University of BRISTOL

Bristol Composites Institute (ACCIS)

ADVANCED COMPOSITES COLLABORATION FOR INNOVATION & SCIENCE

# CANs: from dynamic bonds to sustainable composites

*Adapted from JEC World's 'Composites Challenge 2020/2021'*

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**BCI showcase 2021**

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Engineering and Physical Sciences Research Council

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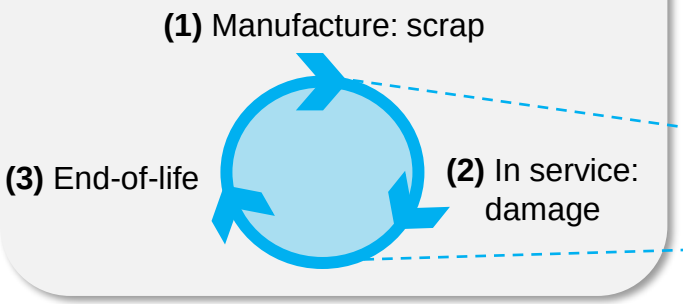
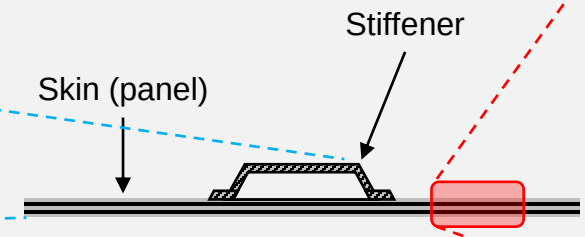
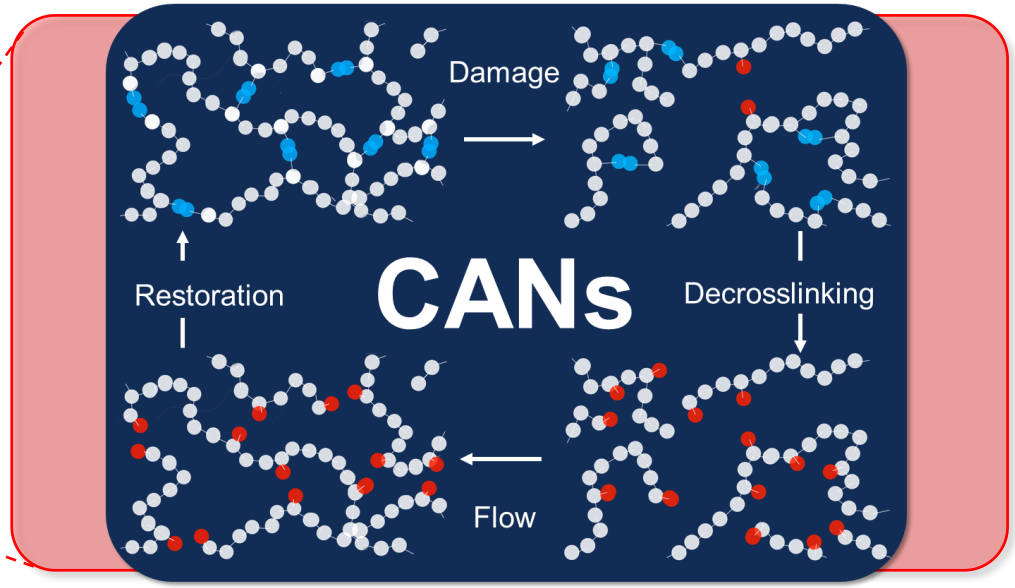
## Composite life-cycle of waste




## A CAN composite part

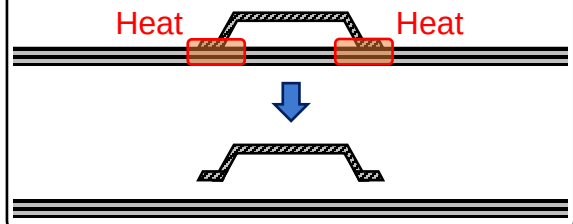


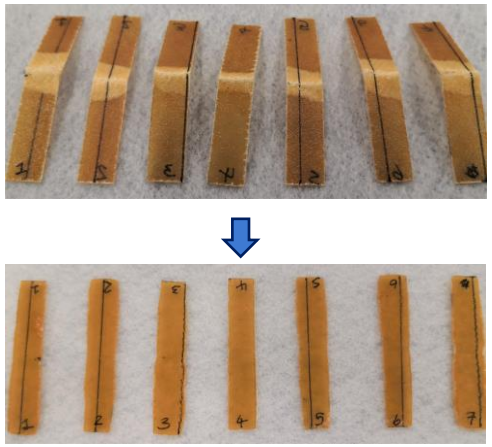

## Reshaping (1)

*Scrap re-use*

## De-bonding (3b)

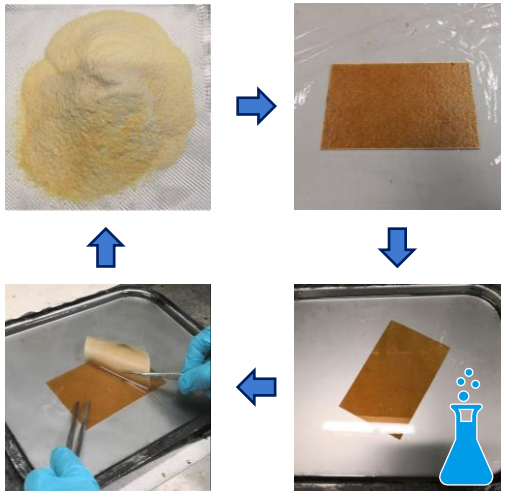



## Repairing (2)

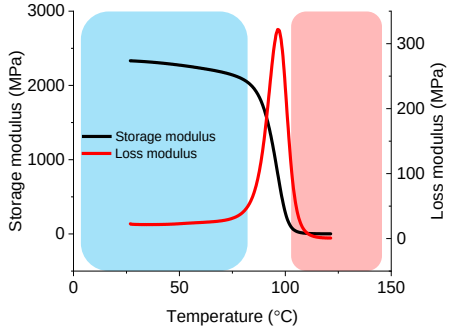


*Healing efficiency: *28%*

## Recycling (3a)

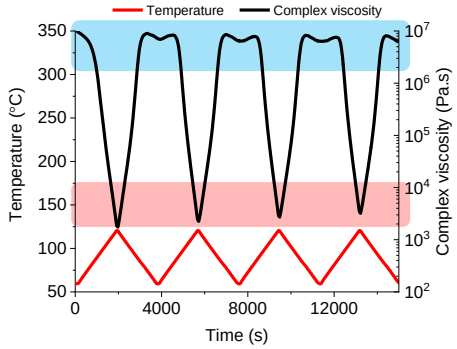


*Recycled strength: 70%*




## DMA

Blue – brittle solid
Red – viscous liquid




## Rheology

Blue – brittle solid
Red – viscous liquid

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# Thanks for your attention

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