



# PTC'23 Submarine Cable Workshop Keynote Panel 1

AGILITY, INNOVATION, PERFORMANCE



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# Sustainable Business Model

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- In terms of workforce, Xtera is a relatively small submarine system supplier.
  - Doesn't own cable factories, cable ships or survey vessels etc.
  - Has a relatively small number of people, many working from home, thus minimizing commuting and building size
  - Consequently, our direct environmental impact is very low
- We deliver systems using a range of industry partners to supply cable, marine services etc.
  - Were successful doing this for NO-UK even during the current period when the industry in general is very busy with large number of systems being built.
- This model of effectively using 'spare' industry capacity in this way has a net carbon footprint benefit.
  - For example, a large proportion of the impact of cable production is from the operation of cable factory itself and is quite significant even if the factory is running at less 100% capacity.

Would more sharing of these high impact resources (factories, ships) more effectively across the industry in general lead to improved sustainability?

# Xtera Wet Plant Technology

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- The Xtera repeaters deployed on NO-UK are a new design, that offers a number of features that reduce environmental impact.
  - Smaller and lighter than conventional repeaters.
    - Reduced energy requirements during manufacture and shipping
  - Novel hybrid Raman/EDFA modules that provide lower noise optical amplification.
    - Fewer repeaters required for a given system performance
  - Intelligent powering modules that optimize the power demand based on the individual repeater requirements.
    - Minimizes the system power-feed requirements

Future developments of Xtera technology will continue to consider sustainability impact of equipment

# Cable Redeployment

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- Well known that many retired submarine cables are still fully functional and could be recovered and redeployed for application in other locations
  - This provides an excellent way of recycling a product (cable) which has limited value to one customer but immense potential value to another.
- Xtera is one of the few suppliers in the industry who has supported projects which make use of redeployed cable to create new submarine cable systems.
- However, more recently most new systems are designed with new cable, even when reasonable capacity could be achieved with a redeployed cable

Should cable redeployment as a solution for new systems be re-examined from the perspective of improved sustainability – particularly for applications where highest capacity or reach not needed?