The President of the Society, Martin Rees, said recently: “Science is integral to our culture. It permeates every aspect of our lives and can profoundly alter our understanding of ourselves and of the world we live in”. He was being modest in restricting his focus merely to this world. As one of the planet’s foremost astronomers, he has made great strides in understanding the wider universe. But his choice of words was not accidental; science is not just about things that are distant in space or abstract in relevance, but it matters to us all in real ways, every day.

So as the national academy of science, the Royal Society’s work is important to the public in all sorts of ways, and our definition of public affairs must necessarily encompass a wide array of activities, subjects and audiences. One of the most important audiences is Parliament.

On the vast majority of issues that come before Parliament where there is a significant scientific dimension, there will inevitably be debate and uncertainty among the science and engineering community. Science is a method of plotting a route through that uncertainty, and it is essential that in shaping their debates, MPs, MEPs and peers should be able to take account of it. Pressure groups and interested parties will always emphasise the interpretations that suit their cases, and will tend to make the uncertainties seem irreconcilable. But in the end, politicians quite rightly need ‘yes’ or ‘no’ answers. For example, in the height of the BSE affair, ministers had to decide whether to ban offal from the food chain or not; they could not pass legislation that dealt in probabilities, confidence limits and caveats.

Parliamentarians need somewhere to turn that provides the best and most up-to-date scientific advice, treating the uncertainties with the respect they deserve, but setting out clear recommendations. Because the Royal Society’s work is based in its Fellowship of 1400 of the most outstanding scientists and engineers from around the Commonwealth, it can provide that source of impartial expertise. And because those Fellows cover every scientific and engineering discipline in academia, industry and the public sector, we can maximise the strength of the scientific case by bringing together diverse interdisciplinary working groups that consider every angle before finalising our reports.

An excellent example is biofuels, on which the Society published a major report in 2008. It involved experts from the university sector and industry in this country and overseas, with expertise in environmental issues, chemistry, climate change, plant biology and other subjects. It cut through the pointless arguing that had hitherto characterised debates about biofuels and showed clearly that they could make an immediate contribution to reducing greenhouse gas emissions. But it also demonstrated that whether a particular fuel is ‘good’ or ‘bad’ depends on the type of crop, the way it is grown, the way the fuel is produced from the feedstock, how it is transported, and so on. The Royal Society recommended that Government targets should be reworked specifically to promote those biofuels that are based on sustainable crops used in sustainable ways, and that the timeframe for incentives should be extended to give industry the confidence to invest adequately in making it happen. These...
The rest of us.

back street short-cuts that baffle
allowing them to memorise the
brains from other people,
drivers have different shaped
most fascinating parts was the
stores memories. One of the
enthralled a packed lecture hall
Eleanor Maguire from UCL
recent example, Professor
exciting discoveries. As a single
researchers actively engaged in
magazine, (royalsociety.org) and regular
course the Society's website
work of our Press Office, and of
edge research. As well as the
opportunities for members of
Parliament.

Equally crucial to the Royal
Society's role is creating
opportunities for members of
the public to appreciate science
and to be inspired by cutting-
edge research. As well as the
work of our Press Office, and of
course the Society's website
(royalsociety.org) and regular
magazine, Inside Science, we run a
highly successful series of
public lectures, given by
researchers actively engaged in
exciting discoveries. As a single
recent example, Professor
Eleanor Maguire from UCL
enthralled a packed lecture hall
with her work on how the brain
stores memories. One of the
most fascinating parts was the
revelation that London taxi
drivers have different shaped
brains from other people,
allowing them to memorise the
back street short-cuts that baffle
the rest of us.

The highlight of the Society's
activities to engage the public is
our annual Summer Science
Exhibition at which more than
20 scientific research groups
from around the UK come to
London with eye-catching
interactive exhibits that attract
everyone from school students
to government ministers.
Anyone who turns up can
interact directly with the
scientists who are making the
discoveries – the experience is
not mediated by a curator,
presenter or journalist. My
colleague Katherine Jarrett and
her team will run the exhibition
for longer than ever in 2009,
including opening at the
weekend to allow as many
people as possible to attend.
We are proud of the fact that
across all of our activities, we
strive to make sure participation
reflects the community from
which participants are drawn;
the people who come to the
Society are broadly
representative of society at large
in terms of gender, ethnic mix
and so on, and with the help of
a number of colleagues, I take
responsibility for co-ordinating
our programme celebrating
equality and diversity within
science.

To support the development
of the cutting-edge science we
want to present to the public,
the Royal Society must also
promote discussion among the
world's research community, so
Katherine and her team also
run about a dozen international
scientific conferences each year,
based on the most promising
areas of science, with the
subjects chosen competitively
by an expert committee. In a
sense, these Discussion
Meetings take us back to the
Society's early days, when
Robert Hooke would perform
experiments showing his
colleagues the latest advances
in knowledge. These days,
experts from around the world
showcase their experiments
to one another.

Parliamentarians need
somewhere to turn that provides
the best and most up-to-date
scientific advice, treating the
uncertainties with the respect they
deserve, but setting out clear
recommendations. . .

. . . Parliamentarians need
somewhere to turn that provides
the best and most up-to-date
scientific advice, treating the
uncertainties with the respect they
deserve, but setting out clear
recommendations. . .

. . . Parliamentarians need
somewhere to turn that provides
the best and most up-to-date
scientific advice, treating the
uncertainties with the respect they
deserve, but setting out clear
recommendations. . .