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Deloitte Report - Measuring the Economic Benefits of Mathematical Science Research in the UK

The Engineering and Physical Sciences Research Council (EPSRC) has today published the report it commissioned from Deloitte on the economic benefits of mathematical science research in the UK. The Council for the Mathematical Sciences (CMS) and the learned societies worked in partnership with the EPSRC and provided evidence, but the report is an independent study by the consulting firm Deloitte. The report reflects the excellence of the UK mathematics research base, and the impressive and far-reaching impact of the mathematical sciences.

The report looked at mathematical science occupations, defined as occupations which either entail mathematical science research or which use tools and techniques derived from mathematical science research. The report estimates the contribution of mathematical science to the UK economy in 2010 to be quite remarkable: 2.8 million in employment terms (around 10 per cent of all jobs in the UK) and £208 billion in terms of Gross Value Added (around 16 per cent of total UK GVA). Productivity (as measured by direct GVA per worker) is significantly higher in mathematical science occupations compared to the UK average (approximately £74,000 versus £36,000), and as such the direct GVA impact of mathematical sciences research is proportionately higher than the share of direct employment.

In addition to these direct impacts, mathematical research activities by organisations and employees have impact across the supply chain

(indirect effects) and also affect household spending (induced effects). There are also wider impacts and benefits generated by organisations using the research.

Sectors contributing to this impact include Computer Services, Finance, Aerospace, Telecommunications, Research and Development, Pharmaceuticals, Public Administration and Defence. The impact of data analytics, and its contribution to innovation and new investment, is particularly noted.

Professor Frank Kelly, Chair, CMS, said that, 'The flow of trained mathematical scientists into other disciplines and into the industries of the future is critical to the UK's economic growth prospects, as whole sectors of the economy are transformed by new, essentially mathematical, technologies. Young people with an aptitude and interest in the subject will find University Mathematics and Statistics to be beautiful, challenging and extraordinarily stimulating. They should be reassured that, in addition, it is a subject which underpins our 21st century technology, economy and society, and that the demand for trained mathematical scientists is exceptionally high'.

Notes for Editors

1. The Council for the Mathematical Sciences (CMS) provides an authoritative and objective body that exists to develop, influence and respond to UK policy issues that affect the mathematical sciences in higher education and research, and therefore the UK economy and society in general. The CMS was established in 2001 by the Institute of Mathematics and its Applications (IMA), the London Mathematical Society (LMS) and the Royal Statistical Society (RSS). In 2008 the Edinburgh Mathematical Society (EMS) and the Operational Research Society (ORS) became members of the CMS, providing the CMS with a broader view across mathematical sciences and throughout the UK.

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