Ecological increase of productivity and quality in agriculture

orchards, vineyards, olive plantations, cereal fields and other mass crops

using a stand-alone generator for the plantation cultivation and soil restoration

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SUMMARY

- Launch of a New brand with a production facility in Russia or another country for the production of innovative electromagnetic generator units (EMG) of various capacities for the provision of services in the field of virus disinfection on an agroindustrial scale
- The method allows a remote and free of direct contact activation or suppressing of the vital activity of microbiological objects, inhibit the activity of pathogenic microorganisms, control the flow of chemical processes, and to positive influence the vital activity of plant and animal cells
- Purpose: Technical disinfection of premises and territories for the safety of people, crops, and animals without the risk of chemical contamination
- Certification of equipment for use in high demand countries: Europe, USA, South America, China, South-East Asia, India, etc.

PROBLEM

- Agriculture is fighting for the elimination of powdery mildew, fruit moth, aphids, scab, fruit moth, locusts, Colorado beetle, fungal parasites, mold, mildew, Anthracnose, gray rot, oidium, insects and other pests of grapes, olive fruits, apples, peaches, sugar beetles, as pests of bananas, pineapples and other crops in countries with humid and hot climates
- E.g. banana plantations suffer from the disease called "Tropical Rage 4" (TR4), which pose a threat to the varieties of Cavendish bananas, which are the basis of its world production and export, the virus of "Panama disease"

Problems that we solve with our technology in agriculture






SOLUTION

- We cope with various diseases of crops without the use of pesticides and toxic chemicals without problems and substantially reducing costs on numerous articles (view next slide)
- Operating principle: remote wide-scale contactless disinfection in real-time, using low-frequency electromagnetic fields of low intensity
- Purpose: technical disinfection of territories and premises without the threat to the health of people and animals
- 80% yield increase, even on poor soils and restoring soil fertile layer,complete ecological safety and highest quality of products, significant reduction in the use of chemical fertilizers and agents

ECONOMIC RESULTS & COST SAVING

- Decrease of the mineral fertilizer cost twice in the first year and ten times in the subsequent years
- Plant diseases and pests prevention and elimination cost are reduced at least by 90%
- Duration of operational time of the agricultural machinery for crops is reduced resulting in savings of fuel, labour, and equipment amortisation cost
- Ecologically clean and safe agricultural products, longer storage periods, enhanced market value, and competitiveness

BENEFITS OF OUR APPROACH

- Eliminate various vineyard and other crops diseases without the use of pesticides and toxic chemicals
- 80% cost reduction in pest control, 50% cost reduction in controlling weeds
- Reduction of energy and labor costs as there is no need for agrotechnical measures
- Smooth introduction and transition to the new technology, no disruption to the current processes
- Power consumption of the equipment stays well under 1.00 kW
- Equipment is mobile and small, and does not interfere with the production
- This technology improves the environmental footprint of the enterprise, which is confirmed by the relevant hygienic research
- Fertilizer effectiveness increase (check video)

TECHNOLOGY DESCRIPTION

- Developed at the Russian Space Laboratories and field tested between 1990-2013 by a group of Russian scientists
- Based on absolutely harmless use of electromagnetic fields to control organic processes, which are activated by biologically active nutrient mixture or virus
- Successfully implemented in numerous farms on an industrial scale in Russia, Slovenia, Thailand, Malaysia, etc
- Confirmed success track, proven results and improved productivity indicators
- Opportunity to have an effect on a large scale, and influence the improvements
- The product has been certified as Eco Clean product
- Making use of constantly present microelements, know how is in the composition of the mixture, manufactured technology, and activation

EFFECTIVENESS

- Territory processing is carried out remotely from a mobile unit, (e.g. drones, quadcopters), or stationary installations (pillars)
- Technical characteristics of the generator
- Range from 10 meters to four kilometers (adjustable influence radius)
- Service life - stationary version for 10 years
- Autonomous 3-4 years

TECHNICALLY SAFE

- Repairable-quick replacement if necessary
- Easy to operate
- Maintenance-in stationary version-battery replacement once a year
- In standalone version (Quadcopter) - replacement of consumableparts according to the schedule once a month (cheap parts)
- Environmentally friendly – no waste, low carbon footprint

PROCESS AND SERVICE

4. AGRO Industries

€

3. Service Center, Control and Support EMG

5. Payment system

BusinessConnect Server

€

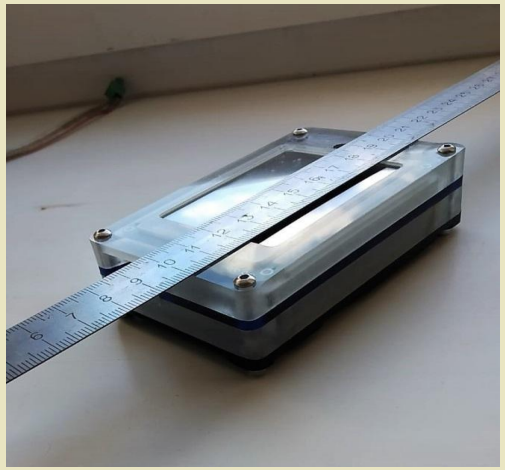
2.Manufacture EMG

1. SPV

BRIDGE MOUNT

Prototype

still used by numerous clients



Current size

Target size

currently used in premises

PRODUCTS AND SERVICES

- The project involves the implementation of a full cycle of work on staffing and bringing to the planned capacity of its own workshop for the production of generators of low-frequency energy fields, EMG
- Production of EMGs and their use in fighting agricultural crop diseases, effective and low cost weed and pest control, disinfection of animal husbandry to obtain environmentally friendly products
- Studies conducted in laboratory conditions with isolated colonies of various microorganisms, as well as the impact of the electromagnetic field (MEP) on environmental objects (air, water, etc.), indicate consistent decrease in colony-forming units of Staphylococcus aureus, Escherichia coli, Pseudomonas aeruginosa, various types of Proteus, fungi of the genus Candida, Bacillus Cereus, subtilis, fungi Penicillium, Mucor, Rhizopus, Aspergillus, fumigatus, etc.

MARKET AND CUSTOMERS

- Market capacity: in 2016 there were 10.5 million agricultural holdings in the EU, two thirds of which were less than 5 hectares. 173 million hectares, or 39% of its total land area in the EU, was used for agricultural production
- The number of agricultural holdings in the EU has declined sharply, but the area used for production has remained constant
- Data source: Eurostat, Farms and farmland in the European Union - statistics, data extract from November 2018. Planned article update: June 2023
- https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Farms_and_farmland_in_the_European_Union_-_statistics
- EMG rental by service companies or for agriculture holdings/operational companies: € 6,000/monthly = € 72,000 per annum
- 1 Generator (EMG) has a capacity for up to 400 ha p.a.
- Per 1 agriculture holding rent of 1 EMG - potential 10.5m customers
- 5% of the market estimates a minimum of 500.000 EMG demand

EXAMPLE: VINEYARDS

Prospects of technologies in winemaking

- *Europe:* the vine is grown on an area of 3.5 million ha
- *Spain:* vineyards plantations occupy more than 1 million ha
- *France:* the total area of vineyards is 792 000 ha
- *Italy:* the total area of vineyards is 720 000 ha
- *United States of America:* the fourth largest producer wine-producing power in the world, second only to France, Italy and Spain
- *California:* vineyards spread over 224 000 ha and annually produce about 2 billion liters of wine (almost 3 billion bottles). 3000 plants produce wine of various kinds
- *Argentina:* the fifth largest wine producer in the world. The area occupied by vineyards, twice the vineyards of Bordeaux. 200 000 ha
- *China:* increased its vinicultural production over the past 15 years to the total area of 800 000 ha. Wine production volumes on the 8th place
- *World market:* the volume of export-import operations with wine has grown to 104 million ha. Even 10 years ago, imported wine had 25% of global consumption. Now this figure increased up to 43%

COMPETITION

- No direct competitors on the global market
- Indirect Competitors:
  - The global fertilizer market was valued at USD 155.8 billion in 2019, and during the forecast period 2020-2025, it is estimated to register a CAGR of 3.8%
  - In 2019, Asia-Pacific was the largest geographical segment of the market, accounting for a share of around 60% of the total market

MARKETING

- Critical to have both offline and online marketing campaigns
- PR, articles in professional printed media, conference speaking, seminars, international trade fairs, TV and radio programs
- B2B social media campaigns on LinkedIn, Youtube, other target channels
- B2B direct email/newsletter campaigns
- Branded delivery devices (drones, pillars, etc.), merchandising
- Guerilla marketing + limited time discounts for Innovators/ Early Adopters
- GR to address the fears and distrust
- Website, incl.
  - FAQs
  - Success stories
  - L&D tutorials (learning & development marketing)
  - E-commerce

PRODUCTION, DELIVERY & PROCUREMENT

- construction in Switzerland (headquarters) or other EU country
- EMG unit rent to customer €6,000 per month
- EMG is operated remotely and online for 140 minutes per week covering the territory of from 2 hectares up to 400 hectares (adjustable parameters of the coating area)
- customer data is secured in the safe servers in Switzerland

RISK ANALYSIS

Areas	Potential loss	Prevention and risk reduction measures
Production risk	Poor quality of work, increased cost, lost time, etc.	Creating an effective management system with the involvement of highly qualified specialists
Commercial risk	Reduced market size and capacity, consumer demand decrease, unpredicted new competitors, etc.	Reducing market size is not possible. There are no competitors in technology. The systematic study of market conditions; expansion of the range of manufactured goods produced from recycled materials; appropriate pricing policy; creation of public opinion and "corporate identity"; advertising, etc.
Financial risk	Inflationary pressure, universal non-payment, currency fluctuations, etc.	These risks can be reduced by creating a financial management system at the enterprise, etc.
Legal risk	Related to legal entities and individuals, as well as with regulatory organizations	• compliance with the legislation; • availability of qualified specialists in the field of law; • conclusion of contracts in accordance with the requirements of current legislation and arbitration practice in the field of economic law; • registration of labor relations; • resolution of disputes by finding compromises
Force majeure	Risks due to unforeseen circumstances	Necessity to provide commercial insurance under existing insurance systems (insurance of property, transportation, risks inherent in commercial contracts for concluded transactions, reinsurance)

IMPLEMENTATION AREAS

- Agriculture and agro-industrial complex, disinfection of premises. E.g. livestock farms, poultry houses, beehives, zoos, agricultural products storage areas, agroindustrial facilities
- Agriculture and agro-industrial complex, disinfection of land
- Pest control
- Water disinfection

EXAMPLE: LIVESTOCK HUSBANDRY

The basic principles for implementing the proposed technology are:

- complex feed processing
- pasture processing
- complex water treatment for animals and birds, as well as reservoirs where fish and waterfowl are located
- disinfection of premises where animals and birds are kept
- ionization of indoor air
- treatment of animals and birds themselves at all stages of their development, e.g. starting with the treatment of pregnant sows (calves) throughout the life of the animal

INVESTOR BENEFITS

- Highest benefits for strategic investors increasing the existing productivity of a own agrar-, fertilizer production
- Higher participation rate on a VC project at the earlier stage with a higher RoI using high-technologies proved within 20 years of a successful experience
- Participation of a advantage of implementation of a proven high innovative technologie at European market using EU Investment

FINANCIAL PLANNING

Investment 2.500.000 €, PP 13

Period	1Y	2Y	3Y
EBITDA	2`572`000 €	41`689`500 €	85`589`680 €
IRR			397%
NVP (r=10%)			86`306`068 €
PI			35.5%