



LIGHTer
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Complex Composite Components become feasible in large volume

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COMPLEX COMPOSITE COMPONENTS BECOME FEASIBLE IN LARGE VOLUME

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BIONTEC
BIONIC COMPOSITE TECHNOLOGIES

FOUNDED IN 2009



FASHION



COMPOSITES



AUTOMATION

WHO ARE WE? AND WHERE?



ST. GALLEN



Development, stitching, RTM,
milling, quality assurance

LUGOJ

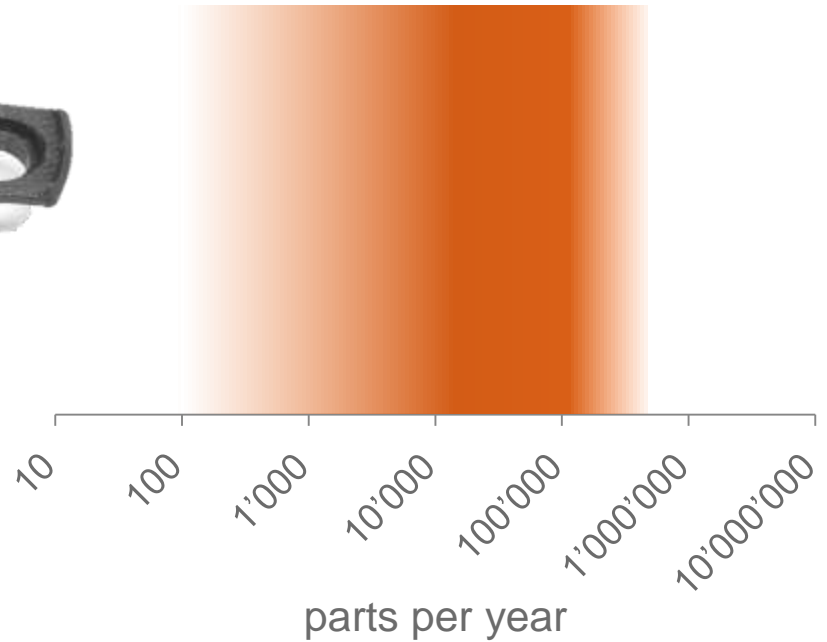


Preforming

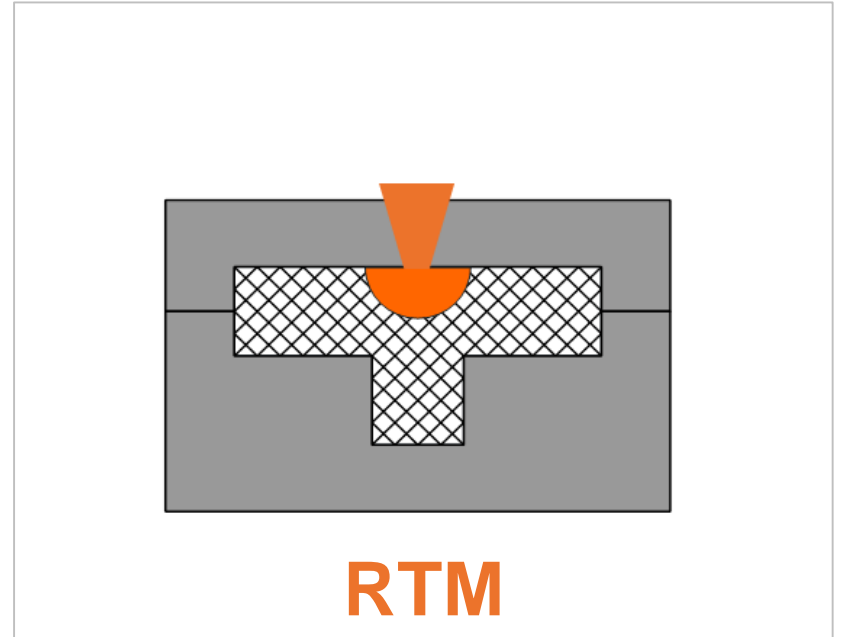
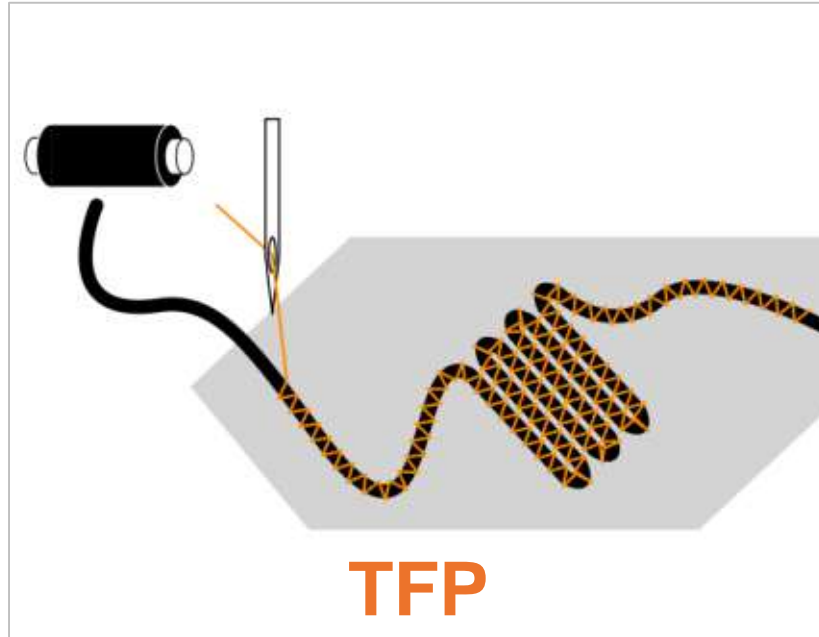
Complex Composite Components in high volume

WHAT DOES THAT MEAN?

COMPLEX COMPOSITE COMPONENTS IN HIGH VOLUME



AUTOMATED PROCESS FOR COMPLEX FRP CORE PROCESSES

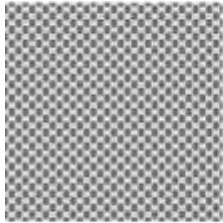


Tailored Fibre Placement

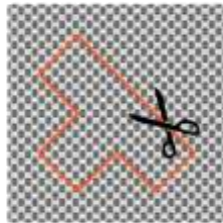
COST-EFFECTIVE PREFORMING

COMPOSITE PREFORMING PROCESS

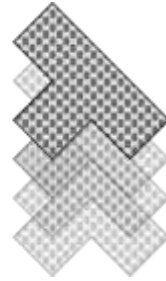
Textile Manufacturing



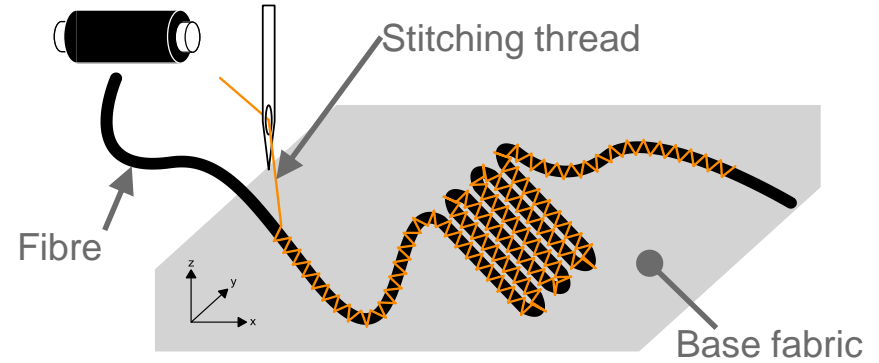
Ply Cutting



Stacking/
Preforming



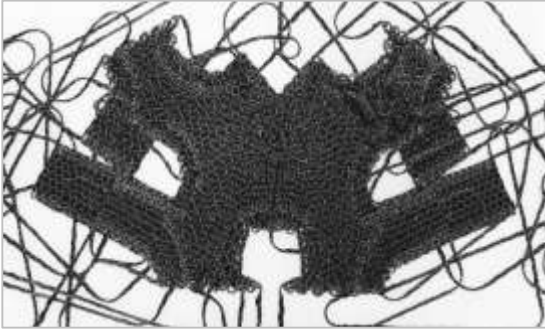
Conventional Preforming



Tailored Fibre Placement

PREFORMING OF COMPLEX GEOMETRIES

Stitching



Cutting / Assembling

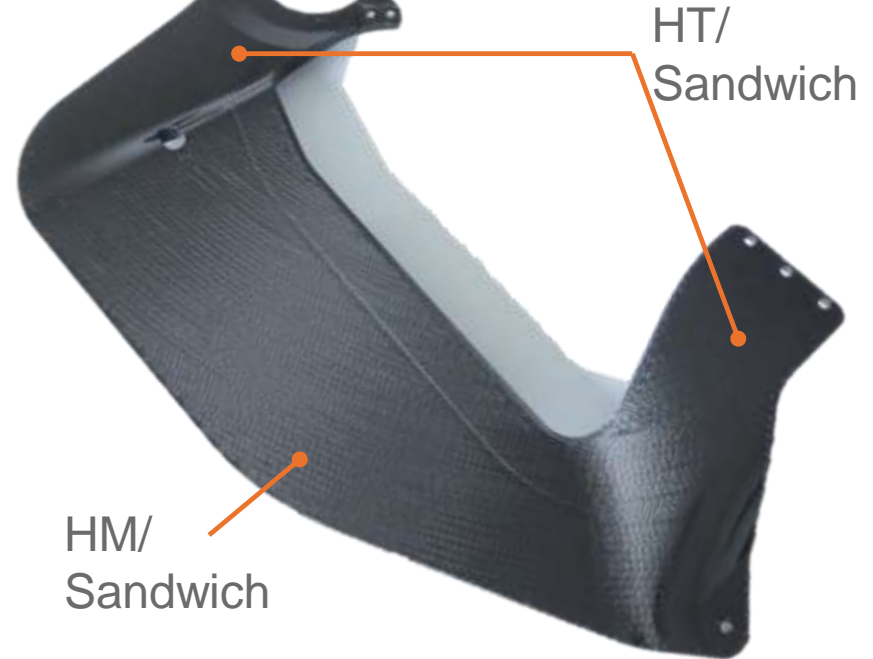
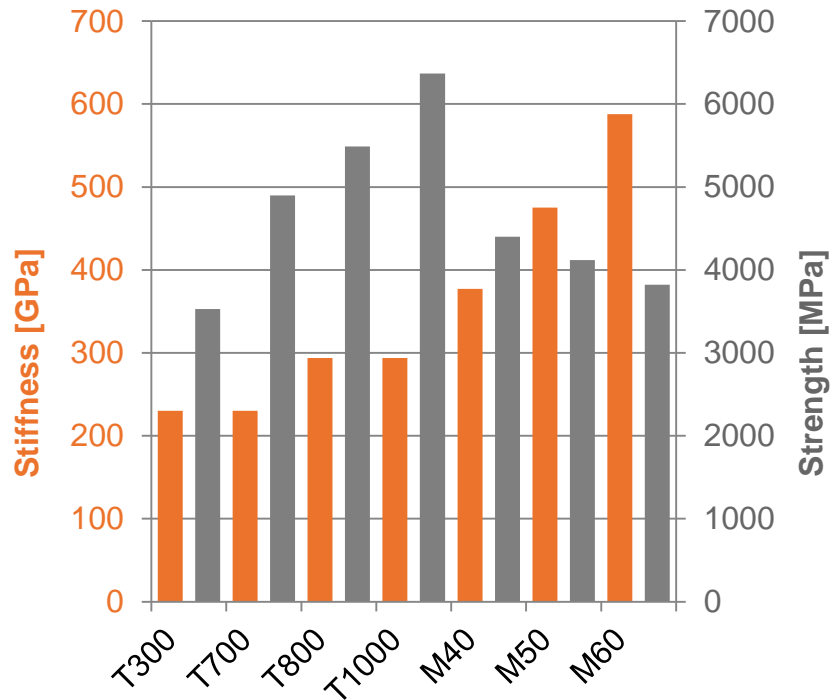


Preform



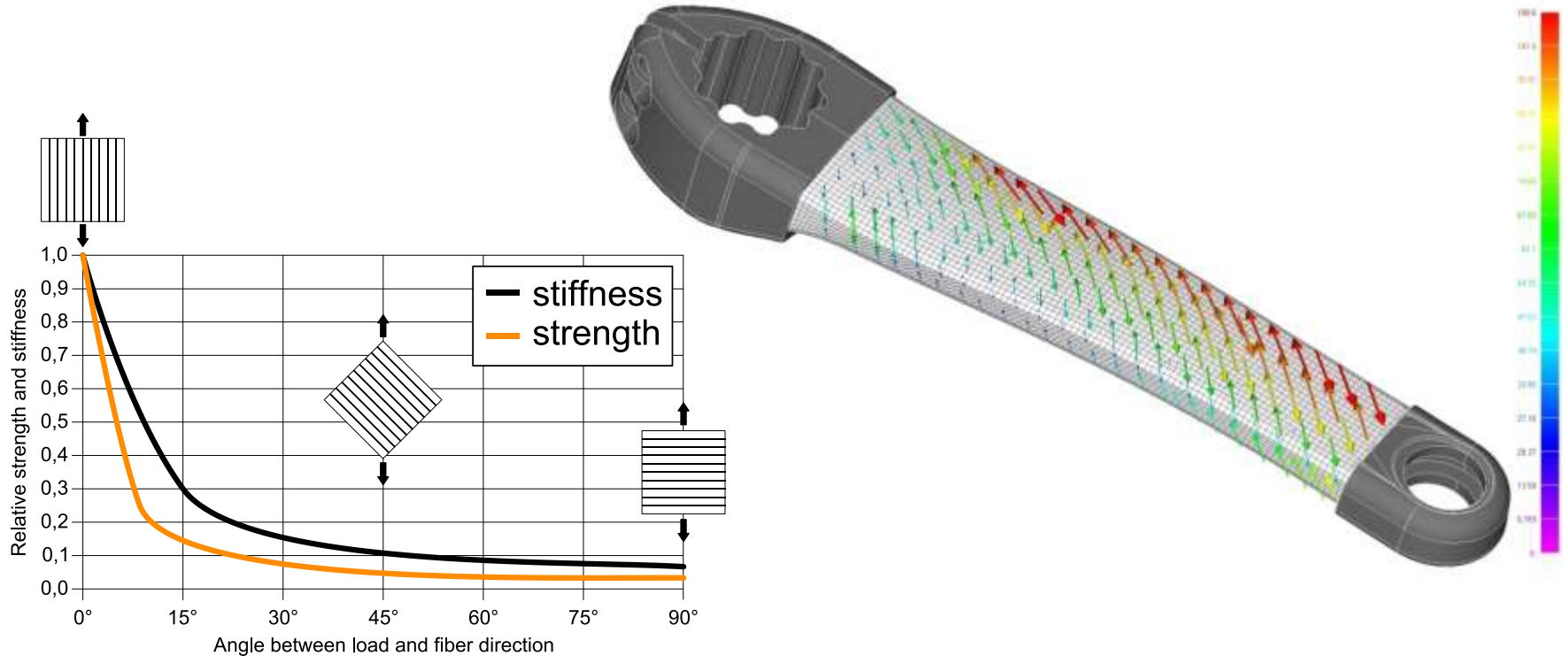
OPTIMIZED MATERIAL EMPLOYMENT

RIGHT MATERIAL



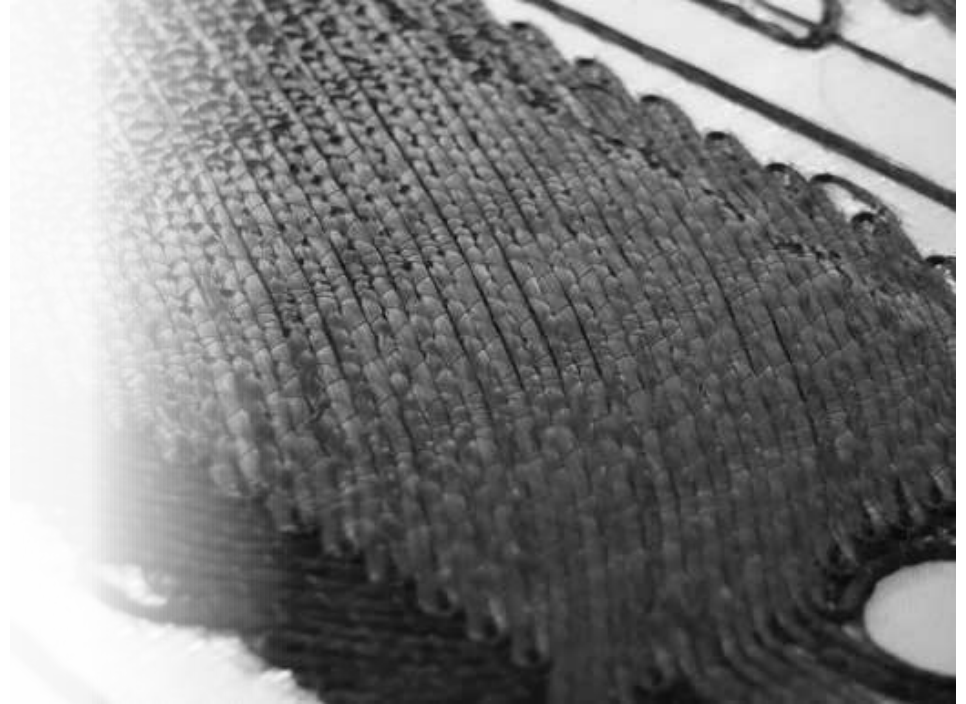
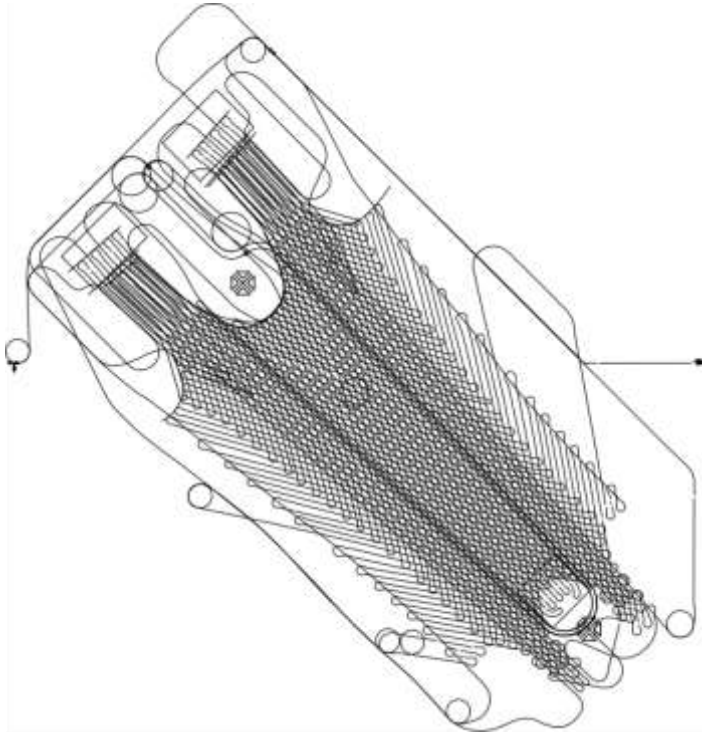
OPTIMIZED MATERIAL EMPLOYMENT

RIGHT ORIENTATION



OPTIMIZED MATERIAL EMPLOYMENT

RIGHT ORIENTATION



OPTIMIZED MATERIAL EMPLOYMENT

WASTE REDUCTION



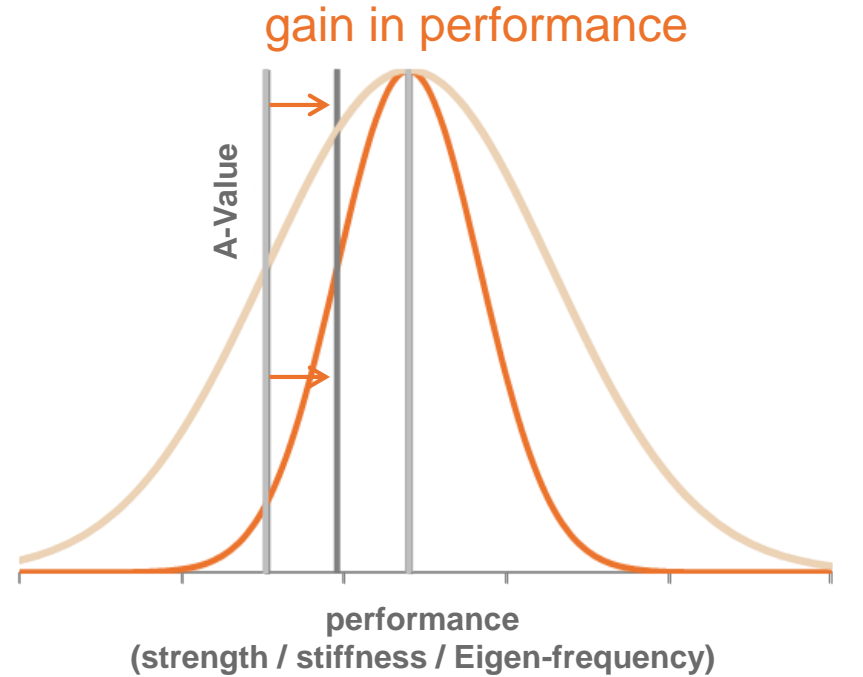
AUTOMATED AND ROBUST PROCESSES

EFFECT ON PROPERTIES

hand lay-up



automated
and robust



Cost-effective Production

TFP IN HIGH VOLUME PRODUCTION?

EFFICIENT AND RELIABLE PREFORMING



EFFICIENT AND RELIABLE RTM



Complex Composite Components in large volumes

50% CHEAPER



50% LIGHTER





THANK YOU FOR YOUR INTEREST!

Bionic Composite Technologies AG

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