



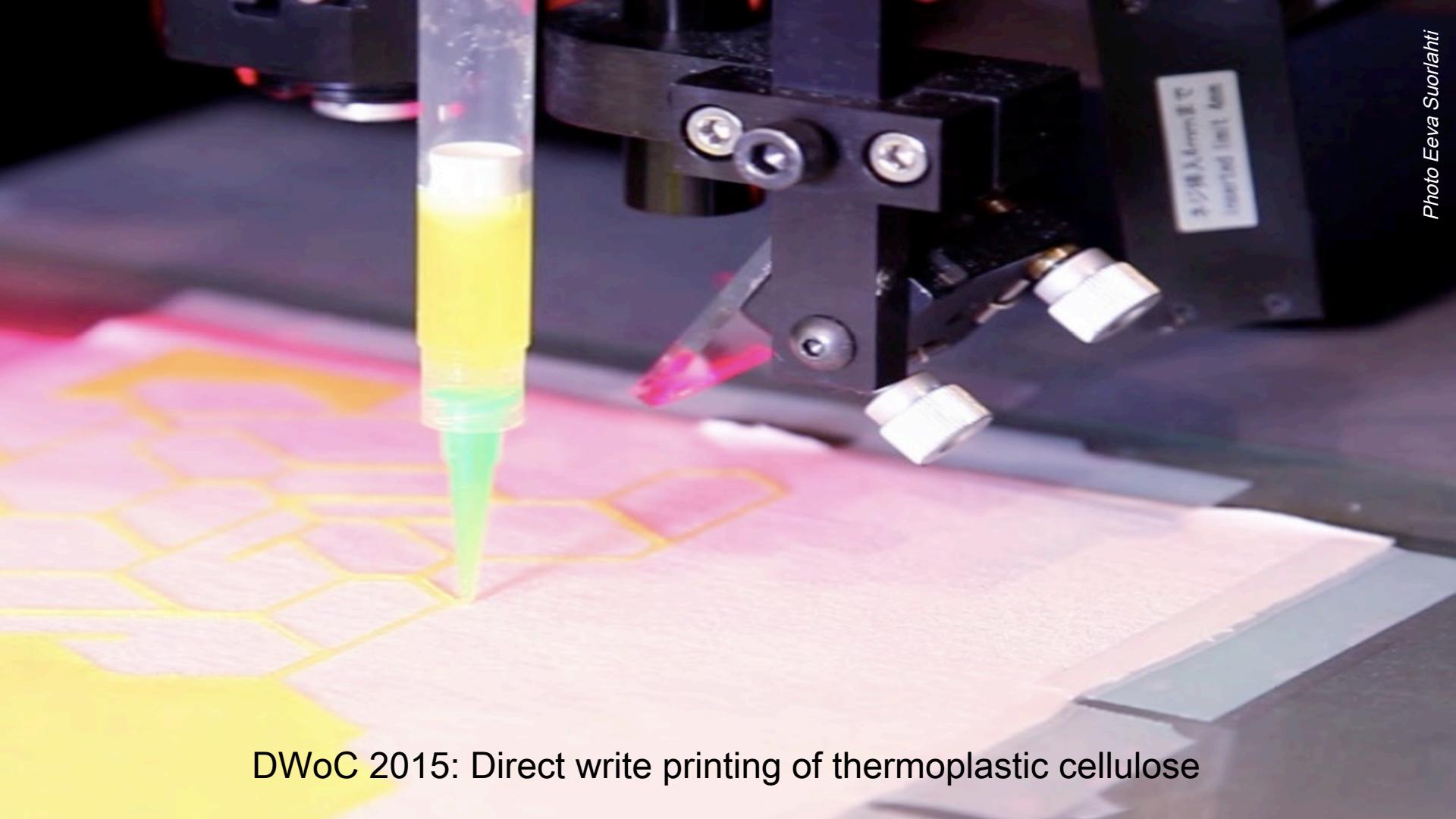
# Customizing textiles with 3d printing

*Pirjo Kääriäinen*

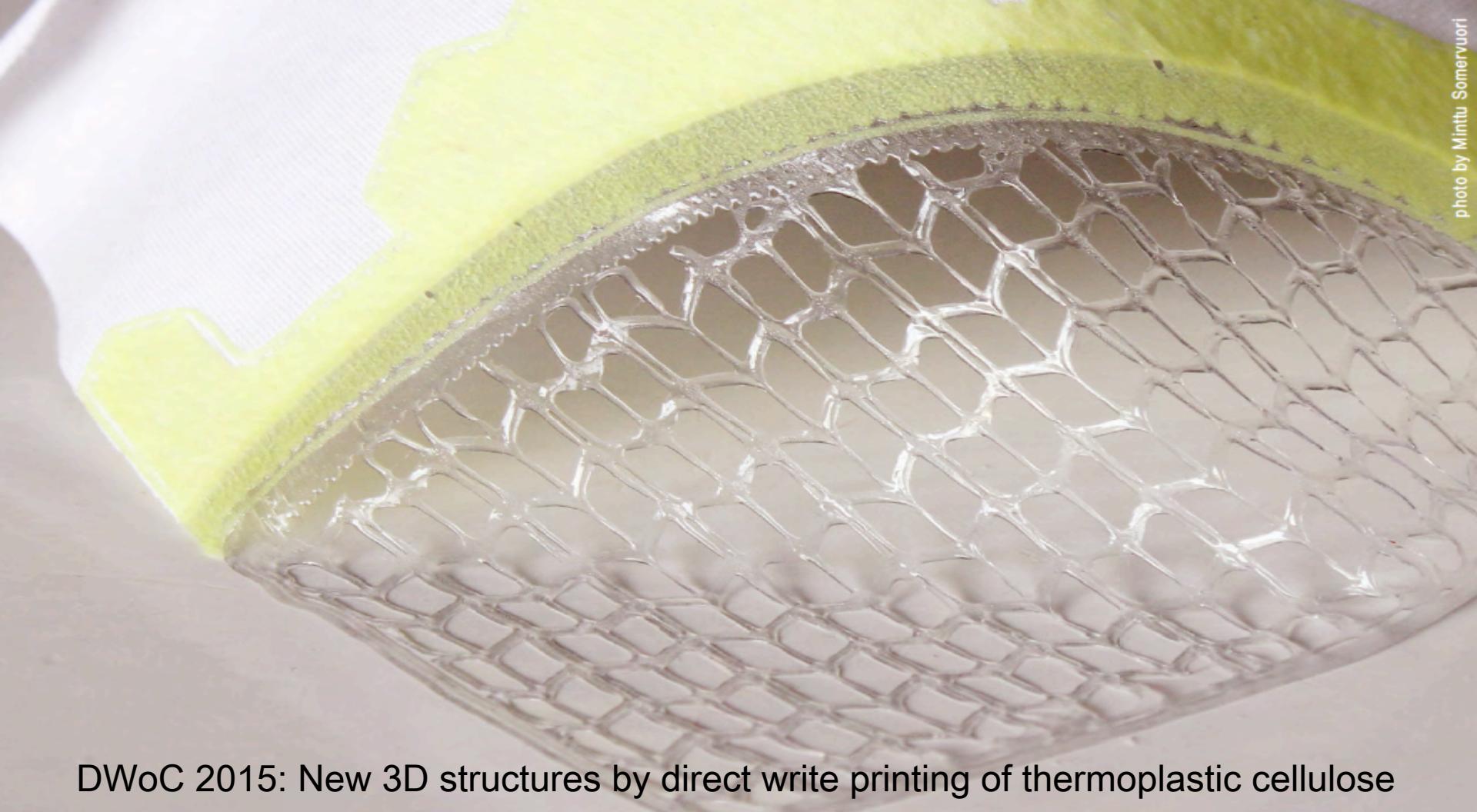
*Team from VTT & Aalto University*



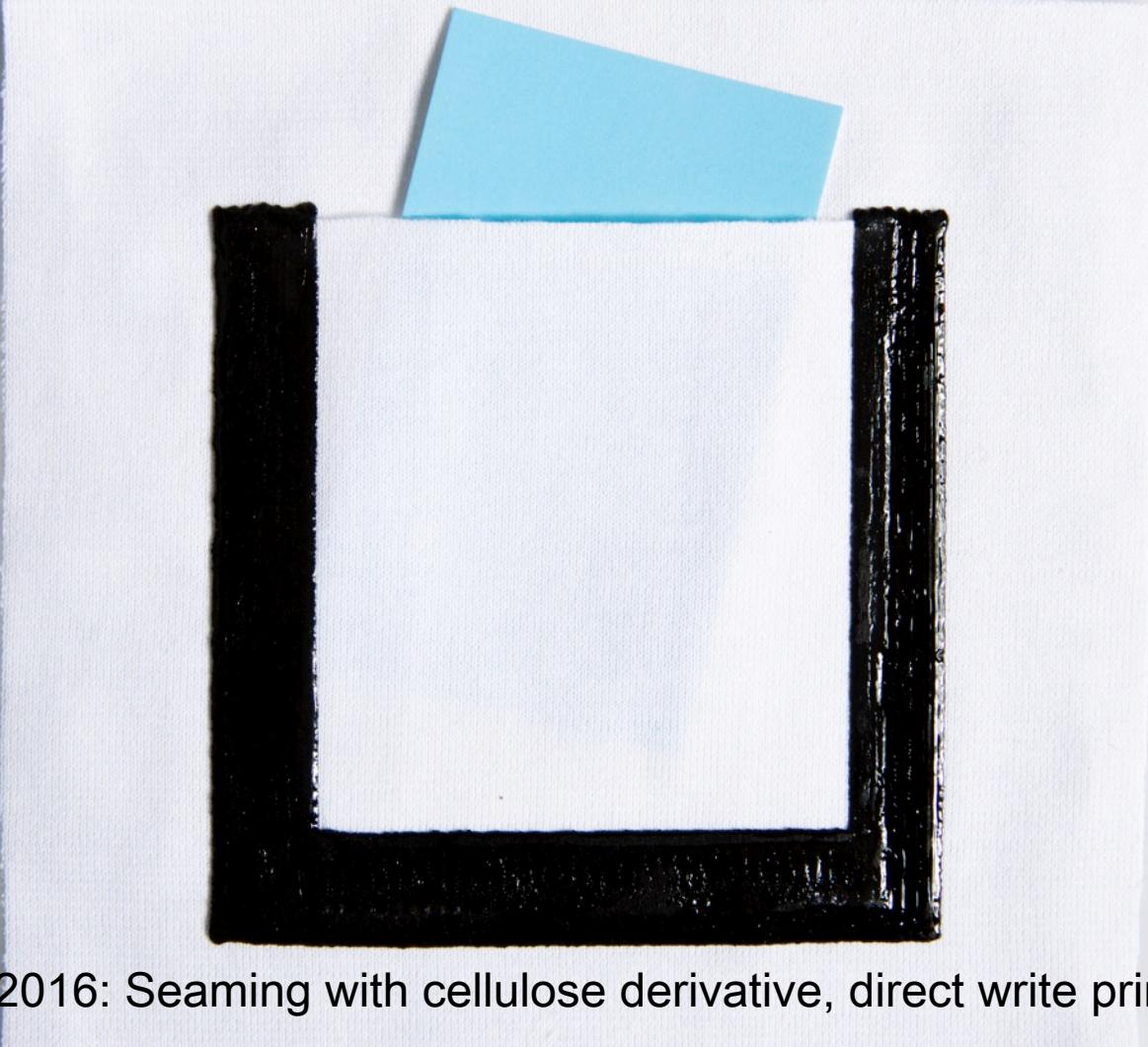
Pioneering 3D printing for fashion with plastic based materials



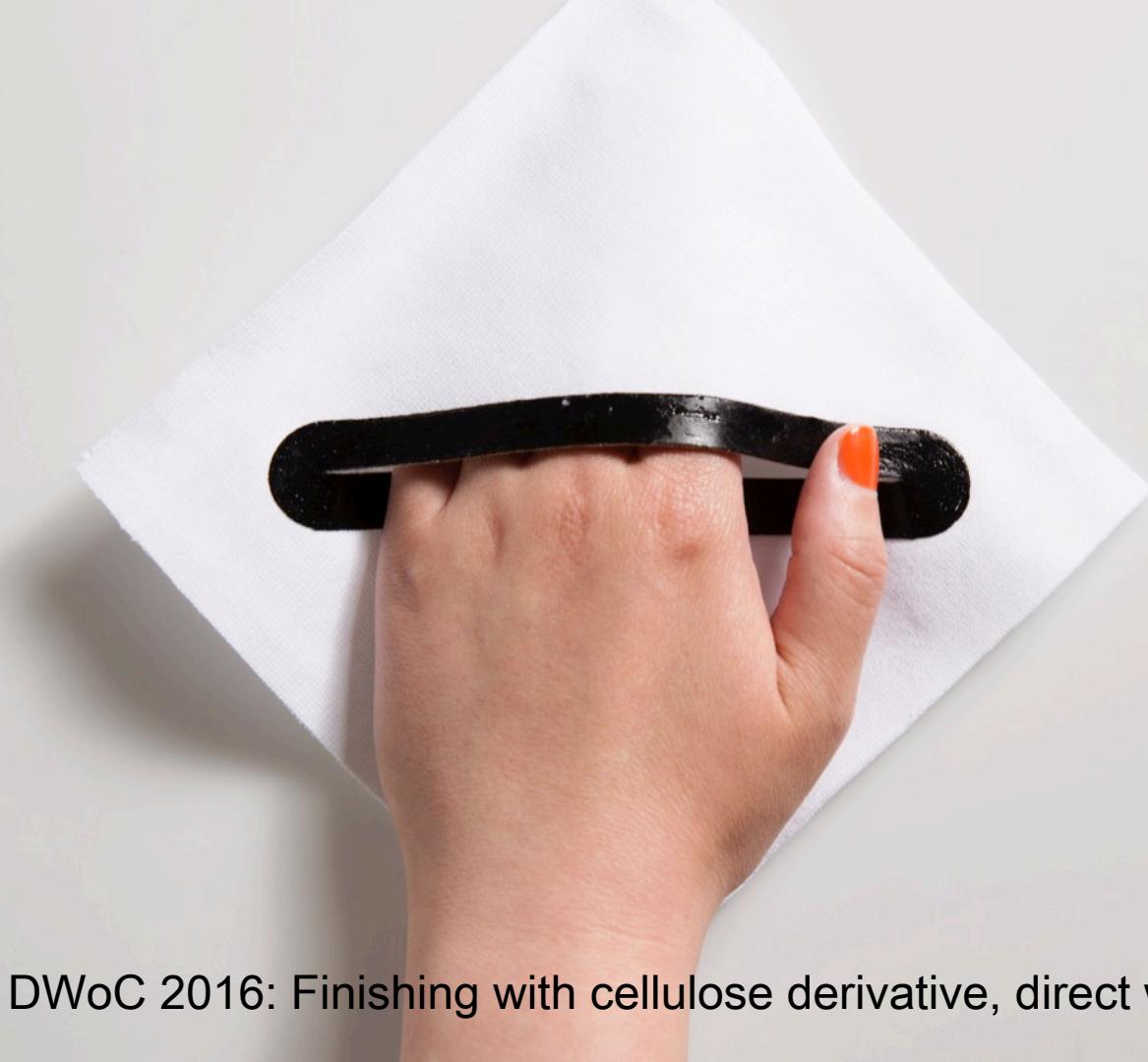
DWoC 2015: Direct write printing of thermoplastic cellulose



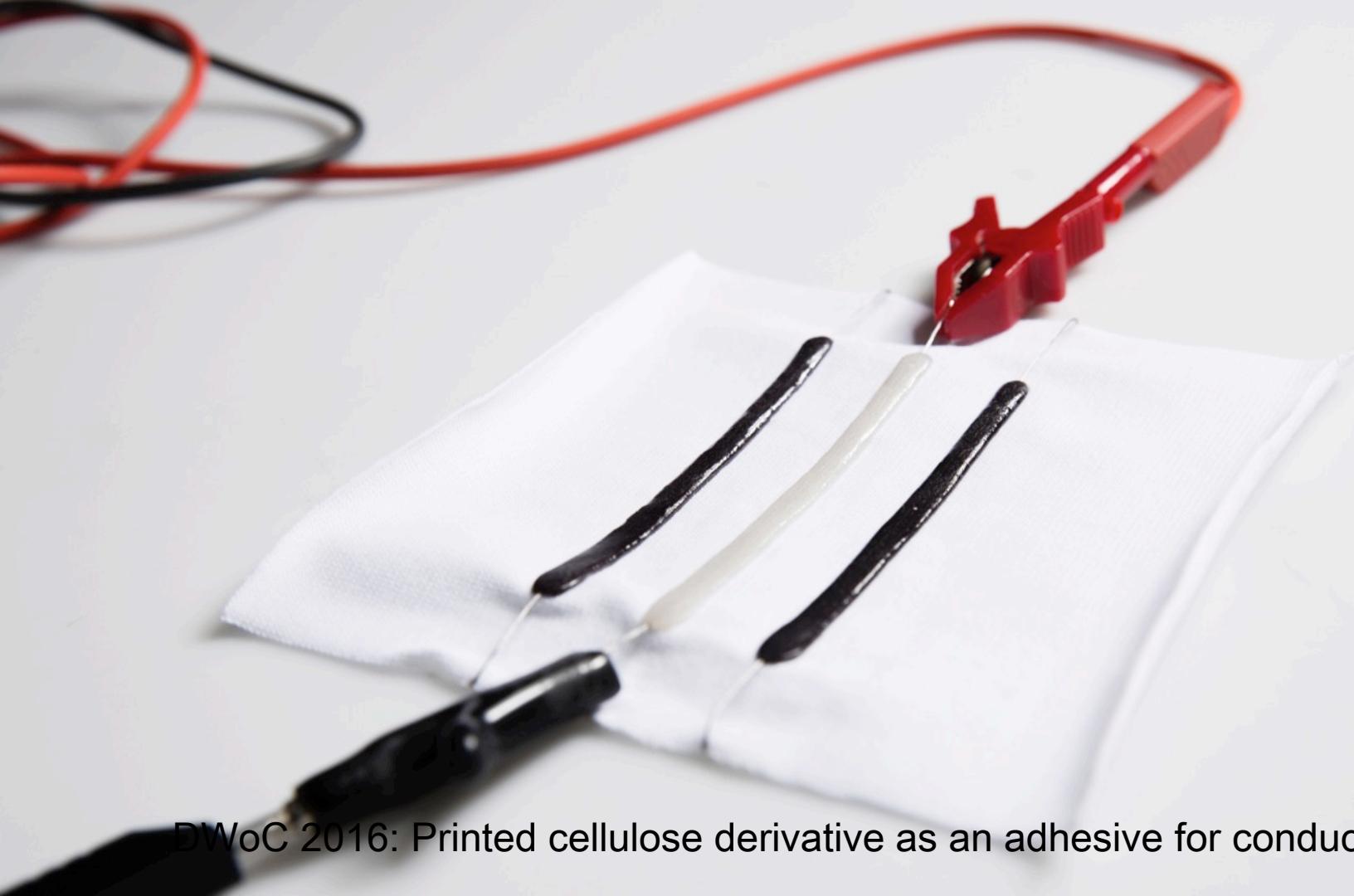
DWoC 2015: New 3D structures by direct write printing of thermoplastic cellulose



DWoC 2016: Seaming with cellulose derivative, direct write printing



DWoC 2016: Finishing with cellulose derivative, direct write printing



DWoC 2016: Printed cellulose derivative as an adhesive for conductive yarns

DWoC 2016: Reflective print, cellulose derivative with glass beads



DWoC 2017: Embossed pattern to create surface texture on fabric



DWoC 2017: How to benefit from material (cellulose) shrinkage?



DWoC 2017: How to control material (cellulose) shrinkage?

DWoC 3D printing on textiles 2015-2017

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Material development: Tiia-Maria Tenhunen, Hannes Orelma,  
Kari Kammiovirta, Harri Setälä

TO BE CONTINUED...