NDE 4.0
NDE/NDT Data Management

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Industry 4.0 → NDE 4.0

18th Century

Industry 1.0
Mechanical production equipment powered by steam

19th Century

Industry 2.0
Mass production assembly lines requiring labour and electrical energy

20th Century

Industry 3.0
Automated production using electronics and IT

Today

Industry 4.0
Intelligent production incorporated with IoT, cloud technology & big data
NDE 4.0 @ AWE

NDE/NDT
- NDE RT, UT, ET, DR, CT, VT, PT, MT
- Design for Inspection (D4I)
- Interfacing Networks
- NDT/NDE data acquisition
- Data types
  - ‘Big data’
- Protocols
  - ‘Data mining’
- Data management
- Product Lifecycle Management

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Lessons Learned

Develop a strategy for NDE 4.0 data storage
Engagement with departments (Design, Quality, IT)
Design for Inspection (D4I)
‘Big Data’
Data formats
Software tools
Certification of product
Product Lifecycle Management (PLM)
Resilience
Questions?

- NDE 4.0
- All NDT Methods
- Digital Radiography
- CT scanning
- X-ray CT Metrology
- Certification of AM items

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