

5.1.5. THE ADVANTAGES AND LIMITATIONS OF LINKING INDUSTRIAL NEEDS WITH ACADEMIC RESEARCH

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This paper is presented to describe the advantages and limitations of having an organisation that links industrial needs with academic research. The UK Research Centre for NDE (RCNDE) was established in 2003 as a partnership between various large industrial users of NDT, the UK Government funding body (EPSRC) and six leading universities.

During the 1980's and 1990's, large industrial organizations often reduced the size of their research laboratories and concentrated on shorter term development activities. At this time the links between industry and universities were often rather weak: industrial needs were seen as immediate whilst academic timescales were too protracted. The result was poor delivery and/or understanding of academic output and a correspondingly slow uptake of new research ideas.

During the 1990's both major industrial users of NDT and universities began to develop bilateral arrangements to overcome the barriers to effective cooperation. Recognising the wide range of industries who have a need for high quality NDT research, discussions in 2001-2 led to the creation of RCNDE in April 2003. Since that time, industrial and university membership has steadily grown, and the success of the partnership led to it being funded for a second phase 2008-2012. The core membership now includes 15 major industrial companies and 6 universities with a growing number of other universities and companies also participating.

The improved understanding of academic capabilities and industrial research needs and cross-fertilisation of ideas and closer personal relationships have all contributed to the effectiveness of RCNDE.

From its inception RCNDE has emphasised the importance of exploiting the research being generated and a system based on Technology Readiness Levels is now being used. This approach helps all parties to understand the full range of activities which need to be achieved before new research can be translated into commercial products or processes. Examples of recent research will be discussed in the context of Technology Readiness Levels.

The paper will also discuss some aspects of partnership working where additional effort has been required to reach a consensus. Sometimes compromises have to be made to reconcile the needs of a variety of sponsors, whether industrial companies or the Government funding body.