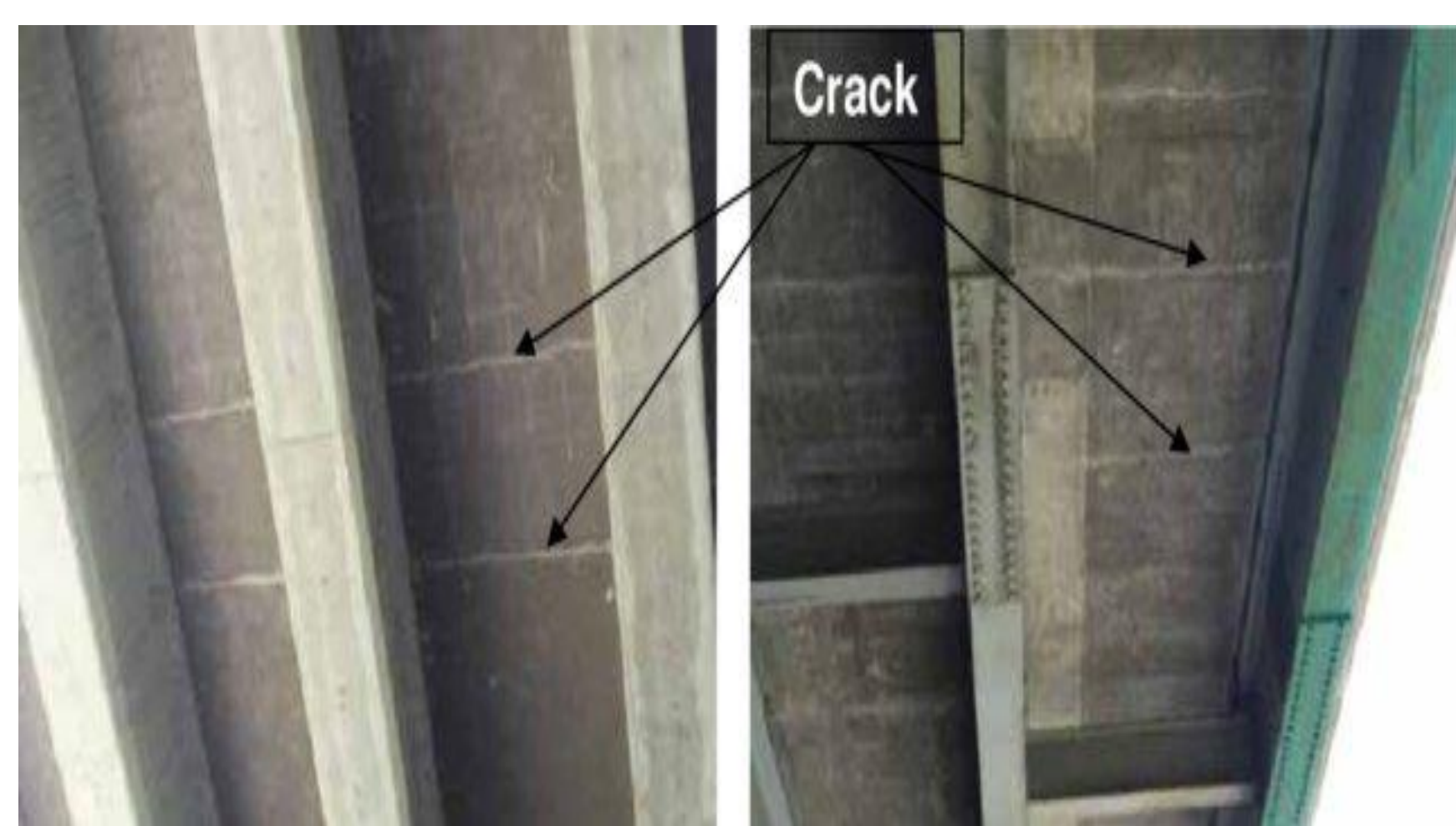


# Interface behaviour of concrete structures strengthened with ultra high performance fiber reinforced concrete (UHPFRC) in shear

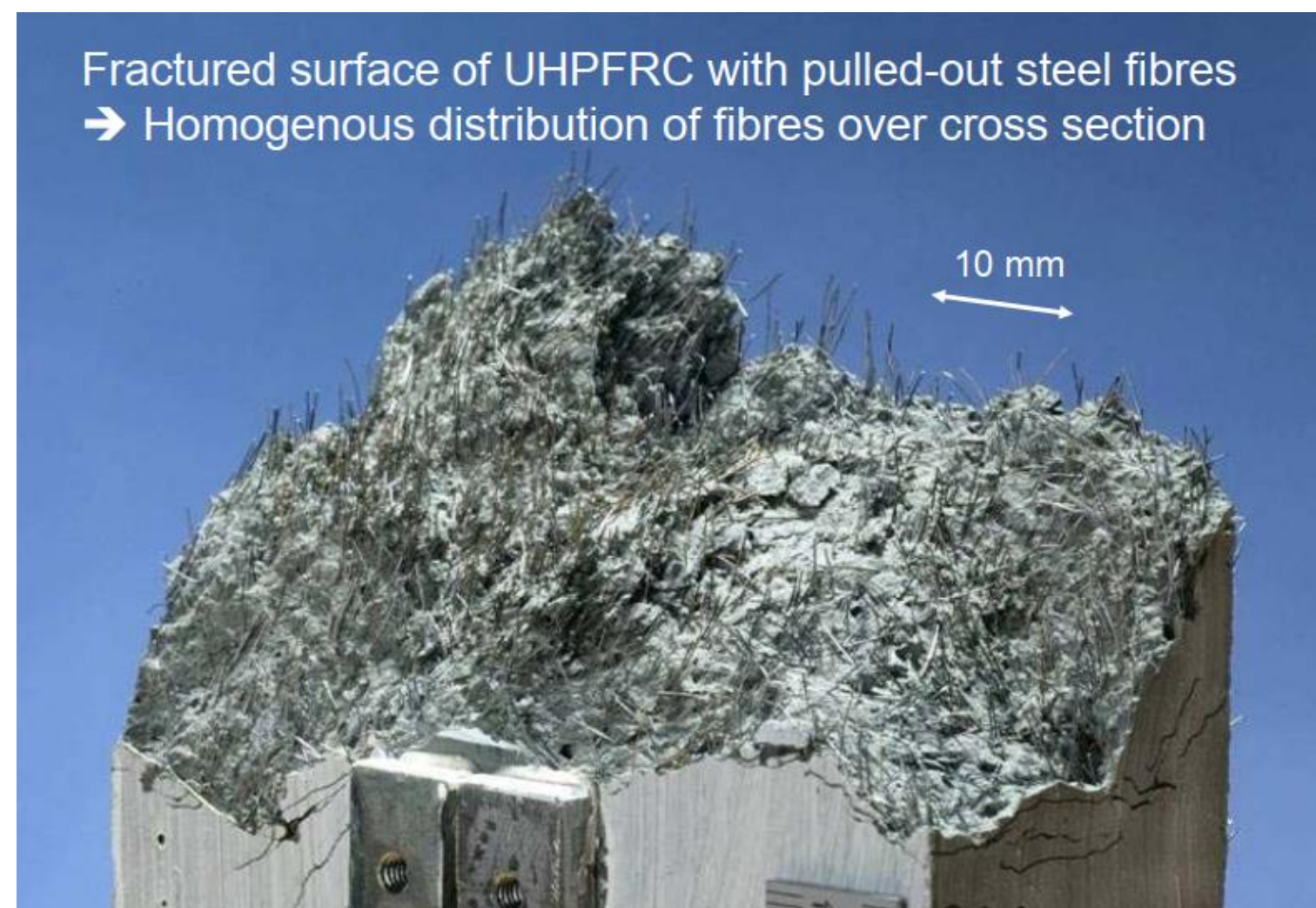
## Motivation



Crack

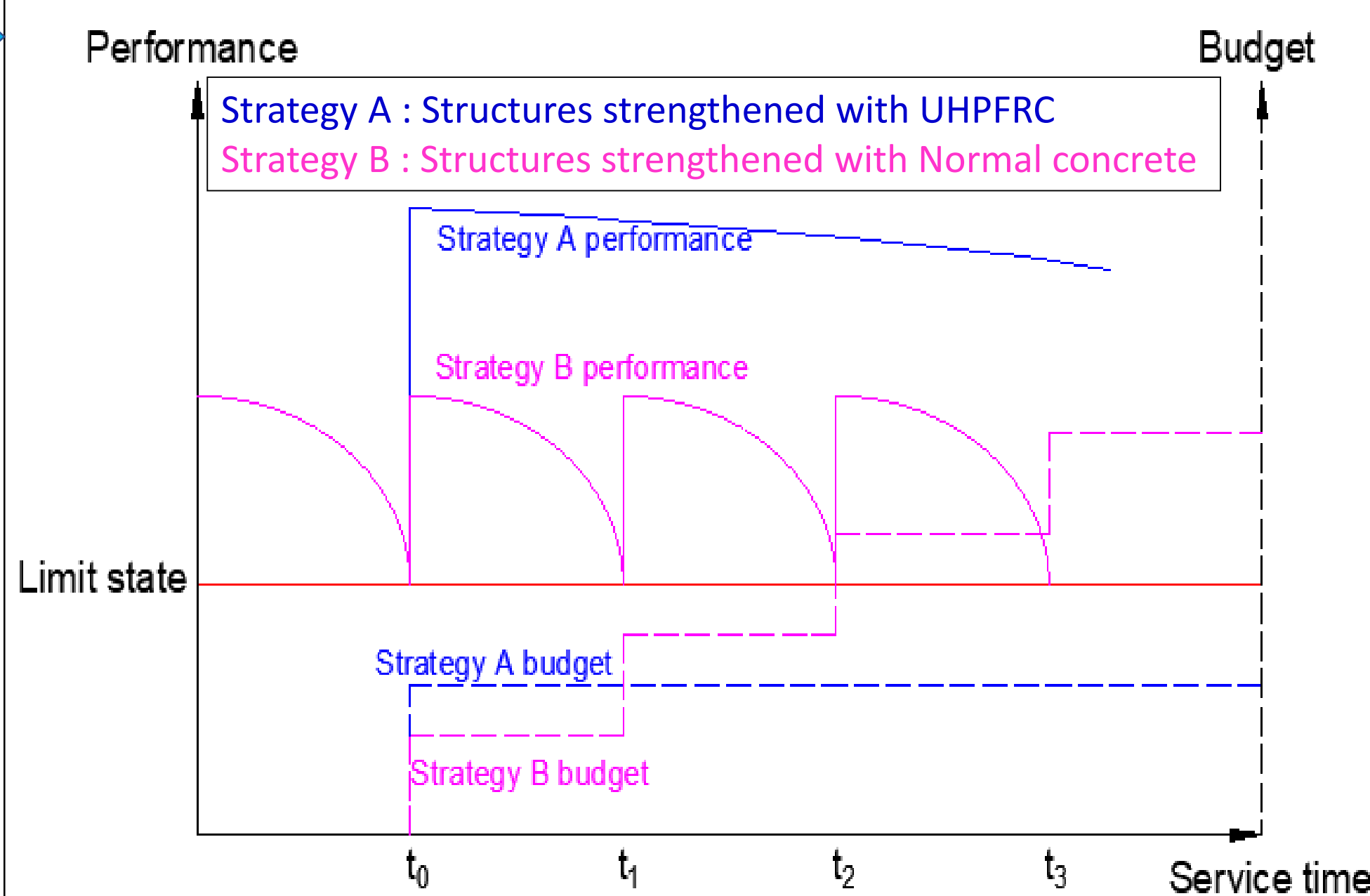


Damaged concrete bridge strengthened by new concrete

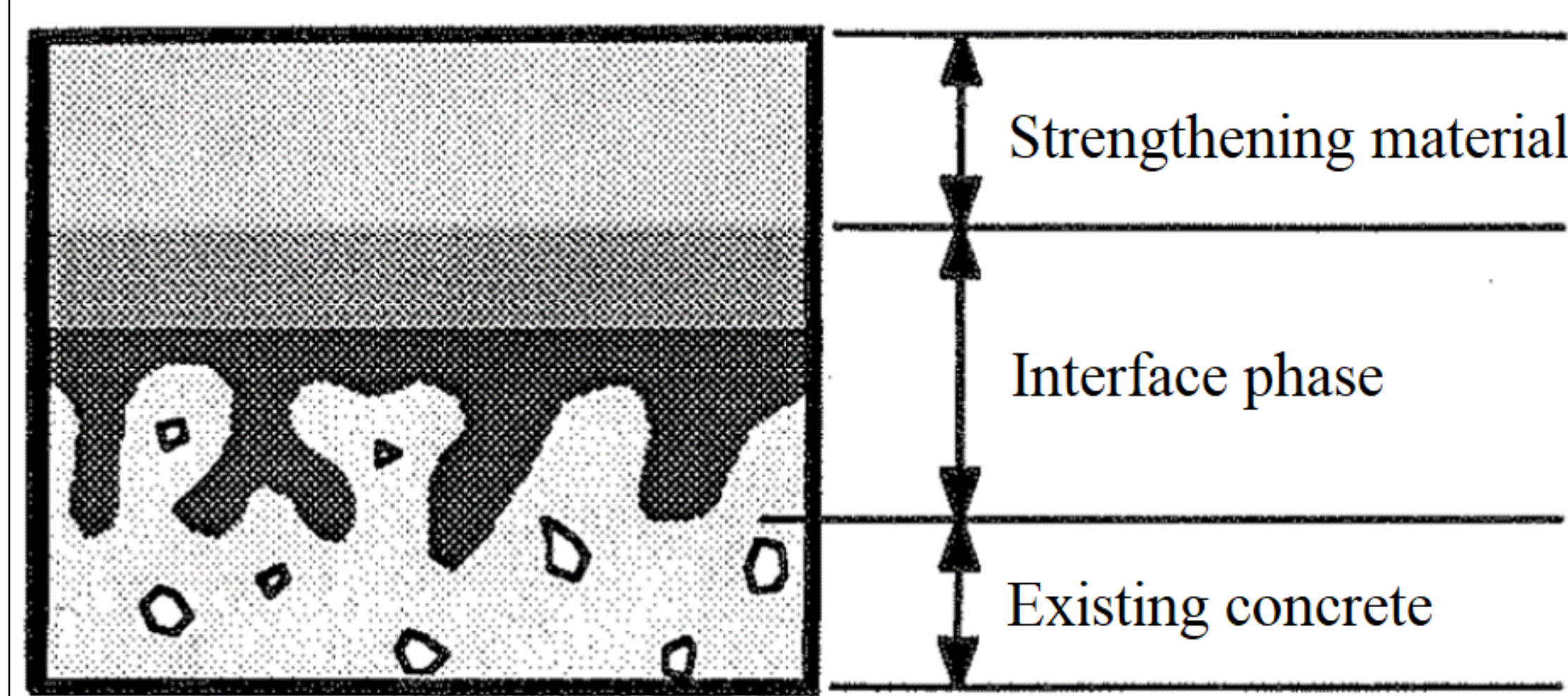


Fractured surface of UHPFRC with pulled-out steel fibres  
→ Homogenous distribution of fibres over cross section

10 mm



Great advantage of UHPFRC



Strengthening material

Interface phase

Existing concrete



Interface formation and potential interfacial debonding

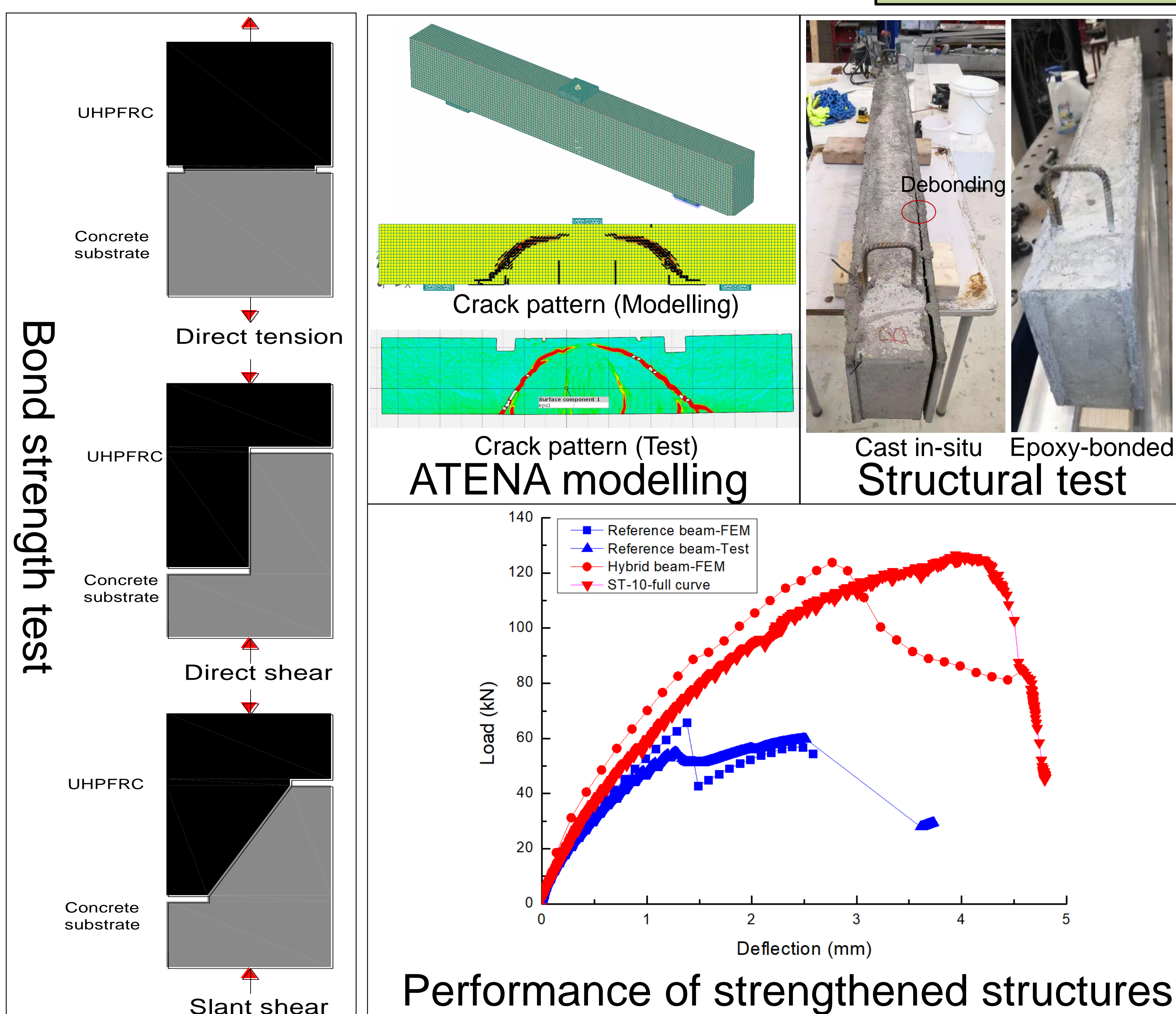
## Methodology

1. Recommendation for strengthening design of UHPFRC-concrete hybrid structures focused on the behavior of UHPFRC-concrete interface

2.1 Quantification of interface properties

2.3 Numerical modelling

2.2 Effect of interface properties on structural performance



## Final deliverable

