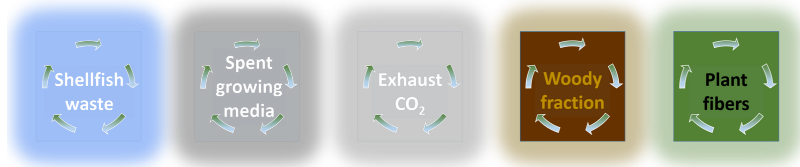


# Bulk replacement in growing media



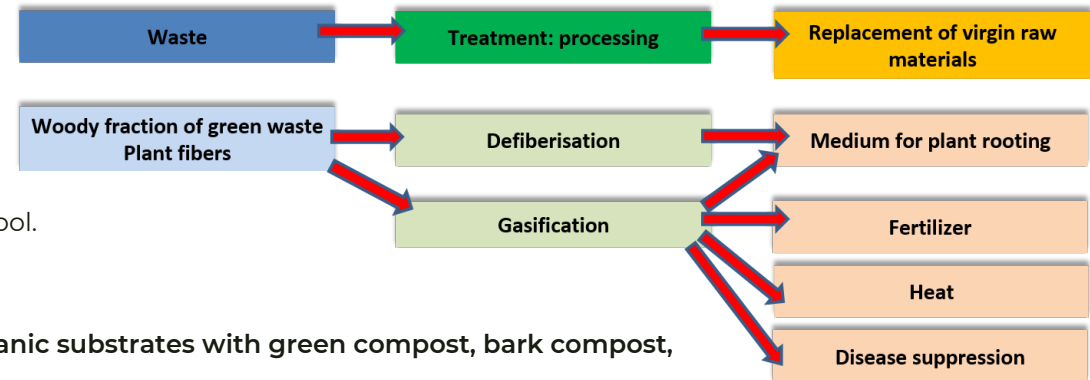
## BASELINE SCENARIO

Substrates for tomato cultivation are composed of 100% mineral wool.

## NEW SOLUTION 1

Mineral wool substrates can be substituted by peat-free and organic substrates with green compost, bark compost, biochar and wood fiber for tomato cultivation.

Watch the [video](#), read the [scientific paper](#), try out the [decision tool](#) or check the [website](#) for more relevant information



### STRENGTHS

- Local production of substrates
- Possibility to reuse substrates in second cultivation
- Possibility to recycle substrates: reusing and recycling materials leads to more control on fate of growing media and emissions
- Peat-free substrates could be certified as eco-labelled, valid for 'Milieukeur-On the way to PlanetProof'
- High cost for grower of recycling mineral wool

### WEAKNESSES

- Producing fibers can be energy intensive
- According to recent study (PEFCR methodology) rockwool substrates can have lower CO2 impact
- Risk for human pathogens on substrates
- Composts quality can vary in batches
- New substrates are heavier, having a bigger impact on transport costs and emissions
- Results for crop yield not significantly better than the baseline

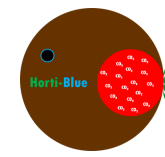
### OPPORTUNITIES

- Future development of growth sensors to assist growers
- EU green deal strategy
- Methodology to assess LCA impacts of growing media is ready and in accordance with the PEFCR methodology
- End-of-life scenarios of organic growing media may be more promising
- Some materials may allow for fertilizer or lime replacement, or may increase the microbial biomass in the blend
- Organic substrates result in more generative growth: this can positively affect the taste

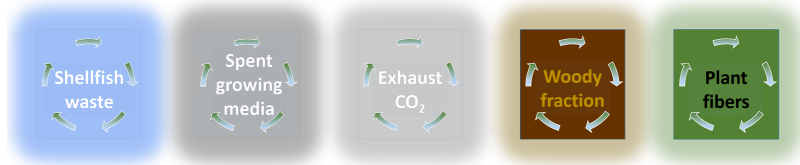
### THREATS

- Grower's habits need to change
- Low willingness of growers to switch to unknown substrates
- Probably higher costs than current alternatives





# Bulk replacement in growing media



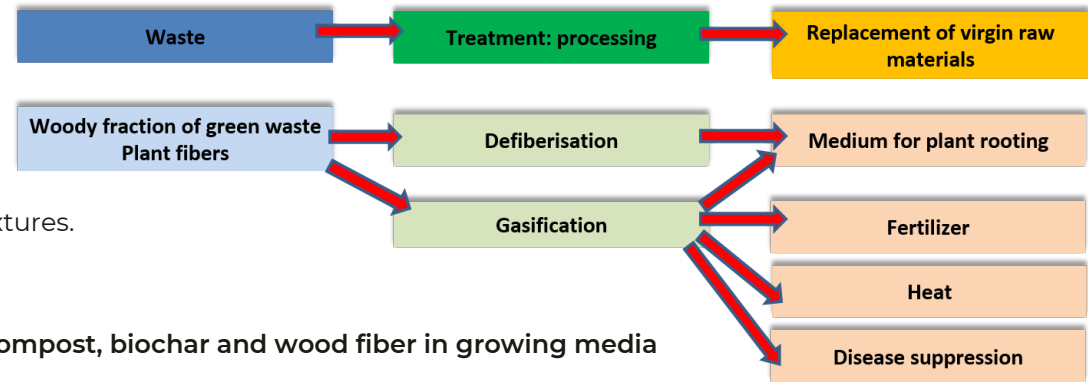
## BASELINE SCENARIO

Substrates for strawberry cultivation are composed of peat/coir mixtures.

## NEW SOLUTION 2

Peat and coir can be partially replaced by green compost, bark compost, biochar and wood fiber in growing media blends for strawberry.

Watch the [video](#), read the [scientific paper](#), try out the [decision tool](#) or check the [website](#) for more relevant information



### STRENGTHS

- Local production of substrates
- Possibility to reuse substrates in second cultivation
- Possibility to recycle substrates
- Changes in grower's practices are relatively small

### WEAKNESSES

- Producing fibers can be energy intensive
- According to recent study (PEFCR methodology), RPP white peat and coir mixes can have lower CO2 impact
- Risk for human pathogens on substrates
- Composts quality can vary in batches
- New substrates may be heavier, having a bigger impact on transport costs and emissions
- Results for crop yield not significantly better than the baseline

### OPPORTUNITIES

- Future development of growth sensors to assist growers
- EU green deal strategy
- Methodology to assess LCA impacts of growing media is ready and in accordance with the PEFCR methodology
- End-of-life scenarios may be more promising
- Some materials may allow for fertilizer or lime replacement, or may increase the microbial biomass in the blend

### THREATS

- Grower's habits need to change
- Low willingness of growers to switch to unknown substrates
- Probably higher costs than current alternatives

