

1. Association for Science Education

1.1 Aims and policies

The Association for Science Education (ASE) is a small professional organisation with about 7,000 members. [1] ASE's origin dates back to the early 1900s with the formation of one of its predecessor organisations the Association of Public School Science Masters. [2]

Statement of purpose and values

The ASE's objects/ purposes, mission, vision, goals and values are stated in the organisation's strategic plan for 2017-20, as follows. [3]

Objects/ purposes:

"The objects and purposes for which The Association is hereby constituted are the promotion of education by the following means:

(a) improving the teaching of science and

(b) providing an authoritative medium through which opinions of teachers of science may be expressed on educational matters and

(c) affording means of communication among all persons and bodies of persons concerned with the teaching of science in particular and education in general."

Mission:

"To promote excellence in science education."

Vision:

"All learners are engaged in appropriate, valuable and interesting science education, supported by a professional science education workforce."

Goals:

"Governance: Sound leadership, financial management and project sourcing to enable innovation, enhanced membership benefit and improved science education.

Membership: Increase engagement, retain members and grow membership.

Advocacy: Be the voice of science education professionals by promoting, influencing and contributing to science education policy at local, national and international levels.

Professionalism: Promote, provide support and recognise professional practice in science education."

Core values:

"Excellence; Team work; Honesty; Open to opportunities; Support of science education and our members"

Environmental policy

From the materials published online, the ASE does not seem to have an environmental policy. Some of its education materials do, however, provide information on these issues.

1.2 Investments

Size and location of funds

The ASE did not hold any listed investments – such as equities or bonds – according to a recent annual report. [1] We found that its only financial assets were held in an interest-bearing bank deposit account. We concluded, therefore, that it did not hold any investments in the arms or fossil fuel industries.

General investment policy

The association’s investment policy, as stated in a recent annual report, [1] was as follows.

“The association has a formal investment policy allowing Trustees to use investment managers to invest surplus funds on a discretionary basis in low to medium risk funds taking account of the status of ASE as a charity concerned with the education of young persons.”

Ethical investment policy

The ASE did not response to our inquiry about having an ethical investment policy. We did not find such a policy on its website and or in its published accounts. However, given that the association does not hold listed investments, the importance of such a policy is reduced.

1.3 School education programmes

Main projects

According to recent annual reports, sponsored educational projects provided about 10% of the ASE’s total income. [1] [4] We analysed the income and sponsors for projects carried out in the financial years ending in 2015 and 2016. Income by project for these years is shown in Table 1.1. Tables 1.2a and 1.2b summarise the main projects and their sponsors.

<i>Sponsored projects income</i>	<i>2016 (£)</i>	<i>2015 (£)</i>
UPD8 WIKID	799	1,668
Primary UPD8	15,506	19,160
Optoelectronics College	0	12,500
Language of Maths in Science	27,340	4,985
School Science	42,754	46,242
Schemes of Learning	36,750	0
Global Learning	0	14,000
Journal of Emergent Science	14,250	0
Green Tick Awards	2,650	0
Other projects and fees	8,934	13,915
<i>Total Income</i>	<i>148,983</i>	<i>112,470</i>

Table 1.1 – ASE income from sponsored educational projects, 2015-16 [1]

<i>Programme</i>	<i>Description</i>		<i>Organisation</i>
UPD8 WIKID	This project was merged into Engage, a project coordinated by Sheffield Institute of Education at Sheffield Hallam University. [5] ASE did not appear to be very involved with the later form of the project.	Originally managed by	Centre for Science Education, Sheffield Hallam University; ASE
		Original partners	Department of Children, Schools and Families; AstraZeneca Science Teaching Trust; Comino Foundation [6]
Primary UPD8 [7]	A collection of resources for primary teachers	Designed by	ASE; Centre for Science Education, Sheffield Hallam University
Optoelectronics College [8]	A project founded as part of the Rank Prize Fund’s Optoelectronics Fund to support science teachers in the teaching of optoelectronics in secondary schools. Since 2014, the Optoelectronics College has been administered by the ASE. [8]	Sponsors	The Rank Prize Funds; The Wolfson Foundation; The Wellcome Trust; The Scottish Government; The MacRobert Trust; The Royal Commission; The Photonics Knowledge Transfer Network; Thales [A] ^a ; Thorn; Institute of Physics; Institute of Physics in Scotland; The Maurice Wohl Charitable Foundation; DSTL (Defence Science and Technology Laboratory) [A] ; The Hector Trust; CDT (Cambridge Display Technology); Selex Galileo (part of Leonardo) [A] ; E2V; ASE
Language of Mathematics in Science [9]	A project aimed to “provide teachers with effective support to prepare for these changes and to embed good quality assessment of mathematics in science”.	Funded by	Nuffield Foundation

Table 1.2a – Summary of ASE’s sponsored educational projects, 2015-16, including sponsors (part 1)

^a [A] indicates companies which, in this report, are categorised as being part of the arms industry. [F] indicates companies which, in this report, are categorised as being part of the fossil fuel industry.

<i>Programme</i>	<i>Description</i>		<i>Organisation</i>
School Science	School Science “is sponsored by industrial and research partners [...] who provide free on-line science resources for teachers and students.” [10]	Sponsors	The Association of the British Pharmaceutical Industry; ASE; British Aerosol Manufacturers' Association; Copper Development Association; Chilled Food Association; Collins; Earth Science Education Unit; ExxonMobil [F] ; Gratnells; Institution of Engineering and Technology; Institute of Physics; Johnson Matthey Catalysis; Natural Environment Research Council; Oil & Gas UK [F] ; Philip Harris; Practical Action; Salters Institute; SciChem; Society for General Microbiology; Solar Century; Tata Steel Europe [F] ; Timstar; Total [F] ; Why You’ll Never Catch Smallpox; whynotchemeng; Zoological Society of London [11]
Schemes of Learning [1]	A project aimed to “strengthen practical and investigative science”.	Funder	Timstar
Global Learning	A project to create a set of primary and secondary activities as part of the Global Learning Programme. [1]	Funding from	Department for International Development
		Partner	Royal Geographical Society
Journal of Emergent Science	A professional research journal with a focus on science for children aged up until 11 years, published by ASE.		Primary Science Teaching Trust

Table 1.2b – Summary of ASE’s sponsored educational projects, 2015-16, including sponsors (part 2)

Green Tick Awards

Green Tick Awards (later renamed Green Tick Evaluations) is an accreditation scheme whereby evaluations of education resources produced by major publishers and other organisations are carried out by experts on behalf of ASE. [12] None of these resources involved fossil fuel or arms corporations.

Analysis

In summary, two out of the nine main school education programmes involved organisations from the arms or fossil fuel sectors. These were the Optoelectronics College, where three out of 18 sponsors (17%) were military industrial organisations, and School Science, where out of 26 sponsors, four (15%) organisations were involved in the fossil fuel industry.

Another way of trying to assess the level of involvement of the arms and fossil fuel sectors is to consider the proportion of the total funding provided for all the school education programmes. If we assume that, for any given programme, all sponsors provided an equal level of funding, then the involvement can be estimated as follows. Across the two years, arms sector organisations provided approximately 2% of funding, while about 5% was provided by fossil fuel corporations. However, as we see in other case studies, sponsors from the arms and fossil fuel sectors tend to provide a larger than average level of funding as a way of boosting their profile. Without further information, it is difficult to say whether this is the case here.

We note that many of the projects listed in tables 1.2a-b continued in later years, including the Optoelectronics College and School Science schemes. [4]

1.4 Events and sponsorship

Conferences and other events provide about 30% of the ASE's income, [1] [4] although the breakdown between income from registration fees and sponsorship fees was not provided in the association's accounts.

The main event on the ASE calendar is an annual conference for members and others. The sponsorship rates for the 2018 event ranged from £140 to £5,000.^b [13] 2017 partners and sponsors were: Oxford University Press; SciChem; University of Reading; Edu-lab; Pearson; AQA; OCR; Wellcome; Science on Stage; and Philip Harris. [14] 2019 partners and sponsors were: Oxford University Press; Kognity; OCR; Wellcome; University of Birmingham; and Hi-impact Consultancy. [15]

The association also holds numerous smaller events for science teachers and educators. From the publicly available information, [16] these are mainly funded by admission fees and/or educational organisations.

^b Not including VAT.

We concluded that none of the ASE’s event sponsorship income came from the fossil fuel or arms industries.

1.5 Corporate membership

ASE has a corporate membership scheme. In 2019, annual rates for such membership were £452 per year for commercial organisations and £292 per year for charitable organisations. [17] In addition, the ASE states that it works “with many different partners to deliver a range of events, conferences, educational resources and special interest projects.” [18] As such, the partners include some of the organisations listed in previous sections.

The partners – as listed on the association’s website in mid-2019 – are given in table 1.3. We note that, of 44 partners, one (2%) was a fossil fuel corporation – **ExxonMobil [F]** – and none was an arms company. However, the financial commitment of each partner was unclear, as was whether the list of partners included any corporate members. Hence it was hard to determine whether this percentage was proportional to the funding that ASE received from this company. It should be noted that ExxonMobil is one of the world’s largest oil and gas companies, and has an especially controversial track-record (see appendix 21 and section 2.2 of the main report), hence it is of particular concern to see it listed as an ASE partner. We carried out a similar review of the partners and corporate members listed on the ASE website in early 2017. Of 41 organisations in all categories, we again found one (2%) was a fossil fuel corporation and none was an arms company. The fossil fuel corporation on this occasion was **BP [F]**. [19]

<i>Category</i>	<i>Organisations</i>
Partners	The Association of the British Pharmaceutical Industry, British Aerosol Manufacturers’ Association, Copper Development Association, Chilled Food Association, Collins, Earth Science Education Unit, ExxonMobil [F] , Gratnells, Institution of Engineering and Technology, Institute of Physics, Johnson Matthey Catalysts, Philip Harris, Practical Action, Salters’ Institute, Microbiology Society, Solar Century, Timstar, whynotchemeng, Zoological Society of London, Data Harvest, Primary Science Quality Mark, ISF Academy, STEM Learning, National Farmers Union, Nuffield Foundation, Oxford University Press, Kognity, AQA, SSERC, Wellcome Trust, Hi-impact Consultancy, University of Birmingham, Geographical Association, MolyMod, Primary Science Teaching Trust, Templeton World, SciChem, OCR, UK National Quantum Technologies Programme, Cambridge University Press, Sheffield Hallam University, Royal Society of Chemistry, Royal Society of Biology, Gatsby Foundation

Table 1.3 – ASE partners, 2019 [18]

1.6 Other corporate links

The ASE publishes several journals and magazines, some of which take advertising by businesses and others. Unfortunately, we were not able to assess the level of corporate advertising in the time available for this study. [20]

1.7 Overall assessment

Reviewing the information in this case study, we have given the Association for Science Education the assessment as shown in tables 1.4a and b.

	<i>Investments</i>	<i>School education programmes</i>	<i>Events</i>	<i>Other</i>
Involvement with arms corporations	None	Low	None	None
Involvement with fossil fuel corporations	None	Medium	None	Low

Table 1.4a – Corporate involvement ratings for the Association for Science Education

	<i>Ethical issues covered in this study</i>
Positives	<ul style="list-style-type: none"> • No investments • Higher level of financial transparency on corporate involvement
Negatives	<ul style="list-style-type: none"> • Significant involvement with fossil fuel industry • No environmental policy • No ethical investment policy

Table 1.4b – Positives and negatives for the Association for Science Education

The ASE was more transparent than many of the other institutions involved in this study, publishing a comparatively large amount of financial information on corporate involvement in its school education programmes. However, we note that this detailed information was only provided in the financial reports it submitted to the Charity Commission, while those published on its website [21] were an abridged version. There was unfortunately a lack of clarity about the level of financial involvement by its partners, while the association no longer publicly published a list of corporate members.

The association’s general financial policies led to it not holding any investments in the fossil fuel or arms industries. It was encouraging to see this. However, we could find no evidence of an ethical investment policy nor an environmental policy for the organisation.

In general, we found little involvement of the arms industry in the ASE’s work as a whole. However, we were concerned that in one of its smaller school education programmes, the Optoelectronics College, 17% of the sponsors were military industrial organisations.

Regarding involvement with the fossil fuel industry, we were especially concerned that 15% of the sponsors of the School Science programme – the association’s largest education programme – were fossil fuel companies. We also noted that, in 2017, BP was listed as a partner and, in 2019, ExxonMobil was listed as a partner. While these were one among many collaborating organisations in those years, the level of financial contribution related to the role of partner was unclear.

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