

Toward simple and sustainable methods for growing and introducing new gourmet and medicinal mushrooms on the Swiss food market

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Mushroom market

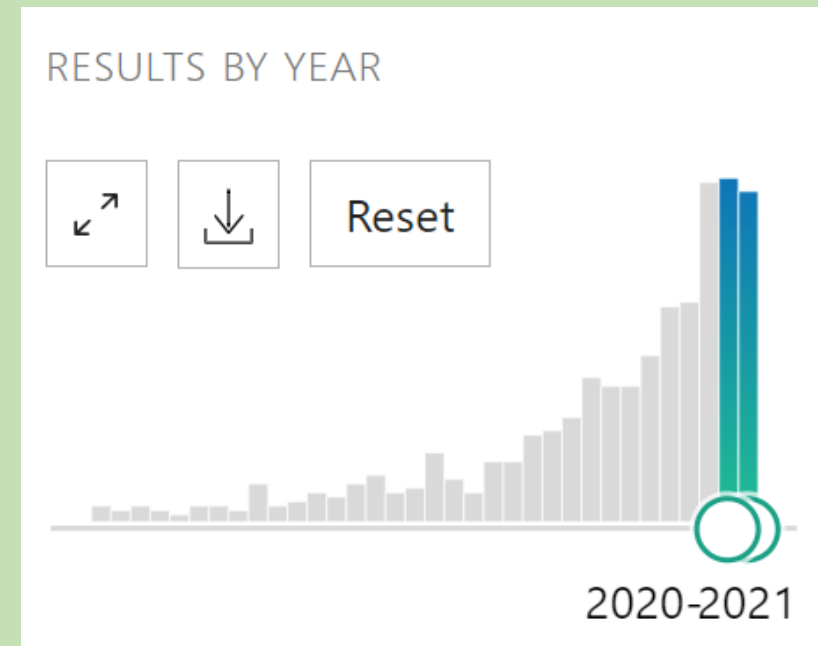
- One of the most rapidly growing business
(10% growth per year)
- Currently main species grown in Switzerland : Button Mushroom, Shiitake, King Oyster, Tree Oyster, Piopinno
- Today, lots of fresh mushrooms are imported (France, Italy, Poland)

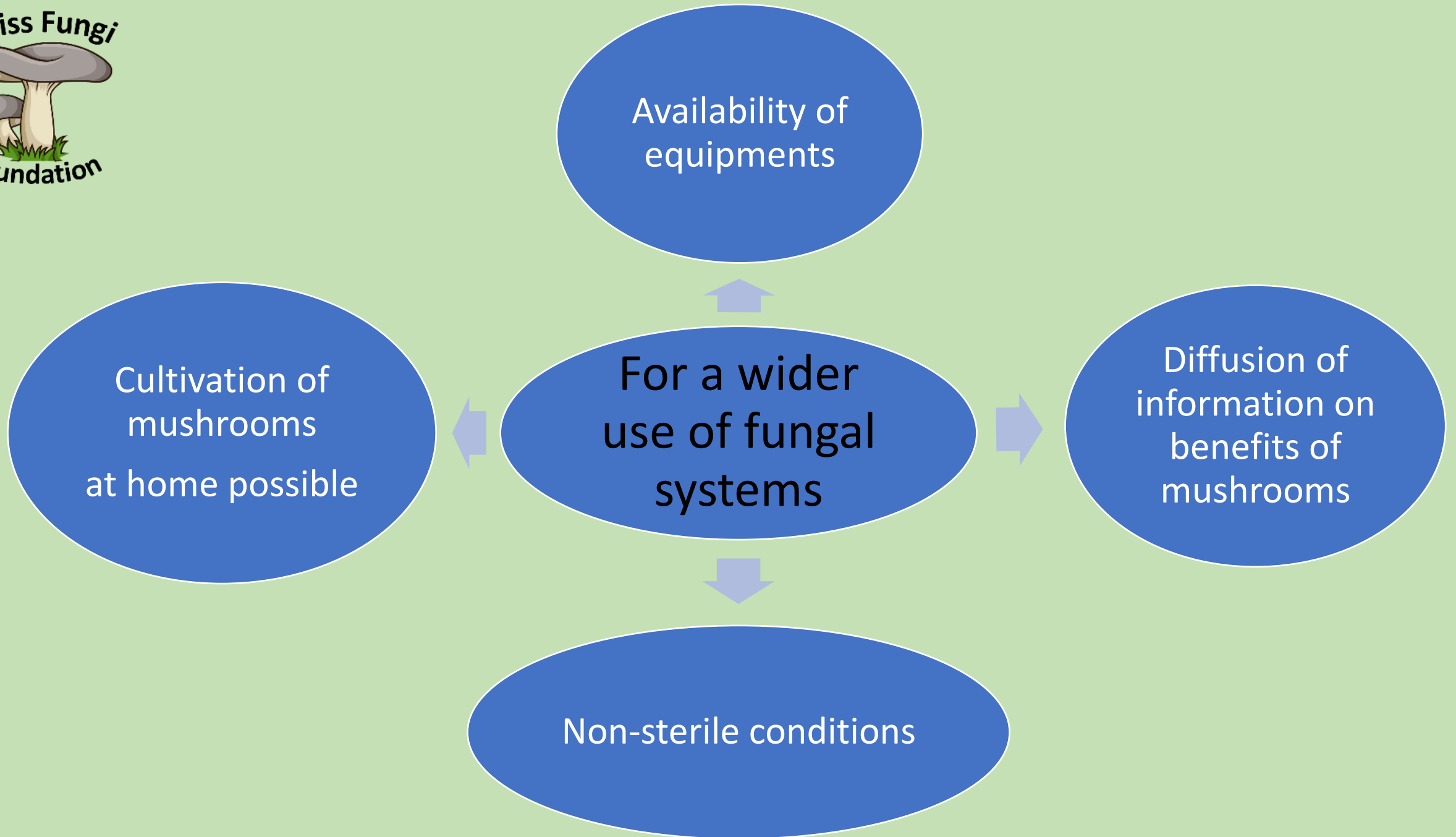


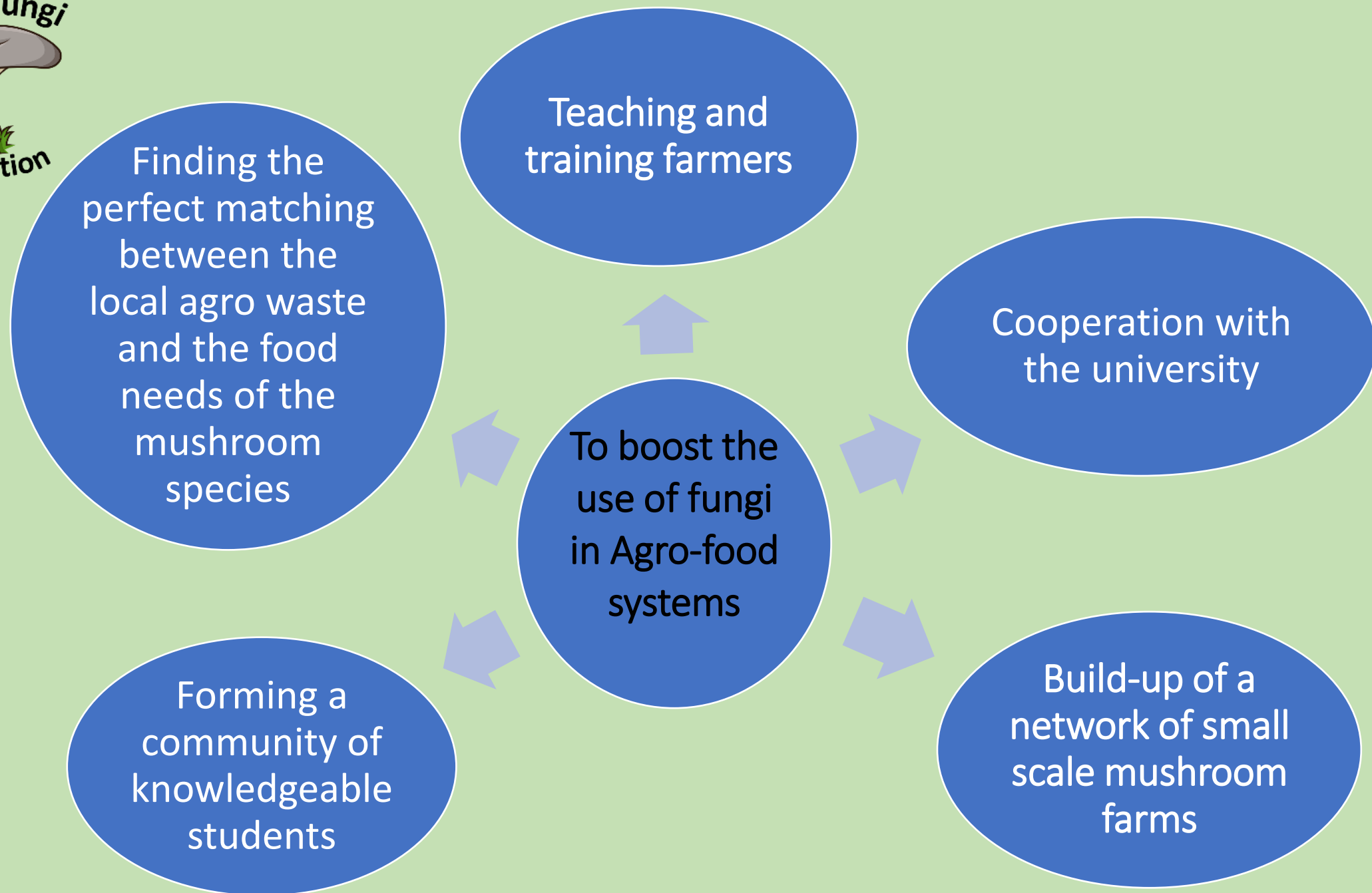


Medicinal mushrooms

- Fungi → hidden biological matter
- Mushrooms as microscopic chemistry labs
- Estimation of 3 to 5 millions of species (200 000 identified)
- 36 000 plants are currently cultivated
- Between 50 and 100 of fungi are cultivated !
- (very young science field (50 years))











Propositions & Ideas (From the Lab to the Farm)

- Our experience : Liquid cultures → Best way for mycelium propagation
- Development of recipes for fast growth to revitalize the mycelium (senescence avoiding)
- Buffer the solution to control the pH



Propositions and ideas (From the Lab to the Farm)

- Currently testing different methods of extraction of bioactive molecules micro-wave, ultrasonic, hot water, Soxhlet, different organic solvents
- - Developing of simple methods to quantify the bioactive molecules in the mushrooms
(beta-glucan, terpenoids, polyphenols, indoles)



Propositions & Ideas (From the Lab to the Farm)

- - Testing different methods of substrate pasteurisation
- Knowledge and know-how transfer → Teaching, workshops
- Website construction «Swiss Fungi Fondation»
(www.swissfungi.org)

*Our mission is to encourage research, educational and cultural activities related to fungi,
mainly the higher medicinal mushrooms*

Shiitake



Blue Oyster



Lion's Mane



Grey Oyster



King Oyster



Cordyceps militaris



In short, we propose our scientific expertise as well as
our teaching activities to boost fungal systems in
Switzerland

Thank you for your attention

