

EPSRC and the Automotive Sector

LCVP Innovation Working Group

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EPSRC

Pioneering research
and skills

Gavin Salisbury¹

Engineering and Physical Sciences Research Council

The Engineering and Physical Sciences Research Council (EPSRC)

- EPSRC is the **main government agency** for funding research, postgraduate training and knowledge transfer in engineering and the physical sciences
- EPSRC invests over **£800m** a year in world class research and training to promote future economic development and improved quality of life
- EPSRC is generating the **fundamental knowledge** and **skilled people** essential to UK business, government and other research organisations



EPSRC funding – research and skills

- **Research** – grants funded following expert peer review
- **PhD training** – through three routes:
 - University-based accounts based on their research grant income
 - Centres for Doctoral training (CDTs) – cohort-based training in priority areas
 - Company-led awards, made based on a company's contribution to our portfolio (Industrial CASE)
- Activities to **accelerate research impacts** – through two routes:
 - Funding available on research grants
 - Impact Acceleration Accounts held by universities

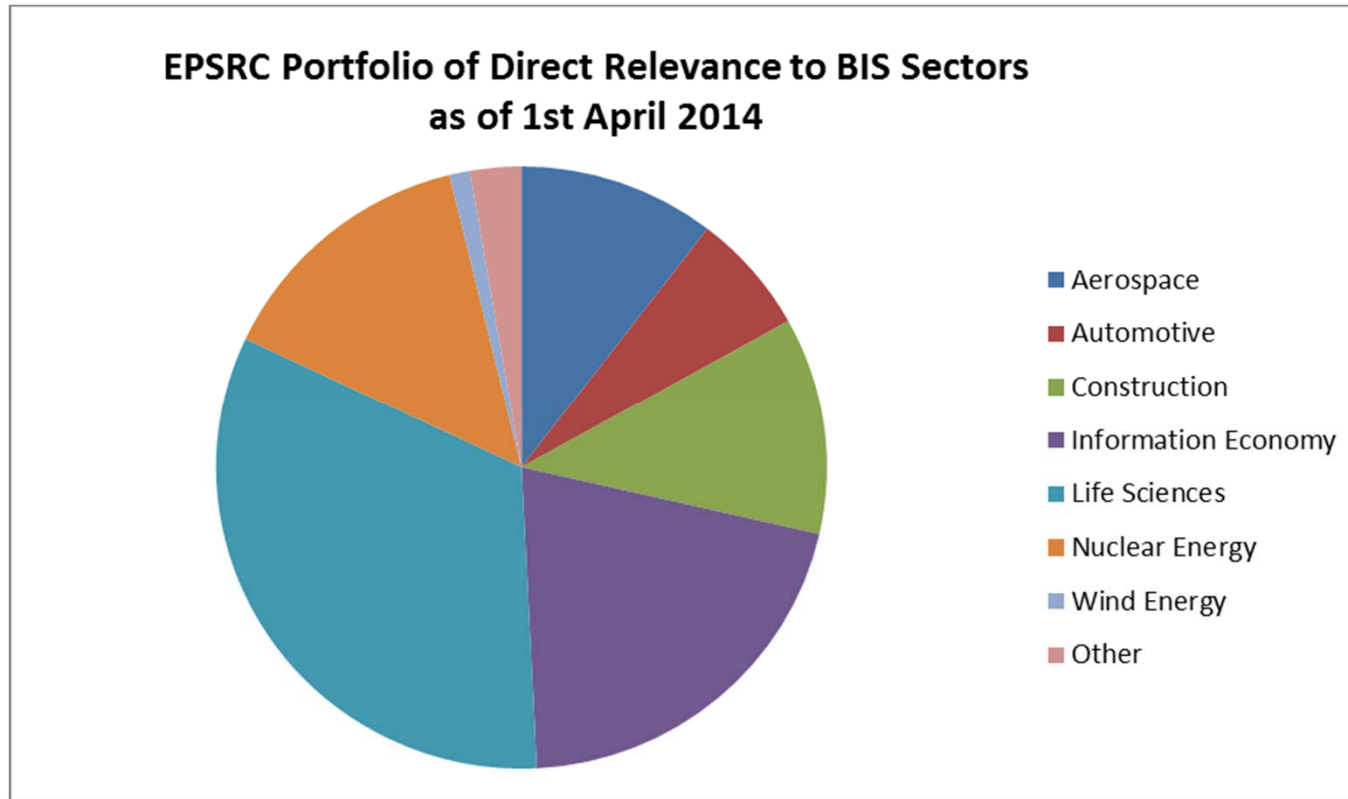
EPSRC approach to business relationships

- **Priority Sectors:** Engagement with BIS Industrial Strategy sector strategies to identify priorities for action and ensure alignment of strategy as appropriate for each
- **Strategic Partnerships:** Strategic relationships with key industrial stakeholders; working together to shape the research landscape according to national need
- **Multi-partner activities:** Identifying opportunities for co-development of pre-competitive research challenges to drive cooperation across sector boundaries or supply chains
- **Connecting users to our existing portfolio:**
 - Visualising our Portfolio – to interrogate our current grants portfolio
 - Gateway to Research: Research Council/Innovate UK portal to current and past portfolio



EPSRC – The Research Council for growth

Link to BIS Industrial Strategy Sectors



Over 40% of our portfolio of £4.1Bn is of direct relevance to the 11 BIS Industrial Sector Strategies



EPSRC and the automotive sector

- Over £100 million of current grants directly relevant to the automotive sector
- Partners Innovate UK on selected calls through the Low-carbon Vehicles Innovation Platform IDP, most notably the three IDP5 projects FUTURE, VESI and TARF-LCV
- Funded two large new programmes in low carbon vehicles in 2014 – ELEVATE and ULTRA (see next slide)
- Members of the Automotive Council; currently working to harness academic contribution to Automotive Council priorities through their Technology Group
- Strategic partnership with Jaguar Land Rover, currently progressing activity on **Towards Autonomy – Smart and Connected Control** – worth up to £10M



ELEVATE and ULTRA

- **ELE**ctrochemical **V**ehicle **A**dvanced **T**echnology – PI Rob Thring (Loughborough); started Jan 15; £3.3M
 - Focus on electrochemical power and storage technologies
 - Aim to identify, optimise and scale-up new materials into devices, develop novel diagnostic techniques in the lab and for on-board monitoring and control, and validate the technologies in a hybrid vehicle
- **ULTRA** efficient engines and fuels – PI Rob Morgan (Brighton); started Feb 15; £3.0M
 - Aim to investigate reduction of fuel consumption of ICEs by
 - Improving in-cylinder combustion processes
 - Using designed fuels from sustainable sources, with the fuel chemistry matched to advanced high efficiency combustion systems

