

# Case Study

Non destructive testing services company taps into new business opportunities in the emerging composite material testing market, commercialising research and winning orders.



**Situation:** Testing Service business keen to exploit new opportunities

**Challenge:** To find right technology to meet emerging market needs

**Requirement:** Engage market regarding investment in new technology

**Solution:** Review technology, engage prospects and forge partnerships

**Benefits:** Won new business, new sector enquiries and gained technology partners.

NDT Services Ltd, a leading supplier of Non Destructive Testing to Original Equipment Manufacturers, wanted to exploit leading edge technology opportunities to broaden their services' offering of composite NDT, making use of the latest Research and Development.

NDT Services Ltd provide a range of UKAS and NADCAP accredited in-house and onsite Non Destructive Testing and Materials Testing facilities, covering most industry sectors, standards, regulatory approvals and capacity requirements in the UK and Europe.

They supply expertise and product knowledge, including qualified and professional advice, dedicated support and rapid response services including site inspection. NDT Services is always looking to expand into new markets by investing in new technology and staff development.

## **Situation: New market opportunities**

To meet growth objectives and extend the scope of their services, NDT Services were keen to develop new manufacturing technology applications, including extending their composite carbon, glass and bonded assemblies testing capabilities. In addition, they required additional technology resource to meet market demand and continue their development of high level service provision. NDT Services knew of bd3T through industrial engagement events, and decided to engage bd3T on the strength of their industrial contacts, as well as their broad practical and theoretical experience of testing technologies, including Shearography.

## **Challenge: Testing technology limitations**

Significant advances have been seen in materials development of non metallic, resin bonded composite materials and adhesive bonded assemblies. As a result, manufacturers are increasingly using carbon, plastic and bonded assemblies in manufactured products – providing new market opportunities for testing services.

*“This project has taken the company a long way forward.”*

**Pete Maiden, Sales Manager,  
NDT Services**

*“bd3T are proactive and added excellent contacts which enhanced the project and moved it on quickly. Patrick delivered what was asked of him within the project time period.”*

**Tim Cresswell, Power Generation  
Services Manager, NDT Services**

*“We wanted to evaluate the latest testing equipment technologies so that we were better prepared to assist and advise existing and future customers with composite testing solutions.”*

**Phil Morris, Operations Director,  
NDT Services**

Due to these advances in material technologies, testing services need to prove that components are in fit-for-purpose condition and that anomalies are defective or benign.

Well-known for quality delivery of responsive testing of metallic components, NDT Services have used similar traditional methods to test non-metallic, plastic, and bonded parts. They realised there was broader potential in offering a comprehensive service, applying the latest emerging techniques and vision system technologies.

However, before investing in new instruments, they wanted customer input about potential instrument system suitability, such as investigating the latest developments in Shearography, Thermography and IR Spectroscopy.

### Requirement: Expand capability

NDT Services wanted to develop an advanced manufacturing service, which would win business at higher margins.

A key requirement was winning new business by engaging prospects from existing and new markets, forming partnerships in development and paying attention to:

- > **Time to image – quicker, time-saving instruments and their portability**
- > **Skills – upgrading instrument system applications and interpretation of results**
- > **Customers – exceeding needs, wants and desires**
- > **Confidentiality – protecting customers' product developments**

To achieve this, they needed to increase their capabilities in testing and data acquisition services and invest in technology that would meet exacting customer requirements. Furthermore, evaluate incorporation of new instrument systems and prioritise their ongoing investment strategy.

### Solution: Connect capability and market

bd3T provided the additional resource needed to achieve developments: undertook a technology review, engaged prospect customers in broader industrial sectors, and created a customer presentation – and established new partnerships for commercialisation of applied research.

**Confidence to invest:** Technical evaluation, demonstration and analysis of components gave NDT Services knowledge and confidence to plan their adoption of new technologies.

**Instrument suitability:** Further trials and developments identified the features and benefits of each instrument and the data results that could be achieved, enabling selection decisions.

**Customer proof:** The development work resulted in the creation of a presentation for use in customer engagements, demonstrating the company's enhanced and broader capabilities.

**Test image data:** Raised value of test data in other aspects of manufacturing, beyond in-process inspection, and potentially into design, prototyping and first-off checks.

### Benefits: New business

NDT Services won new business, received enquiries from new sectors, increased the scope of their services and raised their profile – by identifying and responding to customer needs. They also realised increased value from the test data – discovering enhanced applications in design processes and new product technological developments.

**New orders:** won from existing customers and expanded relationships.

**New enquiries:** sales leads and formalised relationships, including Intellectual Property and confidentiality.

**New partnerships:** utilising R&D and collaborating with academic organisations.

**Company image:** boosted by new OEM and supply chain engagements.

**Technology advances:** in high quality data resulting from enhanced image data acquisition. This meets advanced manufacturing requirements and enables a broader use and application of test data – increasing its value to UK and EU industry.

*“The manufacturing market is changing and we need to ensure that we have new testing technologies in place to accommodate this change. We wanted to expand our expertise in an emerging testing market – offering practical advice and solutions to meet future demands.”*

**Phil Morris, Operations Director,  
NDT Services**

*“The presentation, showing testing system results compared and contrasted is invaluable.”*

**Pete Maiden, Sales Manager,  
NDT Services**

*“A growing line of business – offering high end technology services to meet actual customer needs and desires.”*

**Tim Cresswell, Power Generation  
Services Manager, NDT Services**

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### About bd3T

bd3T win new business in new markets for clients through commercialization of research activities.

- > Helping improve business performance through technology adoption, primarily in the creation of new or developed products, processes and related services with industry and research organisations.
- > Winning new business in new technology areas by finding markets for new technologies and exploiting the collaborative strength of manufacturing supply chain products and services.
- > Commercialisation of emerging technologies, such as defect detection, data acquisition, vision system, and testing services.
- > Overseeing new engagements, customer demonstrations, exploration of needs and applications and managing enquiries through to purchase orders – on time and on budget.
- > Meeting stringent process and quality management system Approvals and Standards.