

# Welcome

## NDT Group R&D roadmap

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# Background

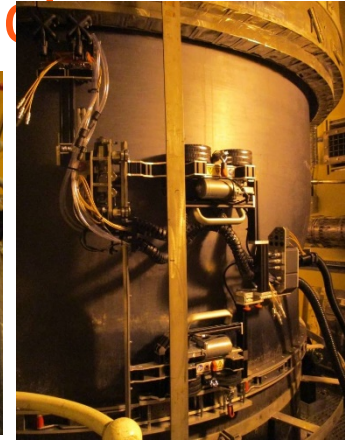
- Inspection challenges due to ageing plant
- New opportunities/challenges
- Roadmap restructured to focus on plant driven risks not technology driven

# Focus Areas

- Reduction of dose
- Outage Optimisation
- Improved capability for safety case
- Enhance engagement with Industrial partners and R&D institutions

# Outage reduction and ALARP risk reduction

- Investigate the replacement of conventional surface techniques or automated inspections with eddy current array inspection.
- Development and increased use of phased array ultrasonic testing: fixed beam phased array at SZB, sectoral phased array inspection and development of generic phased array inspection capability statement.



# Enhancement of inspection capability

- Improve defect detection and sizing capability
- Enhance theoretical understanding
- Improve inspection coverage on restricted or limited access components: Guided wave tested and on-load monitoring
- Optimise techniques and determine deployment strategy for specialised phased array inspections i.e. Full Matrix capture and Virtual Source Aperture.

Reconstructed image  
assuming planar interface

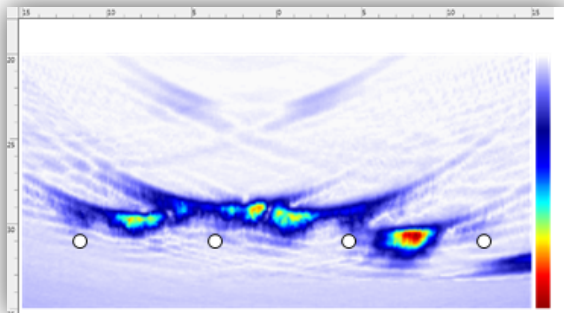
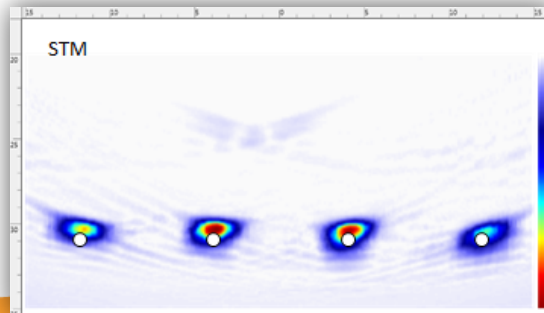


Image reconstructed using  
FMC *auto-focus* algorithm



# Expand Inspection modelling and theoretical capability

- To remain at forefront of inspection qualification.
- RCNDE rough modelling.
- POGO modelling.
- Validation of POGO model and CIVA model.
- Use of modelling to optimise inspection design and justify detection capability of specialised inspection techniques.

# Enhanced Engagement

- EDF NDT Group Limited resource
- Engage with industry
- Actively engage with collaborative bodies EPRI, ANRC, RCNDE, TWI
- Engage with internal stakeholders
- Membership of ENIQ

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## Other focus areas

- Develop forward strategy for SZB Automated inspection software to mitigate obsolescence and resourcing risks.
- Maintain central hub of legacy R&D, supporting technical evidence, OPEX and inspection risk logs.
- Maintain SQEP resilience and knowledge.



# Thank You

