

REPORT ON CANNABIS/CBD BUSINESS

1. Introduction

- Home to more than 740 million people, a population more than double that of the US and Canada combined, Europe is set to become the world's largest legal cannabis market over the next five years.¹
- Over the last twelve months, the European cannabis industry has grown more than it has in the last six years. Six countries have announced new legislation and over **€500m has been invested in European cannabis businesses**.²
- According to Prohibition Partners' findings, **Europe's cannabis market is estimated to be worth up to €123b by 2028³ and will likely become the world's largest legal market over the next five years.**⁴
- European policymakers and economists may look to North America, Canada and Australia for replicable impacts within these economies. The US cannabis industry is expected to outpace manufacturing job creation by 2020, and cannabis sales are set to exceed both liquor and wine markets in Canada in 2019.⁵
- **CBD has a special role in Prohibition Partners' report:** Whilst there is an emergent market for CBD-infused consumer goods, capsules and oils, these **have been excluded from the market size calculations due to a lack of sales data**. Although these products may be used for wellness purposes such as to aid sleep, or for pain or anxiety management, they do not require a prescription and have therefore been excluded from the medical market sizing.
- The concrete trigger of the interest around CBD products was a CNN documentation around the girl Charlott Figi from Colorado who suffers from the Darvet syndrome (severe early childhood myoclonic epilepsy) and received clear relief of her symptoms by CBD.⁶
- Cannabis & CBD: Due to the increasing legalization of cannabis and CBD products, **hemp products are moving into the legal mainstream**. Largely positive press reviews, hemp trade fairs and conferences, TV series about cannabis contribute to the fact that cannabis and products from the cannabis periphery lose their infamous image and are seen as lifestyle products. New CBD shops are also moving away from the "weed image" and positioning themselves towards premium and wellness.⁷
- In June 2018, the WHO's Expert Committee on Drug Dependence (ECDD) recommended that CBD should not be placed under international drug control. If CBD is deregulated, the distribution markets for all kinds of CBD products will receive a significant boost. This would help develop the infrastructure for the distribution of medical cannabis.

¹ Prohibition Partners: The European Cannabis Report, January 2019.

² Prohibition Partners: The European Cannabis Report, January 2019.

³ The market sizing contained within this report assumes that, by 2023, all countries profiled have legalised medical cannabis, and regulated recreational use. (Source: Prohibition Partners: The European Cannabis Report, January 2019)

⁴ Prohibition Partners: The European Cannabis Report, January 2019.

⁵ Prohibition Partners: The European Cannabis Report, January 2019.

⁶ CNN: Marijuana stops child's severe seizures, August 2013. <https://edition.cnn.com/2013/08/07/health/charlotte-child-medical-marijuana/>

⁷ QC Ventures: CBD Boom, February 2019. <https://www.qc-ventures.com/cbd-boom/>

- CBD Products & Brands: CBD is available in countless dosage forms. The best known is probably CBD oil with different CBD concentrations. CBD is best used as oil because other additives do not dilute it. Other CBD dosage forms are: Sprays, gels, flowers, thalers, tablets, dragées, crystals or e-liquids. However, CBD is also increasingly found as a component in beverages or snacks.
- Likewise with CBD brands, the choice seems endless (such as **Biobloom** from Austria, **Cibdol** from Switzerland, or **Endoca** from the Netherlands), as with online marketplaces (such as **CBDNOL** from Austria, **MediCann** from Switzerland, or **meinCBD** from Germany).⁸
- Branding/positioning of CBD: a clear orientation towards a **lifestyle-wellness-natural-good4me-image with application areas in health, wellness, sports and beauty** can be observed when analysing the presentation and description of the websites of relevant brands and manufacturers.
- CBD Soon Level with Cannabis: The US-CBD market is growing rapidly. Until recently, figures around USD 2.1 billion for the US CBD market in 2020 were quoted. This figure was already called an “astronomical jump”, while the US CBD market was still at USD 202m in 2017.⁹ In autumn 2018, the forecast for the 2022 US CBD market was USD 22 billion.¹⁰ In comparison: the legal Cannabis market is forecasted at USD 32 billion for 2022.¹¹
- **A strong CBD growth is also expected in Europe.**¹² However, there is still **little meaningful data available** for the CBD industry in Europe as to why exact forecasts cannot be made. Nevertheless, in its 4th European Cannabis Report, the UK-Cannabis Research Agency Prohibition Partners confirms a similar CBD growth in Europe as in the USA.¹³
- It will show how the CBD market will develop and how steep the growth curve will be. The fact is: more and more retailers are entering the market with very high margins. At the same time, the price of CBD is falling due to increased production capacities. In 2017 the CBD price halved from 5-6 CHF/gram to 2-3 CHF/gram.¹⁴
- On the other hand, the number of consumers and applications for CBD is increasing. The same development was described in talks with CBD dealers in Vienna. As in every market, sooner or later there will be a consolidation where brands with quality, innovation, service and good branding will prevail.¹⁵
- The problem with CBD remains that no health promises may be made for the currently customary dietary supplements, i.e. products below the threshold of medical use, unless scientific proof is provided. **Companies must continue to invest in research in order to exploit the full market potential of CBD products in the long run.** Placing products on the market at great financial and organisational expense without being able to say why the consumer should buy them makes no sense. At regulatory level, two options are available in

⁸ QC Ventures: CBD Boom, February 2019. <https://www.qc-ventures.com/cbd-boom/>

⁹ Wallstreet Online: CBD Market Set for Huge Growth, May 2018. <https://www.wallstreet-online.de/nachricht/10590786-cbd-market-set-for-huge-growth>

¹⁰ Brightfield Group: Hemp-Derived CBD Market to Reach \$22 Billion By 2022, September 2018. <https://www.brightfieldgroup.com/post/hemp-cbd-market-to-reach-22-billion-by-2022>

¹¹ Arcview Group: The State of Legal Marijuana Markets – 6th Edition. <https://arcviewgroup.com/product/6th-edition/>

¹² PR Newswire: Hemp and CBD set to Eclipse the THC Marijuana Market, October 2018. <https://www.prnewswire.com/news-releases/hemp-and-cbd-set-to-eclipse-the-thc-marijuana-market-860020980.html>

¹³ Prohibition Partners: The European Cannabis Report, January 2019.

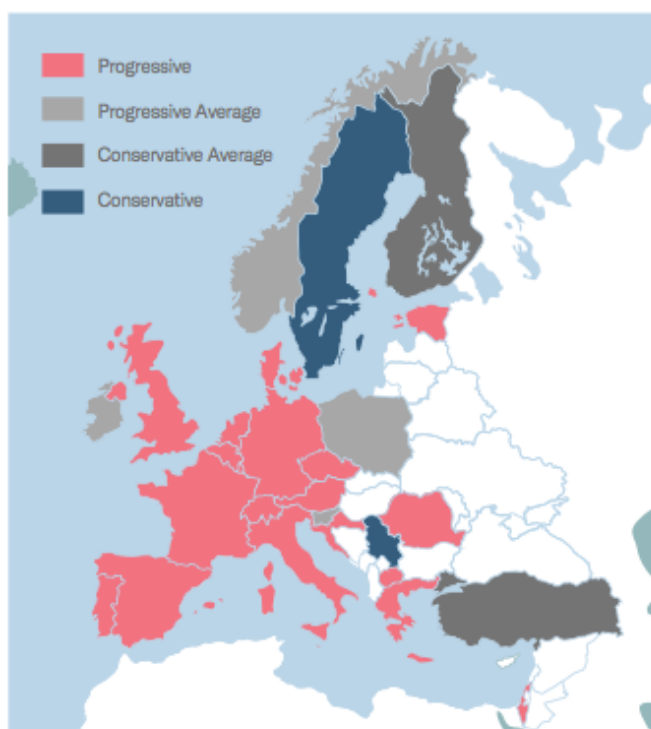
¹⁴ Hemplix: CBD Markt in der Schweiz, Dezember 2017. <https://hemplix.ch/cbd-markt-in-der-schweiz/>

¹⁵ QC Ventures: CBD Boom, February 2019. <https://www.qc-ventures.com/cbd-boom/>

the EU: firstly, the inclusion of CBD products in the Community list of permissible health claims of the European Commission can be requested (EU Register of nutrition and health claims made on food). Secondly, there is the option of registering the relevant CBD product as a traditional herbal medicine (such as ginkgo), so that pharmacological effects can also be communicated.

2. CBD market considerations/context

- According to The European Cannabis Report, the retail value of Europe's health and wellness market was estimated to be worth some €180 billion in 2018, a rise in value from €151 billion in 2013. This growth is attributable to growing health literacy across Europe with people becoming better-versed in how to improve their health through changes in lifestyles and supplementation. As a result, people are taking greater responsibility for their mental health and physical well-being. **Figures published by the WHO estimate that some 25% of Europe's population suffers from depression or anxiety, and given the mood-enhancing benefits of CBD, demand for CBD-based products that can boost mental health will experience strong growth.** Segment performance will be further propelled by growing availability of CBD consumer goods through ingredient innovation from big brands in mainstream consumer goods markets.¹⁶
- Figures for the Canadian market for health products suggest that CBD products account for an estimated 0.05% of the health and wellness market value and Prohibition Partners expects the European CBD market to account for a similar, if not larger share of the region's wellness market value by 2028. **The launch of CBD-infused beverages, for example, will help drive value sales of CBD products higher.** Furthermore, as food and drinks trends often filter into other consumer goods markets, Prohibition Partners predicts that sales will also be bolstered by rising demand for CBD-infusions in beauty products and possibly even household products in the future. In addition, the lack of a regulated market has helped drive demand for CBD products in Europe as the only legal means to access the therapeutic properties of cannabis. Furthermore, legal markets in the US show a high demand for high CBD and minimal THC recreational cannabis and Europe is expected to follow a similar trend.¹⁷
- Europe's cultivation capacity and processing infrastructure will quickly put the region on par with the North American market for hemp CBD products. However the battle for control and classification of the category will intensify as major pharmaceutical companies enter the space.¹⁸
- The growth of the CBD market in Europe is currently hampered by **lack of official categorisation.**
CBD can be categorised as a medicinal product but is also available as a food and wellness



The map represents the regulatory approach to medical cannabis.

¹⁶ Prohibition Partners: The European Cannabis Report, January 2019.

¹⁷ Prohibition Partners: The European Cannabis Report, January 2019.

¹⁸ Prohibition Partners: The European Cannabis Report, January 2019.

product which falls under a different regulatory jurisdiction. With debate over product licencing and regulated supply and distribution channels, availability of qualified CBD products in Europe is limited.

3. CBD: legislation in Europe

- Cannabidiol, or CBD can be legally purchased in most European countries, except in Denmark and Malta where it can only be purchased with a doctor's prescription. It also remains illegal in Slovakia.
- **The legislation around CBD is currently in a grey state.** While certain CBD products are used as a medicine, requiring marketing authorisation and clinical testing, other CBD products are classified as foods and wellness products.
- There are restrictions on the claims producers and sellers of CBD oil products can make on packaging or through marketing. These claims cannot be medically based unless there is compelling medical literature supporting them, and the company has received a marketing licence or authorisation from the specific country's government body to advertise them as medical products.

European Policy Analysis

- Recent analysis finds the European cannabis industry in a wave of legal and administrative reforms. The extent of these changes and the governmental policies fuelling them are wide ranging.
- There are many reasons; medical, social and commercial which explain why European nations are moving towards at least limited cannabis decriminalisation. Proponents have cited the economic potential of what is now a €2.9 billion UK cannabis black market with more than three million consumers.
- Leading the way: Top among those countries leading the way is Germany, which in the past two years has legalised medical cannabis. The EU's biggest economy, its cannabis market is now third only to the US and Canada in terms of market size. Since legalisation came into effect, German cannabis patient numbers have grown from 1,000 to over 40,000. Germany's government is resorting to imports to cope with demand, while establishing its domestic production capabilities. The country's medicines authority, BfArM, has had to reissue licences owing to the surge in demand for medical cannabis.
- Germany has the largest consumer base for cannabis among all EU nations. Its estimated medical cannabis market alone is will be worth €7.7 billion.
- Germany plans to pursue domestic cultivation of cannabis for medical purposes. **However, companies entering this space might need to spend between €30 - €60 million as a result of the high application fees and strict requirements.** These costs will remain high over the next 18 months at least, as supply deficits guarantee strong sales and high market prices for any successful applicant.

4. Successful/ Innovative European Start-Ups

Other than farmers, retailers and producers of CBD/Cannabis products, successful start-ups provide services such as research to provide solid facts and studies, news around the cannabis matter as a whole, technic-related businesses (e.g. facilitating prescription procedures) or legal consultancy businesses.











Name	City/ Country	Business
Newsweed	Paris, France	Founded in 2016 in Paris, the online publication is France's leading media source on global cannabis news, discussing topics including the state of legalisation and its evolution, research on medical cannabis, biology, business, trends, health, celebrities, art, movies on the subject, and more.
Cannamedical Pharma GmbH	Cologne, Germany	Founded in 2016, Cannamedical is one of Germany and the EU's leading cannabis wholesalers and just raised €15 million in a Series A round in January – the largest equity investment in a European cannabis startup to date.
Farmako	Frankfurt, Germany	Just founded in 2018, the pharmaceutical startup received a seven-digit seed funding round in December 2018 from the German health tech platform Heartbeat Labs. The company aspires to become the gateway to all European markets that provide a legal basis for pharmaceutical cannabis. Their explicit goal is to be the first company to obtain a respective licence in any newly opening European market.
Growbud	Copenhagen, Denmark	Based in Copenhagen, Growbud markets Bud, an iOS app that maintains a visual journal of growers' crops. Incorporating photos allows the grower to monitor every phase of a crop's growth cycle.
Growth Mavericks	London, UK	Founded in London in 2017, Growth Mavericks bills itself "the world's first cannabis growth hacking agency", helping marijuana startups grow through digital marketing.
MedPayRx	Frankfurt, Germany	Founded in 2017 and based in Frankfurt, MedPayRx is an insurtech and medtech startup aiming to take "the pain and the paperwork out of prescriptions". With one simple app, MedPayRx connects medical cannabis patients, doctors, insurers, and pharmacies in Germany. MedPayRx not only serves cannabis patients, but anyone in need of a prescription, especially those that need special approvals.
Hanfgarten	Graz, Austria	Founded in 2015, Hanfgarten is an Austrian online retailer of CBD products , and one of the biggest distributors of hemp products in Europe. The online shop sells CBD oil, hemp seeds, plants, "grass", cannabis-based wines and teas, and even lots of fun accessories to go with them, like growing kits, fertilizers, LED lights, vaporizers, soap, incense, and room sprays. The startup ships across Europe, as long as the product is legal in your country.

Harmony	Barcelona/ Spain	<p>Founded in 2014, Harmony creates products including CBD vape pens and CBD e-liquids in a variety of flavors, which are distributed by more than 2,000 retailers worldwide.</p> <p>Harmony uses certified, legal hemp as a source of cannabidiol (CBD) and terpenes, two legal components of hemp that have a range of applications. CBD is said to be useful in treating epilepsy, Alzheimer’s disease, Parkinson’s, anxiety, depression, and even schizophrenia.</p>
Hempfy	Switzerland	<p>Founded in 2016, Hempfy was the first project posted on the Swiss Beedoo crowdfunding platform in December of 2017. Hempfy products are made from low-CBD strains of cannabis that have no known psychoactive effects (though this could change as the law does). Hempfy also produces a Cannabis Essential Oil via steam distillation of natural hemp.</p>
Prohibition Partners	London, UK	<p>Based in London and founded in 2017, Prohibition Partners aspires to be the world’s foremost source of independent data, intelligence and strategy for the cannabis industry, expecting that their data, insights and education efforts will unlock the societal and commercial potential of cannabis. Prohibition Partners’ consultancy team works with investors, operators and regulators to identify and execute opportunities across multiple jurisdictions.</p>

5.1 Country analysis:

GERMANY

+ MARKET OVERVIEW

 Population (m)	82.2
 GDP (€t)	3.1
 Ruling Government Party	Coalition - Social Democratic Party, Christian Democratic Union, and Christian Social Union
 Party Stance on Cannabis	In favour of medical legalisation but recreational legalisation is unlikely before 2022
 Total Healthcare Expenditure (€b)	352
 Total Beauty & Wellbeing Expenditure (€b)	252
 Alcohol Consumption (Litres Per Capita Per Year)	13.4
 Prevalence of Tobacco Users (%)	30.6
 Number of Cannabis Users (m)	3.3
 Average Price Per Gram of Cannabis*	9.4

*Prices refer to black market cannabis prices
Source: World Bank/ WHO/ UNODC/ Prohibition Partners

- Germany has the largest consumer base for cannabis among all EU nations. Its estimated medical cannabis market alone is will be worth €7.7 billion. Further, if recreational cannabis is included in the estimate, then the value rises to €16.2 billion. This makes the German cannabis market extremely enticing for cannabis companies within Germany, EU, and other nations as well.

- Germany plans to pursue domestic cultivation of cannabis for medical purposes. However, companies entering this space might need to spend between €30 - €60 million as a result of the high application fees and strict requirements. These costs will remain high over the next 18 months at least, as supply deficits guarantee strong sales and high market prices for any successful applicant. In addition, applicants are required to show experience producing both federally legal cannabis and a product that is GMP certified.

- In April 2019, the BfArM (German Federal Institute for Drugs and Medical Devices) announced that it awarded the first contracts for cannabis for medical purposes: the cultivation of 7200 kg cannabis is now underway. The Federal Institute for Drugs and Medical Devices awarded contracts for the cultivation of cannabis for medical purposes in a tender procedure. **Aurora Produktions GmbH was awarded the contract for five lots, Aphria Deutschland GmbH for four lots.** This means that the cultivation of

cannabis in pharmaceutical quality will now be implemented in accordance with the legal requirements for narcotics and pharmaceuticals. (The tender covers a total of 10,400 kg of cannabis, spread over four years with 2,600 kg each. It is divided into 13 lots of 200 kg per year. Four of the 13 lots put out to tender cannot yet be awarded because an unsuccessful bidder has applied to the Public Procurement Chamber for a review.) **The BfArM expects the first harvest for the 4th quarter of 2020.**¹⁹

- Because the state cultivation in Germany has not started yet, cannabis is being imported. The Canadians have long been at the forefront here. However, the Canadians have failed to provide comprehensive supplies in Europe and the largest market in Germany. Georg Wurth from the Hemp Association reports on bottlenecks. "Especially from Canada there are no imports

¹⁹ Federal Institute for Drugs and Medical Devices (Bundesinstitut für Arzneimittel und Medizinprodukte, BfArM): Cannabisagentur, 2019. https://www.bfarm.de/DE/Bundesopiumstelle/Cannabis/Cannabisagentur/_node.html

expected at the moment - they are busy with their home market", says Wurth. Since mid 2017, leisure consumption has also been legalized in Canada and the demand is high.²⁰

- Lobbyist Georg Wurth (CEO and owner of the German Hemp Association) is optimistic that the first cannabis growers in Germany will actually be able to start cultivating within the next few months. "If this had happened more quickly, Germany could have become the top location," Wurth said. But now other countries such as **Portugal, Greece and Macedonia** have already advanced and have increased their cultivation areas.²¹
- Recreational use is currently illegal in Germany, although punishments have become increasingly lenient in recent years as attitudes shift. While dwarfed by France, Germany's industrial hemp production industry is in the top five in Europe and is expected to grow in 2018. The country is poised for further reform, including decriminalisation, which was called for by the head of the police union in February 2018.
- So far, major Canadian and Dutch firms are dominating the cultivation opportunities through joint ventures with German firms such as **Spektrum, Pedanios, Nuuvera, and Cannamed. Delays in the licensing process have resulted in these same firms building cultivation and production facilities elsewhere in Europe. With a presence in Portugal and Denmark, German-Canadian partnerships will look to Italy and Greece next.**
- The problem with CBD remains that no health promises may be made for the currently customary dietary supplements, i.e. products below the threshold of medical use, unless scientific proof is provided. Companies must continue to invest in research in order to exploit the full market potential of CBD products in the long run. Placing products on the market at great financial and organisational expense without being able to say why the consumer should buy them makes no sense. **At regulatory level, two options are available in the EU: firstly, the inclusion of CBD products in the Community list of permissible health claims of the European Commission can be requested (EU Register of nutrition and health claims made on food). Secondly, there is the option of registering the relevant CBD product as a traditional herbal medicine (such as ginkgo), so that pharmacological effects can also be communicated.**

German growers' initiatives/ perspectives

- Georg Wurth (CEO and owner of the German Hemp Association) explains why the cultivation of cannabis by small entities and farmers is not taking off²²: „one of the requirements of the (German) tender were, that anyone who has cultivated illegally in Germany so far may not participate despite experience. **Moreover applicants have to prove that they have legally produced up to 200 kilograms of cannabis in recent years**". A dilemma that takes ambitious hobby breeders, fruit growers, agricultural experts and many German pharmaceutical companies out of the bidding process. Start-ups, who considered to take part in the bidding process had to hence look for joint ventures with companies that could offer experience in the

²⁰ Deutsche Welle: Kampfansage an kanadische Cannabis-Produzenten, March, 2019. <https://www.dw.com/de/frankurter-start-up-sagt-kanada-beim-cannabis-den-kampf-an-und-will-in-europa-anbauen/a-48100533>

²¹ Deutsche Welle: Kampfansage an kanadische Cannabis-Produzenten, March, 2019. <https://www.dw.com/de/frankurter-start-up-sagt-kanada-beim-cannabis-den-kampf-an-und-will-in-europa-anbauen/a-48100533>

²² RP Online, 2018. Als Bryan auszog, um Cannabisanbauer zu werden, 5 January 2019. <https://interaktiv.rp-online.de/cannabis-anbau-in-deutschland>

growth of medical cannabis, which were mostly big investors and companies based in Canada.

- In Germany, the EU regulation on novel foods came into force in January 2018. In contrast to the Austrian government, the German government did not address hemp and CBD. In general, food and dietary supplements are not considered novel foods if they have already been consumed to a significant extent in the EU before 15 May 1997. Therefore hemp flowers are not covered by the "Novel Food" regulation, because hemp was already on the menu in the EU before the deadline. **Thus hemp foods are not considered as so-called "Novel Food" if they contain CBD by nature, e.g. cookies with hemp seeds.** The situation is different for CBDs added subsequently. If CBD is extracted and then subsequently added to foods, dietary supplements or cosmetics, the product must be approved as "Novel Food".²³
- For this reason many small producers stick with product ranges that contain „CBD by nature“. Like the Hanflinge (www.hanflinge.de), a small business founded by Florian Herm in Barenthin, Brandenburg. Hanflinge advertises its products as „regionally produced, organic hemp products“. They grow the cannabis on bio-soil fields in Brandenburg claiming to be ”committed to a 100% pollutant-free and ecological agriculture. The farm is 100% VEGAN and all products comply with EU directives. (“Our products are exclusively certified, THC-free hemp, which is subject to strict control.”) Products range from tea to cookies, oil and seeds. Another producer is Bio Ranch Zempow (www.bio-ranch-zempow.de), which also grows cannabis and produces the same product range like Hanflinge in Brandenburg.
- Another interesting project is a 1,5 hectare big hemp field in the north of Bavaria, close to the city of Kronach, which produced 13 tons of hemp in 2018. Since three decades family Bayer is has been growing and selling strawberries on 80 hectares of land. The company employs up to 500 people in early summer. **The customers directly visit the stands or the fields, where they can pick strawberries. In 2018 Joe Bayer started the same with a hemp field, where customers can come and pick their hemp directly from the fields.** Joe Bayer planted 43 kilos of seed in May. Along the road grow "Santhica 27", up to three and a half metres high, followed by "Finola", the CBD-richest of all hemp varieties. However, the plan changed slightly when looking into German law: accordingly, one may only deal with unprocessed hemp if it serves "exclusively commercial or scientific purposes which exclude an abuse for intoxication purposes". This means that Joe has to ensure that his customers or third parties are not intoxicated by the stuff. With a mini-THC content of 0.2 percent, this is virtually impossible. To stay on the safe side, Joe decided to not sell to private individuals for the time being. **Currently, only people with a trade license are allowed to pick from him, like a tea producer, who recently took three kilos for 30 euros.**²⁴











²³ Deutscher Hanfverband, 2019. CBD: Irritationen in Österreich und Deutschland, 9 January 2019. <https://hanfverband.de/nachrichten/news/cbd-irritationen-in-oesterreich-und-deutschland>

²⁴ Vice, 2018. Wir waren auf Deutschlands erstem Hanf-Feld zum Selberpflücken, 27 July 2018. <https://www.vice.com/de/article/a3q7wb/nutzhanf-cbd-hanftee-wir-waren-auf-deutschlands-erstem-hanf-feld-zum-selberpflucken>

- 5.2 Country analysis:

SWITZERLAND

MARKET OVERVIEW

 Population (m)	8.5
 GDP (€b)	577.1
 Ruling Government Party	Swiss Federal Council
 Party Stance on Cannabis	Open to gradually shifting towards legalisation
 Total Healthcare Expenditure (€b)	70.7
 Total Beauty & Wellbeing Expenditure (€b)	2.04
 Alcohol Consumption (Litres Per Capita Per Year)	11.5
 Prevalence of Tobacco Users (%)	25.7
 Number of Cannabis Users (m)	0.5
 Average Price Per Gram of Cannabis*	11.1

*Prices refer to black market cannabis prices
Source: World Bank/ WHO/ UNODC/ Prohibition Partners

- In the late 1990s, cannabis activists in Switzerland discovered a loophole in the country's Narcotics Act. The **legal gap** made it possible to grow and sell cannabis, both for personal use and on a larger scale because the law did not yet distinguish between cannabis and hemp on the basis of THC content, provided products were cultivated and sold for the explicit use of "aromatherapy". In Switzerland, cannabis and hemp products can legally contain up to 1% THC, compared to the standard 0.2% seen across the rest of the continent.

- This legal gap has led to a burgeoning hemp and CBD business, most notably of late, exemplified by the introduction of cannabis-infused cigarettes which launched in 2017. Cannabis is a major contributor to the Swiss economy, with the annual sales of legal cannabis and hemp products in Switzerland totalling around €87.9m.

- The number of shops stocking low THC cannabis ("cannabis light") has increased dramatically since the licensing of a tobacco substitute in 2016, which is now stocked in both supermarkets and tobacco shops.

- In order to comply with strict European regulation around the trade and marketing of medical products, all CBD products currently produced and sold in Switzerland are not labelled as 'medicine'.

- **Switzerland is pivotal for the growth of the European cannabis industry from an investment and IP perspective.** The country is home to some of the best pharmaceutical companies in the world as well as a number of major financial institutions.
- Switzerland is developing an impressive and competitive hemp market. Coop, the Swiss supermarket chain, now stocks cannabis cigarettes high in CBD (around 20%). Swiss-brand Heimat, produced by Koch & Gsell AG, launched cannabis cigarettes in July 2017 to add to their existing range of hemp-infused products such as iced tea, beer and food supplement oils.
- Around early May this year, German supermarket chain Lidl began selling low-THC, high-CBD cannabis products in Switzerland, as alternatives to tobacco. The two varieties were priced at €15 for 1.5 grams and were produced by The Botanicals. This company offers cannabis strains produced in automated greenhouses and is claimed to be produced through sustainable











agriculture as well as completely organic. Meanwhile, another company, KannaSwiss has begun selling CBD oil for a rather steep price at 150 Swiss francs.

- Recently, low-THC cannabis has entered the Swiss market in bulk. Just in 2017, over 140 businesses started selling these products and the anticipated revenue from this was near \$25 million on legal sales up to almost \$100 million. Wayland Group - one of the first companies to successfully create a stable range of THC distillate in Canada - has begun to export THC distillate to Switzerland. The company also announced in September 2018 that it plans to open a retail location in Zurich in 2019, to supply the market with high-quality cannabis products containing a maximum THC content of 1%.

5.3 Country analysis:

FRANCE

+ MARKET OVERVIEW

 Population (m)	67.4
 GDP (€t)	2.2
 Ruling Government Party	La Republique En Marche.
 Party Stance on Cannabis	In support of decriminalisation
 Total Healthcare Expenditure (€b)	251.3
 Total Beauty & Wellbeing Expenditure (€b)	11.4
 Alcohol Consumption (Litres Per Capita Per Year)	12.6
 Prevalence of Tobacco Users (%)	32.7
 Number of Cannabis Users (m)	4.7
 Average Price Per Gram of Cannabis*	7.9

*Prices refer to black market cannabis prices
Source: World Bank/ WHO/ UNODC/ Prohibition Partners

- France is emblematic of the hypocritical cannabis policies exhibited in Western Europe. The French government has maintained a conservative stance on both medical and recreational cannabis despite **France being one of the highest cannabis consuming and hemp producing nations in the world.**

In France the number of teenagers using cannabis is higher than in any other EU country. According to a 2016 WHO survey, France had the highest number of teenage cannabis users in the world.²⁵

- France currently approves Sativex. However, actual medical access to these drugs is effectively absent from the French market due to a number of reasons.

- Medical cannabis is currently illegal in France other than through a special compassionate-use permit that allows for the prescription of unlicensed cannabis medicines. Without any cannabis-based drugs sold in pharmacies, patients are forced to go abroad to buy their medication and are still subject to cannabis being illegal in France.

- Pharmaceutical cannabis was legalised in 2013 in France, however, there are still no cannabis-based products for sale in the country, and it remains out of reach of patients. Sativex, THC-CBD oral spray, was approved in 2014 to treat symptoms of multiple sclerosis, however, the high cost of the drug and the French health authority's low

15% reimbursement rate for Sativex, compared with up to 80% for other MS drugs, have effectively curtailed its potential use.

- Currently, two other cannabinoid-based drugs are allowed in France: Marinol, a synthetic THC prescription medicine used to treat nausea and vomiting associated with cancer chemotherapy and appetite loss associated with weight loss in people with AIDS; and Epidiolex, a CBD-based drug for treating epilepsy.
- **CBD being recognised as a non-psychoactive substance is currently legal in France and can be sold in selected shops. The cultivation, import, export, industrial and commercial**

²⁵ Prohibition Partners: The European Cannabis Report, January 2019.

use of cannabis (fibre and seeds) is permitted, provided the THC content does not exceed 0.2%. Sale and consumption of cannabidiol (CBD) e-cigarette liquid or hemp are not prohibited, and recently businesses have begun to sell these products. However, the French government has repressed CBD shops that sell leaves and resins since this summer on the basis of a controversial interpretation of the law to curb the massive movement to open stores that like to call themselves “coffeeshops”.

- Health Minister Agnès Buzyn has gone as far as indicating she is “not against” the legalisation of medical cannabis cigarettes, provided this is deemed the best drug delivery system. Further, the National Agency for the Safety of Medicine and Health Products (ANSM) set up a committee to evaluate, ‘the relevance and feasibility of the provision of medical cannabis in France’. On 13 December 2018 the committee found that it is “pertinent to authorise the use of medical cannabis” for patients with certain specified conditions.
- The committee announced in 2018 that it would recommend the use of medicinal cannabis products. In February 2019, France will host its **first industry event on cannabis, Cannabis Europa²⁶**, at the Maison de la Chimie (House of Chemistry) in Paris.
- **France is the world’s leader in hemp seed production, currently responsible for 59% of the total seeds globally.** The country also dominates the market for use of hemp fibre, accounting for over 50% of hemp-based pulp and paper production in Europe, even though only 20 specific strains are allowed to be cultivated legally.
- France is also the leader in industrial hemp cultivation. It has over 17,000 hectares of agricultural land being used for hemp cultivation. This is a significant chunk of the total land being used to cultivate hemp in Europe at 33,000 hectares. **Naturally, these factors make France an appealing hemp market and potential cannabis market to cannabis investors and CBD entrepreneurs, should any more lenient legislation be enacted.**
- France’s black market is estimated to be worth €8.3b per annum. This marketplace, although currently illegal, demonstrates great potential for a legal cannabis economy. **According to a report published in October 2016 by French think tank Terra Nova, legalisation would generate between €1.3b and €2.1b in tax revenue and create 13,000 jobs in the trade industry.**
- In recent months the government has been taking steps to close a number of “coffeeshop” premises that are opening in the Paris region, taking advantage of a legal ‘grey area’, following a clarification that national law allows for sales of low-THC, **high-CBD strains of cannabis.** The products contain just 0.2% THC and are being sold in several formats, some clearly labelled “do not smoke”.

²⁶ Cannabis Europa will bring together leaders in politics and policy-making, patient advocacy, science, and business, to help shape the future of the medical cannabis industry in Europe. However, France is a potentially huge cannabis market, with over five million consumers and 300,000 unofficial growers.

French growers' initiatives/ perspectives

The "Creuse" region: a future Eldorado for CBD?

- „The "Creuse", a department in central France (ca. 120,000 inhabitants in the Nouvelle-Aquitaine region) is preparing to become an "Eldorado" for the production of CBD. The project to legalise therapeutic cannabis presented by Éric Correia, president of the "Communauté d'agglomération de Guéret" (agglomeration community, an administrative unit in France), in 2018 is meeting the interest of an increasing number of farmers.
- Correia is an anaesthetist nurse, who has been working at the Guéret hospital for twenty years and is the symbol of rural France's "march to cannabis". About ten farmers say they are ready to sow hemp seeds and many are waiting for the sector to structure the supply chain to get started. «I have treated patients with acute or chronic pain such as multiple sclerosis or fibromyalgia with opium-based treatments», declared Correia. «Because of the side effects or ineffectiveness of these treatments, some have stopped the therapy and started smoking cannabis. They are now doing better and can work again. However, this is illegal and smoking is the worst method to take cannabis: it is better to transform hemp into oils, drops, spray or inhale it because there is no combustion, that is harmful to health».
- Correia will submit a proposal to the Medicines Agency and the Ministry of Health to develop therapeutic cannabis in the Creuse region by June 2019. «Our region is already known for the production of cannabis for the food, textile and building industry (*more than 100 years ago, Creuse was France's leading producer of industrial hemp, our note*)», declared Correia to "Le Parisien"²⁷, «we now have a great chance to become a pioneer in the production of CBD. It is a market where there is room for everyone, with a potential turnover of €1bn at national level. 300,000 French patients are waiting for this treatment. 24 out of 28 European countries already allow this kind of cannabis for therapeutic use. What is France doing?».²⁸
- According to the estimates, growing therapeutic cannabis in France would generate profits of € 2,500 per hectare compared to just €300 for wheat.²⁹
- In 2017, the Creuse region lost more than 150 jobs in the automotive parts industry. «For us, 150 jobs is huge compared to a population of 3,000 people, and a department with 120,000 inhabitants. Every job counts. We have to move forward on this. We have made some projections: 200 to 300 jobs could be created initially in the Creuse thanks to the therapeutic cannabis», said Correia to FranceInfo.³⁰

²⁷ Le Parisien 2018. Ces agriculteurs qui veulent cultiver du cannabis thérapeutique, 9 May 2018. <http://www.leparisien.fr/societe/ces-agriculteurs-qui-veulent-cultiver-du-cannabis-therapeutique-09-05-2018-7707822.php>

²⁸ FranceTV Info, 2019. Cannabis thérapeutique : "Il n'est pas concevable que des patients se mettent dans l'illégalité pour pouvoir se soigner", 5 April 2019. https://www.francetvinfo.fr/sante/drogue-addictions/cannabis/cannabis-therapeutique-il-nest-pas-concevable-que-des-patients-se-mettent-dans-lillegalite-pour-pouvoir-se-soigner_3267589.html











²⁹ Curieux, 2019. La Creuse se met au cannabis!, 25 February 2019. <https://www.curieux.live/2019/02/26/la-creuse-se-met-au-cannabis/>

³⁰ FranceTV Info, 2019. Cannabis thérapeutique : "Il n'est pas concevable que des patients se mettent dans l'illégalité pour pouvoir se soigner", 5 April 2019. https://www.francetvinfo.fr/sante/drogue-addictions/cannabis/cannabis-therapeutique-il-nest-pas-concevable-que-des-patients-se-mettent-dans-lillegalite-pour-pouvoir-se-soigner_3267589.html

5.4 Country analysis:

SPAIN

MARKET OVERVIEW

 Population (m)	46.6
 GDP (€t)	1.11
 Ruling Government Party	PSOE (Socialist)
 Party Stance on Cannabis	Open to medical legalisation but not a priority in the current government agenda
 Total Healthcare Expenditure (€b)	98.5
 Total Beauty & Wellbeing Expenditure (€b)	12.5
 Alcohol Consumption (Litres Per Capita Per Year)	10
 Prevalence of Tobacco Users (%)	29.3
 Number of Cannabis Users (m)	2.8
 Average Price Per Gram of Cannabis*	4.3

*Prices refer to black market cannabis prices
Source: World Bank/ WHO/ UNODC/ Prohibition Partners

- Spain has legalised all major cannabis pharmaceutical medicines including Sativex, Epidiolex, Nabilone and Dronabinol.

- Spain does not have formal medical cannabis treatment programmes but has decriminalised cultivation for personal use.

- Cannabis consumption and cultivation for recreational or medical use is decriminalised in Spain, providing it is for personal use and in a private place. Sale, importation, purchase, possession and consumption of cannabis in a public place is still illegal, however. Spanish law does not distinguish between recreational or medical cannabis, so many patients go to cannabis clubs to obtain and use their medicine because Spain currently prohibits medical cannabis containing THC.

- Commercially, there is a culture of cannabis social clubs across Spain, and particularly Barcelona. These are non-profit private collectives, some of which operate through a 'back-door' illegal market. While hemp seeds are legal, breeding and growing your own plant is not. Going to a club to consume cannabis is allowed, but it is forbidden to transport the minimum amount of product on the street, and according to data from the National Drug Plan, three out of every ten Spaniards has consumed cannabis.

- The Catalanian parliament submitted a bill in July 2017 calling for the legalisation of the cultivation, consumption and distribution of cannabis throughout the autonomous Spanish region. However, with the current political climate in Spain, the issue of cannabis law reform is set to take a back seat for the time being. Catalonia is the third regional government in Spain to approve such a law, after the Navarra and Basque County regions in the north of the country.

- Spain's cannabis industry operates in a grey area. This has given rise to private cannabis clubs and a thriving micro production industry. Historically, these businesses have influenced policy writing through cooperatives that lobby local government, and it appeared that this might deter international companies.

- However, the **partnership between Canadian cannabis producer, Canopy Growth, and Spanish morphine producer, Alcaliber**, for a reported €200m in March 2018 signals an











international interest in the Spanish market. **More recently, Canopy Growth reported the successful transfer of 1,500 cannabis clones to Alcaliber in Madrid.** This is the start of the joint venture undertaken by both parties and poses to make significant contributions to the Spanish cannabis market.

- There are a number of Madrid companies earning millions of euros from the sale of hemp-related products, despite the lack of legal status. **Leaf Life**, a company distributing products for cannabis self-cultivation, closed 2016 with a turnover of €12.7 million, three times its 2012 turnover (€4.1 million). Businesses related to cannabis continue to flourish, encouraged by the global climate of legalisation, and Spain's cannabis industry is said to be experiencing its best year in two decades.
- As the country hosts important research centres on medical cannabis including the ICEERS (International Centre for Ethnobotanical Education, Research and Service), Fundación Canna and the Spanish Observatory on Medical Cannabis (OECM, Observatorio Español del Cannabis Medicinal), Spain can expect the regulation of medical cannabis in the near future.

5.5 Country analysis:

THE NETHERLANDS

+ MARKET OVERVIEW

 Population (m)	17.2
 GDP (€b)	702.3
 Ruling Government Party	People's Party for Freedom and Democracy and Labour Party
 Party Stance on Cannabis	In favour of medical legalisation and considering trials for full recreational regulation
 Total Healthcare Expenditure (€b)	71.2
 Total Beauty & Wellbeing Expenditure (€b)	2.82
 Alcohol Consumption (Litres Per Capita Per Year)	8.7
 Prevalence of Tobacco Users (%)	25.8
 Number of Cannabis Users (m)	0.9
 Average Price Per Gram of Cannabis*	11.0

*Prices refer to black market cannabis prices
Source: World Bank/ WHO/ UNODC/ Prohibition Partners

- The Netherlands was the first country in the world to legalise medical cannabis, when their pioneering Health Minister, Els Borst, advocated its use in 1999. But it wasn't until 2001 that the country began officially producing and administering cannabis, after installing the Bureau for Medicinal Cannabis (BMC). In 2003, two companies were licensed to produce cannabis for medical and scientific purposes, one of which, **Bedrocan, has become a monopolistic force in Dutch cannabis.**

- Now, 15 years later, the Hague wants to introduce a second government licence for medical and scientific cannabis cultivation, though the successful applicant will grow cannabis solely for the BMC, which will control the destination of the product.

- As it stands, recreational use is technically illegal but is tolerated in small amounts for Dutch citizens; specifically - those carrying a maximum of five grams or cultivating no more than five plants.

- The CBD market exists in a vague and unregulated legal framework. CBD and all other hemp derivatives are available across the Netherlands.











-A committee, mostly comprised of scientists, are organising round-table discussions to explore alternative methods of supplying

coffeeshops, rather than relying on the unregulated black market. The plan is to provide a series of government-approved licences to independent producers that can, in turn, supply a selection of state-monitored coffeeshops over the next four years. **These licenses will likely be awarded to Dutch farmers in the greenhouse industries rather than large-scale international medical cannabis companies.** While they are conducting this experiment the government will monitor the consumption of state-run cannabis supplies and 'back-door' supplies to determine how much cannabis is needed, how many strains will be required and what is the best way of distributing the recreational cannabis.

5.6 Country analysis:

UK

MARKET OVERVIEW

 Population (m)	66.4
 GDP (€t)	2.23
 Ruling Government Party	Conservative
 Party Stance on Cannabis	In favour of medical cannabis
 Total Healthcare Expenditure (€b)	215
 Total Beauty & Wellbeing Expenditure (€b)	11.5
 Alcohol Consumption (Litres Per Capita Per Year)	11.4
 Prevalence of Tobacco Users (%)	22.3
 Number of Cannabis Users (m)	2.5
 Average Price Per Gram of Cannabis*	7.23

*Prices refer to black market cannabis prices
Source: World Bank/ WHO/ UNODC/ Prohibition Partners

- Medical cannabis products became legal in the UK on 1 November 2018, and registered specialist doctors may now prescribe medical cannabis to "patients in need". Access, which is currently restricted, is expected to expand as clinicians listed on the Specialist Register of the General Medical Council receive medical cannabis training.

- **CBD oil is now available in the UK, however products are not allowed to contain THC, and outlets such as health stores and pharmacies may sell them only if they are sold as nutritional supplements rather than medicines.**

- The cannabis investment sector is beginning to gain traction in London. The financial hub of Europe has seen a **growth in investment-related cannabis companies such as European Cannabis Holdings and Canaccord**. In addition, the pharmaceutical and cosmetic industries have started to embrace and capitalise on the myriad applications of cannabis.

- There has been a swell in cosmetic companies utilising low THC, high CBD hemp extracts in recent years. British high-street mainstays Body Shop and Holland & Barrett both stock hemp-based cosmetic products, either imported or grown on British soil. Overall, the CBD market has begun thriving in the UK in recent years. **Although all CBD**











products making medicinal claims need to receive a marketing authorisation from the MHRA, many companies have set up CBD companies categorised as food supplements. As of January 2018, there were an estimated 250,000 users - double the number of users reported in late 2016.

- The finance sector in the UK has, over the last year, turned its attention towards the European cannabis industry with many banking groups and private investors looking to finance European partnerships in the medical cannabis, CBD, analytics and retail spaces. A number of consultancies, along with market research and cannabis-focused finance groups have also established themselves in London.

5.7 Country analysis:

DENMARK

MARKET OVERVIEW

 Population (m)	5.8
 GDP (€b)	276
 Ruling Government Party	Venstre, the Liberal Alliance and the Conservative People's Party
 Party Stance on Cannabis	In favour of medical cannabis use
 Total Healthcare Expenditure (€b)	28.2
 Total Beauty & Wellbeing Expenditure (€b)	1.05
 Alcohol Consumption (Litres Per Capita Per Year)	10.4
 Prevalence of Tobacco Users (%)	19.1
 Number of Cannabis Users (m)	0.3
 Average Price Per Gram of Cannabis*	17.3

*Prices refer to black market cannabis prices
Source: World Bank/ WHO/ UNODC/ Prohibition Partners

- Historically, Scandinavian policies on cannabis have been strict and restrictive. In Denmark, however, there has been a significant change in the approach to cannabis.

- In 2011, Copenhagen's local council passed a motion 0.3 allowing the regulated sale of cannabis within the city. This proposal was then rejected at the national level nullifying the city's action.

- Seven years later, on 1 January 2018, Denmark legalised medical cannabis by a unanimous vote in parliament. The legislation was quickly followed by a national government tender for cultivating medical cannabis open to both domestic and international companies.

- The opening of a medical cannabis market initially appeared as though it would be extremely beneficial for Denmark's 27 small islands (many of which have been suffering economically for several years). Earlier, in March 2017, Alternative MP Nicolaj Amstrup told a local radio station that a legal medical cannabis industry "would be smart" and could potentially present "a new agricultural opportunity" for the islands. However, due to a strict application process, existing local agricultural firms are unlikely to enter the new marketplace, as only cannabis-specific facilities qualify for consideration.











- **As with pharmaceutical cannabis medicines and CBD/hemp oils, medical cannabis is only available to patients with a doctor's prescription. However, the lack of cannabis education for medical professionals has limited medical cannabis being prescribed.**
- In November 2017, the Danish Parliament announced plans to run a four year trial of medical cannabis beginning on 1 January 2018. The purpose of the programme is to help some of the patients who have tried every possible treatment without success. The government has committed €2.7m to the trial, investing in a number of research projects focusing on both clinical effects as well as the quality of life for patients during the course of the programme. Initial licenses were provided for testing only, with the aim of creating a 'Danish standard'.

- **At present, CBD and other hemp-based oils are controlled substances under the Danish drug laws. However, they can be obtained with a medical prescription.**

5.8 Country analysis:

ITALY

+ MARKET OVERVIEW

 Population (m)	60.5
 GDP (€t)	1.6
 Ruling Government Party	Seven party coalition
 Party Stance on Cannabis	In favour of medical cannabis
 Total Healthcare Expenditure (€b)	146
 Total Beauty & Wellbeing Expenditure (€b)	9.9
 Alcohol Consumption (Litres Per Capita Per Year)	6.7
 Prevalence of Tobacco Users (%)	23.7
 Number of Cannabis Users (m)	3.5
 Average Price Per Gram of Cannabis*	7.6

*Prices refer to black market cannabis prices
Source: World Bank/ WHO/ UNODC/ Prohibition Partners

- Italy has already established itself as a European forerunner when it comes to **progressive cannabis legislation**. Medical cannabis has been available to patients in Italy since 2013. However, due to a lack of domestic cultivation, cannabis was initially only available via **import from the Netherlands**. This has resulted in a price range which was out of reach for the majority of Italian patients.

- Recreational cannabis use remains illegal in Italy but CBD and all other hemp products are legal in Italy.

- In 2017, the Military Chemical and Pharmaceutical Plant (SCFM), based in Florence was granted exclusivity of the country's cannabis production and distribution. Later in the same year, the Italian Senate passed a law permitting the cultivation of cannabis without the need for authorisation in the food, cosmetics and energy sectors.

- CBD (THC content <0.2 %) became legal in Italy from the beginning of 2018 and demand is booming, although the hemp flowers are labelled 'not for human consumption', and are technically sold as "collectors items". **The burgeoning market has given rise to shops selling cannabis products as well as new franchising brands, and farmers associations are viewing wide-scale hemp production as a possible solution to Italy's agricultural slump.**

- **The commercial opportunities in Italy could be significant, with the value of the illegal cannabis market in Italy estimated at between €7.2 billion and €30 billion.** A figure like this would certainly be attractive to a nation that is still struggling to recover from a three-year recession.
- High-CBD, low-THC cannabis, known as 'cannabis light' is currently being sold all over the country, in tobacconists and general stores, and is skyrocketing in popularity, although high THC cannabis, for recreational users, is still only available on the black market. The future looks bright for cannabis light, with large exports of flowers and derivatives expected to reach other EU countries in the mid to long term.

- The commercial potential for Italian cannabis can already be safely assumed by the current success of **Easy Joint**, a 'cannabis light' brand that contains a small amount of THC (less than 0.2%) that can be sold legally in Italy. Since its launch at a Bologna fair in May 2017, Easy Joint sales have risen to the extent that the website crashed and stores holding the product had to instigate crowd-control measures. According to Luca Marola, head of Easy Joint, his company alone has sold over 17, 000 kilograms of cannabis light. Another company **CROP** recently announced its 25 acre cultivation facility has produced 600,000 plants categorized as 'Cannabis Light' in the country.
- In a development in late 2017, the Italian Senate passed a law permitting the cultivation of cannabis without the need for authorisation for producers of cannabis for food, cosmetics, industry and energy.
- In January 2018, Canadian cannabis company **Aurora Cannabis** won the tender to be sole supplier for 100 kilogram of cannabis in Italy. Aurora and its wholly owned German subsidiary **Pedanois** have GMP certifications and this was instrumental in their selection. The company has since then delivered its first batch of medical cannabis to Italy through Pedanois and is slated to continue its Italian export operations.
- **Maricann** has also entered the Italian cannabis market through a non-binding contract with San Martino SS, which is an agro enterprise from Piedmont, Italy. The University of Eastern Piedmont is also part of the collaboration and will contribute to the ongoing production for high CBD cannabis. The venture will also look to target the THC market as it opens up.
- Similarly, **LGC Capital**, a company collaborating with Italian company Evolution BNk announced that 20,000 square feet of its 70,000 square feet facility has been planted with cannabis seeds. The remaining 50,000 sq. feet will be plant by the end of the year.

Italian growers' cooperatives

- In Italy some small growers' cooperatives have been created in the last years to grow cannabis for the production of hemp based products. One of the them is "**Hemp Farm Italia**" (Hemp Farm Italia Società Cooperativa Agricola a responsabilità limitata, hempfarmitalia.com). Founded in 2015 in the Abruzzo region (Tortoreto, Teramo) by three young friends (Daniele Di Martino, Marco Sborgia and Alessandro Palumbo), the cooperative aims to "enhance the indigenous biodiversity by cultivating, processing and marketing" hemp based products within a short supply chain. Its challenge is "to propose a model of ethical growth, under the sign of quality and cooperation, aimed at self-sustainability".
- In 2017 the cooperative generated a turnover of €176,104 and a net profit of €50.967. The cooperative has launched an association of hemp growers and manufacturers that, together with the University of Teramo, is supporting researches for the improvement of hemp seeds' quality. The association is participating to tenders to get EU financing. Hemp Farm Italia is actively cooperating to the "mercato contadino" (farmers market) project of the Italian agricultural confederation, that supports the direct sale of agricultural products in local farmers markets thus shortening the supply chain. The cooperative is not owning land plots itself but it is renting them or using them for free ("contratto di comodato"). In 2017 the cooperative

welcomed a fourth member: Mirko Di Giacinto. The total share capital is €40,000.³¹ Hemp Farm Italia is currently selling hemp's based food products (beer, biscuits, pasta, flour) as well as seeds, oil and flowers (containing CBD).











- Another example of agricultural cooperative in this sector is **Hemp Farm Lab Società Agricola**, based in Afragola (Napoli, *hempfarmlab.com*). Created in 2017, it is managed by Valentina Capone (a pioneer in hemp growing in the Campania region) and Rosa Borrelli. Their aim is to "promote a new and alternative model of sustainable and green economic development", while generating employment and organise training courses "with the help of training institutions and schools". Hemp Farm Lab cooperates with the "Istituto Zooprofilattico del Mezzogiorno" (Zooprohylactic Institute for Southern Italy, based in Portici, Napoli) and the Pharmacy Department of the University of Salerno.
- The cooperative currently produces hemp seeds, flowers and oil. It is linked to "Hemp Diano Valley Società Agricola", a small company launched in 2018 by Angelica Pistone with the clear aim of alleviating the effects of multiple sclerosis through the use of cannabis. In 2018, Hemp Farm Lab has launched "Centro Operativo Sviluppo Canapa del Sud", a cooperative that includes 25 farming companies for a total of about 50 hectares of hemp grown for the production of seeds and inflorescences.
- Updated information can be found on the FB accounts of the cooperatives and farming companies:
 - => <https://www.facebook.com/HempFarmLab/>
 - => <https://www.facebook.com/hempdianovalley/>
 - => <https://www.facebook.com/sviluppcanapasud/>

³¹ Hemp Farm Italia's financial report, 2017.

5.9 Country analysis:

PORTUGAL

+ MARKET OVERVIEW

 Population (m)	10.3
 GDP (€b)	184.9
 Ruling Government Party	Socialist Party
 Party Stance on Cannabis	Discussing personal cultivation and legalisation
 Total Healthcare Expenditure (€b)	16.6
 Total Beauty & Wellbeing Expenditure (€b)	1.28
 Alcohol Consumption (Litres Per Capita Per Year)	12.3
 Prevalence of Tobacco Users (%)	22.7
 Number of Cannabis Users (m)	0.2
 Average Price Per Gram of Cannabis*	6.2

*Prices refer to black market cannabis prices

Source: World Bank/ WHO/ UNODC/ Prohibition Partners

- Historically, Portugal is regarded as a trailblazer in drug reform. In 2000, Law 30/2000 was passed, which formally decriminalised the consumption and possession of all illegal drugs for personal use. Consumption and use are both still considered to be administrative offences and may be punishable by fines or rehabilitation orders, but in practice, many cases are suspended.

- In January 2018, political parties Bloco de Esquerda (Left Bloc) and PAN (People, Animals and Nature) presented a bill to parliament, advocating the legalisation of medical cannabis under prescription. The bill was postponed due to a lack of cohesive support across parties. The bill proposed giving citizens permission to cultivate cannabis on the condition that the THC content was minimal. On 15 June 2018 the bill was passed, officially allowing the prescription of medical cannabis.

- British company GW Pharmaceuticals owns a cultivation facility in Portugal that produces up to 21 tonnes of cannabis for formulating into Sativex. In addition, major Canadian producers Tilray are currently investing €25m into a cultivation and R&D facility 220 kilometres north of Lisbon for producing cannabis solely for export. The licence was granted by the Government of Portugal in September 2017 and Tilray was permitted to import seeds into the country. The facility cultivates, processes, packages, and distributes medical cannabis and THC products to medical cannabis patients, pharmacies, and researchers throughout the European market.

- In August 2018 the municipality of Nelas, north of the Portuguese capital Lisbon, leased a plot of land to a company planning to invest €5m in the creation of a sophisticated industrial unit to produce medicinal cannabis oil. The company, which has not been named, will commence operations within a year and would be dedicated to commercialising cannabidiol, with plans to export it to countries such as the USA, Brazil, Mexico, the UK, and France.

Portugese growers' initiatives

- Many big companies are cultivating or investing in the cultivation of cannabis in Portugal. However, the **Lusicanna cooperative** (www.lusicanna.com), which has been freshly incorporated on the 18th of August in 2018 in **Serpa**, Portugal, plans to change that and offers

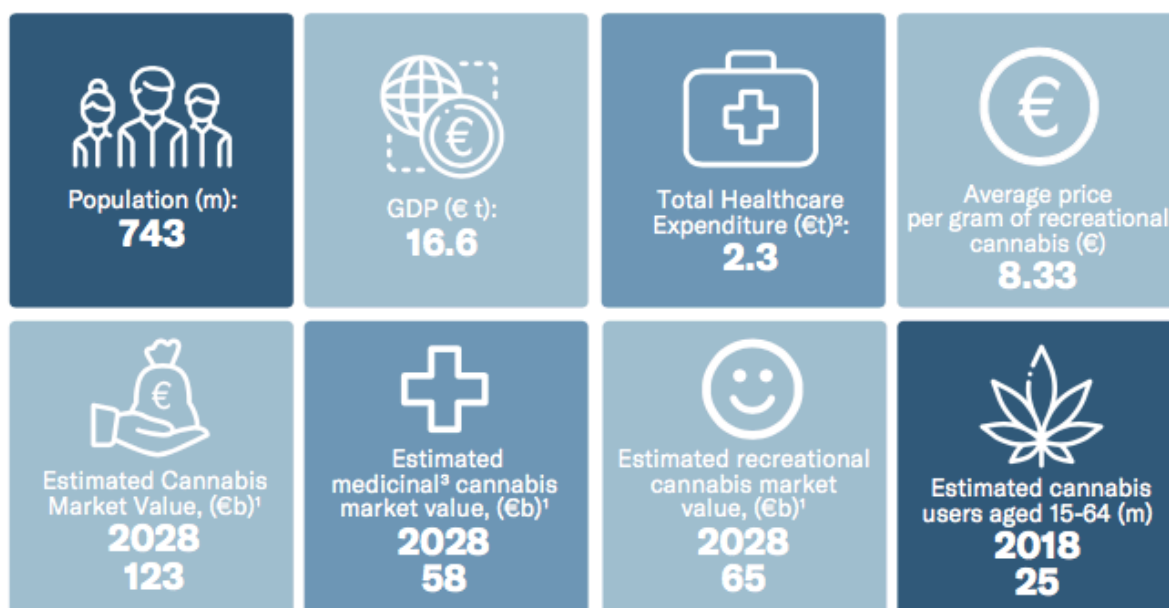
small farmers the possibility to profit from the enormous business opportunity growing cannabis is offering. The six founders of the **Lusicanna Co-op** are currently producing hemp in Alentejo, Algarve and Castelo Branco area and explain that one of their “main goals is to enable as many farmers as possible to join this exciting market”.

- Lusicanna states that hemp **is a culture with sustainable potential for the future**. The co-op’s objective is to **make it accessible to small and medium farmers** and companies throughout the national territory. They hence called for new members by underlining that, if “you are interested in becoming part of the emerging hemp industry in Portugal, keep tabs on Lusicanna”. Starting in 2019 the co-op accepts new members.
- Lusicanna’s productions are 100% organic. They want to ensure sustainable plantations, exclude the use of synthetic fertilizers, non-organic poisons or any other method that does not meet the standards of a healthy production, thus guaranteeing the quality of the final product.
- In March 2019, in an open letter to the Minister of Agriculture, Forestry and Rural Development (DGAV) Lusicanna was appealing the current refusal of DGAV to issue growing permits, which “puts the farmers in danger and harms an emerging industry”. Farmers and their customers require planning security for the season 2019. Lusicanna hence requested the following steps to be taken immediately:
 - Issue permits to grow under the previous year’s regulation.
 - Alternatively at least the issuance of provisional permits for 2019, allowing the farmers to plan for the season and procure/protect their and their client’s interests.³²

³² Lusicanna, 2019. Carta aberta sobre o situação dos produtores de Cânhamo em Portugal, 7 March 2019. <https://www.lusicanna.com/137-2/>

6. Market Overview: Medical cannabis

Key Statistics for the European Cannabis Industry



¹Estimates assume that by 2023, all countries profiled in this report have legalised medical cannabis and regulated recreational use

²Estimate based on average regional healthcare expenditure as % of GDP

³ Includes medical and pharmaceutical cannabis

Source: Prohibition Partners

Estimated market value: €58 billion by 2028

The European medicinal cannabis market could be worth up to €58b once all markets have implemented legislation and enacted an efficient market infrastructure. We estimate that this will likely be enacted by 2022 and developed by 2028.

The health and economic benefits of medical cannabis have already been recognised by a number of leading insurance companies including Sun Life, AOK, TK, Barmer and Cigna. While still illegal in a number of European countries, insurance companies across Israel, Italy, Denmark and Germany have changed their stance and are now covering cannabis prescriptions in these markets.

7. International CBD Investment News

- **Investments in CBD are increasing:** The **Canadian Wayland Group Inc** specializes in medical and non-medical cannabis brands and collected USD 40m in 2018. In September 2018 Wayland announced that it will open a branch in Zurich in 2019. The move follows a the company's strategic acquisition of Haxxon AG in May 2018, giving Wayland the opportunity to leverage Haxxon's Regensdorf, Switzerland manufacturing facilities and its production of feminized high CBD cannabis plants.³³
- US- and Canadian companies invest in European CBD/Cannabis manufacturers/dealers or expand to Europe themselves. An example: TGOD The Green Organic Dutchman Holdings Ltd – producer and retailer of high quality cannabis invests USD 35M to buy and expand the Polish producer and distributor **HemPoland**, known for its CBD brand Cannabigold.³⁴

HemPoland is a leading European manufacturer and marketer of premium organic CBD oils led by founder and CEO, Maciej Kowalski, one of Europe's most widely recognized CBD experts. Founded in 2014, HemPoland was the first company in Poland to obtain a state licence allowing the company to grow hemp and manufacture CBD oil products.

HemPoland is vertically integrated, with over 1,250 acres of cultivation leveraging third parties, multiple commercial scale extraction units, local distributors in Poland, Austria, Netherlands, Germany, United Kingdom, Italy, Switzerland, Portugal, Ireland, Czech Republic, Slovenia, Lithuania, and Estonia, and product sales in over 700 locations. With a robust ecommerce platform, diverse wholesale model, and over 60 employees, HemPoland has proven the ability to execute by rapidly scaling across the European Union in a short timeframe. In 2017, the company produced over 32,000 kgs of organic dried flower and 310 kgs of organic CBD oils.

- European CBD/Cannabis companies expand their products into the USA. As an example: Isodiol – Swiss producer of industrial grade hemp + CBD extracts buys into Compass Clinics, which connect patients with physicians to get faster prescriptions for medical cannabis.³⁵
- CBD sales increase: For example US-based CV Sciences, producer and supplier of hemp-based products, tripled CBD sales in Q2/2018 to USD 12.3m.³⁶

³³ DGAP News: Wayland gibt Pläne für ersten Einzelhandelsstandort in Zurich, Schweiz, bekannt, September 2018. <https://www.dgap.de/dgap/News/corporate/maricann-group-inc-wayland-gibt-plaene-fuer-ersten-einzelhandelsstandort-zurich-schweiz-bekannt/?newsID=1098055>

³⁴ New Cannabis Ventures: TGOD to Invest \$35 Million to Acquire and Expand European CBD Company HemPoland, August 2018. <https://www.newcannabisventures.com/tgod-to-invest-35-million-to-acquire-and-expand-european-cbd-company-hempoland/>

³⁵ New Cannabis Ventures: Isodiol to Take 19.9% Stake in Compass Cannabis Clinic for Exclusive CBD Distribution, April 2018. <https://www.newcannabisventures.com/isodiol-to-take-19-9-stake-in-compass-cannabis-clinic-for-exclusive-cbd-distribution/>

³⁶ New Cannabis Ventures: CV Sciences Triples CBD Sales in Q2 to \$12 .3 Million, July 2018. <https://www.newcannabisventures.com/cv-sciences-triples-cbd-sales-in-q2-to-12-3-million/>

8. Conclusion

- **Classification of products is rendering the legislation process in Europe and its respective countries very complex.** Effectively the legislation around CBD is currently in a grey state. While certain CBD products are used as a medicine, requiring marketing authorisation and clinical testing, other CBD products are classified as foods and wellness products.

- **At regulatory level, two options are available in the EU:**
 1. Inclusion of CBD products in the Community list of permissible health claims of the European Commission can be requested (EU Register of nutrition and health claims made on food).

 2. Option of registering the relevant CBD product as a traditional herbal medicine (such as ginkgo), so that pharmacological effects can also be communicated.

- Main drivers of the CBD market in Europe:
 1. Research,
 2. legislative pressure – not only but importantly – through lobbying and leverage efforts of multinational companies and of course
 3. profit estimates.

- **Research, a main driver of CBD in Europe:** The problem with CBD remains that no health promises may be made for the currently customary dietary supplements, i.e. products below the threshold of medical use, unless scientific proof is provided. There are restrictions on the claims producers and sellers of CBD oil products can make on packaging or through marketing. These claims cannot be medically based unless there is compelling medical literature supporting them, and the company has received a marketing licence or authorisation from the specific country's government body to advertise them as medical products. **Companies must continue to invest in research in order to exploit the full market potential of CBD products in the long run.**

- **Multinational companies, a main driver of CBD in Europe:** large-scale retailers and manufacturers announced that they would be producing or carrying CBD products (or expressed interest in pursuing them) in their portfolio.
 - > Coca-Cola expressed interest in CBD-infused beverages with Aurora.
 - > Unilever will release a line of CBD-infused deodorant products.
 - > Barney's launched "The High End", a luxury cannabis lifestyle shop.
 - > Sephora launched a curated section in its stores dedicated entirely to CBD.
 - > *The list of multinational companies investing in/ planning CBD investments is endless.*