



**BIOrescue:**  
A novel biorefinery concept for mushroom compost

[www.biorescue.eu](http://www.biorescue.eu)

# RECOMMENDATIONS FOR A CIRCULAR ECONOMY IN EUROPEAN AGRICULTURE

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TOWARDS A CIRCULAR AGRO-FOOD INDUSTRY. 4 APRIL 2019. BRUSSELS.

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 Bio-based Industries  
Consortium





# POTENTIAL OF AGRO-FOOD RESIDUES USED MUSHROOM COMPOST



Total fresh mushroom production  
in the EU is around

**1 million tonnes**  
a year



**1 tonne**  
mushroom harvested



**= 3 tonnes**  
compost is generated

## Current uses:

1. Spread on the land and used as **soil fertiliser**
  - Sterilisation needed
  - Limitations related to nitrates levels
2. **Landfilled**
  - High landfill taxes
  - Limits on biodegradable waste





## POTENTIAL OF AGRO-FOOD RESIDUES

395

million tonnes of agricultural residues each year, from more than 130 crops



334

million tonnes should remain in the fields or are already collected for agricultural uses



62

**million tonnes available for bio-based products and bioenergy**



- + **Lower sustainability concerns**
- + **Growth and job creation in rural areas**



# BARRIERS AND CHALLENGES TOWARDS THE EXPLOITATION OF AGRO-FOOD RESIDUES

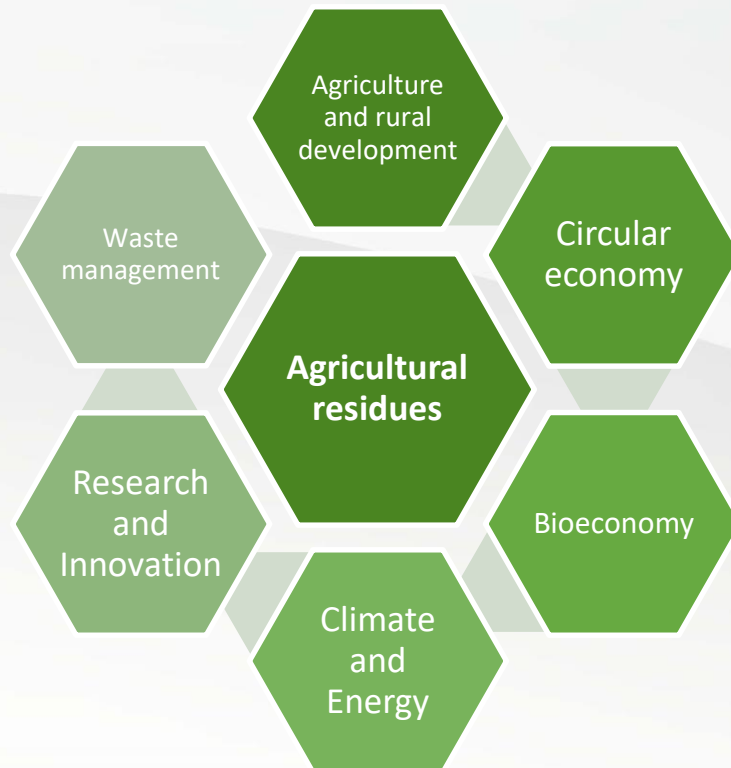
- **Insufficient harmonisation in the classification of agricultural residues across member states**
- **High logistical costs and lack of infrastructures for biomass collection**
- **Difficulty to ensure stable and all year round supply**
- **Difficulties for scaling up to industrial level**
- **Difficult calculation of GHG reduction potential along the value chain**
- **Challenging engagement of stakeholders across the entire value chain**





# THE EUROPEAN FRAMEWORK

## Towards a cohesive cross-sectoral policy framework

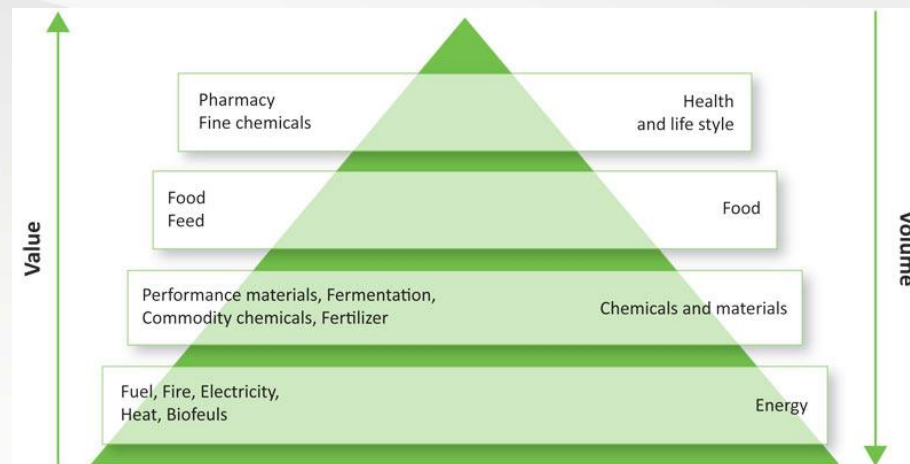


- **Bioeconomy strategy:** emphasis on rural development and inclusive value chains
- **Support to research and innovation** in the agro-food sector
- Contribution of bio-based industries towards **EU climate targets** to be acknowledged
- More **consistency** needed between regional, national and European levels



## THE EUROPEAN FRAMEWORK

- Strong political **support to bioenergy**
- Well developed subsidies schemes
  - **Competition** for feedstocks between bioenergy and biomaterials
  - Distortions of market prices for higher value applications
  - **Sub-optimal usage of feedstocks** according to the **cascading use** principle





## FEEDSTOCK PRODUCTION

- Recognise the **value of agricultural wastes as a resource**, to incentivise their use
- **Mapping of resources & economic potential** needed at national and regional level
- Greater clarity needed for **feedstock certification** regarding bio-based products
- **Harmonised classification of agricultural residues** in national waste management policies to safeguard optimal use





## LOGISTICS

- Grants for the establishment of cross-sectoral **biomass value chains** to overcome local fragmentation
- Establishment and promotion of the development of **cooperative organisations and clusters**
- **Training** and awareness raising







## BIOCONVERSION AND PROCESSING

- **Integration of biorefineries** into existing industries
  - **Support the deployment of public private** partnerships
- Secure **investments** in infrastructures with dedicated financial instruments
- **Networking platforms** to connect investors with projects
  - €100 million Circular Bioeconomy Investment Platform





## END PRODUCTS AND MARKET UPTAKE

- Embedding **external environmental impact into products' cost** to overcome competitive advantage of fossil based products
- Strong **public support to bio-based products**
  - ✓ Targets in specific categories or for selected sectors
  - ✓ Public procurement
- **Communication**, awareness raising and education





## SUMMARY

- Continued and increased **financial support to research and development**, and especially public private partnerships
- Investments in relevant **infrastructures** for collection and conversion of agricultural residues
- Foster **cross-sectoral collaboration** to build new value chains
- **Education, training**, and awareness raising
- **Consistent certification schemes** for agricultural feedstocks and bio-based products
- Embedding external **environmental costs** into products costs
- More **cohesive policy framework across sectors** from regional to European level





# WHAT DO YOU THINK IS THE PRIORITY?

Answer the poll and join  
the discussion on sli.do

**#biorescue**





# BIO RESCUE

## Thank you for your attention

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