

## **What are we in the UK doing:**

Over last 3 years worked hard to raise profile of Mathematics within government and with national policy makers, both in research and education.

Main mathematical learned societies in UK joined together under the umbrella of the Council for Mathematical Sciences (CMS) to speak with one voice about funding for mathematics and the contribution mathematics makes to the UK economy.

## Educating Members of Parliament – raising the profile of mathematics with the Houses of Commons and the House of Lords

### Aims:

- to get the ‘M’ in STEM to be recognised and mentioned;
- to ensure that parliamentarians and national policymakers understand how crucial mathematics is to the UK economy; and
- to attract greater funding to mathematics research and education.

### Results:

- now when ‘science’ mentioned in the House of Commons and the House of Lords mathematics always mentioned when other subjects listed ie physics, chemistry, biology and mathematics;
- MPs and Lords now have mathematics on their radar and have figures to quote on how important mathematics is to the UK economy.

### Approach

Links made to the Chair of the House of Commons Science and Technology Select Committee and two other Members of Parliament interested in science.

Proactively engage with Members of Parliament through holding events at the House of Commons and Lords, hosted by either a Member of Parliament or a member of the House of Lords.

CMS and individual learned societies collaborate with the Parliamentary and Scientific Committee. Try to ensure at least one or two events annually, attended by MPs and Lords amongst others:

- 2011 - Launch of IMA *Mathematics Matters Case Studies* in House of Lords.
- 2012 - Held first ever Mathematics event at the *National Science and Engineering Week* in House of Commons. All day meeting on *Mathematics Matters - A Crucial Contribution to the Country's Economy*.
- 2013 - Launch of LMS Women in Mathematics report: *Advancing Women in Mathematics: Good Practice in UK University Departments*, in House of Commons.
- 2013 - Launch of EPSRC/CMS Deloitte report: *Measuring the Economic Benefits of Mathematical Science Research in the UK* in House of Commons.
- Roundtable meetings with Minister of State for Universities and Science, David Willetts (2012 and 2013) involving influential academicians and industrialists.
- Since 2000 the CMS meets regularly with the Engineering and Physical Sciences Research Council (EPSRC) and occasionally with other Research Councils, as well as with the Higher Education Funding Council for England
- Parliamentary and Scientific Committee - attendance at topical seminars to raise awareness that there is mathematics involved in each topic. Recent topics are: Badgers, Sub-Sea Mining, Biodiversity, Hydraulic Fracturing.

- 2014 SET for Britain event - poster session at the House of Commons and House of Lords with awards presented by MPs. Mathematics involved for first time this year.

## Gathering the evidence

Must provide evidence when asking for more money.

- Deloitte report: *Measuring the Economic Benefits of Mathematical Science Research in the UK* (2013). First ever evidence presented in support of how crucial mathematics is to the UK economy.

Contribution of mathematical sciences

- o 10% of UK jobs, 16% of UK GVA
  - o Productivity of mathematical science occupations is double the UK average
  - o UK maths accounts for: - 4% of world maths researchers - 6% of mathematical articles - 11% of mathematical citations - 14% of highly-cited articles.
  - o CMS commissioning research into the Mathematics People Pipeline to provide evidence that more funding is needed for postdoctoral training to provide enough people to service both UK industry and academia.
- CMS currently commissioning research into the Mathematics People Pipeline.
  - LMS gathering information on UK mathematics, including data reports on:
    - o *Academic Mathematical Sciences Staff in UK Higher Education Institutions* (published Nov 2013)
    - o *Research Income in UK Higher Education Mathematics Cost Centres* (to be published shortly)
    - o Database of *Who's Where in UK Mathematics* (to be published in 2015).
  - IMA continuing to build *Mathematics Matters* case studies to promote the breadth of application of mathematics.

## BIS/Research Councils

### General

- CMS is a member of the Parliamentary Funders Group comprising all main science learned societies. (since 2013).
- Individual societies are members of the Parliamentary Affairs Committee (since 2011)
- Both CMS and the individual societies respond to countless government consultations and enquiries to ensure that the mathematics voice is heard.
- CMS has proactively represented mathematics to the Prime Minister and David Willetts on the future of mathematics in the UK, and to EPSRC on mathematics fellowships, funding of mathematical physics, Shaping Capability (2010-2011).
- Regular contributions to Science in Parliament magazine (since 2011), which is sent to all 600+ MPs.

- Parliamentary LINKS Day (mathematics presence since 2011)
- Voice of the Future (mathematics presence since 2012)