

A small textile manufacturer from Glarus is drafting the master plan for the Swiss hemp industry. But the beginning is hard.

By **Andreas Valda**

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The man has something of a guru about him. He is distantly reminiscent of Mahatma Gandhi. He tries to rally people around him in the countryside and promises independence and upswing through self-sufficiency. His goal: the introduction of a real circular economy in the Alpine region. If successful, he wants to export this model. For this, he is looking for "a worldwide alliance of partners for global sustainability in society and the economy", it says on LinkedIn.

What it doesn't say is that his world project is based on hemp.

The man's name is Martin Klöti. The 62-year-old from Thalwil was a project manager at banks for a long time, most recently at Julius Bär. He then became a professor of ecology and sustainability at the University of Applied Sciences Northwestern Switzerland. There he taught ethics, postulated empowerment and green tech, railed against consumerism, invited speakers from half the world and overspent the budget.

As a result, he was thrown out and founded the [Glärnisch Textil cooperative](#) in 2017 with 16 other people.

With the help of his family, Klöti raised 1.5 million francs in capital and is the head of the cooperative. He has set himself the goal of building a new textile industry from hemp, with its epicentre in Glarus. His ambition is to make spun hemp fibres as fine and soft as cotton yarns. The aim is to make them marketable in the fashion industry. Made in Switzerland - a high standard, like everything at Klöti: always bordering on megalomania.

Dream 1: Bring industry back to the valley

The cultural engineer ETH was not intoxicated when he developed his vision. Because the commercial hemp he processes is the THC-free cannabis sativa. It looks like drug hemp, but is as suitable for smoking pot as a piece of cardboard. Of economic interest are the seeds for food, the stalks for textile fibres, for building and insulation material and the natural resin they contain.

It can be used for car bodies or for ski waxing.

This cannabis species is a pioneer plant with extreme performance. It does not need pesticides or artificial fertilizers. It is not very sensitive and grows up to high altitudes. And it grows fast: it is ready for harvesting within a hundred days. According to Klöti, "all kinds of plastics and materials" can be made from this renewable raw material.

Medicine and cosmetics also use cannabis sativa.

So that everyone in Glarus can imagine the departure, Klöti is building a master plan à la Metaverse.

The emergence of the new textile industry is to be simulated on an internet platform, "one-to-one on the basis of the actual conditions," says Klöti, "from the hemp fields and the farmers to the hemp crushing plant, the spinning mills, the weaving mills, the fleece production, the building material plants, the sewing workshops and rope mills, and finally the cloth mills.

Klöti itself only uses the stalks.

He receives a few tonnes per year, although he would have the capacity for 2000. They come from three dozen hemp farmers in Graubünden, Liechtenstein, St. Gallen and Aargau. The stalks have a hard shell and a soft core. They are broken over several stages.

The hard parts fall into a container. Klöti sells them to a successful manufacturer of [hemp bricks in South Tyrol](#). The soft fibres are combed by machine until they feel like cotton wools: This is the raw material for insulation, which he also sells, and for yarn.

The only crushing and combing machines in Switzerland rattle around at Klöti. Now he is working on a spinning machine, together with the Winterthur manufacturer Rieter. A first attempt with five tonnes of fibres failed recently, says Klöti. The spun threads broke because the fibres were too short.

The raw material came from the wrong variety of hemp. "We now need long fibres from winter hemp," says Klöti. This grows in the fields of some farmers and is harvested in spring. So the hemp guru is not too far along yet.

The example demonstrates the complexity of the project to build up a textile industry from nothing: Farmers have to grow the right raw material, spinning mills have to produce fashionable yarn - and new textile companies have to find customers. And it needs money to finance the whole thing, otherwise it won't work.

Dream 2: Food grows in Switzerland

But there are two examples where the calculation is already working out, at least for the hemp farmers. They sell the extracted hemp seeds to food producers.

These are two companies, one young, the other established: the company [Alpenpionier](#) in Ilanz near Chur and the [cooperative Landi Freiamt](#) in Bünzen AG. Their brands are called Alpenpionier and [Hanfwohl](#).

They have been selling hemp seeds for consumption, hemp bars, oil and cooking ingredients such as [hemp powder](#) for three years.

In both places, idiosyncratic founders are at work - at Alpenpionier, food engineer Carlo Weber (37) and at Landi, shop network manager Daniel Appert (52). Hemp clusters have formed around these two poles since 2017: There are two dozen hemp farmers in Graubünden and Liechtenstein, and 14 in Aargau.

Weber is ahead of the game with Alpenpionier. Its marketing and products appeal to a young, trendy audience for whom fitness, outdoor, veganism,

cooking and health are important. The seed crumble, hemp tea and hemp beer are doing well. But his best invention is [protein and energy bars](#), which would fit in well with Red Bull.

They are so tasty that Migros and Coop will soon include them in their assortment - Weber's first major success.

His factory is also home to the first and only industrial machine for hulling hemp seeds, which look like linseed but are rounder and larger.

The competition also benefits from this. Apperts Landi has its seeds peeled there to reduce costs. Because the margins are still far too small for competitors to build up parallel capacities: Cooperation is the key. What makes hemp seeds so valuable: On the one hand, they contain the famous omega-3 and omega-6 fatty acids.

On the other hand, they contain all the amino acids necessary for life, so that a person could do without eating animal proteins. "This is ideal for vegans," says Weber, a food engineer.

Hemp crops would be a profitable alternative for the loss-making dairy and meat industries.

The well-known vegetarian restaurant chain Tibits relies on hemp seeds from Alpenpionier: in iced tea, in dumplings, on salads and as a warm drink, the "Hanflatte", made from seeds, dates and oat milk. Tibits is always experimenting, says co-founder Reto Frei. They are currently looking for recipes for breakfast drinks, for a protein shake and for a bread made from hemp meal.

"Hemp food has a lot of potential because it is versatile, tasty, healthy and locally produced," says Frei. He took a stake in Alpenpionier as a small shareholder and had himself elected to the board of directors last summer.

But Alpenpionier is burning money. The business is still in the red in its fourth year of operation. They are relying on volunteer work, idealism and crowdfunding. The head of finance, a former investment banker, works part-time - and turns every franc around twice before spending it. Turnover is probably less than 500,000 francs.

Nevertheless: the [canton of Graubünden](#) supports hemp cultivation with

contributions and the Glarner Kantonalbank has granted Alpenpionier a loan. "It wouldn't have been possible without them," Weber admits.

In return, the canton hopes that Alpenpionier will generate such a large demand that an agricultural economy based on hemp will develop regionally. This would be a profitable alternative to the loss-making dairy and meat industries.

Why an alternative? The [Graubünden Office of Agriculture](#) says that hemp "can mature at an altitude of 1,500 metres above sea level" - the highest field was at 1,250 metres in Scuol - and that hemp has a protein quality comparable to soya. 800,000 tonnes of soya are imported annually, mainly for vegans and vegetarians.

Ergo, valuable protein could be procured domestically with hemp cultivation. And this is how the Office of Agriculture formulates its dream: the project has "considerable potential to revive a crop with a great past and considerable future potential in the Alpine region and especially in the canton of Graubünden".

Dream 3: Hemp, the environmentally good raw material

In the meantime, Agriculture Minister Guy Parmelin has also discovered this potential. Thanks to lobbying by the cantons of Graubünden and Aargau, he had the [Federal Council](#) approve [direct payments for hemp crops](#) in November. The subsidy will be paid from January and will cover about half of the farmers' expenses.

Since they expect about the same yield per kilo as before, the subsidy will mainly benefit the producers, who will only pay about half as much for the raw material in future as before. This leaves more money for development, according to the producers.

Farmer [Andrea Haas](#) is one of 14 hemp farmers in the Freiamt cluster who have been active since 2019. She is also happy about the subsidy, but not because she will make more profit, but because there will be more money to market commercial hemp. Those who want to earn big money do not have to rely on commercial hemp. "We grow it out of passion, to try something new," she says, who knows many people involved and is a member of Landi's board of directors.

"A valuable product, only: food made from hemp is too little known."
ANDREA HAAS, HEMP FARMER DOTTIKON

The 33-year-old also grows conventional seeds, such as wheat or sugar beet, on her [parents' farm in Dottikon AG](#). But she is looking for innovation: for the last two years she has been growing hemp. This takes up a tenth of the land she cultivates, the size of eight football fields. Haas is thinking about switching to organic farming.

After all, he says, commercial hemp is quasi-organic. Hemp grows faster than weeds.

The plant is suitable for arable farming because it fits perfectly into crop rotation. And cannabis sativa provides a "mega-value product - the only problem is that consumers don't jump on it on their own. That is unfortunately the case." The Herculean task is to make hemp products known.

Haas' seeds reach consumers under the brand name Hanfwohl. The specialities are hemp [pasta](#) and [Hanfbirewegge](#).

A single incident can endanger the Swiss hemp project.

The distribution network has been modest so far: Around fifty Volg and Landi shops make up the distribution network - plus an online shop. But that is not enough. Turnover is not exhilarating.

Haas is hoping for a push from Migros Aare and Lucerne. The two cooperatives have agreed to sell [Hanfwohl products](#) under the title "From the Region".

This is not yet a knighthood, but at least Haas' products are getting another channel.

Dream 4: Create a new industry

Whether Haas, Appert, Klöti, Weber or the agricultural functionaries: they all dream of a commercial hemp industry. They know each other, talk about quantities and prices and try to help each other. But it will only work if each level does its part: the farmers, the manufacturers, the textile industry and the retail trade. For example, Coop could market hemp oil from Switzerland instead of Austria.

A single incident can endanger the Swiss Hemp Project. This was demonstrated by an incident two years ago: Martin Klöti's [hemp crushing machine caught fire](#). A single stone that had accidentally got into the

machine set off sparks that ignited the hemp fibres. The operation came to a standstill.

A full year's work for nothing.

The farmers had to store thousands of bales of hemp straw. And - as a reaction - switched to a variety that generates shorter fibres. Unfortunately for Klöti, he now lacks long fibres for spinning yarn - the system is so fragile.

The other big catch is: Swiss hemp products are still far too little known. The players have invested an estimated 10 million together since 2017 without getting into the black. That wears on the nerves. They have put in a lot of unpaid hours and idealism, but have not yet experienced a broad echo.

Neither energy bars nor "hemp nuts", nor hemp pasta, nor hemp birewegge are very well known. Most kitchens have probably never heard of this high-quality protein substitute. The players themselves complain about the lack of awareness. The big dream is threatened.

Meanwhile, Martin Klöti from Glarus continues to dream his dream. A fortnight ago he published a [flyer](#) calling on landowners in Glarus to donate vacant houses - of which there are many. No joke.

Klöti's offer: [Exchange the house for shares in the Glärnisch Textil cooperative](#). His plan: to renovate the houses and set up textile workshops in them in order to obtain capital (mortgages). It remains to be seen whether his plan will succeed.

The idea is clever, but somewhat presumptuous. Why should a bank give mortgages for textile studios as long as there is no demand?

This is the question of the chicken and the egg. Which comes first? Klöti's answer is an appeal to the future. "By 2025, the cleverly networked people of Glarus will be relying on substantially more renewable raw materials and recyclates.

Thanks to determined implementation, they will create around one thousand new jobs in the valley within five years and mutate into a showcase region with international appeal."

After the past decades, some of which have been very arduous, the Glarnerland is to be "spruced up properly". - A wonderful dream. But there is still a long way to go.



