

Denmark

September 2013



COST FP1205: Innovative applications of regenerated wood cellulose fibres



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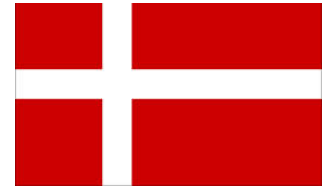


**Group 1**, partners: Inst. of Nanotechnology (co-ordinator), Cellucomp, Alpas, Swetree, Novozymes, Biovelop, KTH, Uni. of Strathclyde, Uni. of Reading, EMPA  
*Participants in:* FP7/2007-2013 under grant agreement no 263017 (NanoCelluComp - The development of very high performance bioderived composite materials of cellulose nanofibres and polysaccharides.

*Aim:*

Improve on Curran through:

- Liberating microfibrillated cellulose (nanocellulose) from vegetable waste streams utilising an aqueous based process
- Improving mechanical properties by the controlled alignment and cross linking of nanocellulose fibrils
- Combining the resultant fibres with bio-based resins to produce a 100% biocomposite
- Demonstrate the sustainability of the above processes and materials, compared to existing materials, through a full life-cycle analysis (LCA)



**Group 2 activities**

- Enzymatic treatment / modification of fibres
- Chemical treatments of hemp fibres
- X-ray analysis of cellulose crystallinity
- Electron Microscopy for fibre surface analysis