

10. Institution of Mechanical Engineers

10.1 Aims and policies

The Institution of Mechanical Engineers (IMechE) is a large professional body with over 115,000 members. [1] The organisation's history dates back to its foundation in 1847.

Statement of purpose and values

IMechE's objectives are stated in its royal charter and annual reports, as follows. [2] A summary of its strategy, purpose and values are also given below.

"The objects and purposes for which the Institution is hereby constituted are to promote the development of Mechanical Engineering and to facilitate the exchange of Information and Ideas thereon and for that purpose:

- 1. To encourage invention and research in matters connected with Mechanical Engineering and with this object to make grants of money or books or otherwise to assist such Invention and research.*
- 2. To hold meetings of the Institution for reading and discussing communications bearing upon Mechanics/ Engineering or the application thereof or upon subjects relating thereto.*
- 3. To print publish and distribute the proceedings or reports of the Institution or any papers commendations works or treatises on Mechanical Engineering or its application or subjects connected therewith.*
- 4. To co-operate with Universities, other Educational Institutions end public Educational Authorities for the furtherance of Education in Engineering Science or Practice.*
- 5. To do all other things incidental or conducive to the attainment of the above objects or any of them. "*

"Summary of strategy

Improving the world through engineering

- Setting the agenda*
- Developing professional engineers*
- Inspiring the next generation"*

"The Institution's purpose is:

To lead and promote professional engineering"

"And the values are:

IMechE expects all its members and employees to commit to:

- Our Vision*
- Professionalism*
- Integrity*
- High ethical standards*
- Respect for people and the environment*
- Innovation"*

Environmental policy

IMechE has published numerous reports and policy statements under the general topic of 'environment'. [3] Environment is one of the six 'critical engineering themes' on which the institution provides leadership, and it highlights for example where engineering can be used help tackle problems related to population growth, global food supply, water and waste. In a summary of its position on its website, [4] IMechE states:

"Promoting economic growth while mitigating and adapting to climate change and the depletion of natural resources is key to a flourishing economy. We need to minimise waste, pollution and our impact on the world around us. We must also adapt the way we do things to cope with the climate changes that are already underway."

In terms of the conduct of the profession, it further states: [4]

"Mechanical engineers work in many areas that are at the centre of resource consumption, ranging from energy generation and distribution, through transport and built infrastructure, to the manufacture of industrial and consumer goods. Our profession is therefore in a strong position to influence the use of the world's resources, through the designs we create, the materials we specify, the manufacturing processes we use, the efficiency of operation that we can achieve and the end of life options we provide for products and machines."

In summary, IMechE has wide-ranging policies and activities in pursuit of environmental protection.

10.2 Investments

Size and location of funds

IMechE held investments of approximately £23.2 million, according to a recent annual report and accounts. [2] A breakdown is shown in table 10.1.

<i>Asset category / fund</i>	<i>Amount in asset category / fund (£)</i>	<i>% of total investments</i>
Fixed Interest Unit Trusts (UK)	1,559,000	6.7
Equities Unit Trusts (UK)	12,512,000	54.1
Charities Official Investment Fund Income Units (UK)	2,650,000	11.5
Cash	595,000	2.6
Stephenson LP	775,000	3.4
Property – let on 999-year lease	9,000	<0.1
Fixed Interest Unit Trusts (outside UK)	582,000	2.5
Equities Unit Trusts (outside UK)	3,300,000	14.3
Multi-Asset Funds	1,169,000	5.1
<i>Total</i>	<i>23,151,000</i>	<i>100</i>

Table 10.1 – Investments by category held by IMechE [2]

The accounts listed three fund management companies – Schroder & Co, Blackrock Investment Managers, and CCLA Investment Management – but did not detail the specific investment funds or assets in which these management companies actually invested. For example, the accounts listed ‘Charities Official Investment Fund Income Units’ (see table 10.1). However, we found six investment funds that include ‘COIF’ (Charities Official Investment Fund) in the title managed by CCLA. Hence, we were not able to carry out further analysis of the institution’s investments. IMechE did not respond to our request for more information on its investment funds.

It is worth noting, however, that CCLA did have policies regarding ethical investment. Its investment funds had ethical investment policies “that are driven by the wishes of our clients”. CCLA also stated that it did not invest in any company primarily focused on coal or tar sands production and it would exclude any company that produced cluster munitions and/or landmines. Some of its funds apply stricter ethical criteria. [5] However, none appeared to exclude all fossil fuels, only the higher carbon fuels such as coal and tar sands. [6] It was also not clear from IMechE’s accounts which investment assets were managed by CCLA, although it was probable that at least some of the COIF assets were.

In summary, we concluded that only 3% of IMechE’s investments (i.e. that within the category ‘cash’) were definitely not invested in the arms or fossil fuel sectors.

General investment policy

IMechE’s general investment policy was stated in a recent annual report, [2] as follows.

“The Trustee Board has established an investment policy which is reviewed on an annual basis. The policy includes the following principles:

- 1. A diversity of investments will be held, in so far as is appropriate to the fund concerned. This may be achieved via a pooled investment vehicle like a unit trust or Investment trust.*
- 2. Investment policy will be appropriate to the needs of the fund*
- 3. Appropriately authorised investment managers will be employed.*
- 4. Appropriately authorised nominees may be employed to hold individual stocks and shares.*
- 5. Funds will not participate in:*
 - a. The sub-underwriting of issues or offers for sale*
 - b. Dealing in derivatives for any purpose*
 - c. Stock lending*
- 6. The aim will be to obtain consistent long term returns avoiding undue risk and speculation.”*

Ethical investment policy

We found no evidence of an ethical investment policy in IMechE’s publicly available online documents. The institution did not respond to our request for more information on their investments and investment policies.

10.3 School education programmes

From the publicly available information on its website, IMechE does not appear to run its own school education programmes. Instead, it promotes and supports schemes run by other engineering and science organisations such as STEM Ambassadors, Primary Engineer, Tomorrow’s Engineers,^a and The Big Bang Fair.^a [7]

10.4 Events and sponsorship

The Institution of Mechanical Engineers runs a large number of events each year. [8] Among the most prestigious are IMechE’s Annual Dinner and Formula Student – the latter being where international teams of university students compete to design, build and test a racing car, with the finale being a four-day event at the Silverstone motor-racing circuit.

<i>Event</i>	<i>Involvement type</i>	<i>Organisations</i>
IMechE’s Annual Dinner	2016 sponsors	Dassault Systemes [A]^b , Jaguar Land Rover
	2015 sponsors	Jaguar Land Rover, Petrofac [F]
Formula Student	2017 partners	GKN [A] , MathWorks, Mercedes AMG [9]
	2017 sponsors	INFINITI Engineering Academy, ExxonMobil [F] , Niche Vehicle Network, Mahle Powertrain [10]
	2017 supporters	Fisita, Hoosier Tyre, Makita, Printing Crazy Ltd, Association for Black and Minority Ethnic Engineers UK, RACE TECH, Racecar Engineering [11]
	2016 partners	Bosch, GKN [A] , Jaguar Land Rover, MathWorks, Mercedes AMG, SAE International [9]
	2016 sponsors	AVL, CD-Adapco, EBaracus, INFINITI Engineering Academy, Scuderia Ferrari, LEONI, Mahle Powertrain, Horiba Mira, Mentor Automotive, MBNA, Niche Vehicle Network, PTC, Concurrent Engineering, Royal Automobile Club, Segula Technologies [10]
Various	‘Previous partners’	Air Products, Amec, Atkins, Babcock [A] , Bosch, BP [F] , CD-adapco, CH2M Hill [A] , DANA, Honda, Honeywell [A] , Jaguar Land Rover, Network Rail, Ricardo [A] , Schlumberger [F] , Shell [F] , Studsvik, Tata [F] , Veolia, Zurich [12]

Table 10.2 – Recent funders of IMechE’s main events

^a Tomorrow’s Engineers and The Big Bang Fair both receive a large amount of sponsorship income from arms and fossil fuel corporations. They are organised by EngineeringUK, and more information can be found in appendix 7.

^b [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.

Table 10.2 lists recent sponsors, partners and supporters of these main events together with 'previous partners' as specified in the institution's sponsorship prospectus. [12] The prospectus did not give any details on sponsorship costs but, judging from similar deals offered by other professional organisations, these could be significant for the top categories.

We also noted that some of the other events being advertised on IMechE's website in early 2019 listed events sponsors. [8] However, a lack of information prevented us from determining any of the financial relationships or whether they were as large as those for the main events.

In summary, of the 60 main event sponsors, partners and supporters listed in table 10.2, six (10%) were within the fossil fuel sector and seven (12%) were within the arms sector. The available documents also suggested that 'sponsors' and 'partners' in particular provided higher levels of event funding. If this was the case, then the proportion of large funders within the fossil fuel and arms sectors would be even higher. It should also be noted that many of the other event funders were within the automotive sector which, of course, is heavily dependent on oil. Overall, it was difficult to estimate the level of financial links between IMechE and its event funders because of the lack of information on sponsorship rates. However, there did appear to be a significant level of income from the fossil fuel and arms sectors, especially when one includes the closely related automotive sector.

10.5 Corporate membership

While IMechE does not have corporate membership in the traditional sense, it does have a 'Company Based Registration' scheme. [13] This gives companies a "supported route to membership for [their] engineers and technicians". In 2019, the IMechE website listed examples of seven of the corporations involved: **Meggitt [A]**; GlaxoSmithKline; Mars; Jaguar Land Rover; **Fugro [F]**; Network Rail; and **Rolls-Royce [A]**. Again, we note significant involvement of the arms and fossil fuel sectors – not least Rolls-Royce which is manufacturing the propulsion system for the UK's new nuclear-armed 'Dreadnought' submarines (see appendix 21). A full list of companies involved was not available on the IMechE website.

10.6 Other corporate links

IMechE has a members' magazine entitled *Professional Engineer* which takes advertising from external organisations. [14] Unfortunately, we were not able to obtain copies of this magazine during this study.

10.7 Overall assessment

Reviewing the information in this case study, we have given the Institution of Mechanical Engineers the assessment as shown in tables 10.3a and b.

We found that IMechE was less transparent than many of its contemporary organisations in the areas of concern to this study. The information it publicly published about its events

sponsorship and its corporate membership scheme was limited. We were able to obtain information about the school education programmes it supports from elsewhere. Finally, the opacity of where its investments were held was high.

	<i>Investments</i>	<i>School education programmes</i>	<i>Events</i>	<i>Other</i>
Involvement with arms corporations	Medium	-	High	Medium
Involvement with fossil fuel corporations	Medium	-	Medium	Low

Table 10.3a – Corporate involvement ratings for the Institution of Mechanical Engineers

	<i>Ethical issues covered in this study</i>
Positives	<ul style="list-style-type: none"> • Extensive environmental policies • Some ethical investment screening by one of its fund managers
Negatives	<ul style="list-style-type: none"> • Extensive financial links with the arms industry • Significant financial links with fossil fuel corporations in key areas • No overarching ethical investment policy • Lower levels of publicly available information on its corporate links

Table 10.3b – Positives and negatives for the Institution of Mechanical Engineers

We were encouraged that IMechE’s environmental policies and statements were extensive, reflecting the organisation’s relevance to such issues. However, it was disappointing to find no evidence of an overarching ethical investment policy. One of its investment fund managers did apply some ethical screening – see below – but its selection did not seem to be a deliberate action on the part of IMechE.

Regarding financial links between IMechE and the arms industry, these seemed fairly extensive in the areas where we were able to obtain data – event sponsorship and corporate membership. Furthermore, the lack of an ethical investment policy coupled with a marked lack of data on investments suggested that such links were likely to be present at a significant level in this area as well. One redeeming factor was that one of the investment funds it used excluded companies involved in cluster munitions and/or landmines.

We also found significant financial links between IMechE and the fossil fuel industry in areas where we were able to obtain data – event sponsorship and corporate membership. Furthermore, through one of its flagship activities, Formula Student, it prioritised close links between young mechanical engineers and the oil-dependent automotive sector. And again, the lack of an ethical investment policy coupled with a marked lack of data on investments suggested that links with the fossil fuel sector were likely to be present at a significant level. A redeeming factor was that one of the investment funds it used excluded companies involved in coal and tar sands exploitation.

References

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