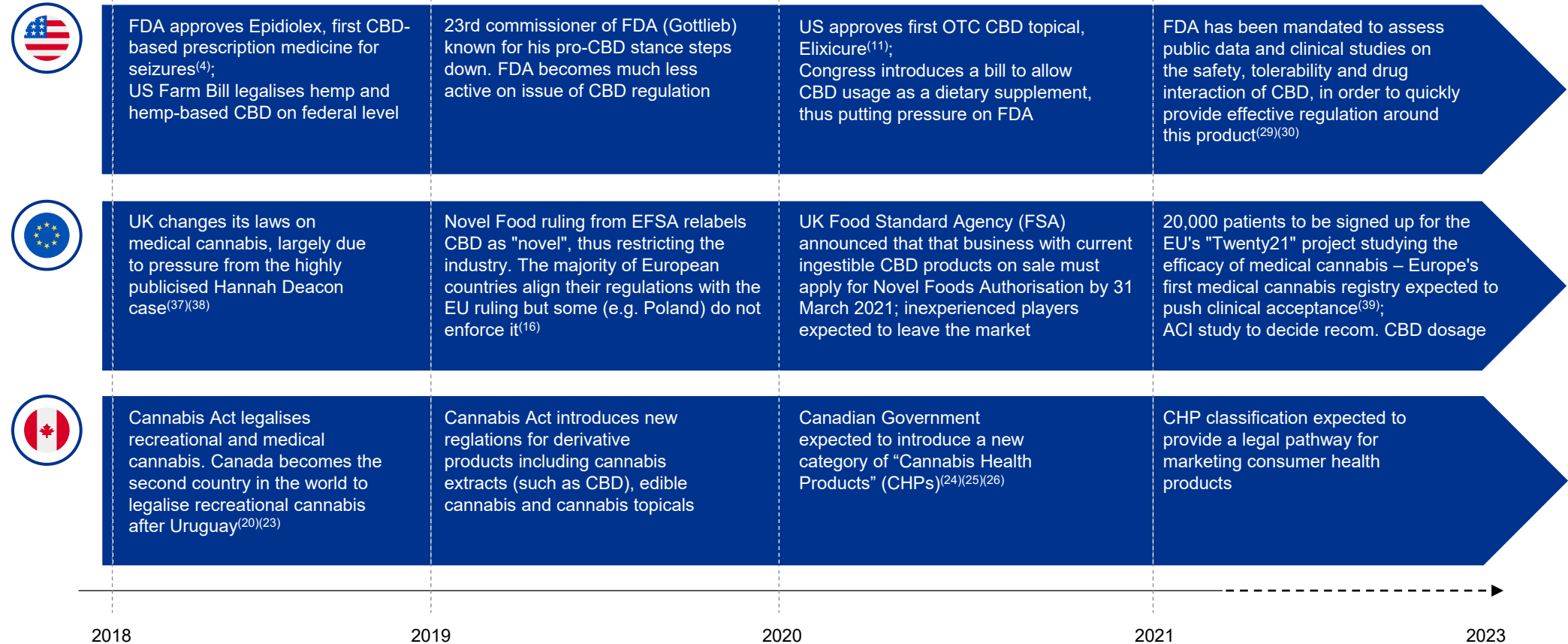


## Other Regions

- Regulations in the Middle East and Africa are restrictive and slow to change with the exception of Israel, South Africa, Lesotho and Zimbabwe<sup>(1)</sup>
- In the Asia Pacific region, Australia, South Korea and Japan have legalised medical cannabis on a federal level<sup>(1)</sup>
- China is a key producer but still restricts sales in the country<sup>(1)</sup>

Sources: (1) Grand View Research Inc. 2020; (15) Ledger, E. 2019; (16) Hemp Consult 2020; (17) Sikic, Jasminka 2020; (18) Toszer, M. 2020; (19) Mohanty, S. 2019; (20) Ernst & Young 2019; (21) FTI Consulting 2019; (23) PWC 2019; (24) Government of Canada 2020; (25) Isura 2019; (26) Staniforth, J. 2019; (28) UPI 2020; (29) Grebow, J. 2020; KPMG, Germany, Research 2020

# CBD regulations are opening up, with experts predicting the next wave of CBD 3.0 regulation in leading markets by 2023



Sources: (4) FDA 2018; (11) Health Europa 2020; (16) Hemp Consult 2020; (20) Ernst & Young 2019; (23) PWC 2019; (24) Government of Canada 2020; (25) Isura 2019; (26) Staniforth, J. 2019; (29) Grebow, J. 2020; (30) Holz, R. & Blinkoff, S. 2020; (37) Deacon, H. 2019; (38) Busby, M. 2019; (39) Health Europa 2019; KPMG, Germany, Research 2020

# In recent history, customer initiatives have been shown to have an impact on regulatory development – such as in the case of Hannah Deacon



## The story of Hannah Deacon<sup>(37)(38)</sup>

- Legalisation of medicinal cannabis in the UK was **pushed to a certain extent by a single mother, Hannah Deacon**, who was attempting to obtain the drug for her epileptic son
- Prior to receiving medicinal cannabis, her son Alfie was having **around 300 seizures per month and was hospitalised every 4 to 10 days**. Hannah was treating this with steroids which the doctor's said would eventually lead to his premature death
- In desperation, Hannah moved her son to the Netherlands, where he was prescribed by a high-CBD, full extract cannabis product with 2mg of THC added. After three months, the seizures became less frequent, with Alfie eventually going **40 days without a seizure**
- Upon returning to the UK, Hannah **began a high-profile campaign** to obtain a prescription within the UK, which gained widespread media traction
- On 1 November 2018, the UK changed its laws on medical cannabis. Six days later, Alfie became the first NHS patient to receive cannabis oil



## The challenge with drug-resistant epilepsy<sup>(4)</sup>

Epilepsy is one of the most common neurological disorders that affects people of all ages. It is characterised by its unpredictable seizures, a sudden surge of electrical activity in the brain. Between 30 to 40 percent of those who have epilepsy have what's called "drug-resistant" or "medically refractory" epilepsy, which does not respond to standard anti-seizure medications. These patients only have a few options to treat their seizures, one of which is epilepsy surgery, which has a relatively high success rate but also carries a higher risk, and only a small percentage of patients are actually eligible for surgery. Next to advancements in minimally invasive surgery and neurostimulation devices, CBD has shown potential in this regard. With the FDA approval of Epidiolex, CBD has proven to be effective in controlling seizures.



**“** It is stories like Alfie's and other patients whose suffering from chronic pain and/or disorders has been successfully treated by cannabis based medicines, where traditional medicines did not produce results (and in some cases had serious side effects), where the movement for more access to such cannabis medicines has come from. There are reports that only 2 patients are receiving medical cannabis on the NHS against circa. 500 privately (exc. Epidiolex and Sativex prescriptions). More education in the UK for doctors is required as to when, how and which medical-based cannabis products should be prescribed. Public bodies such as NICE need to do more to educate both patients and doctors as to the benefits [of medical cannabis].

**”**



**Ricardo Geada, Head of the Cannabis & Regulatory Team at Mackrell Solicitors**

Sources: (4) FDA 2018; (37) Deacon, H. 2019; (38) Busby, M. 2018; KPMG, Germany, Research 2020

# 03

## Performing a Market Entry: Key Stages for Success

# 03

When to Enter?

01

Where to Enter?

02

How to Enter?

03

How to Win?

04



While the “when, where & how to enter” are important prerequisites in order to understand the dynamics of the market and the operating principles behind it, it’s the “how to win” which differentiates a failure from a success story



# 03 01

## When to Enter?



Decisive Timing - When performing an intelligent market entrance, the first step is to successfully time your entry by deciding between an early or a late move into the market

# When to enter?



## Early mover

### How we define it

Established consumer health players who make the initial entry into the CBD consumer health market within the next one to two years

### Key takeaways

- Established consumer health players in the CBD market will be able to target (and capture) a much wider customer base early, based upon their consumer health expertise and/or reputation
- Early movers can secure a strong supply chain, benefiting from entering a market that is currently unconsolidated and weakened
- Early movers expose themselves to regulatory risk, as the regulatory changes towards CBD are difficult to anticipate

vs.



## Late mover

### How we define it

Established consumer health players who continue to observe the market over the next two to three years and move based on the success of the early movers

### Key takeaways

- Late movers benefit from observing the mistakes and successes of the early movers on the market. They are able to reduce their costs by avoiding regulatory “growing pains” and lobbying expenses
- Late movers greatly reduce their risk as they move into a market which is by then presumably securely deregulated
- Late movers miss out on several early mover advantages such as securing a new customer base and building brand awareness early



### Our point of view:

- Likelihood of regulation opening up by 2023, particularly in North America and Europe, indicates that the stage is set for an entry into the CBD industry
- Early movers in consumer health will therefore benefit from a decisive advantage as they capture their customer base early
- Early movers can secure partnerships with key suppliers and develop a strong supply chain



Source: KPMG, Germany, Research 2020



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# Market conditions indicate the stage is set for a timely entry

A retrospective view of the CBD market shows that the criteria required for a successfully timed market entry are currently met



## Consumer Demand

The global CBD consumer health market is predicted to grow by 24.6% yearly over the next seven years to a market volume of USD 43.8 bn, showing significant growth potential<sup>(1)</sup>

- CAGR of the past three years of 42.8% outstripped the consumer health CAGR over the same period of 2.9%<sup>(1)</sup>
- Global CBD consumer health market has grown from USD 2.8 bn in 2016 to USD 8.2 bn in 2019<sup>(1)</sup>
- Global OTC sector grew yearly by 53.0% from 2016 to 2019, due to the diverse applications of CBD<sup>(1)</sup>



## Competitive Environment

The market is currently highly fragmented and dominated by players with limited pharmaceutical knowledge, operating at low margins

- The market is likely to consolidate in the coming years with approximately 300 M&A deals in the US and Canada in both 2018 & 2019<sup>(54)</sup>
- Market participants are currently facing low margins, numerous competitors and evolving supply-chain mechanisms
- Of the top 20 CBD players in CH, less than a quarter have a pharmaceutical background



## Market Valuation

The global CBD market has experienced a significant shift towards lower valuations in the past year, with 60% of public companies having experienced a decline in market capitalization<sup>(20)</sup>

- In June 2019, the top 20 largest Canadian cannabis companies had an average EV/S multiple of 55.8x<sup>(21)</sup>
- EV/S multiple of 5.7x is the latest 2020 average estimate amongst the top Canadian vertically integrated cannabis operators<sup>(22)</sup>



## Regulatory Development

CBD regulations are opening up, with experts predicting the next wave of CBD 3.0 regulation in leading markets by 2023

- The US FDA has already approved CBD drugs but continues to ban the use of CBD in the VDS industry<sup>(4)(11)(28)(29)</sup>
- In Europe, Project Twenty21 will begin to establish the OTC market and consumer demand will push regulations forward<sup>(39)</sup>
- Canada is currently developing CBD 3.0 regulation which is expected to take effect within the next two to three years

Sources: (1) Grand View Research Inc. 2020; (4) FDA 2018; (11) Health Europa 2020; (20) Ernst & Young 2019; (21) FTI Consulting 2019; (22) MJ Biz Daily 2020; (28) UPI 2020; (29) Grebow, J. 2020; (39) Health Europa 2019; (54) Viridian Capital Advisors 2020; KPMG, Germany, Research 2020

# 03 02

## Where to Enter?



Strategic Entry - When entering a new market, early movers must carefully select their geographical markets and then set their focus on either a fast expansion or deep market penetration

# Where to enter?



## Land-grabbing

### How we define it

Acquiring existing players and using quick, inorganic growth to gain customers, often through substantial initial investments with no immediate return

### Key takeaways

- Key CBD players are currently following buy-and-scale strategies
- Objective is to develop a wide spread customer base and establish a foothold in several geographical markets simultaneously, in order to gain market dominance
- Comes at a significant cost and assumed to be ineffective at turning profits until now
- Issue is often regulation – entering too many markets leads to operational issues as the CBD market is highly unpredictable with fluctuating regulations which differ from region to region

vs.



## Strategic penetration

### How we define it

Choosing a particular geographical target market and penetrating it using a mixture of organic and inorganic growth to dominate the niche before expanding outwards

### Key takeaways

- Long-term focus on the business's bottom line
- Fully understand the regulatory environment in one market rather than face regulatory uncertainties when entering multiple markets simultaneously
- Able to focus resources on establishing strong customer base with brand awareness and knowledge of specific regulations
- Slower to capture global market share



### Our point of view:

- The regulatory CBD landscape is highly complex and very different from market to market
- Target a particular geographical market and penetrate it in order to fully understand the regulatory environment and achieve significant market share rather than expanding too quickly



Source: KPMG, Germany, Research 2020



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# Despite the industry norm of “land-grabbing”, targeted penetration is more suited to the CBD industry

## Three reasons why a targeted penetration approach seems more appropriate in the CBD industry:

1

### In the quickly changing CBD industry, knowledge is power

It is highly important to know the playing field before expanding too quickly. Penetrating a particular market allows you to master the regulatory and legal environment of that domain and stay ahead of competitors who spread themselves too thinly and find themselves caught-up in legal obstacles. This is pertinent for the CBD market where differing regulation across markets can lead to missed time on the market and untargated “land-grabbing” can rack up huge losses.

2

### The major players on the CBD market are currently burning money at an unsustainable rate

Market expectations continue not to be met, with several of the large players struggling to generate profits from CBD operations. Issues lie in the costly cultivation process and in the inconsistent market environment. Stock prices and investor expectations have plummeted and there has been a decisive move away from land-grabbing towards asset light, leaner business models.

3

### The CBD market is a highly fragmented market with no clear winner at the moment

Penetrating the market allows the brand to stand out in a market overrun with CBD products and helps the company to benefit from customer loyalty and awareness. This has a knock-on sales effect, thus helping the company to consolidate its position and dominate the market before moving on.



Source: KPMG, Germany, Research 2020



# Case Study: Example of targeted market penetration with Trulieve Cannabis



## Trulieve Cannabis's targeted penetration of the Florida market

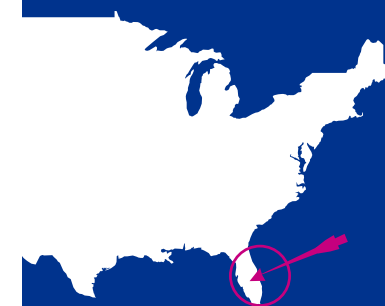
- The majority of CBD players have operated under losses over recent years. One player to buck this trend is Trulieve Cannabis, a medical marijuana and CBD company which achieved an operating profit margin of +30.9% in Q3 2019, something which no other player has been able to do. Trulieve is unique in following a different operational strategy than the majority of market players
- One key to Trulieve's success lies in its successful targeting of the Florida market. Despite the fact that Trulieve is a multi-state operator (MSO), it has set its focus strongly on Florida. It claims to serve 60-80% of this market
- Trulieve has managed to penetrate such a large portion of the Florida market due to the company's intense regulatory knowledge

- Specialising in one particular geographical region negates the impact of ever-changing regulation in multiple regions and avoids the murky area of interregional regulation by keeping the supply chain local. Trulieve is able to stay ahead of the game when it comes to such regulatory changes and operate with more time on the market, minimising the impact on their bottom line. This is of particular importance for the CBD industry as it is a highly regulated market which is fragmented by regional constraints
- Moreover, Trulieve's in-depth knowledge of its Florida CBD consumers has allowed it to dominate this niche. In conclusion, the targeted market penetration of Florida has allowed Trulieve to focus on the area expected to bring some of the strongest future revenues in the CBD industry and deliver one of the few profitable operating margins in the industry.<sup>(43)(44)(45)(48)</sup>



## Key Takeaways

- The success of Trulieve's strategy does not imply companies must start by entering a single US state. The strategy can be implemented on a national or regional level
- It contradicts, however, the current standardised model of land-grabbing and cash burning as the market focus is likely to trend towards higher profits in the coming years rather than achieving global market share fast



Trulieve claims to serve 60-80% of the market for medical marijuana and CBD in Florida, despite being a multi-state operator (MSO)

Sources: (43) Williams, S. 2018; (44) Williams, S. 2020; (45) Harmantas, A. 2019; (48) Williams, S. 2019; KPMG, Germany, Research 2020

# 03 03

## How to Enter?



Operational Expertise - Once a market is chosen, a suitable operating model needs to be determined - either by dominating the entire value chain or operating as a specialist

# How to enter?



## Vertically integrated

### How we define it

Players operate along all steps of the value chain to reduce their costs (entering cultivation and processing) or increase their end-sales (entering B2C/B2B market)

### Key takeaways

- Able to reduce costs by integrating parts of the business further up the supply chain
- Able to market oneself with greater transparency with product development from “seed to shelf”
- Much higher initial costs and challenging logistics around production and supply
- Very weak (currently negative) margins in the cultivation industry do not make a vertical integration along all steps attractive

vs.



## Specialisation

### How we define it

Players choose particular stages along the value chain and focus their resources on becoming a winner in this area

### Key takeaways

- Able to focus on core business
- Able to specialise in target market and gain from “insider advantage” with better awareness and regulatory standing
- Margins tend to increase further along the value chain, meaning companies can benefit from higher margins when concentrating on B2C business
- Less stable revenues associated with a greater focus on early steps in value chain (i.e. fluctuations of raw product prices)



### Our point of view:

- Upstream activities are currently showing relatively low margins, in addition to being resource/capital intensive
- Market entrants are better off specialising in end-product sales, rather than vertically integrating along the full value chain
- Customers show no clear preference towards products from a producer or specialist, therefore the most profitable option should be chosen



Source: KPMG, Germany, Research 2020



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# Staying close to the end consumer brings many advantages



Historically, key cannabis players have chosen the vertical integration approach over the specialisation approach. Of the top 20 CBD players in CH, three quarters are vertically integrated along the entire value chain. Despite this, recently there has been a decisive move towards the specialisation operating model.

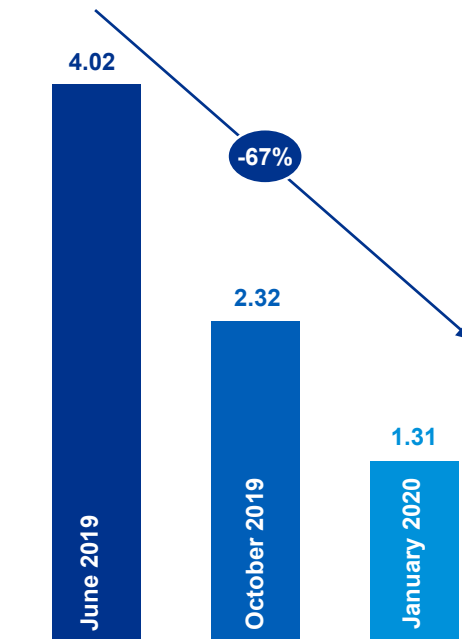


## Margins

The margins in the processing and extraction stage of the value chain are more stable and consistent, with the signing of two-year supplier agreements being the norm. However, the highest margins are found close to the end customer, further along the value chain, with the sale and design of CBD-enriched products. On average, margins increase further along the value chain, starting with low margins in the cultivation of hemp (<10%), followed by the extraction of CBD with higher margins (<25%) to the B2C sale business with the highest margins (>25%).<sup>(1)</sup>



Falling hemp prices as result of the 2018 Farm Bill and resulting oversupply have turned cultivation margins negative<sup>(1)</sup>



## Resources

Cultivation and processing require large initial investments in the likes of CBD extrusion plants, production facilities and specialist personnel, which do not always see a payoff. An example for a return to specialisation, is the largest cannabis company in terms of market capitalisation, Canopy Growth Corporation, which has changed its operating model to an asset-light model that leverages local suppliers, with a focus on their main business with access to the end consumer.<sup>(50)</sup>

## Business Model

Sales have a larger distribution of B2C customers compared to the CBD extraction business's focus on B2B customers, which makes the former business more secure to enter, while offering lucrative expansion opportunities. Business models focusing on B2C will benefit to a larger extent from anticipated future growth in the CBD market.<sup>(1)</sup>

Sources: (1) Grand View Research Inc. 2020; (50) NCV Newswire 2020

# Case Study: Shift to asset-light business model by Canopy Growth Corporation



## Canopy Growth Corporation's global operating changes in April 2020

- Canopy Growth Corporation, in 2018 the world's largest cannabis company in terms of market capitalisation, decided to follow a buy-and-scale strategy up until 2020, buying up the cultivation and extraction sides of their business and expanding internationally
- Canopy Growth reconsidered this strategy in 2020, with the company announcing a series of global operational changes designed to "optimise production, align supply and demand and improve efficiency" in April 2020. Canopy Growth is changing their operating model to "an asset-light model that leverages local suppliers", rather than increasing their own operations<sup>(50)</sup>

Some of the changes announced in April 2020 included:

- **Africa** – Complete exit from the South African and Lesotho markets, transferring ownership to local businesses
- **Latin America** – Cultivation terminated in Colombia. In the future, Canopy Growth will use local suppliers for hemp and marijuana production and will no longer extract or encapsulate the product themselves
- **Canada** – Shutdown of Yorkton facility to reduce production as the "recreational market has grown slower than expected". Additionally, closure of two British Columbia growing and production facilities (Aldergrove and Delta). Finally, enforcing the cancellation of a planned plant in Ontario (Niagara-on-the-lake)
- **United States** – After the Farm Bill, Canopy Growth entered the US hemp business by striking a deal on 14 January 2019 to process hemp in Springfield, NY. In April 2020 Canopy Growth decided to cease operations in New York due to an oversupply of hemp on the market<sup>(50)</sup>



## Key Takeaways

- The example of Canopy Growth shows that an overly broad acquisition and/or buy-and-scale strategy along the full value chain is hard to sustain
- If anything, focus should be on the core business, preferably at the sales stage with direct access to the end consumer



Sources: <sup>(50)</sup> NCV Newswire 2020; KPMG, Germany, Research 2020

03 04

## How to win?



USP Dominance - Once the geographical market and positioning along the value chain has been established, successful market penetration occurs through the development of unique products and brand building



# How to win?



## CBD oils and isolates

### How we define it

Broad-spectrum or full- spectrum CBD oils and isolates which are refined directly from the cannabis plant

### Key takeaways

- CBD oils have largely penetrated the CBD consumer health market. Current estimates put CBD oil as covering 71% of the OTC market
- As CBD oil is produced at an earlier stage along the value chain, it is easier to gain an initial foothold in this market
- It is possible to mix the oil with further consumer health ingredients in order to differentiate oneself in this space

vs.



## Derivative-based products

### How we define it

Tablets, topicals, tinctures and capsules which are derived by a combination of various components, with the CBD oil or isolate forming the basis

### Key takeaways

- Derivative-based CBD products require greater know-how and expertise in order to further refine the CBD product
- The margins are often higher due to the refined dosages and value added by creating a CBD derivative
- The products may reach a wider target group by specifically addressing different consumers' needs



### Our point of view:

- Derivative-based CBD products are very versatile and can be differentiated by adding ingredients and creating a strong brand around the product
- Consumer health players can leverage margins through creating products incorporating expertise and ingredients
- Based on their reputation, the brand should be developed around safety and trustworthiness in order to capture a wider customer base



Source: KPMG, Germany, Research 2020



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# Derivatives offer a new, undiscovered market in consumer health

**Derivative-based CBD products offer a niche that consumer health companies can tackle by leveraging existing capabilities and know-how**

71%

**...is the current estimated market coverage of CBD oils in the analgesics, mental health and sleep aid markets.<sup>(1)</sup>**

- CBD-derivatives offer a niche in which true CH players are yet to establish themselves
- Barriers to entry remain high when developing scientifically-tested consumer health products
- Very few companies have the pharmaceutical know-how or industry expertise to create scientifically proven consumer health products and generate a true added benefit with CBD

3.7%

**...is the amount by which the CBD non-oil market is expected to outperform the CBD oils market per year.<sup>(1)</sup>**

- CBD oils are generally less complex to develop and easier to sell from a regulatory standpoint (no claims of being a dietary supplement or specialised medicine)
- Derivative-based products hold the future potential in this market as they can be better differentiated to meet customers' needs and have greater innovation potential

2-3x

**...higher margins can be achieved with CBD derivatives, compared to CBD oils.<sup>(1)</sup>**

- Derivatives with microdoses of CBD leverage value by combining this with other consumer health active ingredients
- Margins increase from 12%-15% for CBD oil isolates up to 30%-40% for CBD-based creams
- Developing CBD-infused products can expand the customer base as studies have shown a high interest in alternative offerings



## Key Takeaways

- Derivative-based CBD products are a growing market lacking consumer health players with the expertise to create legitimate products
- Product success is strongly dependent on scientific backing with a proven efficacy and safety profile
- Scientific backing is the unique selling point which the CBD market is greatly lacking. Established consumer health players looking to bring trustworthiness and established science to this industry can leverage this unique selling point

Sources: (1) Grand View Research 2020; KPMG, Germany, Research 2020

# In recent history, customer initiatives have been shown to have an impact on regulatory development – such as in the case of Hannah Deacon

**While the current market views efficacy and price as important for the purchase decision, developing a well-thought-out brand based around safety and trustworthiness will become key**



## The CBD market has its fair share of challenges

- Products indicating different ingredients, concentrations and health effects
- Untested health claims from companies; for example, companies claiming their CBD-infused products cure COVID-19<sup>(51)(52)</sup>
- Varying concentrations of CBD with unclear safety profile
- Inclusion of unexpected cannabinoids and other active ingredients which are often not declared on the packaging
- Inconsistent manufacturing processes with no industry standards

**Challenges such as these mean that consumers have to navigate an unregulated landscape which at times poses serious health and safety questions.**



## Building the Brand

- **Safety, trustworthiness and proven scientific expertise** are the aspects which consumer health players can bring to this budding industry
- By pushing their own brand, these players can change the consumer perception towards CBD in a consumer health context

### Interviews with experts in the field have indicated two key recommendations:

1. Consumer health players should strive for the same standard and perception of quality and safety which they achieve with their other product lines
2. Brand building should be organic by developing their own tried-and-tested product lines meeting (their own) rigorous pharmaceutical standards, rather than buying an existing (external) brand



## Success Story

**A pharmaceutically grounded company which is currently achieving success around the key levers of safety and quality is CV Sciences.**

CV Sciences operates two distinct divisions, a pharmaceuticals and consumer products division. CV Sciences is currently developing a potential CBD-based FDA-approved drug for smoking cessation (in pre-clinical trials). On top of this, they have developed a leading brand of CBD oil.<sup>(24)</sup>



**“** Our customers trust that our products are safe and that we are beginning to understand the mechanisms of this ingredient in the body. Demonstrating safety and understanding efficacy is critical for this product category to expand, and as bigger companies come into the space, will be a requirement. **”**



**Joseph Dowling**  
CEO of CV Sciences

Sources: (24) Government of Canada 2020 (51) FDA 2020 (52) Dorfman, B. 2019; KPMG, Germany, Research 2020

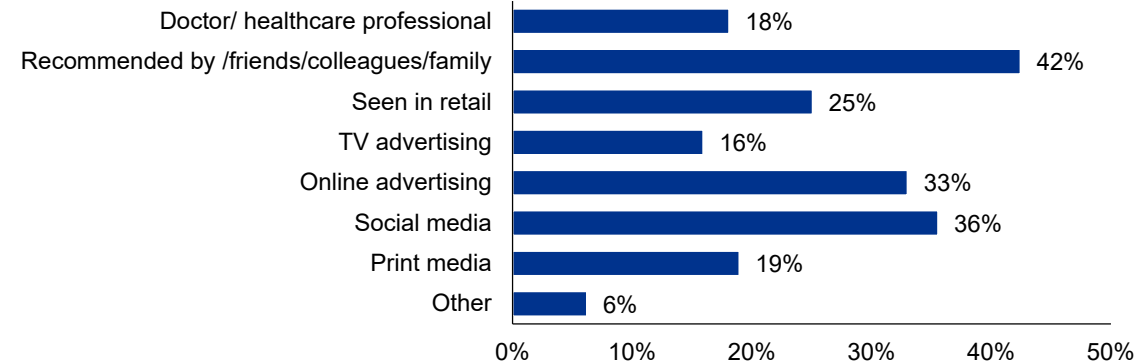
While customers currently prefer the application as a painkiller, there is no clear preference concerning the information and sales channels



Besides demonstrating safety and understanding the efficacy of their product, (future) market players need to consider a wide range of business and operating model decisions besides the financial ambition itself. One of these is to address the market also in terms of the applications offered. A customer survey led by KPMG produced the following findings:



#### Where do you know CBD from?<sup>(a)</sup>



#### Information Channel

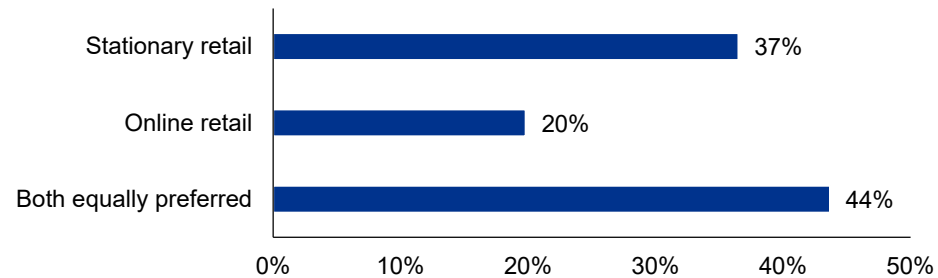
- Recommendation (42%), social media (36%) and online advertising (33%) are the most recognised information channels for CBD
- Even the further answers besides “other” got at least 16% (TV advertising) in total
- Therefore, CBD marketing channels are diverse

Note: (a) Insights based on a customer survey conducted by Bilendi, asking a sample representative of the CBD markets in the US and Germany (sample = people currently using or considering using CBD)

While customers currently prefer the application as a painkiller, there is no clear preference concerning the information and sales channels



#### Where would you buy/have you bought a CBD product?<sup>(a)</sup>

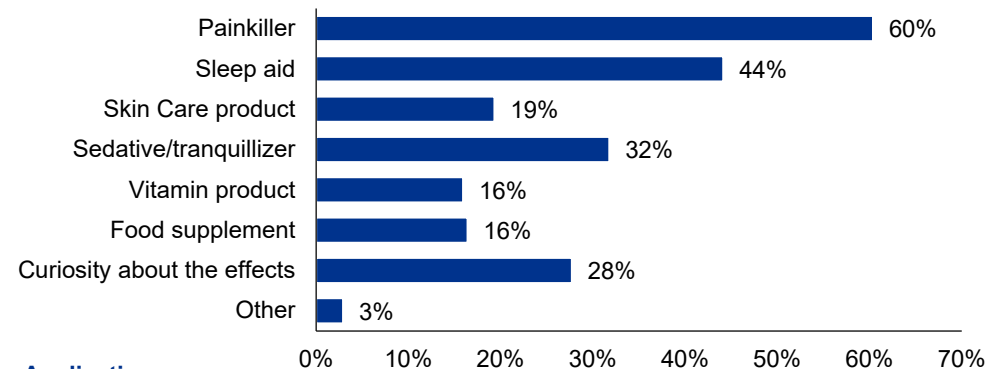


#### Sales Channel

- There is no clear picture about whether CBD users/insiders prefer to purchase the product from an online or stationary retailer
- No wonder that almost half of the participants answered, “Both equally preferred” (44%)



#### In what context have you taken or would you take CBD?<sup>(a)</sup>



#### Application

- 60% take or would take CBD as a painkiller
- Almost one in two participants (44%) (would) use CBD as a sleep aid and one in three (32%) as a sedative
- Even the other answers besides “other” got at least 16% (vitamin product/food supplement)
- On average, participants chose 2.2 options. Thus, CBD appears to have a wide range of potential applications
- Two significant correlation patterns emerge relating to the German sample: Older people are more likely to take CBD as a painkiller, whereas younger people are more likely to take CBD out of curiosity about the effects

Note: (a) Insights based on a customer survey conducted by Bilendi, asking a sample representative of the CBD markets in the US and Germany (sample = people currently using or considering using CBD)

# Case Study: Optimised branding and scientific positioning of CV Sciences



## CV Sciences' focus on safety, trustworthiness and scientific expertise

- CV Sciences is one of the CBD companies with a focus on scientific rigour and evidence-based claims. The rise to over USD 50m in sales in 2019 has thus put it amongst the top 20 CBD consumer health companies in terms of sales.
- Their leading brand, PlusCBD Oil, is recognised throughout the industry. The focus is on a high quality, scientifically supported brand which claims to outperform the rest of the market as they have developed the "right CBD".
- Due to the parent company's pharmaceutical background, CV Sciences is able to push their knowledge in this area and claim that their CBD has a higher quality than the competition.

- They push the safety and trustworthiness of their brand through accreditations and clinical testing:
  - Safety: Due to their scientific knowledge of cannabidiol, CV Sciences stresses the safety of their product and positions themselves as a more reputable brand than their competition. They use human clinical testing to support this and a "Generally Recognised as Safe (GRAS)" accreditation.
  - Trustworthiness: CV Sciences stresses the transparency of their product by offering full traceability along the value chain with QR codes on every product. Secondly, they advertise independent third-party testing and are a member of various well-known trade organisations.<sup>(53)</sup>



## Key Takeaways

- A focus on safety, trustworthiness and scientific expertise is not a given in the current CBD industry
- A successful claim with regard to safety and trustworthiness relies on scientific rigour and evidence-based claims
- Recognition of a scientific claim within the industry includes that the supply is GMP all the way through



**“** *[When we first started] the industry hadn't grown up yet and did not understand the importance of a focus on science and not making claims unless they're backed up by science... What will end up happening is, if you want to be a supplier to a big retailer, they will absolutely insist that the supply is GAP, GMP all the way through. Our suppliers have all of these controls from seed to shelf in place. If you want to be taken seriously as a company, whether you are small or big, you would be smart to adopt those practices.* **”**



**Joseph Dowling**  
CEO of CV Sciences

Sources: <sup>(53)</sup> CV Sciences 2020; KPMG, Germany, Research 2020

# Bibliography (I/IV)

- [1] Grand View Research Inc. 2020, Cannabidiol (CBD) Consumer Health Market Estimates and Forecasts to 2027, GVR United States.
- [2] World Health Organisation 2017, Cannabidiol (CBD) Pre-Review Report, Expert Committee on Drug Dependence Thirty-ninth Meeting: Geneva. Available: [https://www.who.int/medicines/access/controlled-substances/5.2\\_CBD.pdf](https://www.who.int/medicines/access/controlled-substances/5.2_CBD.pdf). Accessed [01.06.2020]
- [3] Hammel, D. et. al. 2016, Transdermal cannabidiol reduces inflammation and pain-related behaviours in a rat model of arthritis, Eur. J. Pain, 20(6): 936-948. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4851925/>. Accessed [01.06.2020]
- [4] FDA 2018, FDA Approves First Drug Comprised of an Active Ingredient Derived from Marijuana to Treat Rare, Severe Forms of Epilepsy, FDA News Release. Available: <https://www.fda.gov/news-events/press-announcements/fda-approves-first-drug-comprised-active-ingredient-derived-marijuana-treat-rare-severe-forms#:~:text=The%20U.S.%20Food%20and%20Drug,years%20of%20age%20and%20older..> Accessed [01.06.2020]
- [5] Eisenstein, M. 2019, The reality behind cannabidiol's medical hype, Nature. Available: <https://www.nature.com/articles/d41586-019-02524-5>. Accessed [01.06.2020]
- [6] Silvestro, S. et. al. 2019, Use of Cannabidiol in the Treatment of Epilepsy: Efficacy and Security in Clinical Trials, Molecules, 24(8): 1459. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6514832/>. Accessed [01.06.2020]
- [7] Gamble, L. et. al. 2018, Pharmacokinetics, Safety, and Clinical Efficacy of Cannabidiol Treatment in Osteoarthritic Dogs, Front Vet Sci, 5: 165. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6065210/>. Accessed [01.06.2020]
- [8] Millar, S. et. al. 2019, A systematic review of cannabidiol dosing in clinical populations, Br J Clin Pharmacol, 85(9): 1888-1900. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6710502/>. Accessed [01.06.2020]
- [9] Russo, E. 2008, Cannabinoids in the management of difficult to treat pain, Ther. Clin. Risk Manag. 4(1): 245-259. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2503660/>. Accessed [01.06.2020]
- [10] Carr, D., Schatman, M. 2019. Cannabis for Chronic Pain: Not Ready for Prime Time, Am J Public Health, 109(1): 50-51. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6301389/>. Accessed [01.06.2020]
- [11] Health Europa 2020, First US over-the-counter CBD drug given FDA certification, Medical Cannabis Network. Available: <https://www.healtheuropa.eu/first-us-over-the-counter-cbd-drug-given-fda-certification/97092/Accessed> [01.06.2020]
- [12] Caporuscio, J. 2020, What is the correct dosage of CBD?, Medical News Today. Available: <https://www.medicalnewstoday.com/articles/327518#research>. Accessed [01.06.2020]
- [13] KPMG 2019, LS Sector CBD Outline Publication, KPMG Germany
- [14] FDA 2020, FDA Regulation of Cannabis and Cannabis-Derived Products, Including Cannabidiol (CBD), Available: <https://www.fda.gov/news-events/public-health-focus/fda-regulation-cannabis-and-cannabis-derived-products-including-cannabidiol-cbd#othercbdapproved>. Accessed [01.05.2020]
- [15] Ledger, E. 2019, EU CBD Market: A Patchwork of Regulation, Cannabis Exchange. Available: <https://canex.co.uk/eu-cbd-market-a-patchwork-of-regulation/>. Accessed [01.05.2020]
- [16] Hemp Consult 2020, NEW EU REGULATION OF CANNABIDIOL (CBD) – UPDATE, European Industrial Hemp Association. Available: <https://hempconsult.com/new-eu-regulation-of-cannabidiol-cbd/>. Accessed [01.05.2020]



## Bibliography (II/IV)

- [17] Sikic, Jasminka 2020, CBD IN EUROPE – LEGISLATION ON THE EU AND NATIONAL LEVELS, Ilesol Pharmaceuticals. Available: <https://ilesol.com/cbd-european-legislation-national/>. Accessed [01.05.2020]
- [18] Tozser, M. 2020, EU crackdown: Novel food regulation of CBD, Open Access Government. Available: <https://www.openaccessgovernment.org/eu-novel-food-regulation-cbd/74422/>. Accessed [01.05.2020]
- [19] Mohanty, S. 2019, Cannabis 3.0: Is It on the Horizon?, Market Realist. Available: <https://marketrealist.com/2019/11/cannabis-3-0-is-it-on-the-horizon/>. Accessed [01.05.2020]
- [20] Ernst & Young 2019, EY Insights: Cannabis valuations. Available: [https://assets.ey.com/content/dam/ey-sites/ey-com/en\\_ca/topics/cannabis-canada/ey-cannabis-valuation-insights-2019.pdf](https://assets.ey.com/content/dam/ey-sites/ey-com/en_ca/topics/cannabis-canada/ey-cannabis-valuation-insights-2019.pdf). Accessed [01.04.2020]
- [21] FTI Consulting 2019, CANNABIS: VALUATION APPROACHES IN AN EVOLVING MARKET. Available: <https://www.fticonsulting.com/~media/Files/us-files/insights/white-papers/cannabis-valuation-approaches-evolving-market.pdf>. Accessed [01.04.2020]
- [22] MJ Biz Daily 2020, Comp tables as of April 14, 2020. Available: <https://mjbizdaily.com/investor-intelligence/comp-tables-as-of-april-14-2020-us-multiples-above-consumer-troughs-for-2020-but-down-for-2021/>. Accessed [14.04.2020]
- [23] PWC 2019, A candid review of cannabis multiples, PWC Canada. Available: <https://www.pwc.com/ca/en/services/deals/whats-the-deal-blog/a-candid-review-of-cannabis-multiples.html>. Accessed [14.04.2020]
- [24] Government of Canada 2020, About Natural Health Product Regulation in Canada. Available: <https://www.canada.ca/en/health-canada/services/drugs-health-products/natural-non-prescription/regulation.html>. Accessed [01.06.2020]
- [25] Isura 2019, Q&A: Is CBD a Natural Health Product?. Available: [https://isura.ca/wp-content/uploads/2014/04/QandA-CBD-a-NHP\\_updated-08082019.pdf](https://isura.ca/wp-content/uploads/2014/04/QandA-CBD-a-NHP_updated-08082019.pdf). Accessed [01.06.2020]
- [26] Staniforth, J. 2019, Health Canada Considering Categorizing CBD as Natural Health Product, Leafly. Available: <https://www.leafly.ca/news/health/health-canada-cbd-natural-health-product>. Accessed [01.06.2020]
- [27] Shortt, D. 2020, Will the FDA Soon Treat Hemp CBD as a Dietary Supplement?, Harris Bricken Law. Available: <https://harrisbricken.com/cannalawblog/will-the-fda-soon-treat-hemp-cbd-as-a-dietary-supplement/>. Accessed [01.06.2020]
- [28] UPI 2020, FDA inches closer to CBD rules for dietary supplements. Available: [https://www.upi.com/Top\\_News/US/2020/03/17/FDA-inches-closer-to-CBD-rules-for-dietary-supplements/8951584135040/](https://www.upi.com/Top_News/US/2020/03/17/FDA-inches-closer-to-CBD-rules-for-dietary-supplements/8951584135040/). Accessed [01.06.2020]
- [29] Grebow, J. 2020, Is 2020 the year FDA will finally make CBD a legal ingredient in dietary supplements and food?, Nutritional Outlook. Available: <https://www.nutritionaloutlook.com/article/2020-year-fda-will-finally-make-cbd-legal-ingredient-dietary-supplements-and-food-2020>. Accessed [01.06.2020]
- [30] Holz, R. & Blinkoff, S. 2020, FDA STILL STRUGGLING FOR RELIABLE CBD DATA; CONGRESS LOSING PATIENCE, Locke Lord. Available: <https://cannabis.lockelord.com/2020/01/16/fda-still-struggling-for-reliable-cbd-data-congress-losing-patience/>. Accessed [15.06.2020]



## Bibliography (III/IV)

- [31] Gatorade 2017, Gatorade – The Sports Fuel Company, Stokely-Van Camp Inc. Available: <http://www.gatorade.com.mx/company/heritage> Accessed [02.06.2020]
- [32] Lucas, A. 2020, Gatorade is a Super Bowl icon, but at stores, sports drinks are fighting for growth, CNBC. Available: <https://www.cnbc.com/2020/02/02/gatorade-and-powerade-try-to-adapt-as-sports-drinks-sales-decline.html>. Accessed [02.06.2020]
- [33] Statista 2020, Coca-Cola Company Dossier. Available: <https://de.statista.com/statistik/studie/id/15438/dokument/coca-cola-company--statista-dossier/> Accessed [02.06.2020]
- [34] AS English 2020, Second stimulus check: when will Senate vote on the HEROES Act? Available: [https://en.as.com/en/2020/06/14/other\\_sports/1592130398\\_344461.html](https://en.as.com/en/2020/06/14/other_sports/1592130398_344461.html). Accessed [15.06.2020]
- [35] Wikipedia 2020, SAFE Banking Act. Wikipedia: The Free Encyclopedia. Available: [https://en.wikipedia.org/wiki/SAFE\\_Banking\\_Act](https://en.wikipedia.org/wiki/SAFE_Banking_Act). Accessed [15.06.2020]
- [36] Varrel, A 2020, The Safe Banking Act Is Once Again On Its Way To The Senate, Technical 420. Available: <https://technical420.com/cannabis-article/the-safe-banking-act-is-once-again-on-its-way-to-the-senate/#>. Accessed [15.06.2020]
- [37] Deacon, H. 2019, Patient Commentary: Why I campaign for children like my son Alfie Dingley to be able to get medical cannabis, BMJ 365:1921. Available: <https://www.bmj.com/content/bmj/365/bmj.l1921.full.pdf>. Accessed [15.06.2020]
- [38] Busby, M. 2018, Mother says cannabis oil has been saviour for epileptic son Alfie, The Guardian UK. Available: <https://www.theguardian.com/society/2018/nov/01/mother-says-cannabis-oil-has-been-saviour-for-epileptic-son-alfie>. Accessed [15.06.2020]
- [39] Health Europa 2019, Project Twenty21: Europe's largest medical cannabis patient trial launches, Medical Cannabis Network. Available: <https://www.healtheuropa.eu/project-twenty21-launches/94695/>. Accessed [15.06.2020]
- [40] Erwin, A. 2019, Charlotte Caldwell in court battle for son's medicinal cannabis, Belfast Telegraph. Available: <https://www.belfasttelegraph.co.uk/news/courts/charlotte-caldwell-in-court-battle-for-sons-medicinal-cannabis-38254019.html>. Accessed [15.06.2020]
- [41] Health Europa 2019, Discover how Charlotte Caldwell is challenging the medical cannabis law, Medical Cannabis Network. Available: <https://www.healtheuropa.eu/caldwell-medical-cannabis-law/92117/>. Accessed [15.06.2020]
- [42] Busby M. 2018, Mother of epileptic boy will not get confiscated cannabis oil back, The Guardian UK. Available: <https://www.theguardian.com/society/2018/jun/11/epileptic-boys-mother-barred-from-bringing-cannabis-oil-into-uk>. Accessed [15.06.2020]
- [43] Williams, S. 2018, 3 Pot Stocks to Play Florida's Burgeoning Medical Marijuana Market, The Motley Fool. Available: <https://www.fool.com/investing/2018/12/12/3-pot-stocks-to-play-floridas-burgeoning-medical-m.aspx>. Accessed [15.05.2020]

# Bibliography (IV/IV)

- [44] Williams, S. 2020, 5 Marijuana Stocks That Can Make Money During a Recession, The Motley Fool. Available: <https://www.fool.com/investing/2020/03/05/5-marijuana-stocks-that-can-make-money-during-a-re.aspx>. Accessed [15.05.2020]
- [45] Harmantas, A. 2019, AFTER WINNING FLORIDA, TRULIEVE CANNABIS IS TAKING ITS BUSINESS MODEL MULTISTATE, CSE Issuer Stories. Available: <https://blog.thecse.com/2019/06/26/winning-florida-trulieve-cannabis-taking-business-model-multistate/>. Accessed [15.05.2020]
- [46] Elixinol Global Limited Shareholder Report 2018, 9th Annual Australian Microcap Investment Conference. Available: <https://www.elixinolglobal.com/site/PDF/39204be6-6b52-4cfb-9ad9-f6bb31e5c380/EXLAustMicrocapInvestmentConferencePresentation>. Accessed [15.05.2020]
- [47] HempToday 2020, Elixinol says it will slim down product line, focus on U.S., Europe. Available: <https://hemptoday.net/elixinol-plans-2020/>. Accessed [15.05.2020]
- [48] Williams, S. 2019, 3 Cannabis Stocks That Have Generated a Real Operating Profit, The Motley Fool. Available: <https://www.fool.com/investing/2019/11/11/3-cannabis-stocks-that-have-generated-a-real-opera.aspx>. Accessed [15.05.2020]
- [49] Schmidt, E. 2020, HEMP & CBD MARKET VALUE: JANUARY 2020 PRICE TRENDS FOR CRUDE, FLOWER BIOMASS, ISOLATE, ACS Laboratory. Available: <https://acslabcannabis.com/blog/education/hemp-cbd-market-value-price-trends-for-crude-flower-biomass-isolate/>. Accessed [01.06.2020]
- [50] NCV Newswire 2020, Canopy Growth Closes Cannabis Cultivation Facilities Across the World to Make Global Operations More Efficient, New Cannabis Ventures Press Release. Available: <https://www.newcannabisventures.com/canopy-growth-closes-cannabis-cultivation-facilities-across-the-world-to-make-global-operations-more-efficient/>. Accessed [01.06.2020]
- [51] FDA 2020, WARNING LETTER: CBD Online Store. Available: <https://www.fda.gov/inspections-compliance-enforcement-and-criminal-investigations/warning-letters/cbd-online-store-606587-04072020>. Accessed [10.06.2020]
- [52] Dorfman, B. 2019, FDA warns multiple cannabis companies that CBD can't cure COVID-19, Pot Network. Available: <https://www.potnetwork.com/news/fda-warns-multiple-cannabis-companies-cbd-cant-cure-covid-19>. Accessed [10.06.2020]
- [53] CV Sciences Website 2020, About CV Sciences. Available: <https://www.pluscbdol.com/about.html>. Accessed [02.06.2020]
- [54] Viridian Capital Advisors 2020, Cannabis Deal Tracker. Available: <https://www.viridianca.com/cannabis-deal-tracker>. Accessed [15.06.2020]

## Contacts

KPMG LLP

60 South Street  
Boston, MA 02111



**Kristin Ciriello Pothier**

Principal  
Global & National Healthcare  
and Life Sciences  
Strategy Leader  
Global Deal Advisory Leader,  
Healthcare and Life Sciences

T +1 617-549-2779  
kpothier@kpmg.com

KPMG LLP

1350 6<sup>th</sup> Avenue  
New York, NY 10019



**Roger van den Heuvel**

Principal  
Global Life Sciences  
Strategy Leader

T +31 634 590-362  
revandenheuvel@kpmg.com

KPMG AG  
Wirtschaftsprüfungsgesellschaft

Ganghoferstraße 29  
80339 München



**Christian Klingbeil**

Partner  
Sector Head Life Sciences  
Deal Advisory, Germany  
Deal Advisory, Valuation

T +49 89 9282-1284  
cklingbeil@kpmg.com

KPMG AG  
Wirtschaftsprüfungsgesellschaft

Tersteegenstraße 19-23  
40474 Düsseldorf



**Meino Mueller**

Partner  
Sector Lead Life Sciences  
Deal Advisory, Germany  
Deal Advisory, Strategy

T +49 211 475-7038  
mmueller@kpmg.com

[www.kpmg.de](http://www.kpmg.de)

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