

Horti-BlueC webinar 3

Introduction to the valorisation chain



Interreg EUROPEAN UNION

2 Seas Mers Zeeën

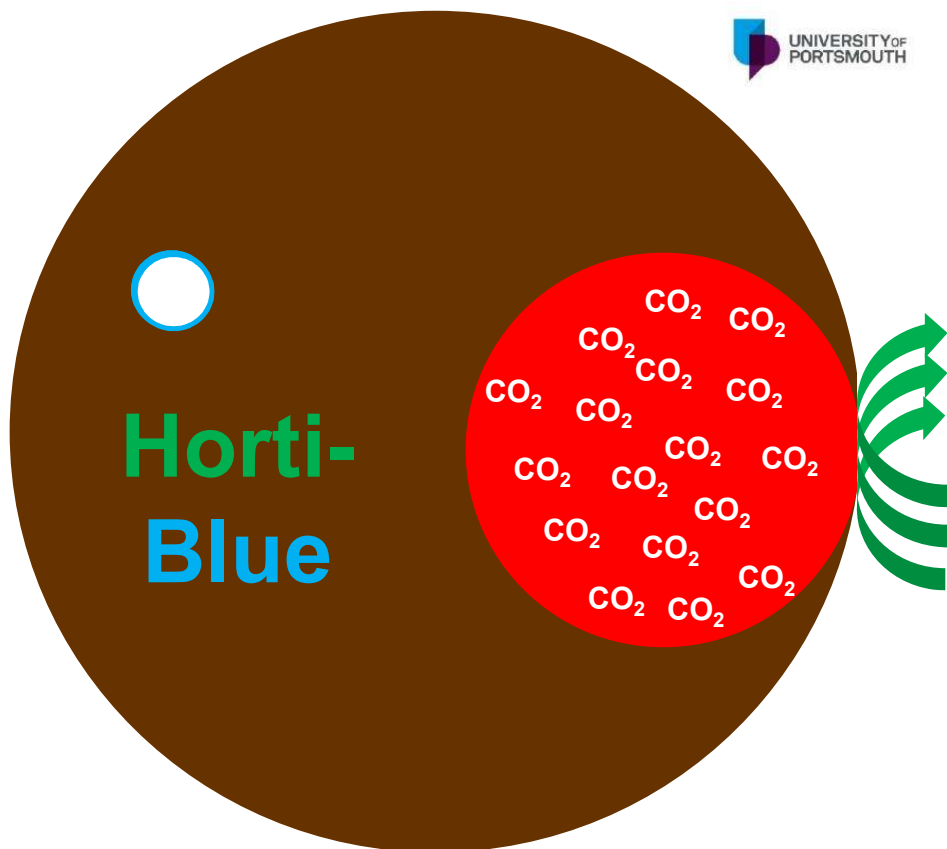
Horti-BlueC

European Regional Development Fund

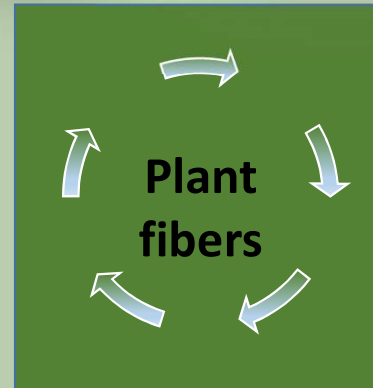
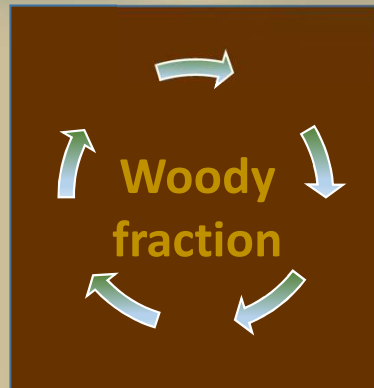
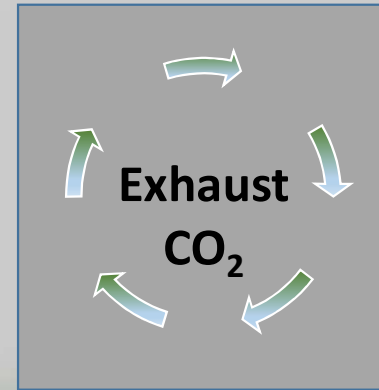
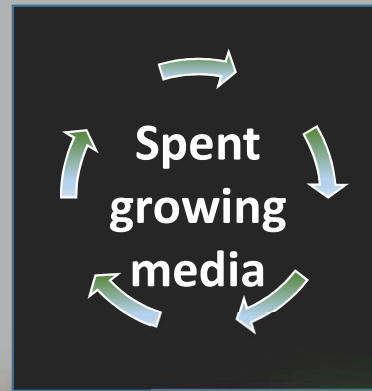
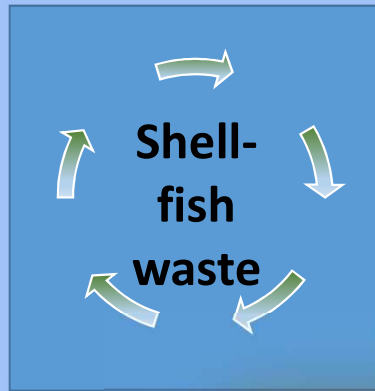


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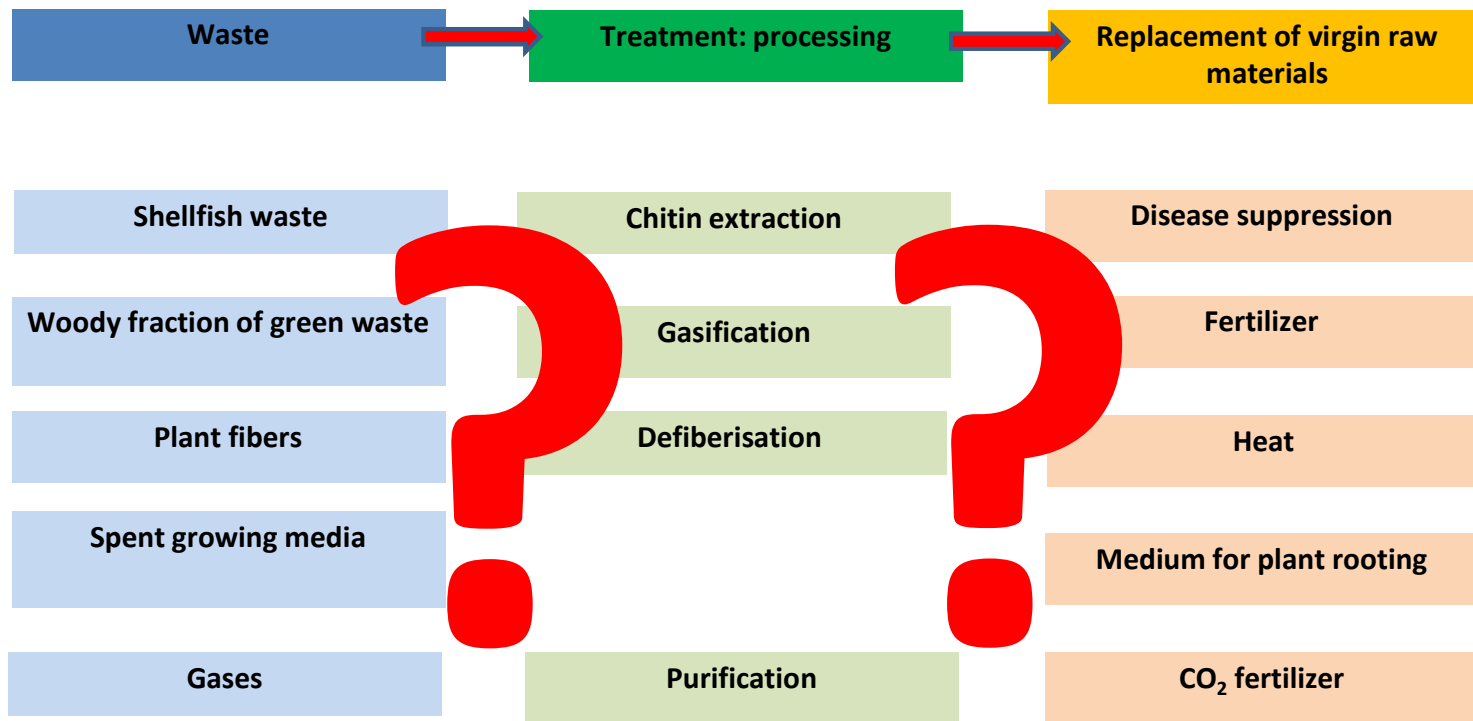
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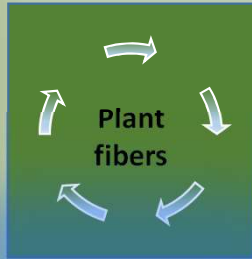
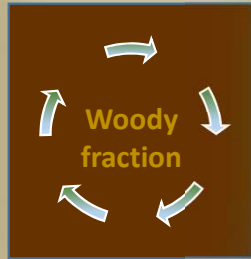
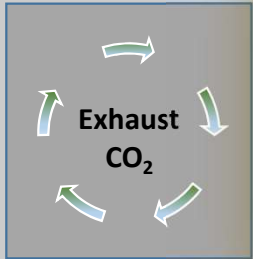


Demand: upcycling of one gaseous and for solid waste streams



Solution: upcycling with optimized technique for replacement of virgin raw materials

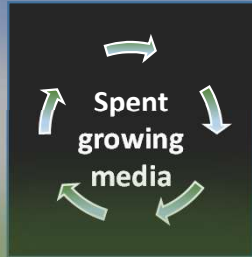




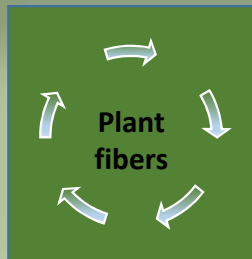
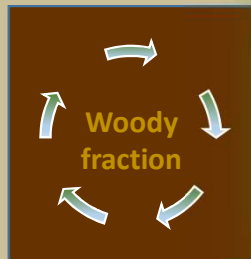
VC1: Large scale gasification, CO₂ reduction & biochar production



VC2-Production of chitin from shrimp shells



VC3-Spent Growing Media: direct reuse versus feedstock for biochar



VC4-Bulk replacement in growing media

Interaction between plant growth and growing media

Growing media can affect plant growth...

... and plant growth affects the potential for reuse of growing media



Reuse of spent organic growing media

Direct use as a soil improver



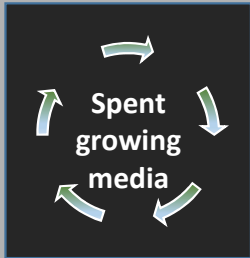
Bulking agent for composting

Direct reuse after steaming

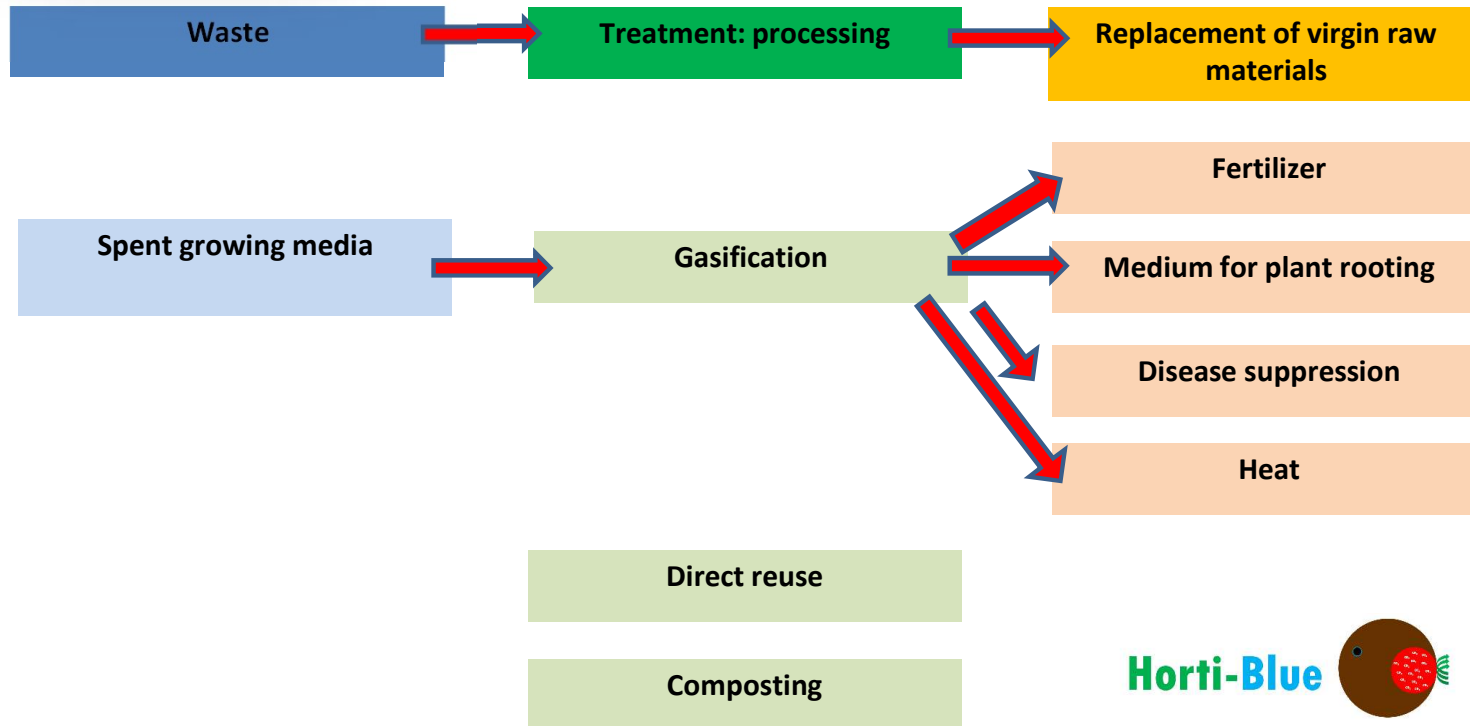


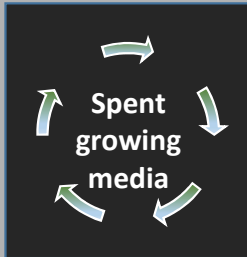
Feedstock for biochar production

The reuse scenario will affect the fate of nutrients and carbon in spent growing media



Valorisation Chain 3





VC3-Spent Growing Media: direct reuse versus feedstock for biochar

Baseline scenario:

- Disposal
- Direct soil application

New scenario:

- Direct reuse of spent coir
- Composting: use as bulking agent
- Gasification for nutrient recuperation:
 - small scale application (in the greenhouse)?
 - energy production is not the focus
 - Other revenues needed than energy. Waste processing?
 - Reuse of biochar as fertilizer



Compost and biochar: added value in sustainable growing media

