

Valofungi : Extra value of mushrooms by-products

Pleurette



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*Co-Founder - Business Director
R&D Chief Innovator*



Agri - Agro Food innovative company

- ▶ Created on 23rd August 2016 on circular economy principles

Innovations in the field of urban agriculture

Innovations in the field of vegan products

- ▶ Incorporated on **fresh vegetable Market Place of Lille**, 2nd most important “Marché d’Intérêt National” in France
- ▶ 2018 : 9 FTE, 0,5M EUR turnover as annual trend
2019 : 15 FTE, 1,2M EUR turnover as annual target
- ▶ Incubated by **Euralimentaire for our waste to mushroom project urban agriculture project** (piloted by Eurasanté, top 15th European incubators)
- ▶ Supported by the French Public Investment Bank

Soutenu par

bpifrance



Our innovative company in circular economy fields

- ▶ Growing oyster **oyster mushrooms** in former shipping containers



- ▶ *THE MUSHROOM REVOLUTION*
ECO-ORGANIC MUSHROOM FARM
FROM WASTE TO MUSHROOM

- ▶ Growing **shiitakes**, **nameko**, **eryngii** in city underground former stone quarries



Our food current innovations : description

- ❖ Organic, vegan, soya-free, gluten free **bolognese sauce**



► *FROM OYSTER-MUSHROOMS BY-PRODUCTS
TO VEGAN FOOD*

*THE NEW VEGETARIAN SUSTAINABLE GROUND “MEAT”
SOLUTION*

- ❖ Organic, vegan, soya-free, gluten free spreadable **appetizers**



- Cooled (4°C) and unique on the market
- Answering **major trends**
- Other vegetal range of products pending...



Sustainability of the concept

- Use of the waste of the oyster mushroom cultivation industry in Europe to produce **vegan & organic gluten free products** with **our solution** to replace meat



Sustainability

- ▶ Water savings : factor 253 on meat water consumption reduction

Fresh Meat / 26,3% Protein	Fresh Mushroom / 3,31% Protein
1kg = 13500l water	1kg = 6,7l water
(1kg beans = 4100l water)	53,23l water for equivalent amount of protein
253 time less water to produce mushroom based protein	

- ▶ Not extracted protein and made from mushroom's stems : adding value to food waste
- ▶ Agricultural foot print : no soil needed to cultivate mushroom
- ▶ Environmental damage of animal manure : no damage from mushrooms cultivation
- ▶ Mushroom substrate residues : fertilizer for the soils
- ▶ Recycling urban residues to cultivate mushrooms : less waste & positive impact on the environment (methan emissions also avoided by use of the residues)
- ▶ Reducing gaz emissions : 9% of the CO2 is coming from animal breeding/deforestation



Our projects : Valofungi & Valcoflex

Valofungi Project : 5 steps

- ▶ Added value **for** mushrooms
- ▶ Added value **from** mushrooms

1. VEGGIE FOOD R&D FROM MUSHROOM BY-PRODUCTS

- ▶ Invest in French R&D internal lab and new proper production facility
- ▶ Partner with international players
- ▶ **Develop more products** about mushroom residues upcycled to tasty healthy products :
Other vegetal range of products are under preparation such as vegetarian meatballs, vegeburgers (vegan steaks), gluten free croquettes, mini sausages, ...
- ▶ Enrol consumers in the Mushroom Revolution and show them the **great potentials of the mushrooms** !



- ❖ Plant based protein
- ❖ Sustainable protein
- ❖ Environmental friendly
- ❖ Healthy
- ❖ Tasty

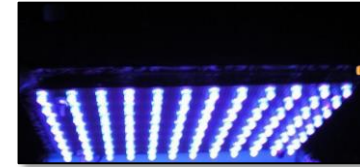
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Valofungi Project : 5 steps

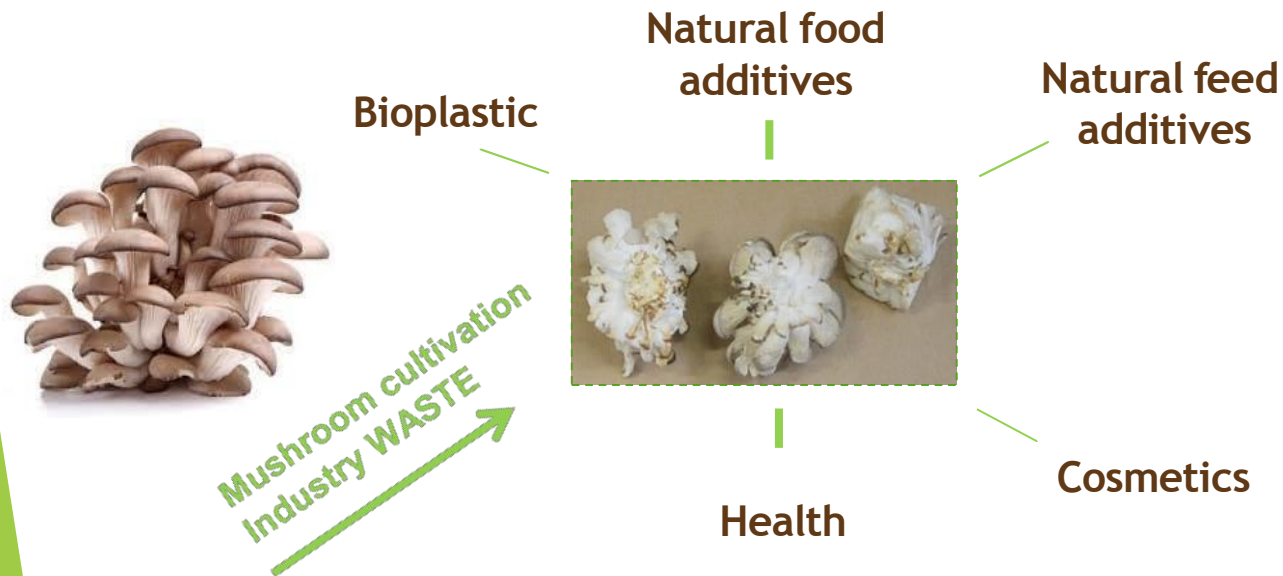
- ▶ Added value for mushrooms
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2. ENRICH OYSTER-MUSHROOMS WITH D-VITAMINE (fonctionnal food)

3. USE OF THE (WASTE OF) MUSHROOMS CULTIVATION INDUSTRY IN EUROPE TO EXTRACT ADDED VALUE MOLECULES AND COMPOUNDS OF INTEREST



VitaminD



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4. AFTER GETTING SUPERFOOD FOR HUMANS, FORMULATE SPENT CULTIVATION SUBSTRATE FOR FARMER AS SUPERFOOD FOR ANIMAL

Added value in cattle feeding :

enhanced digestibility, proteins easily available, less harmful gases emissions after cow digestion

5. MEDICINAL ORGANIC

Lots of mushrooms coming from China : not organic for EU Health market

Functional beverages could be developed such as coffee or thee boosting health benefits

Valcoflex Project : 5 steps

- ▶ Valorisation of coffee extracts : cosmetics
- ▶ Cascading extractions of coffee grounds



We already collect and process coffee waste for 4 years...

The future of Pleurette : Newcorp



Our goal is to value the full potential of coffee grounds extraction with a dedicated biomicrorefinery



- > look for **partnering & funding for R&D project**
- > 4 years **collaboration with Cabeco (Belgium)**
- > **cosmetic project fully ready in 20 months**

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- ▶ *FROM URBAN WASTE TO MUSHROOM*
- ▶ *FROM MUSHROOM BY-PRODUCTS TO VEGAN FOOD*

Thank you !
Questions ?