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INT Institute for Natural Materials Technology and CIMTT Centre of Production Engineering & Management

### SchuPlaHolz - New Plant-Based Biological Preservative for Wood Materials

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#### Motivation

# Plant-based Biotechnological Production Ecologically compatible Wood preservation GMP-compliant sustainable Forward-thinking Phytoextract

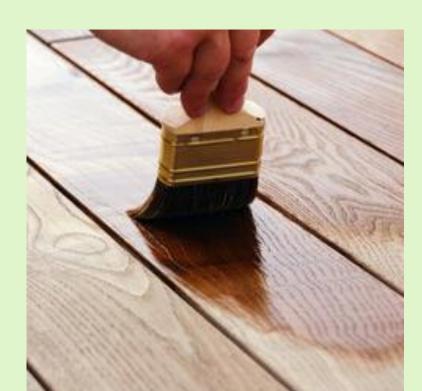
- Preservation of wood as regrowing commodity
- Commercial preservatives for wood contain harmful and health risking substances
- Several agents are losing approval
- Alternatives are in demand with properties such as:
  - Protective compounds without harmful & health risking substances
  - In-can preservation
  - Preservation of raw materials

#### Requirements for Wood Preservatives

- Hydrophobic effect
- Antifungal effect
- UV Protection
- GMP compatible
- Antioxidant





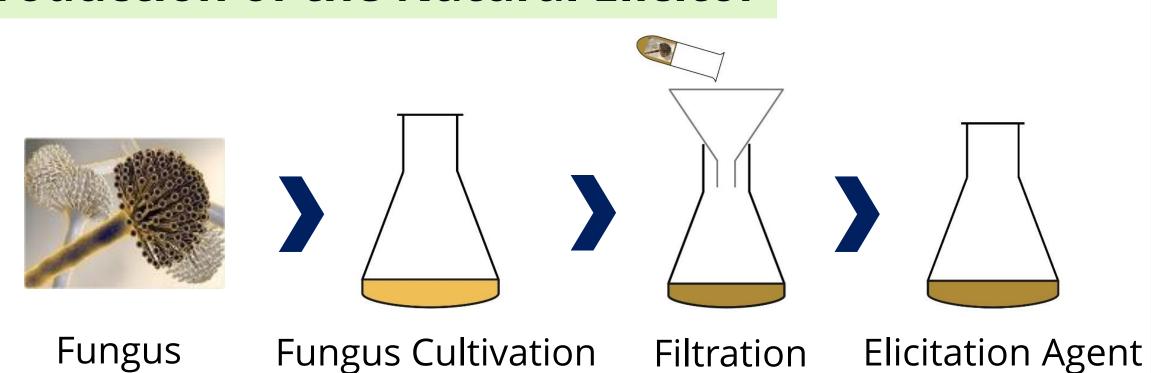


- Solvent-free
- Plant-based production
- Long-term protection
- Storage stability
- Low odour

#### Objective of the Project

## Processing of the Extract Sage Kallus Culture Culture Extraction Phyto-extract Phyto-extract

#### **Production of the Natural Elicitor**



- Optimisation of the process & *scale-up* to an 80 litre reactor
- Analysis of phytoextracts regarding
  - Hydrophobic & fungicide effect
  - Antioxidant & antimicrobial effect
- Formulation of the preservative (oil-/water-based)
- Test of long-term protection and storage stability of the product
- Patentapplication
- Presentation of results (conferences, workshops)

Member of the Network



Funded by:



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