

Opportunities and Challenges of Organic Wild Harvested products from Finland

The process of developing products
with high export value



KÄÄPÄ Biotech is a biotechnology company
committed to healthier humans and ecosystems

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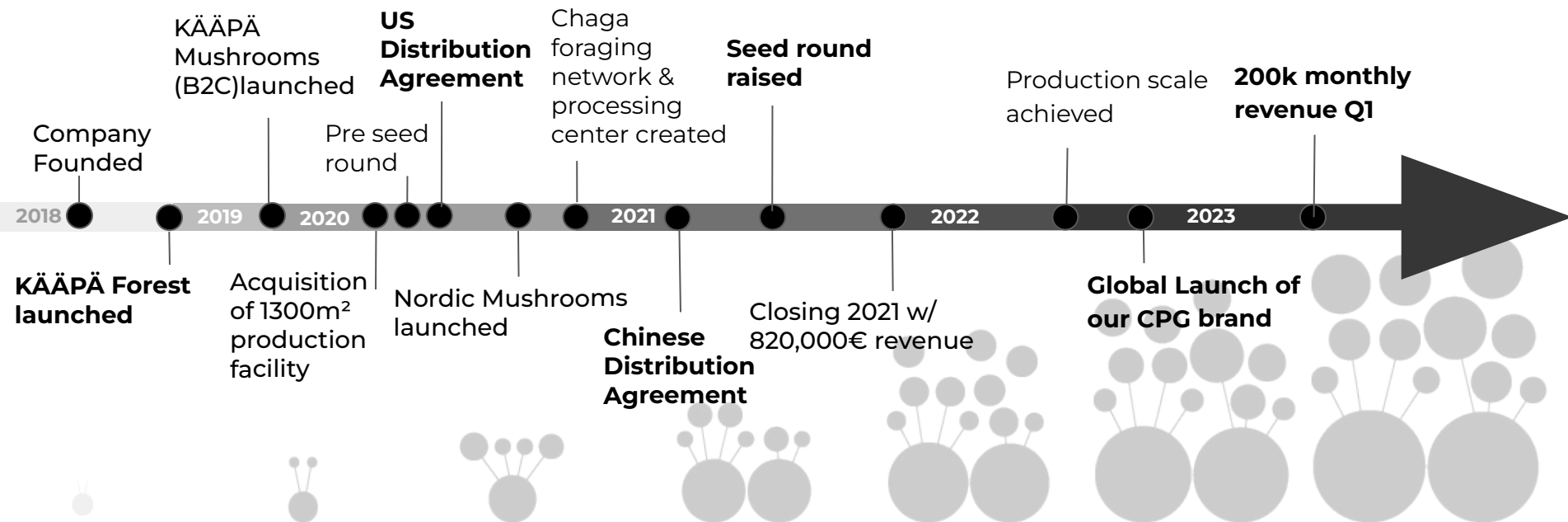
The company researches, innovates and develops novel industry solutions with fungi.

KÄÄPÄ Forest is the forest services subdivision of KÄÄPÄ Biotech. KÄÄPÄ Forest promotes versatile use of forests and the forest cultivation of organic chaga to create a more sustainable supply for chaga mushroom. KÄÄPÄ Forest controls the largest chaga cultivation network in the world.

KÄÄPÄ Mushrooms is an organic functional mushroom extract CPG brand, and **Nordic Mushrooms** is a wholesale division of Nordic organic mushrooms extracts.

Past and future milestones

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NORDIC
MUSHROOMS

KÄÄPÄ
MUSHROOMS

KÄÄPÄ
FOREST

KÄÄPÄ
LABS

Growth Strategy

2019

Development of 1,300 m2 production/medical grade extraction facility

Launch of KÄÄPÄ Mushrooms (B2C) product line



2020

Launch of Nordic Mushrooms (B2B) ingredient division

Finalize extraction division internally

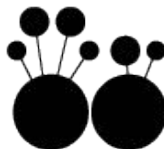


2021

Development of Supply Network

Launch of US distribution for Nordic Mushrooms (B2B)

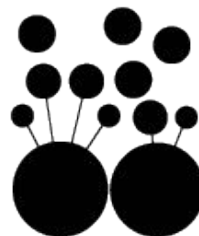
Expansion of our Biotech services



2022

Launch/Growth of US/EU/Australia /UK markets

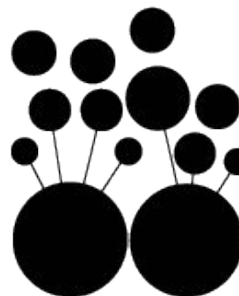
Production Scale achieved in KÄÄPÄ Factory



2023

Further expansion of supply networks

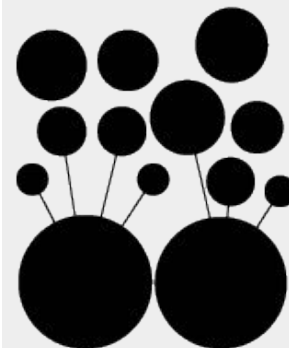
Extended growth of US/EU markets



2028

Corporate milestone kicks in

Recurring annual 5.2M€ revenue from KÄÄPÄ Forest Chaga Cultivation 60,000 dried kg / year



KÄÄPÄ Biotech team

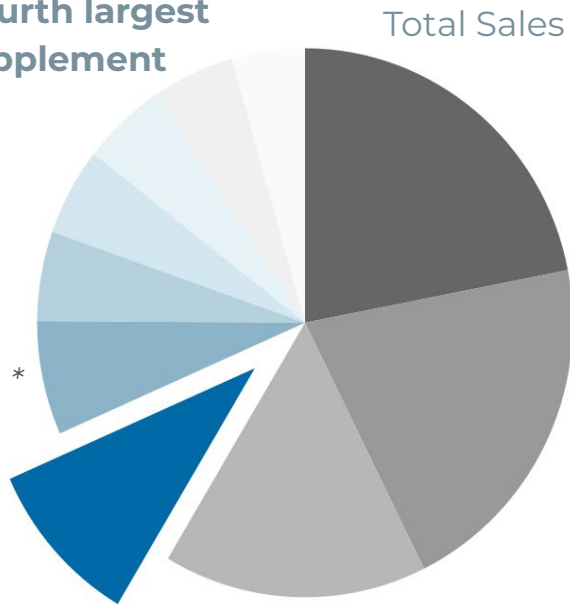
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Employees
20 full-time
14 part-time

North American herbal supplement market

Mushroom supplements
are the fourth largest
herbal supplement
category
in 2020



● CBD ● Elder Berry ● Turmeric ● Medicinal Mushrooms

*Other herbal supplements in the top ten selling products

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The 'Shroom boom continues

Fungal supplements performed well in 2020 - 20% of all the herbal ingredients that increased in sales were mushrooms: chaga, lion's mane, turkey tail, cordyceps, and reishi.

Source: American Botanical Council Market Report 2021, Top-Selling Herbal Supplements in 2020

The World According to Us

(2019 in USD and SOM reached within 3 years)

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North America

TAM* - 9.6B

SAM** - 350M

SOM - 10M

CAGR 8.9%

EU

TAM* - 21B

SAM** - 200M

SOM - 3M

CAGR 9.8%

*Total Addressable Market (Herbal Supplement Industry)

** Serviceable Available market (Functional Mushroom Sales)

SOM, Serviceable Obtainable market

Sources

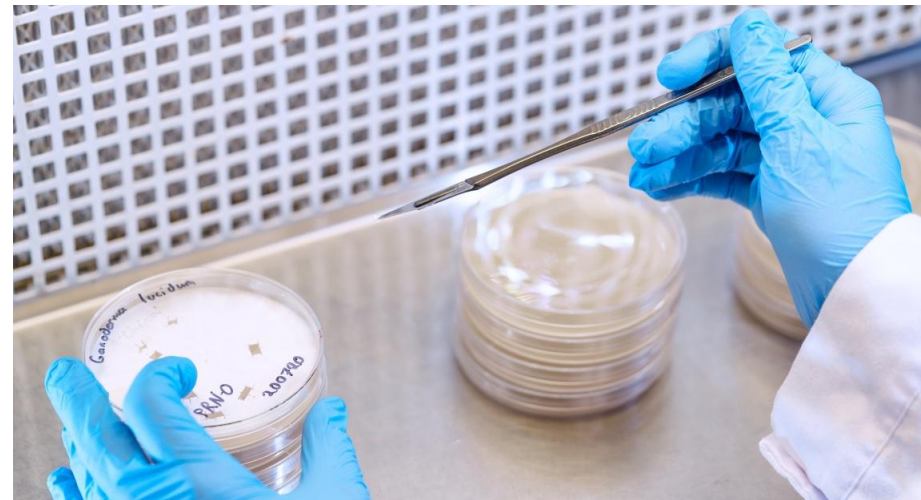
CNBC.com
mordorintelligence.com
American Botanical Council
Market Data Forecast

KÄÄPÄ's unique value proposition

Our **clean and sustainable** FSC and PEFC birch wood substrate equals **pure mushrooms**.

We utilize **industry-leading technological solution** for extraction.

Constant **innovation, research and development** are at the core of our company to ensure that we bring cutting edge solutions to the market.



KÄÄPÄ Biotech's Solution

As a pioneer within the herbal supplement industry, KÄÄPÄ implements the industry's mega trends.

Sustainability is an integral part of KÄÄPÄ Biotech's business model.

KÄÄPÄ has developed a fully **transparent supply chain** that is focusing on organic Finnish grown ingredients, which is controlled from spore to shipment.

KÄÄPÄ is committed to constant product innovations through the **latest scientific methods** available.



KÄÄPÄ Biotech won the 2021 NutraIngredients Start-up Award

*"As a startup, KÄÄPÄ Biotech succeeds in combining innovative processing and high-standard quality assurance with consumer expectations that today's society considers increasingly important from trusted companies: **responsible and ecologic sourcing** of raw materials, **organic production** and **transparency** of the supply chain."*

NutraIngredients Awards judges, [Awards Brochure](#)

Finland - the most responsible place for sourcing organic wild foraged chaga

Cleanest air and water ever measured!

Finland is the **only country limiting overharvesting**.

Government **gives out foraging permits**.

Chaga foraging is only allowed in areas which the government has deemed **ecologically stable**.

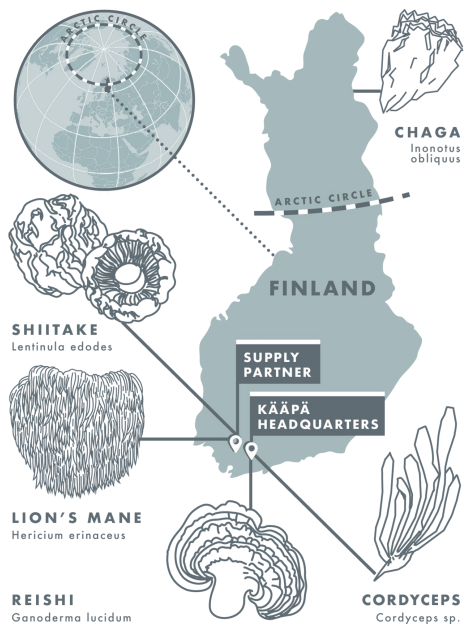
Read more: [Yle.fi](#), [who.int](#), [Unesco.org](#), [luke.fi](#)



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Traceability

Organic Functional Mushrooms from Finland



We grow
our mushrooms
at KÄÄPÄ
headquarters and
work with supply
partners to offer
a wide variety of
mushroom
extracts.

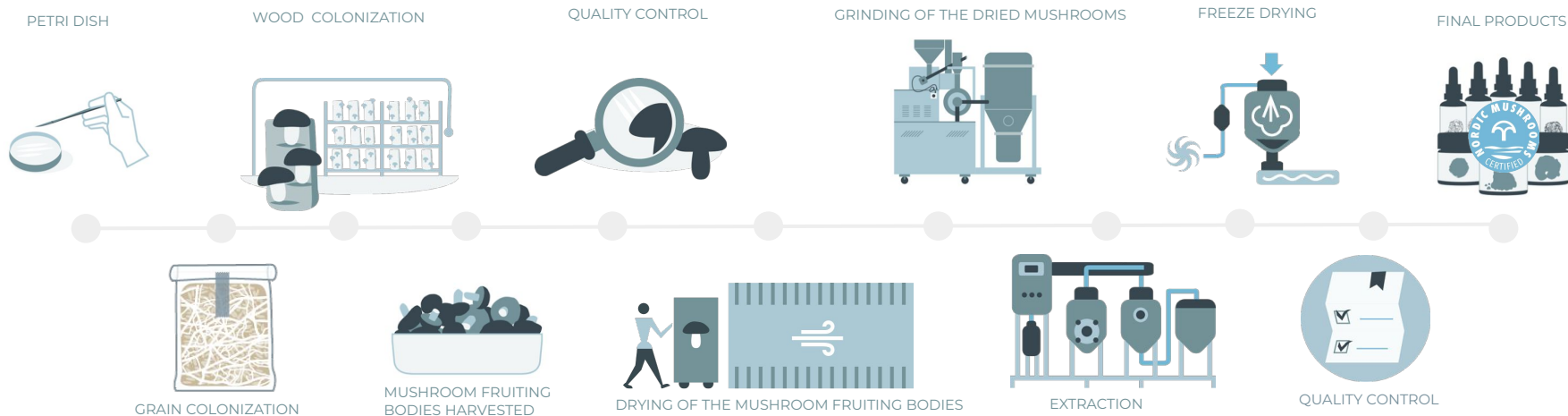


Transparency from Spore to Extract

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KÄÄPÄ develops the supply chain, processing technologies, quality management systems, and various sales channels.

Our cultivation and growing practises ensure the mushrooms contain the highest levels of the compounds of interest. We extract our mushroom ingredients with the industry-leading extraction technology.



Why organic matters?

ORGANIC FINNISH CHAGA



- Clean water, air and forests
- Organic certified
- No pollution or radiation issues

RUSSIAN CHAGA



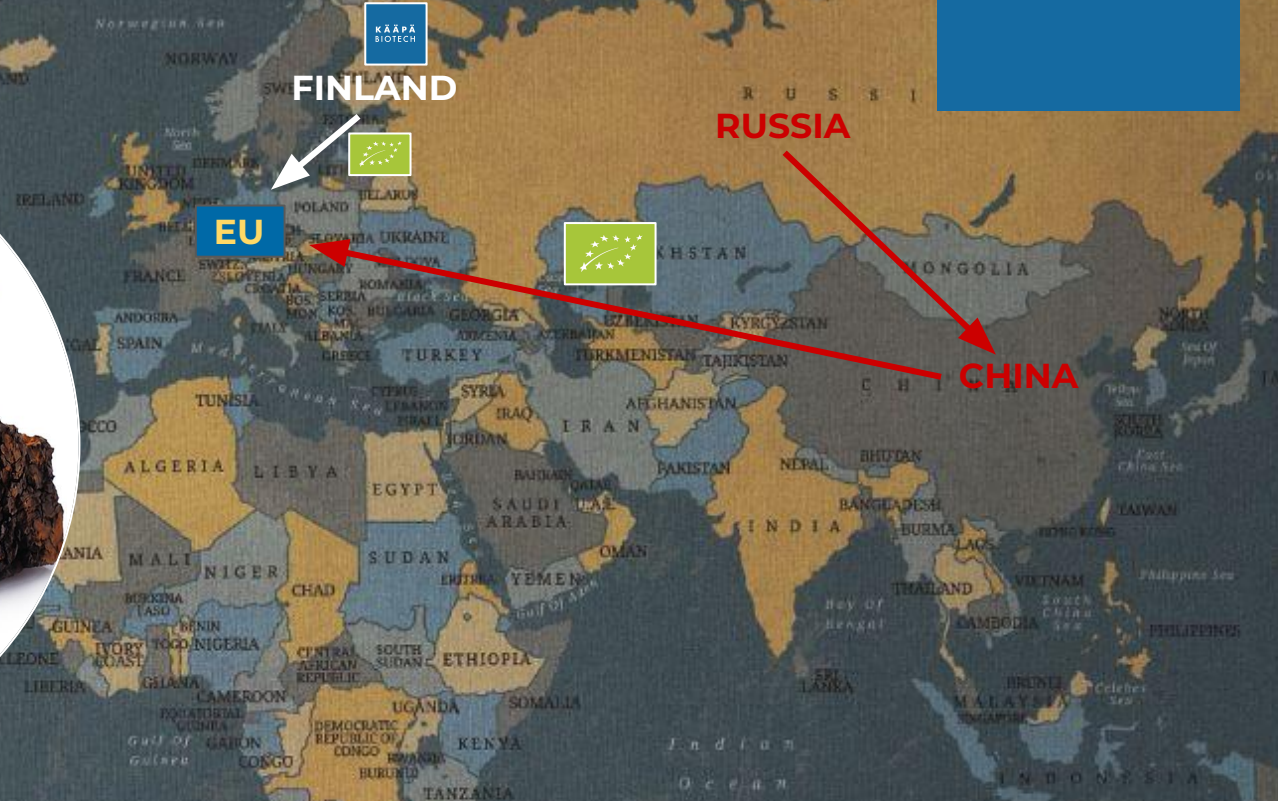
- No traceability of the ingredients origin
- Potential quality issues
- Potential issues with pollution and radiation

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Exporting Wild Harvested Organic Chaga

Challenges of International Expansion

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Issues with developing novel mushroom product applications

KÄÄPÄ develops novel product ingredients for global markets. Yet, those ingredients listed as Novel Food or non-approved ingredients in the EU **are currently not organic certifiable by Ruokavirasto - even for the global markets where the ingredient is approved for human use.**

Food products containing mushroom ingredients, which are manufactured outside of Finland, i.e. coffee with chaga powder are however sold widely in Finland. Hence, we are placed in unfair situation compared to our global competitors.



Global Distribution Network

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Europe

Direct B2B
Distribution network for B2C

Asia

B2C Exclusive Distributor for China
B2B Exclusive Distributor for South Korea

North America

B2B Exclusive Distributor: Nutralliance
B2C Launch 2022 with Amazon



Future Proofing Chaga

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Overharvesting of foraged chaga

is a looming issue for the industry

KÄÄPÄ Forest Growing Network

is the largest cultivator of sustainable, **organic chaga conks** in the world. Over 200 hectares (500 acres) of forest added each year.

Why strain matters?

We use strains rich in **bioactive compounds** to grow the highest quality medicinal mushrooms. By carefully selecting the best strains we ensure **controlled beta-glucan levels**, and **high quality of chaga**.

KÄÄPÄ Forest is the largest chaga producer in the world

The growing network **secures supply** in the future as wild chaga is becoming more scarce.

First harvest from the chaga growing network is 2028.



World's largest Chaga Growing Network

As **wild chaga is becoming scarce** in the future, we employ a cultivation method to ensure the supply of **high quality and potent chaga mushroom**.

Estimated sales (M€)

10.0

8.0

6.0

4.0

2.0

0.0

2028

2029

2030

2031

5,100 kg

32,906 kg

46,900 kg

64,200 kg

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THE FUTURE OF FUNGI IS FINLAND

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