



LESSONS FROM RAIL INFRASTRUCTURE PROJECTS – A FORENSIC PERSPECTIVE

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HKA - Who we are?

The world's leading consultancy of choice – Multi disciplinary expert and specialist services

Typical disputes where we get involved could be civil or criminal and include:

FACD

QED+

FTS



What we do...



We provide expert opinion

How do we do it?

Use of ...





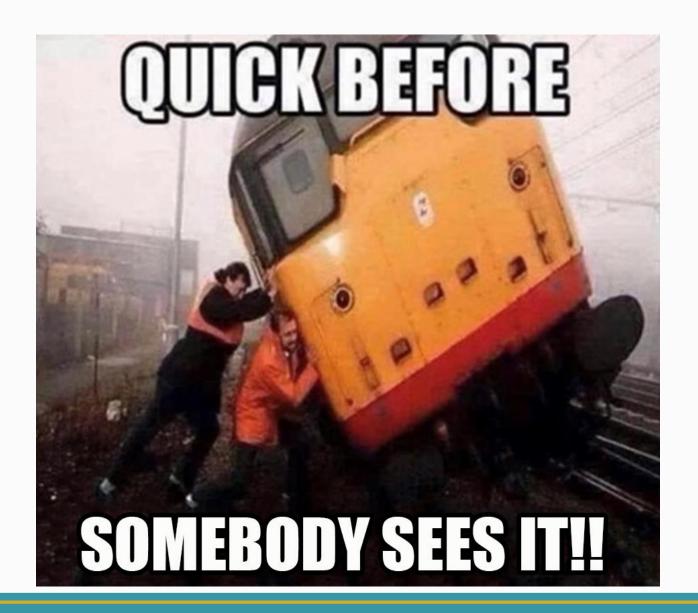


Instructions

Scope / Change

Design

What the!



What areas do we specialise in?



Metro – light rail



P-Way (Track)



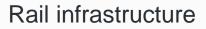
Passenger Rail



HS Rail

Cont'd...







Electrical services LV











Rolling Stock

Largely Client – Consultant/Contractor.....

These can be complex often involving: -

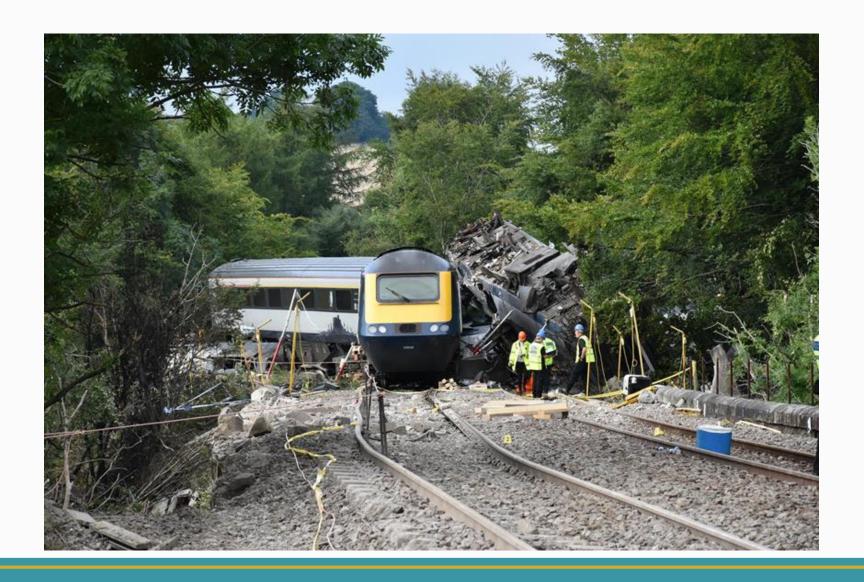
Joint Ventures

Multi-discipline contractors and sub-contractors

Specialist suppliers

Other?

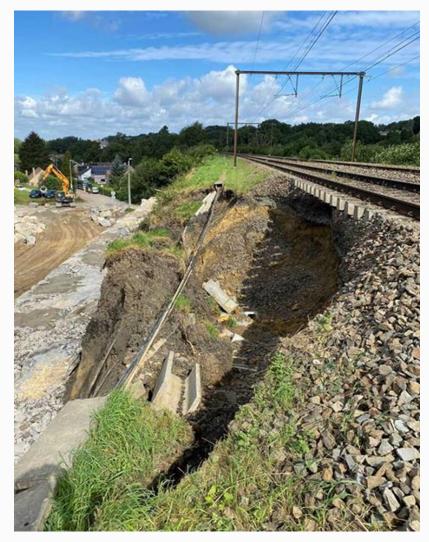
Fatal rail accident



Causation



Neighbouring influences



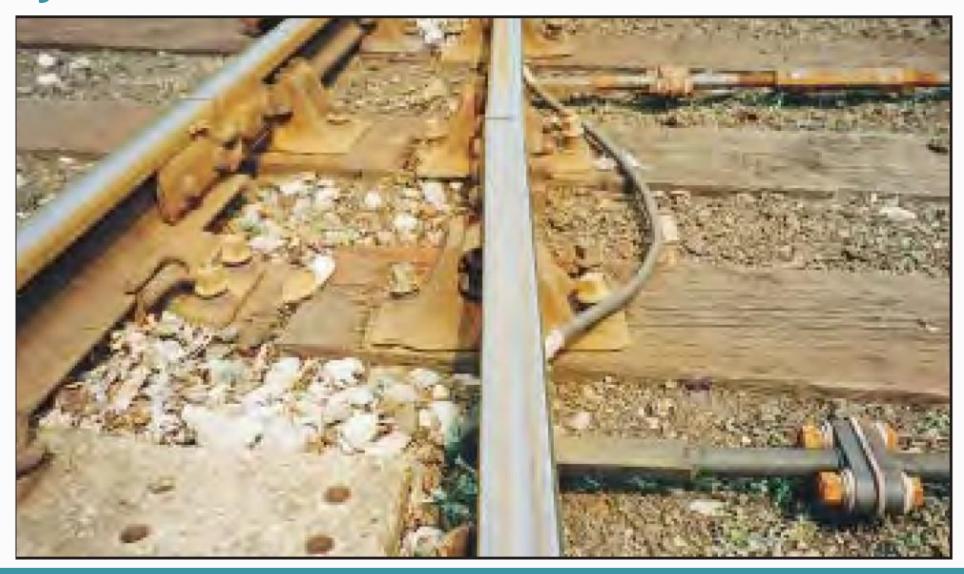
When things go wrong!



Running rail failure



P-Way S&C issues



Infrastructure 'issues'



Live panel working – nice photo!

SF₆ circuit breaker failure



As manufactured



After careful use!

Power cable failures



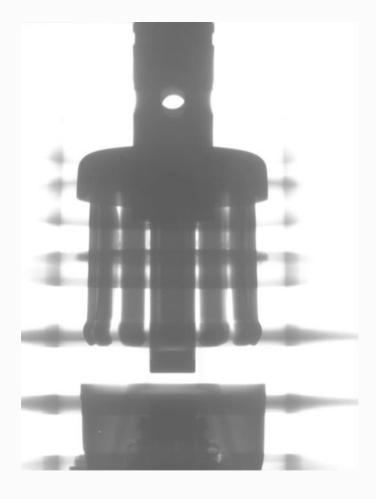
Power failure HS Rail

SF6 interrupter



X-Ray analysis





HV discharge activity





Workmanship issues

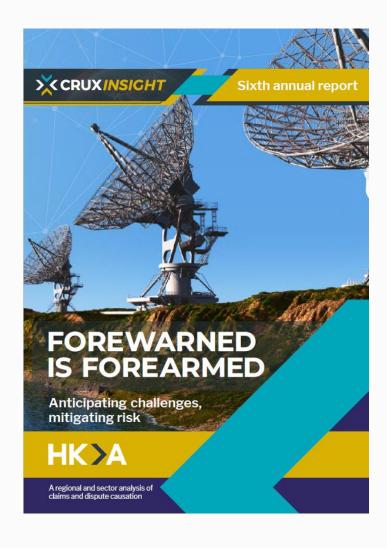




Oops!



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Any Questions

