

Project	Status			Aim	Material							Peat replacement (vol% or %)	Tested pretreatment of materials	Aspects				Conclusions/ breakthrough	References
	Submitted	ongoing	Finished		Compost	Coco	wood fibres	Chopped heath biomass	plant fibres	Biochar	Chitin			Chemical	Biological	Physical	Disease suppression		
Strawberry trials PCHoogstraten/ILVO			x	Peat replacement by compost and adapted fertigation for commercial strawberry cultivation.	x	x						20-100 vol%	no	x		x	(x)	role of compost as P and K fertilizer in growing media	-1
VIS SyNeCo			x	Optimal use of yard waste in order to balance green energy and materials recycling, process was optimised to provide green waste compost suited for use in growing media for soilless cultivation	x							no pot trials	sieving	x		x		positive effect of sieving out the finer fraction of green waste compost	
MIP DuPoCo			x	maximal peat replacement in growing media by applying mixtures of green waste compost and local residual biomass	x	x	x	x	x			15-100 vol%	acidification, feedstock selection	x		x		growing media formulations with up to 100% peat replacement successfully tested, : chopped heath biomass as feedstock, feedstock selection for green waste compost to increase inherent quality, S amendment to decrease the pH of the growing media	
FP7 Fertiplus			x	Recycle nutrients from urban and farm organic wastes into agriculture as biochar, compost or combinations of both.						x		0-3%	no	x	x		x	limited value of woody biochar as fertilizer, promising results for disease suppression	(2)
MIP I-Love-T https://youtu.be/_qfFLVWS3Mo			x	Plant fibres are tested for partially replacing peat in growing media and as carrier for biocontrol organisms							x	20 vol%	defibrination techniques	x	x		x	protocol for assessing N immobilization in composts and plant fibres	(3)
MIP Heath4Peat			x	Use of heath vegetation clippings from nature conservation for horticultural applications				x				0-100%	sieving	x	x			Chopped heath biomass successfully tested for application in cultivation of ornamentals	(4)
phd Soltaninejad, S.			x	Use of chitin in growing media for increasing the disease suppression							x	2%	no	x	x		x	Chitin has potential for increasing the disease suppression in soilless cultivation, and mode of action is detected	(5)

Blueshell (ERANET)		x	Explores shellfish by-products for potential (bio)active compounds targeted at the sustainable supply of safe, healthy food								x	to be decided	chitin extraction from shellfish					x	Intended: valorisation of chitin from shellfish as horticultural stimulant		
FWO post-doc Grant: Response of the strawberry rhizosphere microbiome to chitin and biochar in function of plant health: expanding towards metatranscriptomics and DNA-SIP		x	Biochar's mode of action is studied on the strawberry rhizosphere by applying high-throughput sequencing techniques.										2-3%	no				x	x	Intended: elucidating the (microbial) mode of action of biochar and chitin in growing media	(6)
GeNeSys			Reuse Growing media in composting, optimize compost quality										Focus on recycling of peat, and optimization of compost quality	composting, feedstock selection	x		x			Intended: recycling peat-based growing media	(7)
ReGrow4C			Reuse Growing media for Circular cultivation										Focus on reuse of peat	Steam treatment	x		x	x	x	Intended: reuse peat-based growing media	
Interreg 2 Seas Horti-BlueC		x	Sustainable up-cycling of agro-, agrofood and fisheries residues in horticulture and agriculture as bio-energy, biochar and chitin-rich products	x		x		x	x	x			>30%	defibrination techniques, gasification, chitin extraction	x		x	x	x		
SBO BASTA		x		x		x		x	x	x			intended: 100%	biochar production by pyrolysis and microwave	x		x	x	x	Intended: optimal use of biochar in growing media, and interaction of biochar, compost and plant fibres in sustainable growing media with nutrients	
LA-traject Bi-O-ptimal@work		x	Sustainable cultivation in container and open field by using innovative and local materials with enhanced microbial life, ready for use and implementation by ornamental growers	x				x		x			Focus on peat replacement	acidification, inoculation with beneficial organisms	x		x	x	x	Intended: peat replacement by compost and chopped heath biomass	

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