

What academies can and cannot provide to policy makers

SAPEA workshop on academies interaction, September 2017

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Why does the RAEng give advice to policy makers?

- **Funded by government** to inform policy making and policy scrutiny
- **Royal Charter:** “to give advice to Our United Kingdom Government or to any other body on matters concerning the overall practice of engineering”
- Our current **strategic priorities** :“advising UK and EU governments in all areas of policy that have an engineering dimension to delivery”

How does the RAEng give advice to UK government?

- It ***collaborates***:
 - with the **National Academies** –to give a multi-disciplinary evidence base
 - with the **professional engineering institutions** – to give a broadly based and collective engineering view
 - with **government** itself – to input engineering expertise to government

How does the RAEng give advice to UK government?

- Reactive
 - respond to government **consultations** and parliamentary **inquiries**
 - **commissions** from government
 - Provides expert input from Fellows
- Advantages: direct input to policy makers, topics of current interest to government, additional funding (sometimes)
- Disadvantages: often quite narrow subject, challenging timescales, outside of strategic plan

Shale gas extraction in the UK: a review of hydraulic fracturing

Commissioned from RAEng and RS by government

Made **10** recommendations to government

Launch interview on **BBC Radio 4 Today Programme**

2,424 electronic downloads

94 online media

17 printed media

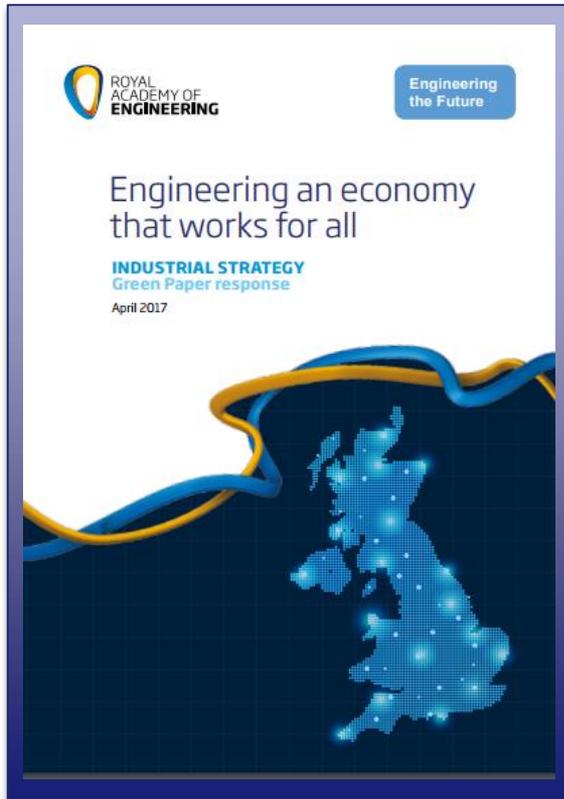
Prime Minister David Cameron

"The Royal Academy of Engineering and The Royal Society have produced a full, independent review into the risks of fracking.... Any future shale gas production would have to meet stringent safety and environmental standards."

Sir John Beddington, GCSA

"I am delighted with the way that Robert Mair and his team put together what is clearly an authoritative and independent piece of work"

Industrial strategy

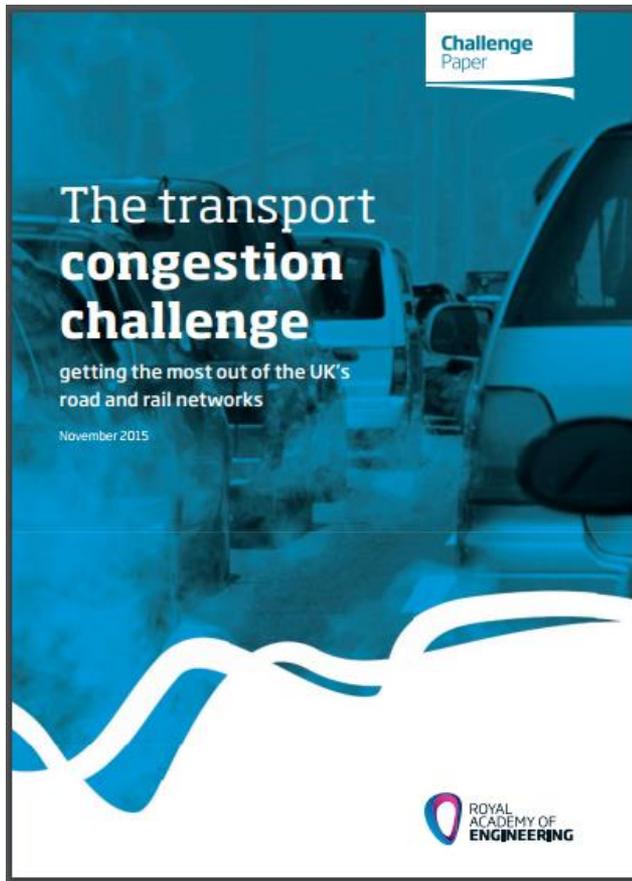


- 10 pillars covering research & innovation, skills, procurement, infrastructure
- Sectoral and regional perspectives
- Joint response from RAEng and 37 other professional engineering organisations
- 12 workshops in London, regions and devolved nations
- Survey with 1,200 responses
- Engineering profession speaking with a single voice
- Recognised by government up to Ministerial level

How does the RAEng give advice to UK government?

- Proactive
 - Set strategy and deliver policy reports, briefings, events, etc...
 - Build up a reputation in a particular subject
- Advantages: set your own agenda, tackle high-level societal challenges
- Disadvantages: need to work harder to find an audience, satisfying all Fellows with limited resources

Transport congestion



- Topic of key economic impact with clear engineering relevance
- Controversial finding – road user charging best way to tackle congestion in short term
- Not popular with public or politicians but experts all agreed
- Challenge paper allowed views of Fellows but not Academy policy
- Idea gaining traction, especially with technological developments

How does the RAEng engage with the UK government?

- Government Office for Science – network of Government CSA and Departmental CSAs
- Parliamentary Committees – Government scrutiny function that cover a range of subjects including Science & Technologies, energy, artificial intelligence, life sciences ...
- Government bodies – National Cyber Security Centre, National Infrastructure Commission, Nuclear Decommissioning Authority, HS2

The value we contribute

- Engineering is practically focused and problem solving: design, planning, delivery, assessment
- Engineers are systems thinkers: complex problems with many elements, including people and technologies
- Academy Fellows are: multi-disciplinary researchers at the cutting edge, university leaders and business leaders

What can academies provide

- Source of balanced, independent evidence
- Genuine insight on complex subjects in clear and accessible language
- Convening power - access to a wide range of active experts

Need to – develop relationships (government is many people and departments) but say what we believe evidence supports

What can't (shouldn't) academies provide

- Primary research (funding/staff)
- Support for unpopular policies
- Dictate policy – understand there are many aspects to policy decisions

Should do more

- Public engagement (when done properly this is time consuming and expensive)
- Partnership working – speak with a stronger voice