

Partner Name	THE UNIVERSITY OF HUDDERSFIELD	Short name	UoH	number	11
<b>Short Description</b>					
<p>The Engineering Control and Machine Performance Group within the Centre for Precision Technologies (CPT) of the University of Huddersfield has a leading position in the measurement and correction of volumetric inaccuracies within machine tools. The work on machine tool control has been carried out for above twenty years firstly under Emeritus Prof. Derek Ford and following his retirement by Alan Myers. Alan Myers is directly responsible for 14 staff including 3 research fellows and 2 PhD students although the engineering facilities and other associated staff from within the University can be called upon whenever required. The centre pioneered and promoted the use of volumetric assessment and correction of machine tools using the in house developed Volumetric Compensation Software (VCS) which has resulted in dramatic improvements in the overall accuracy of the equipment when compared with the standard method of linear measurements and correction. The system was initially developed for three axis machines but the work has now progressed onto five axis and more advanced configurations.</p> <p>Inaccuracies as a result of thermal effects within the machine tool, whether they be caused by environmental issues or from sources within the machine have also been investigated within the culminating in the development of Thermal Compensation Software which works together with the VCS to produce improvements in volumetric accuracy of above 70%.</p> <p>The team are consistently working to improve the product and extend the range of applications working with a number of partners in the aerospace, electronics and general engineering sectors both within the UK and abroad. Other activities within the Centre include metrology where the team is world class and condition monitoring of MT which is being developed to run concurrently with the VCS.</p> <p>The Centre has worked on above 50 research projects in this area in the last five years generating 13 papers and is part of the CIC network which has recently won a Regiostars award from the EU.</p>					