

## Sustainability of novel man-made cellulosic fibre production from paper grade pulp

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The increased demand for sustainable fibres for textiles has boosted the development of new production concepts to produce fibres from wood. One commercially available technology is Lyocell process which is based on direct dissolution of wood dissolving pulp using N-Methylmorpholine N-oxide (NMMO) as the solvent [1], [2]. In the GRETE EU project, concepts for lyocell fibre production using novel solvents and paper grade pulp are developed. This presentation aims to present and discuss the environmental, economic, and social sustainability performance of a concept based on i) eucalyptus paper grade pulp pre-treated with enzymatic pre-treatment prior to cellulose dissolution, and ii) superbase-based ionic liquid solvent. The performance is compared against commercial NMMO-Lyocell concept.

### References

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