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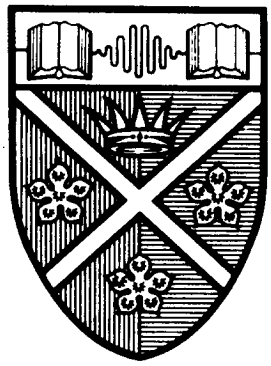

POLICY-MAKING AND ENGINEERING CHANGE: FROM THE FINNISTON REPORT TO THE ENGINEERING COUNCIL: AN INTERIM REPORT

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INTRODUCTORY NOTE.

This is an interim report and therefore may be subject to amendment in the light of further interviews. The reader may find the details of the negotiations, described in this report, difficult to follow. However, we believe that considerable detail is necessary in order to fully understand the complexity of the policy process and to understand the final outcomes in this case. We are grateful to many members of the engineering community who have assisted us and to the Nuffield Foundation for its financial support. We are, however, solely responsible for all opinions expressed in the report, and recognise that our views, as outsiders, may not be accepted by all participants.

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ENGINEERING OUR FUTURE

The first draft of the short version Finniston Report (Engineering: Our Future: cmnd 7794) began:

"The call for an inquiry into British engineering had its origin in the economic uncertainty of the mid-1970s, when the continuing decline in the engineering industry had become too obvious to be any longer ignored, and the well meant, but ineffective efforts of the engineering institutions - the professions, learned societies, and qualifying bodies - to reform their ricketty umbrella organisation, the Council of Engineering Institutions (CEI) was arousing irritation in engineering and governmental circles. It arose too from the widespread misgivings many engineers had about their status and pay.

For the most part the engineering institutions with the major exception of the Institution of Electrical Engineers(IEE) were little inclined to accept that any inquiry was needed and neither was the CEI. Nor was there any noticeable clamour for an inquiry among the leaders of the industry".

The published version of these paragraphs recognisably cover the same points, but as is predictable, in redrafting they became considerably blander - and less frank and informative. The first draft captures the mood which lead to the inquiry - and correctly identified the pressure for change.

The Finniston exercise and its successor stages included very large scale consultation: the DOI Permanent Secretary, Sir Peter Carey, has been reported to us as claiming it was the biggest exercise in consultation in his experience in Whitehall. While it was this quantitative aspect

that first attracted us to looking at the exercise, the outcome was determined by negotiations between the DOI and about six major groups. The study turned out to be another underlining the difficulty of change in a political system which gives priority to conciliating established groups and attempting to proceed by consensus.

If there is agreement to be found in the controversies discussed here it was that morale in the engineering world was low. This point is made through the following kind of arguments - firstly that the status of engineers is low. Thus one is told that in Britain, school leavers and their parents see occupations such as doctor, solicitor, dentist, accountant as more desirable than that of "professional engineer". This ranking, it is claimed, is lower in Britain than on the Continent or the USA. There is also great sensitivity within engineering to its lower prestige than pure science. More concretely it is also generally remarked that in Britain the salaries of engineers are much lower than other professions.

The evidence collected and analysed in the Finniston exercise shows that international comparison of salaries, evidence of boardroom appointments of engineers, etc. did not always sustain the myths. Whether engineers were over educated or under-educated, whether too many or too few, was unclear. In a debate on the Finniston Report in the Lords on 27th February, 1980 (col. 1437) Lord Shackelton complained that he was unsure of the meaning of the Report's key term "the engineering dimension". He went on, "It is just arguable whether, instead of talking about the "engineering dimensions" we should be talking about "the engineering syndrome. There are obviously grave psychological anxieties..."

As part of the Finniston Committee's programme of investigation a series of conferences were organised (see below) at which engineers could ventilate their grievances directly to the Committee. The Committee Minutes recorded "A common theme running through all the conferences was the demoralisation of the profession and engineers' resentment at their perceived low status". (CIEP(M) (78) (3) p.2).

The events recorded in this description were connected with attempts to remedy this morale problem. The particular issues discussed stem from a well articulated and skillfully canvassed view that the solution to the low status issue lay in increasing the standards required for recognition as a professional engineer - graduate entry, the accrediting only of acceptable degrees, and in compulsory (statutory) registration of who was then "a professional engineer". As the opening quotation from the draft Finniston Report implies, the core of this reformist thinking was in the IEE, but certainly support for change went much wider. The IEE solution had immediate consequences in terms of organisational politics in that hitherto the professional institutions had controlled these matters: it was part of the general reformist case that the institutions had to be superceded by some more central and authoritative body - a "General Medical Council for engineering". There were thus three main elements in the reform package.

- A new central body to represent (and centralise) the profession.
- Registration of engineers (attainable only with high qualifications. This would be administered by the new organisation).
- Possible licensing (i.e. the reservation of certain kinds of work to registered engineers).

Most of the supporters of registration assumed that it would need to be implemented through a new authority - but some of the support for registration felt it could be based on existing organisations. While "a General Medical Council for Engineering" was a term in vogue with the reformers, later much of the opposition to Finniston's proposed Engineering Authority was that it did not match the GMC idea: was a body not self regulated on acceptable version of the GMC for engineering?

The strategy of a more exclusive, intellectually developed, engineering profession provoked opponents other than threatened institutions. That strategy, of course, did nothing for the larger number of engineers who were to be denied full professional status. The engineering apartheid which would rigidly divide the profession would, for example, have inhibited the successful professional career of the present chairman of the new Engineering Council, Sir Ken Corfield, who started his career by part-time study of Wolverhampton Technical College.

The Finniston Committee of inquiry was appointed by the Labour Secretary of State for Industry, Eric Varley. The announcement of the terms of reference and the appointment of Sir Monty Finniston as Chairman was made on 5th July, 1977, with full membership announced on 14th December, 1977. It was expected to report in early 1979, it finally reported in January 1980.

As with many exercises of this type the creation and the operation of the Committee was an attempt at resolving a long simmering problem. The Finniston episode can be traced back to the above ideas and actions in the Institution of Electrical Engineers in 1973/4. This activity of the 1970s was/ itself an

attempt to modify the main reform of the 1960s - the setting up of the Council of Engineering Institutions (the CEI). Finniston was then only the latest instalment in a saga of reform. Our attention has been repeatedly drawn by those active on the "reform side" to the Playfair Report of 1854. One of its passages states,

"In this country we have eminent 'practical' men and eminent 'scientific' men, but they are not united and generally walk in paths widely distinct. From this absence of connection there is often a want of mutual esteem, and a misapprehension of their relative importance to each other...", Sir Monty Finniston claimed that he would have been glad to have put his signature to that report of 1854-and, "It would have saved a lot of trouble if I had". (speech to I Mech E, November 1979).

One participant in the current episode argued that in the past century the professional engineering Institutions have thwarted at least five attempts to address shortcomings at a national level. These occasions were -

1886 - defeat of the Architects and Engineers Bill after lobbying by the 'Big Three' (Institution of Civil Engineers, Institution of Electrical Engineers, Institution of Mechanical Engineers).

1919-20 - Institution of Civil Engineers promoted a Bill for a statutory register of qualified engineers, but this was vetoed by the other major institutions.

1926 - 'Big Three' lobbied against Engineers Bill to create a State Register. They argued that only they were equiped to judge standards.

1943 - Ministry of Works dissuaded from establishing registrar of engineers qualified to work on public contracts.

1951 - Percy Committee's proposal for a Royal College of Technologists opposed by institutions - and dropped when Government changed.

The Finniston Report's thesis was that the nation's economic failure was in large part due to the failure to develop and utilise professional engineering resources. Opponents of Finniston would probably claim that the relevant issue was professional self regulation. In our version the point at stake is nearer the second than the first (on which nearly all in the field could agree): this is a battle of territoriality. A struggle for control in a policy arena.

This territorial struggle is not novel. The Institution of Civil Engineers was founded in 1818. It has been a traditional activity of ICE to portray itself as a catholic institution embracing the elite of various (non-military) specialisms: the interpretation of civil engineering as being solely construction engineering is a late development. The I Mech E was set up in 1837. Though the Mechanicals seemto have been more orientated to railways than the canals which had been a staple employment of ICE members, technical specialisation is not adequate explanation for the proliferation of bodies: different countries combine the specialisations in very different ways. It is difficult to think that specialisation, per se, determined that there should, for example, be an Institution of Metallurgists, an Institution of Mining and Metallurgists and an Institution of Mining and Metallurgy. The formation of the I Mech E was partly the consequence of the

ICE's reluctance to extend its circle of membership to the proliferation of engineers in the growing railway, manufacturing and iron and steel industries. Much of the initiative for fragmentation started by the development of the I Mech E seems to have derived from a desire for more status by groups excluded in the status quo. Achievement of Royal Charter status is the usual goal for the newly created Institution. Watson claims that, "This initial fragmentation of the profession set a precedent of collective action that has repeated itself for over a century"

It has been claimed that there are as many as 150 engineering institutions. By 1982 the Department of Industry identified 72 institutions as being of relevance to the Finniston exercise. Within the fragmented world of the institutions a self conscious elite exists - the chartered bodies. The 16 chartered institutions in 1979 were:

	Corporate Membership	Total Membership
Royal Aeronautical Society	7,814	13,258
Institution of Chemical Engineers (I Chem E)	5,971	12,035
Institution of Civil Engineers (ICE)	37,820	59,832
Institution of Electrical Engineers	37,217	74,928
Institution of Electronic & Radio Engineers (IERE)	7,772	13,029
Institute of Energy	4,813	5,611
Institution of Gas Engineers	3,811	5,787
Institute of Marine Engineers	13,470	19,257
Institution of Mechanical Engineers (I Mech E)	51,986	72,654
Institution of Metallurgists	6,407	10,013
Institution of Mining Engineers	2,921	4,187
Institution of Mining & Metallurgy	3,464	4,860

	Corporate Membership	Total Membership
Institution of Municipal Engineers	8,382	10,108
Royal Institution of Naval Architects	4,365	6,698
Institution of Production Engineers (IPE)	12,852	18,663
Institution of Structural Engineers	10,379	13,974

(from Finniston Report, p.126).

As a Royal Charter has assumed the function of discriminating the fully professional from the aspiring, those "inside the club" have a record of opposition to further awards. The chartered institutions case has usually been that if there is a professional level job worth doing it can be done under their auspices or it is (by definition) not worthy of Royal Charter status. A Royal Charter is conferred on a body (generally) after it has petitioned the Privy Council and been examined and approved. The other main type of organisational form in this story is the statutory body - set up by Government under statute.

When one discovers a qudation such as the following from the President of the Institution of Civil Engineers, "No surer means would be found of jeopardizing the social and economic status which has been achieved by the Institutions...than to acquiese in the handing over of their standard-making functions to a statutory body" (Watson, p.85) it needs double checking that the date is 1927 and not 1977.

Periodically, as we have seen, there have been moves to unify the engineering profession, but often there is ambiguity in the argument - whether it means unifying the high status engineers of the chartered institutions on unifying all those who had a general claim to the title of engineer. The nearest to unification of either kind has been formalised

arrangements between various elite bodies. In 1923 an Engineering Joint Council was set up with the Big Three (ICE, I Mech E, IEE) plus the Institution of Marine Engineers and Aeronaticals. This collapsed around 1937. In 1962 an Engineering Institutions Joint Council was created again at the initiation of the Big Three. This led to the Council of Engineering Institutions (CEI) which received its own Royal Charter in 1965. By 1974 it had fifteen chartered institutions in membership. In 1971, the CEI established the Engineers Registration Board. This registered as chartered engineers the individuals in membership of chartered institutions who individually came up to CEI set standards. The aim wasthat the C.Eng. award would be the mark of the professional engineer. Other engineers could register as Technician Engineer (T.Eng. CEI) or Engineering Technician (Tech. CEI) as appropriate. In the negotiations to set up the EIJC/CEI the Big Three sought to raise the educational standards for "chartering", but it was agreed that this should not take place immediately. It was significant in the long term that the C.Eng. was considered a dilution of standards by certain institutions (notably the ICE and IEE). It was argued that since some institutions had lower standards it was possible to become a "back door" chartered engineer. The ICE and IEE, in particular, saw the C.Eng. as an undermining of their own high standards. The requirements of C.Eng. were less rigorous than those leading to membership of the ICE or IEE (i.e. MICE or MIEE). It was also argued that the so called Engineers Registration Board did no more than collate the institutions membership lists. While the CEI was initiated by the major institutions, its chartering processes and standards never really satisfied them all. Nor did the "Big Three" approve of the federal form the CEI took. The

Big Three had hoped to dominate the united body (as they dominated the total individual memberships) but a cumbersome constitution granting equality to each institution was adopted. The CEI was, for these two main reasons, the object of growing discontent. The CEI, C. Eng., ERB arrangement was equally suspect by those who were debarred and saw it as "elitist" protection of their privileges.

In the early 70's there were several specific factors which meant that the CEI, and its awards received critical attention:

1. There was a growing trade union interest in the area - and the CEI with its code of ethics that discouraged strike action did not appear to cope with this issue.
2. Bodies which considered themselves arbitrarily outside the "magic circle" of CEI membership were predictably unhappy.
3. Britain's membership of the European Economic Community meant that the Department of Industry was being pressed to establish comparability in British and other European engineering qualifications for mutual recognition purposes. This reactivated the debate over whether the C.Eng. was the definition of professionalism.
4. Perhaps most importantly there was dissatisfaction within the CEI member institutions. This led to a high profile attempt at reform.

The internal CEI conflict manifested itself over the constitutional arrangements. As noted above the Big Three had been unsuccessful in their initial efforts and CEI had been set up with each body having

three votes. Since the "Big Three" spoke for three quarters of the chartered engineers, the CEI voting arrangements were perhaps always likely to cause some discontent. Although some major changes ensued, as late as the IEE Annual Dinner in February 1979, the IEE President was complaining, that the CEI structure is such that its decisions will always lag "behind the needs of the day. It depends too much on a consensus of numerous institutions."

The main underlying complaint, however, was not that the constitution was faulty, but that the CEI itself (perhaps due to its organisational make up) was inadequate. It had been set up as a remedy for the perennial problem of low status and since the symptoms persevered, stronger medicine seemed necessary. In the words of one internal memorandum circulating in the Big Three in 1973/4 "The present organisation has been in existence long enough to leave no reason to expect better performance in the future without some radical change". The Big Three after launching the CEI now sought to redirect it and wanted the specialist learned functions of the institutions separated from a general professional engineering role which would be best conducted by a single body. The then President of the CEI, Major General Sir Leonard Atkinson, himself circulated a paper to the member bodies of the CEI showing that at least the perception of the existence of a problem was widely held. He conceded that there had been some (if slow) progress on common standards of qualification, but he drew attention to the failure to adequately represent the profession to government and the public.

In 1973 the I. Mech. E. had made steps towards a merger with the IEE, but this proposal was overtaken by an alternative idea put forward

by the Secretary of the IEE, Dr. George Gainsborough. Dr. Gainsborough had joined the IEE in 1962 with a background both in science and the civil service. The IEE, during Gainsborough's secretaryship had developed very profitable publicity and information service activities. The IEE was consequentlya very wealthy organisation. Some have suggested that this fact allowed the development of IEE's strategy of raising its education and experience entrance qualifications: the IEE was not dependent on member subscription income. The raising of standards was certainly favoured and advanced by Gainsborough. It would be difficult to exaggerate his influence in pushing change onto the agenda. In Management Today in January 1979, he was quoted claiming that since the Second World War, the standards set by the traditional qualifying bodies have not been able to match national needs. He claimed that, "High qualification equals high status". The article suggested that Gainsborough felt it too easy to become a chartered engineer. His fundamental attitude is shown in another remark in the Management Today interview -"(change)...will be murder. But[we are] changing the rotten old traditions, or aren't we?". Of course, this bluntness offended many connected with the status quo. The President and senior officers of the I. Mech. E., IEE and ICE had had discussions on the future organisation of the profession in 1973/74. This led to the publication of an agreed paper, in August 1974: this was the influential "Three Presidents" paper.

The core of the Gainsborough-inspired Big Three idea was the replacing of the CEI with a body with a different structure and function - The Institution of Engineers (IE). This would deal with important professional matters and would not be hampered by the need to reconcile the views of 15 learned societies, each with independent votes. This would be governed by a Council of ten to twelve members elected by all chartered engineers. The new IE would look after all professional

matters - representation, central qualifications. The existing institutions would primarily concern themselves with advancing the state of knowledge. At first sight this is a rare example of self denial in this saga of territorial disputes, but it is worth noting that in the federal structure of the CEI the Big Three had only 20% of the votes, but in direct elections, they could hope to have over half the votes of chartered engineers (112,000 of the 211,000 individual members in CEI). The idea underlying the IE proposal was that the IE would have the authority to raise standards (prevent back door chartering) in a way that the federal CEI could not do with its equal votes for all institutions.

On 12th September 1974 the "Big Three" organised a conference on their proposals, but the initiative did not meet wide support in the smaller institutions. In April 1975 the CEI Executive Committee put forward a compromise idea that each institution would nominate a representative, but there would be an equal number of freely elected members (i.e. elected by chartered engineers). The Big Three and the Chemicals, Gas Engineers, and Structurals accepted this (some with reluctance) and rejected a proposal by the remaining nine to exclude elected members, to return to the federal structure - but reducing the representation to one representative of each institution, free to act in a personal capacity.

In informal meetings, the six agreed that the April CEI Executive Committee offer was their minimum position. But at a meeting on Tuesday, 29th May, despite confident press predictions that direct election was likely, the federal structure was retained. In early June 1975 a further meeting of the CEI found that the split was still 9-6 with the majority (of smaller bodies) still unwilling to concede more than

a revised federal structure. At the CEI Board meeting on 24th July the Six found that they were still in a minority and that the Executive Committee's idea could not be carried. As had previously been agreed tactically among the main reformers, the Civils now indicated that it would have to reconsider membership of the CEI. However, after signalling the ultimate sanction, the Civil Engineers, immediately proposed a compromise (not previously discussed with its partners). This package meant that chartered engineers would be individual members of the CEI, but these engineers would be represented at Board level through their institutions. A representative of one of the smaller institutions then proposed that the selection could be by election if the institution concerned preferred. This, of course, still under-weighted the "six", who had up to two-thirds of the members and gave two-thirds of the funds to the CEI. Voting against this compromise was only the surprised IEE, who were still seeking radical change, and the Mining Engineers and Naval Architects who probably still favoured the status quo. When the IEE Council considered the matter, they backed their representative at the meeting - deciding that the proposition which had found approval in the CEI was "no more than a shadow" of earlier IEE ideas.

On 25th April 1975, the President of the Civils had been quoted saying that it was time to put the engineering house in order in a statesmanlike way. This strong desire for professional solidarity has on several occasions, appeared to undercut conflicting desires for change.

The new agreement was, as usual, thin because it was based on the assumptions of the nine that it was a maximalist position and the assumption in the I. Mech. E. and ICE that it was only a stepping stone in the reform process. The IEE Council decided by fifty votes to seven

to serve notice that "if radical change was not made" it would withdraw from the CEI in 1976. Not only were they unhappy at the shift from the original "Big Three" paper, they distrusted the autonomy that the small institutions would allow their members on the revised CEI. A final decision to withdraw in the following year was made the the IEE Council on 4th September.

Although voting for the July compromise the I. Mech. E. made clear that their support was conditional. A letter to the CEI in November 1975 stated that, "unless there is a discernible recognition that the reconstructed CEI would be allowed to move towards the concept of the Institution of Engineers in which the individual engineer, freely elected and unfettered could have an effective voice in determining its funding and future, the I. Mech E. will have to review its attitude" (See I. Mech E. Press Release, 5th November, 1975).

The CEI went ahead with its constitutional changes, but the IEE (again joined by the I. Mech E.) carried on their campaign. A lengthy document from the IEE and I. Mech E. was sent to the other institutions in January 1976 - as the manoeuvring for change went on. This suggested four major types of institution - a corporation of Chartered Engineers as the central body for all engineers; the professional institutions acting as learned societies: a union to represent the interest of the professional engineer and the endorsement of an idea for "a Royal Society of Engineers". (This last proposal was accepted by the CEI in 1976 in setting up the "Fellowship of Engineering".)

The Council of the Corporation of Engineers was to consist of a chairman and deputy elected by all chartered engineers, immediate past chairman, 1 nominated by all (not only chartered) learned societies

providing services for graduate level engineers with a membership of over 2,500, an equal number of persons elected by all engineers representative of the technician engineer and technician section of the ERB; 1 representative each of the DOI, DOE, and other governmental/ educational bodies, CBI and TUC. The concession that institutions should have their own nominee was made explicitly - "whatever we may have said in the past, we think it essential that the Councils of the qualifying institutions should have direct representation on the Council responsible for the qualification of Chartered Engineers.

In the light of later developments it is worth noting that there was some feeling in the major institutions that some representation from government departments was advisable: this was not taken to necessarily detract from self regulation. It is also worth underlining the analogy that the IEE made between the proposed structure and the medical profession. An IEE brief in December 1975 claimed, "..some (but not complete) similarity with the organisation of the medical profession (i.e. the General Medical Council, the Royal Colleges and the BMA)." Later of course, IEE proposals would be attacked precisely because they were not near enough to the medical analogue. In March, the deputy secretary of the I. Mech E., Major General Palmer, was quoted as complaining that some institutions saw the CEI compromise as a plateau and not a step. He stated that the I. Mech E., "understand the frustrations of the Electricals and hope that from the current discussions something will emerge which will enable the profession to stay together". (The Times, 12th March 1976).

In May 1976 the I. Mech E. and the IEE put forward another option - open voting for half (negotiable) of the places on the Council. On May 23rd the President elect of the I. Mech E. suggested possible I. Mech E. withdrawal from the CEI "while there was the possibility of progress we

would want to stay in the CEI ... but there is a point beyond which this consideration does not apply". This prompted a refutation by the President of the Civils "there are two ways to achieve a satisfactory and stable CEI - by revolution, as the Electricals threaten and the Mechanicals seem to follow, or by evolution, as we and the majority of the Chartered Institutions intend". The harmony of the "Big Three" was certainly absent at this point.

Nonetheless, a new, and more viable, CEI compromise was close. Popularly labelled the "Brosan Plan" after the President of the Institution of Production Engineers (IPE), Dr. George Brosan, this also combined institutional membership and open membership. The final peace negotiations took place at a CEI meeting on 27th July. As well as voting within institutions, the agreement allowed the involvement of two persons from outside the profession on the CEI Council. On 22nd September 1976, fourteen of the fifteen constituent bodies voted in favour and the Naval Architects did not vote at all. While IEE opinion now found this solution weak, as it was so close to the compromise they had themselves put forward earlier, they felt compelled to accept it.

The Pressures for an Inquiry

At this stage the Department of Industry interest was for some resolution and simplification of the complexity of the engineering world. For example, Derek Harris of The Times argued that the engineering profession had failed to put its house sufficiently in order to make intimate dialogue with the civil service a feasible proposition. (The Times, February 9th, 1976). On 28th July he said that "government

departments...frequently need to consult with engineering representatives and they have patiently been running out of patience for some time in having to consult so complex a web of organisations. It is hard not to suspect "guidance" from the Department - to the effect that they had had enough of the internal wrangles within the engineering professions. But this impatience did not mean that the Department (as a whole) favoured the inquiry that was to follow

In February 1975, in the light of the CEI position, Dr. Gainsborough had formed plans for a fallback position. A list of interested MPs was drawn up and briefing meetings with MPs and journalists took place. Letters to the press from influential voices such as Lord Avebury were orchestrated - all to the end of establishing a climate of opinion in favour of an inquiry. Dr. Gainsborough systematically made contact with senior officials in Whitehall to secure support for change. At a meeting with Gainsborough on 22 November, 1976 the Permanent Secretary at the Department of Industry, Sir Peter Carey, argued that he did not want a public enquiry because it would take too long. He felt that there was ample evidence already available upon which action should be taken. Rather than set up a committee, the Department backed a British Association for the Advancement of Science inquiry that was emerging. The Government put up half the £36,000 needed to finance this.

The BASS Coordinating Group included representatives of Whitehall, including Sir Peter Carey who could not attend meetings but was represented by Herbert Scholes and Miss Meuller, CBI, Engineering Employers Federation, NEDO, CEI and individual companies (e.g. Terence Beckett of Ford). The Coordinating Group was chaired by Sir Monty Finniston - and the B.A. Study Management Committee was chaired by Sir Ieuan Maddock who in the course of setting up the study retired as Chief Scientist at the Department of Industry. Other DOI and DES representatives participated in the work of the Management Committee. The actual investigating team which reported to the Coordinating Group and the Management Committee was directed by Dr. J. R. Pope, Vice Chancellor of the University of Aston. The Senior Project was Vincent Edkins - also of Aston.

The other Departmental effort to counter the argument for a committee was an internal interdepartmental review chaired by Anne Mueller. The Permanent Secretary indicated to the Secretary of the IEE that only if the internal review did <u>not</u> bring

forward ideas acceptable to interested parties, would the Department have to resort to a public inquiry.

The intense conflict within the profession, which had been played out "Dallas" fashion in The Times and elsewhere, apparently discouraged the Department from entering the situation. The IEE were, however, very unhappy with the Mueller Report when they saw an unauthorised copy and the BASS report was itself overtaken by events.

While the CEI was stumbling towards reform, there had been a series of calls (other than from the IEE) for some kind of governmental inquiry into the engineering profession. Ironically, about the time the CEI member bodies moved towards a compromise agreement, the likelihood of an inquiry firmed. The reform process had certainly not left the impression of a well run, self-regulated profession and had in fact itself helped to create a climate of opinion which felt something was badly wrong. The CEI agreement and the possibility of an inquiry were at least to a degree connected. It was argued in institutional circles that the CEI must be seen to reach unanimous agreement on its structure to avoid the danger of Government interference. This factor may have encouraged the Civils to put forward their CEI compromise.

Some of the calls for an inquiry were from the non-chartered bodies still dissatisfied with the leading roles of the chartered bodies in profession. For example, on 1st May, 1975 John Lyons of the Electrical Power Engineers Association, EPEA, called for a Royal Commission into the place of engineers in industry. This call was repeated in July and November 1975. Professor S. Wearne, University of Bradford, also called for a Royal Commission in a Times article of 18th July.

Arthur Palmer, Labour MP for Bristol N.E., who was a member of the IEE (and had been briefed by Gainsborough) and was a staff member of EPEA, was particularly well placed as Chairman of the Commons Science and Technology Committee to make an impact. He wrote to the Prime Minister, Harold Wilson, on the 6th August. Significantly his argument to the Prime Minister was that "the issue being apparently beyond the capacity of the various interests to resolve on their own account, should be the subject of an independent Government inquiry in the public interest". The Prime Minister responded sympathetically - asking Eric Varley, the Secretary of State for Industry, to keep a close watch on the situation - bearing in mind the idea of an inquiry if a satisfactory CEI solution did not emerge.

In October 1975 one Institute of Production Engineers paper argued, "We should as a matter of urgency approach Mr. Varley directly and ask him to get an informal inquiry going into the matter. It is imperative that we beat the IEE to the punch on this". On 27th December, 1975 in The Times the Professors of Mechanical Engineering in Northern Universities also called for an enquiry. In a debate in the first week of July, the Secretary of State, Eric Varley said that the case for an enquiry had still not been made, but his comments about the unsatisfactory nature of the status quo indicated that he was leaning towards one. Earlier, in July, the Society of Engineers had added their voice to the call for an enquiry - on the grounds that the CEI's petty squabbling on elitist policies had wasted time and in any case it represented only a minority of professional engineers. At the 1976 TUC Conference on 6th September, John Lyons successfully moved that "Congress note the relative weakness of the engineering profession in the UK, the uneven distribution of qualified engineers throughout industry and the relative decline in the number of young people being attracted to the engineering discipline in recent years. Convinced that

the engineering profession has a vital part to play in the engineering rejuvination of British industry, Congress calls on the government to set up without delay a powerful committee of inquiry into the role, function and use of qualified engineers in British industry which should make a comprehensive report in the next eighteen months".

In November 1976 the President of the Mechanicals called for a powerful group to examine the problems of the engineering industry and profession. Also in November John Lyons of the EPEA wrote to the PM, now Jim Callaghan, with a lengthy argument in favour of an inquiry. Like the IEE, John Lyons had also lobbied the Secretary of State and Sir Peter Carey at the Department of Industry. In The Times of 21st January, 1977 it was reported that the Departmental view was that change would be needed and that a committee would have the danger of delaying necessary change. This prompted the IEE President to write on the 27th January to the Secretary of State of Industry pointing out that if he decided on an inquiry the IEE would give it its strongest support. The IEE asked that such an inquiry focus on attracting young people of the highest intellectual calibre into engineering; their educational training to full professional qualification; and the advantages and disadvantages of statutory registration. This was copied to the Prime Minister and the Secretaries of State for Employment and Education.

The decision to proceed with an inquiry was taken with the most senior Department of Industry officials sceptical about what was feasible by way of change/ and with DES officials unconvinced about the implied criticism of university education for engineering. The Prime Minister was in favour however - as was the CPRS and the Prime Ministers own policy unit. In view of the fact that it was a Labour Government having to make the decision on an Inquiry, it is reasonable to assume that the TUC Congress

vote counted heavily in persuading the Government to go ahead.

When other Institutions discovered that the Presidents of the IEE and I. Mech E. had written to support an inquiry, relations cooled further. → Sir Charles Pringle of the CEI wrote to the Secretary of State on the 8th February opposing an inquiry as "neither necessary nor desirable" (CEI News Release). The President of the ICE fully supported the views of the President of the CEI and argued that an investigation would be undesirable, unnecessary, wasteful and more likely to hinder rather than help valuable; progress. The Tory Party entered the ring with their own unofficial "Task Force" on Engineering, Education and Industry. This had 22 members - academic, business (Ford, Shell, GKN, institutional and trades union representatives.)

In June 1977, Derek Harris of The Times was able to report that the inquiry issue had at last been settled - though no public announcement was yet made. It emerged that one of the delays since the Secretary of State had decided his own attitude at the start of the year was a Department of Employment fear - in the light of incomes policy - that the salaries of engineers would feature in the inquiry. It was reported that a formula had been devised which would allow the committee to look at this in general terms. Harris's report went on to say that the major questions were the need for some General Medical Council type body for engineering and whether that council should be responsible for statutory registration. The name of Sir Monty Finniston appeared in The Times on 30 June - though this was not made official until 5th July.

Mr. Varley's announcement, Hansard, 5th July (cols 483-4), was brief and did not (as suggested in the press) indicate than an interim

report would be called for, but he specifically observed that the inquiry would not impede other initiatives and that it should not be unduly prolonged. Later in the month, a further inter-departmental report was published by the Department of Industry (as Industry, Education and Management). The eighty page paper by officials and signed by Ministers, was a consultative document of ambiguous status. It did "not state Government policy", but was introduced as being "to prompt discussion and, more important, action". Like the Finniston Report itself, the interdepartmental report started with an analysis of the economy and industrial strategy. It found the poor quality of engineering students specially worrying.

While the composition of what was to be the Finniston inquiry team was being settled, the BASS report was also published. (Education, Engineers and Manufacturing Industry, August 1977). This concentrated again on the lack of quality rather than quantity in engineering graduates. For example, whereas 8.8 per cent of students admitted with A levels in 1975 studies medicine, only 2.3 per cent of medicine students entered with five or less A level points. Engineering students accounted for 12.7 per cent of entrants, but 21.7 per cent of entrants with low qualifications. The social sciences, like medicine, had a positive bias with 25.6 per cent of students, but only 17.7 per cent with below five points (from table II, p18). Engineering's recruitment problem appeared to be that the proportion of high scoring "A" level students were accompanied by a long tail of low scoring candidates (p23, para 25). For many observers this suggested that two levels of degree course were necessary.

Apart from the Chairmanship of Sir Monty Finniston, the BASS report had two unusual links to the rest of the exercise. Sir Ieuan Maddock, Deputy Secretary (and Chief Scientist) at the Department of Industry moved to be Secretary of the British Association to steer the BASS study. Much of the report was written by Vincent Edkins of the University of Aston - who was later appointed as consultant to the Finniston Committee. Nonetheless the BASS study did not seem to have a crucial impact. The Finniston

Report is far more than a second edition of the BAAS study. For example in several places the BAAS study claims that ".. the suggestion that the supply and deployment of engineers is the main cause of past or present (economic) problems or that improvement in this area alone will cure all problems, would be wholly wrong (p.11, para 2, See also p.2, para 8). The Finniston Report came near to endorsing that One Big Explanation - e.g. "while engineering excellence is not the only determinant of manufacturing prosperity it is essential to continuing competitiveness." (p.23, para 1.37(iv)).

2. The Inquiry

By December 1976 Ministerial clearance to "go" on engineering was obtained and in January to July 1977 the mechanics of setting up the inquiry took place. The terms of reference were drawn up and Sir Monty Finniston agreed to chair the committee. The terms of reference ran as follows:

> "To review for manufacturing industry, and in the light of national economic needs -
>
> 1. the requirements of British industry for professional and technician engineers, the extent to which these needs are being met, and the use made of engineers by industry;
>
> 2. the role of the engineering institutions in relation to the education and qualification of engineers - professional and technician level;
>
> 3. the advantages and disadvantages of statutory registration and licensing of engineers in the UK;
>
> 4. the arrangements in other major industrial countries, particularly in the EEC, for handling these problems, having regard to relevant comparative studies; and to make recommendations."

The selection of Sir Monty Finniston is difficult to interpret. Sir Monty's views and style were well known: his participation in the BAAS exercise perhaps allowed his view on engineering to be displayed. On the one hand he was recognised as a dynamic and innovative industrial leader, but it was probably predictable that under his Chairmanship, a report unsympathetic to the institutions would result. Accordingly one view suggested to us was that the Department set up an inquiry which would lack credibility: this may well be too Machiavellian an explanation.

In the selection of the rest of the committee it was consciously decided not to build in, in representative fashion, the "affected parties". This can be seen as a realistic assessment by the Department and Sir Monty that, in the light of the CEI internal reform saga, to base a committee on the institutions would be a recipe for stalemate. Alternatively, it can again be seen as a way of setting up a committee whose judgement would lack authority: it would always be open to the institutions to argue that the committee had lacked sufficient experience of the institutional world they were preparing to change. Sir Monty was particularly keen to avoid nominations from vested interests. This made the choice of prestigious individuals more than usually difficult as the CSD's list of the "Great and the Good", tended to be compiled precisely on the principle of including office holders of interested bodies. While it has been claimed that this committee of "neutrals" was difficult to find, this claim is somewhat undermined by the fact that while a committee of nine was first envisaged, one of eighteen resulted.

Twelve of the eighteen members had engineering qualifications, but the section of the Report giving the background of the members made no mention of office-holding in institutions. None of the key participants in the CEI controversey were appointed. While Sir Monty had been President of the Institution of Metallurgists, he was perceived as a reforming figure (which he undoubtedly was) in the institution world. Nonetheless at his press conference after the first meeting on 20th December 1977, Sir Monty went out of his way to make the point: "This Committee will not be starting from a critical viewpoint - it is not a witch-hunt and no criticism of the professional institutions is implied nor of universities or government...We want to be positive and constructive...We want no carping or rivalry". But the fact that Sir Monty so firmly asserted these points itself perhaps shows that there was a well developed mood of distrust in the institutions that they were up before a hanging judge. Finniston

was reacting to an undercurrent of gossip and hearsay that was already assuming that the institutions would be mauled.

While the chartered institutions had no senior spokesman or representatives on the Committee, some of the Committee places took a more representational character with the unions, education interests being prominent: indeed certain of them very much behaved as representatives only attending when the agenda directly affected their organisational interests.

At the first meeting the chairman again specifically made the point that members were selected for independence and impartiality of view. In his press release Sir Monty further observed, "There will be others who will criticise the lack of representation for their own favourite interest groups on the Committee. This has been quite deliberate. We are well aware that the committee will be traversing some controversial ground during our Inquiry, and the Secretary of State and I were anxious to select a team who would be...impartial as between the sides in these controversies". At the press conference after that meeting, Will (now Lord) Howie made the point that "We are not on the committee to represent our Institutions, but to give advice". Nonetheless, Howie became, by default of other representation, something of a counsel for the institutions within the committee.

The internal operations of the committee were interesting, but they deserve separate examination. For this purpose, we can note the vast scale of the operation - over 764 written submissions in response to about 350 specific invitations (and general press notices) put out by the Secretariat. The 350 specific invitations yielded 254 individual and corporate responses; 166 of these were circulated to the full committee. About 500 papers were sent in by individuals and 200 from organisations.

Some 50 of these giving written submissions also gave oral evidence. Some 1,600 documents were studied.

A Sketch of the Evidence.

In evidence to the committee, the IEE and IMechE both pursued their arguments for upgrading the entry to the profession, with a desire to raise the standard of A levels. They also wanted a distinction made between chartered and technician engineers. The IEE said, "The engineering degree which was once normally the avenue to a career as a chartered engineer, is increasingly becoming the academic qualification of technician engineers also". Entry levels had fallen and some students were involved in theoretical studies "beyond their intellectual capacity". The IEE called for "elite" courses to create a relatively small number of engineers of the highest technological competence. The IEE continued its thoroughly professional "guidance" of the press that had characterised the earlier CEI internal reform process. They organised a large conference with international contributors to publicise their belief in the advantage of registration. They attempted to systematically lobby and brief committee members. The IMechE also called for developing certain universities or polytechnics to a recognisably high level of excellence. However, the IMechE would have accepted strengthened CEI combined with statutory registration.

In evidence, almost every possible permutation of opinion was found and it is difficult to imagine how any committee can digest such a complex mass of material. On the key question of statutory registration, the issue was whether engineers should have their standards of qualification and professional conduct set and administered by a publicly accountable body created by an Act of Parliament. There was a related issue of

licensing - the reservation of certain functions or occupations (or both) to registered persons (see, for example, IEE Evidence, p.11). The IChemE wanted a single registration board, but was cautious over licensing. The Civils had reservations on statutory registration but the IEE wanted statutory registration and licensing. The IEE did add the proviso that the controlling body should be a council mainly drawn from the profession so that self-regulation could continue: no direct government control was sought. In arguing for a more regulation - and regulation by statute - the IEE argued that the CEI was unlikely to develop (by consensus) a sufficiently rigorous standard of accreditation of degrees. The independent statutory council was to be a means to prevent back door chartered status. In a booklet, "Wealth for the Nation", produced in July 1979 the IEE called for the creation "by statute of an independent authority (analogous, for example, to the General Medical Council"...).

The CEI called for full powers for itself to vet degrees. It argued that while the entry requirements for courses could be set by the (professional) institutions, the awards should be accredited by the CEI - on the grounds that the degrees would give exemption from CEI examinations. The CEI did indicate that it would in future refuse to accept a pass or ordinary degree for examption from the CEI examinations.- these would only be acceptable for an academic route to technician engineer status. This was in line with the agreement made at the creation of the EIJC (in 1962). (The IEE had by this time moved to demanding at least Second Class Honours standards.)

The CEI attempted a compromise by suggesting that the government should recognise the CEI's own ERB, but conceded that some monitoring by the government might be needed and put forward the idea of one or two representatives from outside the profession on each section of the ERB.

The same day as the CEI evidence was published the IEE was quoted as demanding that registration and licensing should be under an independent body responsible to Parliament through a Minister.

The Institution of Municipal Engineers argued against an increase in the length of degrees and against the raising of A-level requirements - going against the views of the IEE and IMechE. It did argue for a common register however (THES, 24th February 1978). In March, the Institution of Structural Engineers argued for "no change" - and no statutory registration. The Committee of University Vice Chancellor & Principals called for longer courses - four instead of three years.

The Society of Electronic and Radio Technicians wanted access to chartered status for technician engineers. The Electrical Engineering Association rejected statutory registration or licensing of engineers - and sought assistance from government on profitability so that engineers could be paid more. The Institution of Metallurgists rejected an independent body for registration. It supported the existing institutions and the CEI, and argued, "even a state registration board composed largely of engineers would be subject to tight control and would tend to be increasingly hidebound". However, state recognition of registration by the CEI was seen as being beneficial in strengthening that body in the eyes of the profession and the public (THES, 28th April 1978). The CBI also rejected (by a majority of members) the idea of statutory registration. However, a minority view in the CBI evidence claimed, "Industry has an interest in ensuring that the qualifications for registration at a consistently high level. If the institutions are unable to persuade the Committee of Inquiry that they are capable of maintaining such standards...statutory registration may well be

seen as a necessary step..." At the oral discussion with the Committee it emerged that this minority CBI view came from engineers themselves and the opposition to registration tended to come from small companies. The Committee of the Engineering Professors Conference looked for a dual degree system. "A" and "B" type graduates were to be produced - the latter filling the gap left by the closing of the part-time study system.

The Engineering Employers Federation (EEF) also gave divided advice in that the written evidence advocated a voluntary register, but their oral contribution began by conceding that they had no objection to a statutory register - as long as this consisted of no more than "a desk in a Department" (11th June 1979). The EEF evidence produced counter evidence from the IMechE. It argued that the EEF evidence epitomised British industrial attitudes. It claimed that it was difficult to imagine "the Federations' counterparts in the U.S., Germany or Japan adopting such a destructive attitude - displaying a deplorable ignorance of the standards required for a good professional engineer.

The Fellowship of Engineering submitted evidence jointly with the Royal Society. The Fellowship presented its case for being that central voice for the profession that had figured widely in discussions in the previous decade.

Later on the exercise (July 1979) the IEE commissioned an opinion poll of their members which shows 92% support for registration: a smaller sample of ICE members found 87% in favour.

Finniston's Engineering Authority and the role of the Institutions

One of Sir Monty's favoured phrases is, "Where the broom does not reach the dust will not go away by itself". This attitude perhaps underlines the recommendation of a new statutory Engineering Authority, largely to replace the CEI. In an early paper (CIEP(P)(78)(16)), "A British Engineering Authority was accepted as a "Working Hypothesis"". This was the subject of a brief unnumbered Department of Industry paper of 17th May 1978 which attempted to "flesh out" the idea. One important feature of this early sketch was (a) the basis of the BEA should be statutory and not provided by a Royal Charter, the reason given being that only in this way could the policy and constitution be changed to meet changing circumstances; "it would also avoid the "federal" weakness of the present (CEI) situation".

The paper envisaged an elected body with employer, Governmental and Trade Union representation. It concluded, "The key question to be answered is whether such an idea would in reality prove its worth to employers in the future".

The DOI paper clearly plumps for a statutory body - on the argument that had spilled over from the CEI reform debate - that a voluntary/federal system was cumbersome and indecisive. As usual, the Committee seems to have thought that it was inventing a General Medical Council for Engineering - and called for a paper on the GMC by their consultant, V. Edkins (CIEP(P)(79)(37)).

The GMC is constituted under a series of Acts - the last being the Medical Act, 1978. This increased the size to 95-34 of whom are appointed by colleges and medical faculties, 10 or 11 nominated by the

Privy Council and 50 elected by the profession. The Finniston and post Finniston debate was not much clarified by the GMC example: advocates found it compatible with both a statutarily constituted body and a voluntary (Royal Charter) body. Perhaps the explanation as to why both sides managed to find aid in the GMC example is that it is technically a statutory body but in effect it has self regulation.

At the 10th Committee Meeting on 12th September, the Chairman argued that it was little use recommending change unless some form of overseeing body was brought into existence to monitor the changes. Such a body would also need to persuade the Institutions and other interest groups that change was necessary since their natural reactions to change were slow (CIEP(M)(78)(9)).

At the 13th meeting, Lord Howie - supported by some others - argued that the proposal from the Education and Working Group (WG3) was proposing too low a standard of qualification - less than the C.Eng. and specially the revised standards of the Big Three. Lord Howie pointed out that the Committee had agreed that the cooperation of the Institutions was needed for the implementation of their Report, but the (major) Working Group proposals amounted to the Institutions losing their key position in the qualifying process. Moreover if the Committee supported Working Group 3s' paper as it stood, they would be seen by the Institutions to be recommending a dilution of existing standards. "The Institutions would fight them and for this reason the proposals were bound to fail" (our emphasis).

Against this argument, it was suggested that "...whilst the cooperation of the Institutions was desirable, it should not be assumed that they had the right to veto. Some of the Institutions, particularly

the Big Three had made the effort to improve the qualifying standards, but by and large the C.Eng. qualification lacked credibility ((CIEP)(M)(78)(11)).

When the Registration and Licensing Group (WG4) reported Lord Howie again assumed the role of the leader of the loyal Opposition. The Working Group had decided that voluntary registration under the CEI had failed and that the existing system was not capable of being reformed. Accordingly it was argued that instead of giving statutory backing to the existing regime, a new broadly based statutory body was proposed. The idea expressed as being "a General Medical Council for engineering".

This body British Engineering Authority was subject to a discussion paper by the Secretariat in January 1979 ((CIEP)(P)(78)(53)). In introducing the paper, the Secretary, Mr. Boxall, observed that the Department of Industry had an open mind on the subject. Further, he recorded that in discussion with the CSD they had advised that "before coming to a decision to recommend fresh machinery, it was essential to examine the extent to which existing bodies, such as the MSC and NEDC might give effect to the Inquiry's recommendations..." This advice reflected an engrained CSD scepticism on the tendency of committees to seek to build organisational memorials to themselves.

Summing up the discussion of the meeting, the Chairman said that there were two extremes - either work through the existing system (with minor tinkering) or a "clean sheet" approach, ignoring existing bodies. He thought that both were impractical and said that an intermediate solution making use of the existing patchwork of bodies but with a greater

or lesser degree of direction and coherence provided by a new central agency.

Later in the life of the committee (16th meeting on 28th February, 1979) it was decided that the chairman himself would chair a working group on the British Engineering Authority but this topic was more fully discussed in Working Group 6 chaired by Lord Howie. Working Group 6 not only met the major Institutions for oral discussions - but also some of the key permanent officials of selected Institutions. Some individuals appeared warmer towards statutory action than their parent bodies. A paper from WG6 in June on the Institutions (CIEP)(P)(79)(18)) proved uncontroversial - it being accepted that the proposals for career development (formation) and registration would remove the qualifying raise d'etre of the Institutions. The Working Group recommended building up the learned society and promotional functions of Institutions in compensation. (See also WG6 (P)(79)(1), CIEP (P)(79)(30) - CIEP(79)(47), CIEP (P)(79)(54)).

On the change of Government in May 1979, when Sir Monty met the new Conservative Secretary of State for Industry, Sir Keith Joseph, he was asked to report as soon as possible. Sir Keith said that the creation of a new body was not ruled out, but one can speculate that temperamentally Sir Keith was much less likely to accept the eventual Finniston solution than his Labour predecessors - or even Conservative Ministers such as Peter Walker or Michael Heseltine.

A report on Institutional qualification requirements was prepared by the consultant, Vincent Edkins. This suggested that the Institutions were doing a better job than they were given credit for and also that what they were trying to do fitted in quite well with the Committee's

proposed formation package, ((CIEP (P)(79)(28)). Nonetheless the Committee agreed that the report confirmed the failure of the CEI to establish common standards across the Institutions and there was an unacceptable confusion of standards. The minutes claimed that "This strengthened the case for making a clean break, having new centrally-awarded qualifications and guaranteed standards..." It was generally felt that this would prove an acceptable arrangement to all parties apart from the CEI, whose role of setting common standards would be taken over by the BEA. The Institutions might well be willing to participate in the setting and accreditation of the new qualifications.. (CIEP(M)(79)(8)p.2). This was not a unanimous conclusion (Lord Howie for one had reservations), but the opinion was at least so preponderant to be termed a "consensus" in minutes. In late July 1979, four members of the Committee and the secretary, Mr. Boxall, met informally with representatives of the Fellowship. In his introductory remarks, Sir Monty stressed the need for "statutory muscle" to push through other changes. He envisaged a statutory body that might be called the "Engineering Authority". The reaction of the Fellowship representatives appears to have been one of suspicion-but not particularly, at this time, focussing upon the Engineering Authority proposal.

The Fellowship asked for an opportunity to view a written outline of the proposals that could be discussed on a confidential basis by a working group. It was thought that some, at least, of the concern about proposals at the oral presentation had been based on misunderstanding. This offer was declined however, but Sir Monty did agree to meet the Fellowship again to discuss six or so topics that the Fellowship could specify. At this later meeting (19th October, 1979) Sir Monty again made a point of emphasising the need for a statutory authority - and outlined its role in granting titles, registering awards and generally leading the profession

(some delegation to the Fellowship on this point was diplomatically foreseen). In the Fellowship's response concern was expressed that the Authority should be self-regulatory and not a creature of Government. This shot across the bows of the committee was ignored.

It may have been tactically unsound not to have shown a pre-publication copy of report to the Fellowship. The membership of the Fellowship was, collectively, the most influential of the various bodies involved and anything which put them in a more receptive mood might have been worth trying. It was not as if pre-publication copies were not widely leaked anyway. There was some attempt to brief opinion so that a warm reception would be given (eg Parliamentary and Scientific Committee of Parliament on 18th December), but while outside opinion (such as the Press) gave a warm reception, the Institutions were unconvinced.

After six drafts and a threatened minority report a unanimous report was finally completed in November 1979 and published in January 1980 - Engineering our Future, Cmnd 7794. The main theme of the report was that there was a "national undervaluation of engineering" (para.6.3). To remedy this, various new arrangements and practices were suggested, but the principle was the need for what was termed an engine for change. This engine to overcome 'inertia and negativism' and to secure 'radical change' was - The Engineering Authority. This body was represented as a focus and an impetus for improvements and it was claimed that a great number of the recommendations rested in some degree on the establishment of the Authority (para.6.7). The Engineering Authority had a 'strategic objective of correcting the historic neglect of the engineering dimension' (para.6.9). In a speech to the ICE in 1980, Finniston claimed that 79 of the 80 recommendations were negotiable. The one recommendation "which formed the foundation for future economic reconstruction of a manufactured based economy was

the Engineering Authority".

The Report suggested that the Authority should be 'broadly constituted' and 'representative', but it made a special point of insisting on the active participation of employers. The Executive Board was to have 15-20 members (para.6.17). It was claimed that in order to overcome 'vested interests' it required independence and authority, a statutory basis and direct funding of its own (around £10, million per annum). The chairman of the Engineering Authority was to sit on the NEDC.

It was stressed that members of the new Authority should sit as independent appointees and not as spokesmen of organisations - though consultation among various bodies would be required when the Secretary of State initially set it up. Later a proportion of the Authority would be elected by registered engineers and the remainder of appointments would be made by the Secretary of State ensuring a broad spectrum of representation (para. 6.20). A minority view was that nominees should be selected from lists submitted by institutions.

While it was conceived that there should be annual reporting to Parliament through the Secretary of State, and the Secretary of State would be allowed to change the authority's terms of reference and powers by statutory instrument, he was to be specifically prevented from issuing strategic directives of the kind issued to the nationalised industries (para.6.28). No doubt Sir Monty Finniston wished a more powerful base for the office of Chairman of the EA than, he had had at BSC.

At this level the recommendations are rather like those of the Swann Report of 1968 - mostly serious, but rather vague about what was actually be be done. To understand fully the radicalness of the prescription, one has to decode what good manners left implicit. When the report talked about 'independence' it meant "independence of the institutions". When it talked about 'vested interests' it meant the 'entrenched institutions'. When it talked about the 'active participation of employers', it meant that it was time to upset the establishment dominance of the institutions.

The recommendations on what the report termed 'the formation of engineers' and the registration and licensing of engineers meant that the control of the engineering profession would pass out of the hands of the institutions. The section entitled "The Role of the Institutions" made the demotion clear. They were envisaged as playing an important role advising and assisting the Authority. It was hoped that they would expand 'their learned society functions' - which is as subtle a way of informing a group that it is being overtaken by events as is possible. To sweeten the message some money from the Authority was promised to the institutions for continuing education provisions: at least the pensioners would be kept comfortable in their old age.

The principle recommendation for education was the development of three clear streams - dividing off an elite stream of engineers from the rest of their cohort. At degree level about 25% of students would take a four-year M.Eng. course, after professional experience, leading to a subsequent award of Registered Engineering Diploma, R.Eng.(Dip.). The mainstream of degree level engineers would study a three-year B.Eng. course leading to a R.Eng. award. Higher National and TEC qualifications would lead to R.Eng.(Assoc). as the ultimate award.

As well as the £10 million p.a. costs of the Engineering Authority, the consequences of the proposed education changes would involve added educational expenditure of £15-40 million p.a. (para.4.94). Extra grants to act as a stimulus to student uptake also meant costs of about £10 million p.a. for engineering bursaries. (CIEP(P)(79)(38)).

The Departmental Response

In December 1979, within the Department of Industry, a lengthy Finniston Briefing Package was produced by the Departmental assessor to the committee. This was designed to be suitable (in different versions) for numerous different audiences, (IP/650/5). It gives one Department of Industry reaction to the report. It began by arguing that the Engineering Authority emerged from the combination of factors:

(a) Many similar reports had made recommendations towards similar goals with little or no result.

(b) The conclusion that no single (existing) agency or group of agencies would be adequate to effect the necessary changes envisaged.

The brief noted that the Committee did not come to the Authority recommendation lightly, but after prolonged and difficult debate. It conceded that the form of the Authority was only sketched in lightly-making the implications of the concept difficult to grasp and assess.

The brief laid great stress on the role of employers in the post Finniston period - claiming that as employers had shown by their action that they did not attach sufficient importance to engineering and engineers,

indifference or even hostility must be expected. Accordingly a strong hand from Government would be required. The brief articulated a strong view in the Department that the Finniston operation was aimed at supplying a service to industry - though industry did not seem to know its own best interests. For example, "Far from impressing bureaucracy upon industry, it will work on employers' behalf to make existing machinery for engineering formation, qualification and organisation more responsive to national economic needs, particularly those of industry".

On regulation the brief argued that "Finniston" was suggesting statutory oversight which would bring Britain in line with almost every other major industrial economy. The British pattern of dispersal of such matters among various educational and institutional interests had, it was claimed, manifestly not worked. This change was recognised to have implications for the institutions, although in the initial stages at least - the experience and expertise of the Institutions would be utilised. The brief noted that the proposals "need not imply their (i.e. the Institutions) demise (although some will fear this)... If the Institutions really do offer their members nothing more than a few discredited letters to put after their names, then perhaps it would be no loss to the nation if they did go..."

A Whitehall interdepartmental committee was set up in June 1979. In January - March 1980, after the report emerged, this committee processed Finniston. This committee was chaired by a new Department of Industry Under Secretary (Jack Leeming, Industrial Planning Division) and the Finniston Report was treated with the same sceptism with which the higher echelons of the Department had treated its creation. The enthusiasm that naturally developed in the Department of Industry secretariat to the Finniston Committee did not permeate the whole department. To Department

of Industry sceptism was added standard Treasury cost reservation and the already noted C.S.D. suspicion of new, self perpetuating, committee recommendations. Nonetheless the committee eventually decided that an Authority and statutory backing was necessary.

Two Junior Ministers were delegated to coordinate the Government's response: Michael Marshall at the Department of Industry and Neil Macfarlane at DES. While the Department of Industry consultations were expected to be complete by the summer and a decision made, the DES as lead department on educational aspects deliberately attempted to detach their aspects from the Department of Industry issue (and timetable). They proposed taking more time and organised a conference for 15th and 16th October. This was organised by a steering committee under Mr. Dick Morris; members included Sir Kenneth Corfield. There is no doubt that the DES was seeking to avoid a momentum building up behind "Finniston". At the IEE dinner at the end of February, Sir James Hamilton, Permanent Secretary at the DES frankly confessed that he did not want radical change in education . He did not support "throwing the education baby out with the Finniston bath water". At a symposium organised by the THES, Sir James also indicated scepticism on registration (THES, Supplement, October 1980).

The Political Response

With the DES hostile, senior DOI officials agnostic from the start, Sir Keith Joseph as Secretary of State, it is perhaps surprising that the Leeming Committee ever backed Finniston on the statutory authority.

There were strong reasons which would have led to political suspicion by any Secretary of State of the Finniston conclusions. Senior civil service advice was certainly unenthusiastic, and any call for £60 million p.a. was bound to be questioned. But the main pressure likely to operate was suggested in the shorter version of the Report (p.6). Howie, who largely drafted this version, used the famous Machiavelli quotation from The Prince to emphasise why a strong Engineering Authority was needed as "A Champion for Change",

> "There is nothing more difficult to take in hand, more perilous to conduct or more uncertain in its success than to take the lead in the introduction of a new order of things, because the innovator has for enemies all those who have done well under the old conditions".

In the House of Lords debate of 27th February 1980 this passage was termed "a nasty, spiteful little piece", but it accurately reflects what was seen to be the alternatives- either the Institutions would prevail or the Engineering Authority. As Lord Howie forecast in his column in the NEC, "the institutions will have to use all their resources and cunning as lobbyists if they want to keep their place in the sun..." (10th January 1980). The least flattering an interpretation put to us by one key participant of the Institutions' actions was that they deliberately used the weapons of attrition and delay, knowing that few of the Ministers or Civil Servants shared Finniston's almost evangelical zeal. Certainly the CEI attempted to slow things, arguing, in late March 1980 in a letter to Sir Keith that no irreversible decisions should be taken until after the debate on education in the autumn.

While later Sir Keith is reported to have inquired of those pushing for Finniston's Engineering Authority, "Do you really want me to do for engineers what I did for the National Health Service?", his initial reaction seemed favourable to the Report. At a dinner for the Committee, he reportedly described Sir Monty as "one of the great policy makers of the century" and claimed that the committee had produced one of the most important reports since the war - which he would carry forward. At the City University seminar held to discuss the Report he said that he would not flinch from setting up an engineering body and sanctioning public spending, in line with the Finniston recommendations, if these moves would improve the plight of Britain's manufacturing industry. He said, "There is public spending and public spending".

However, voices quickly emerged to counter Sir Keith's initial favourable assessment. The Tory party's own "Task Force" report had come out against a new Authority. Dr. Keith Hampson, M.P. who was party liaison officer with the academic world claimed that, "despite great dissatisfaction that exists about the CEI, you do have an existing structure, and usually it is a good principle to improve on existing structure rather than create another one". (The Engineering Profession, CPC, July 1978). Nonetheless there seemed no strong backbench pressure on this issue. Dr. Hampson himself later argued, "The institutions have a powerful voice. That voice must now be ignored, because there are more important considerations. Until now, the institutions did a good job...(but) in almost every other country Governments have played a part in ensuring that standards are right... The CEI does not have the breath of vision. A government, or quasi-government body should be involved. Another Conservative backbencher Dr. William Waldegrove, asked that the new Engineering Authority be,

..."one of the great central institutions or pillars of what Disraeli would have called the multi pillar state". (Hansard, 13th June,1980) Later John Ward,M.P. (Poole) made critical comments about Finniston, but he was closely identified with the CEI.

At the Commons debate on 13th June only 12 members were present - and at the one on April 18th all of 3 attended (see Dr, Hampson's remarks 13th June). However Sir Keith's business and other contacts in the Conservative Party may have been more hostile than parliamentary opinion. For example Lord Caldecote (Delta Metals), Sir Robert Clayton (GEC), Professor Sir Hugh Ford of Imperial College were all opposed. Sir Hugh's views were expressed in a letter to the Telegraph (21.1.80) objecting to the replacement of self-financing voluntary effort by a Treasury financed quango. The EA was characterised as being one beloved of a Labour Government and bureaucratic minds. Self government and not Government control was seen as the solution. It is a characteristic of Sir Keith (and of course many other politicians) to use his personal network to "second guess" his civil servants.

At the press conference to launch the Report, Sir Keith said that money might be available and that the superficial appearance of a quango would not count against the EA. He outlined what he termed an ambitious, but achievable timetable of consultation in the spring (comments on the Engineering Authority aspect by the end of February) with final decision in the summer.

3. Reactions to the Report: Consulting on the Engineering Authority

Some indication of the interest in the Finniston conclusions can

be gauged from the fact that its first edition sold out in 10 days (9,000 copies at £5.00 each). After eleven months 14,500 of the full report had been sold and 10,400 of a condensed version at £2.00.

One particularly relevant press response to the Report was the New Statesman's claim that

> "The report is essentially the work of engineers reporting to themselves and to their enormous credit they have broken with the ancient idea that our professions should escape public accountability".

It was exactly the conflict between public accountability and professional self-regulation that was at the core of subsequent events.

At one of his many speeches to "fly the flag" for the Committee (to the IMechE) in November 1979) Sir Monty observed that, "The justification of the Inquiry was that there were no solutions either obvious pragmatic, emotional, logical, critical, dictatorial, or consensual which could satisfy everyone". While the committee was criticised for not bringing the correct rabbit out of the hat, it is hard to imagine that an acceptable creature existed. As Sir Terence Beckett predicted at the post-Finniston City University conference many people supported Finniston in a "Yes...but" fashion..."and the diversity of the 'buts' will be such, that if one agreed with all of them, nothing of substance in the Report would remain". This forecast of "Yes...but" reactions was fully borne out by subsequent events. Such were the qualifications it is very difficult to present a brief checklist of who backed and who opposed the proposals. Support with reservations is difficult to disentangle from diplomatically worded opposition.

The Department of Industry engaged in three related questionnaire exercises to weigh opinion: even this could not overcome the ambiguous responses. Over 370 similar letters went out to institutions (from the Under Secretary), other groups (from the Assistant Secretary) and senior industrialists (from the Permanent Secretary). The DES wrote similarly to over 50 major educational organisations. The letters were essentially asking for opinion on five main issues - (1) the establishment of a new Engineering Authority (recommendations 77-80); (2) the establishment of a statutory registrar of qualified engineers (recommendations 38, 60-62); (3) the accreditation of engineering degree courses, training programmes, and individual applicants for registration (recommendations 38, 43,44); (4) controls over engineering practice (recommendations 63-67); (5) measures to encourage the continuing formation of engineers (recommendations 53-59); (6) the future roles and activities of the institutions (recommendations 68-76).

As with the original Finniston consultation exercise more replied than were specifically invited and about 680 responses were made to the Department of Industry. In some ways the department could influence the outcome of the consultation. For example, they took trouble to elicit reaction from individual industrialists. Arguably, when Sir Peter Carey wrote to some two hundred industrialists this was partly because the DOI; was unhappy at the general lack of interest from the employers side - but the wider the consultation, the less significant did the institutions opinion appear. Clearly, in theory, one can adjust consultation to secure a response which one seeks - and, in practice, there appears to have been an element of this in departmental behaviour.

However, the Department of Industry summary of the 88 industrial responses as given in the Junior Minister's (Michael Marshall) speech in the Commons on June 13th can be criticised as less than revealing. It was true that the weight of responses was in favour of Finniston but the reservations were perhaps more significant. Often, support for an Engineering Authority was qualified by the suggestion that it should be accountable to the Privy Council (PC): this was a proposition developed by the self regulation side of the argument, but even pro-statutory opinion preferred accountability to Parliament through the PC rather than the DOI. The Privy Council was seen as "safer" than the DOI which was seen as subject to political change. But most industrial comment was too general in nature to get involved in such questions as the particular role of the PC. One could claim this to be unreserved endorsement of the complete package on offer but more likely it was the obvious response to the implied leading question - 'Do you think there is enough done for engineering.' On the whole, engineering companies thought not. Michael Marshall's speech to the Commons claimed, "The report has won strong general welcome ..... Despite fundamental reservations, there is widespread agreement about much of the diagnosis." In the light of the actual replies, this was as favourable a gloss as one could put on the data; in the light of events it proved a far too optimistic assessment of the level of agreement.

At the NEDC meeting on the 2nd April the Chancellor had introduced the Finniston topic pointing out that the Government was in the middle of negotiations and therefore declining to give substantive views. When the Secretary of State for Industry introduced a supporting paper (NEDC (80) 26) he claimed that the majority of those consulted were in favour of the report, but 'a significant minority' questioned both its analysis and even more its specific recommendations. Throughout this period of Spring/Summer 1980 industrial opinion had not hardened - though the Marshall & Joseph remarks

did seem to accept that the bulk of opinion favoured Finniston. Certainly the NEDC discussion backed Finniston with both the TUC and CBI in favour. In fact by the time the new Industry Junior Minister John McGregor spoke to Parliament on the Industry Bill in February 1981, the departmental claim was that ".... wide consultations indicated a clear majority view and demonstrated that there would be widespread opposition to a statutory body, which would be thought to represent excessive government involvement." (Hansard col 372)

The essential feature of the responses to the Report was that those who were by far the keenest and most direct interest in the outcome - the Institutions - were much more qualified in their replies. A superficial look at the press releases that greeted the Report suggested widespread support, but by the time the responses to the DOI questionnaire were submitted the essentially conditional nature of the support was clearer. The Institution of Chemical Engineers was warmer than most. Its press release on 7th January 1980 asked that the "welcome" authority discharged its duties by harnessing the efforts of the Institutions. It thought that a statutory authority might be advantageous, but expected consultations on the future of the Institutions and rather tantalizingly mentioned the Privy Council without explaining how it would fit in. The I Chem E's postion was generally favourable to "Engineering Our Future" and their reservations no stricter than those of the IEE who were still, nonetheless, the main supporters of the change. The Production Engineers (IPE) also made generally favourable noises - but with some of the usual footnotes. Its response, "was saddened that the role of the engineering institutions is not ascribed its proper importance..." It sought statutory power for the CEI to register engineers and questioned the wisdom of Secretary of State appointments ("Production Engineer", March 1980). The Fellowship of Engineering backed an Engineering Authority, but called for self-financing, control by the profession and answerability to the Privy Council.

now routine
The early IEE responses made the General Medical Council comparison and backed both registration and a statutory authority. It also made plain that the IEE hoped that licensing (ie the reservation of engineering work to designated engineers) would be a useful "Finniston plus" step. (IEE, 17th January 1980). The IEE position was put most positively by the IEE President Professor Brown at the annual dinner on 28th February. He began by characterising the Finniston proposals on regulation of the profession as "revolutionary", but went on "Professional Institutions... are not by nature the agents of revolution - although some of our sister institutions might, in hard times have regarded the IEE as an exception. It will therefore come as no surprise, that the IEE welcomes the revolutionary character of Sir Monty's proposals and pledges its support for their implementation... Such sentiment reflects our conviction that the major recommendations of Finniston - the creation of a statutory Engineering Authority and the radical revision of education and training offer real prospects of stabilising and strengthening the engineering profession."

He acknowledged that the IEE's faith in Finniston was not universally shared and explicitly addressed himself to considering three points of concern. The most pertinent of these was the issue of self-regulation - the fear than an Authority with statutory powers would be an instrument of Government. He argued that the GMC was statutory, but the medical profession enjoyed effective self regulation.

In some respects the Brown/IEE position was not carbon-copy Finniston. They sought full membership of practising engineers on the EA - and an Authority financed by registration fees to allow financial independence of Government, but the IEE - even with qualifications - was firmly on the side of a statutory, Finniston style, development. This was endorsed in the IEE's formal response to the Department of Industry dated 17th March 1980. This said that, "We strongly support the proposal to create a new Engineering Authority as a statutory body with the functions indicated in the Report.

The response called for a substantial majority of professional engineers on the Authority and a limited membership. It specifically cited CEI experience as grounds for not allowing appointment by institutions to the Board - even if members were selected in a personal capacity.

In another point which gave some semblance of support for the anti-Finniston Institutions, the IEE response argued that the Authority should be responsible to Parliament through the Privy Council, "as this is the channel of responsibility for a number of learned professions which are regulated by statute." An Appendix to the IEE response to the DOI (of 17th March) argued, while Ministers would undoubtedly wish to ensure by consultation that members of the Executive Board were acceptable to and respected by the profession, we consider it important that the legislation should effectively guarantee that this should be so and that, in a relatively short time, the profession would be manifestly self regulated. While the IEE was divided from its peers in many ways, it too was firm on self regulation. The IEE however, did not seem to baulk at Privy Council selection (after consultation) - so long as engineers were selected (with no more than a leavening of lay members).

Many of those recommending accountability to the Privy Council rather than to the Department of Industry were not engaged in a well informed constitutional debate. Basically the Privy Council was attractive because it sounded less "political". When Arthur Palmer MP pointed out in a Parliamentary debate that the Lord President of the Council was a member of the Government, the Junior Minister, Michael Marshall, was quick to agree that there was widespread misunderstanding about the executive functions of the Privy Council (Hansard 13th June 1980, col 991). In a letter to the Association of University Teachers in mid 1982 the Secretary of the Privy Council wrote, "...since the Privy Council is part of the machinery of government it is ... natural that the advice from this office should reflect (Secretary of State for Education) views.

Given that most of the comments involving the Privy Council were rather brief, two different arguments can be identified although they are difficult to disentangle (they may not have been all that clear in the minds of those making them). On the one hand there was the IEE proposition of a stat-

utory body responsible to the Privy Council; on the other hand there was the (present) position of a chartered body set up by the Privy Council on the intiative of the Government. We suspect that most of the many comments about "involving the Privy Council" were making no conscious distinction on this point. There is air of unjustified superiority in the foregoing remarks suggesting that industrialists and others should have been fully aware of these constitutional points. It is true that there is a difference between (say) a statutory body and a body carrying out statutory responsibilities for Government, but it may be unreasonable to expect such distinctions to be part of normal currency. However, the impression on these matters (and indeed on the actual working of the General Medical Council, also widely quoted as a useful anology) by interests basing their objections on constitutional grounds is somewhat disturbing. In fact, as the debate progressed, it became characterised by certain codes - "statutory" meant change, "self regulation" meant defence of the status quo, and "Privy Council" meant compromise. Thus the debate on Finniston was not characterised by a clear understanding of the nature of the regulatory process or of the forms it can take. Professor Gower's Review of Investor Protection (HMSO 1982) has produced a typology which is in retrospect useful in analysing the events surrounding Finniston. Gower identifies four distinct methods of self regulation.

1. - where a professional organisation acts as a self-regulatory body over the activities of its members (eg Stock Exchange),
2. - where a professional association or a number of professional bodies voluntarily set up a distinct self-regulatory agency over the members of that body or bodies (eg Council for the Securities Industry),
3. - where a professional body or bodies promote the establishment by legislation of an agency to regulate the practices and conduct of

its or their members (Gower cites the Insurance Brokers' Registration Council),

4. - where a professional association has had assigned to it, by statute, day to day regulation, subject to Government supervision. (One might cite the GMC?)

The CEI situation is akin to type (2) - the voluntary, distinct, self regulatory umbrella. The IEE and Finniston could be seen to be behind attempts to introduce (3) - the promotion of a statutory regulatory agency. Interestingly Gower suggested that if he were designing a system de novo he would probably go for a new statutory agency on the lines of the US Securities and Exchange Commision, but he recognised certain environmental "givens". He recognised that such a change would not be practical politics. He claimed, "Such a recommendation would clearly not be accepted by the present government which dislikes "QUANGOS" (page 91). He also observed that he had been left in no doubt of the City's rooted objection to a commission and noted that it could not be ingnored. Had he studied the fate of the Finniston recommendatinn, his views would have been reinforced!

Gower accordingly comes down in favour of "an adjusted balance between Governmental regulation and self regulation" (page 92). This appeared to mean that in practice legislation would be introduced making it an offence to engage in various activities unless registered with a relevant self regulating body as defined by the government (see para 7.10). But Gower does seem to conflate the granting of statutory responsibilities to non-statutory bodies (Law Society) with the granting of statutory responsibilities to statutory bodies when they are, in effect, self regulating (Insurance Brokers' Registration Council) (see Page 22). In the Finniston case there was a tendency to argue by analogy - usually with the GMC. The weakness in this approach is also present in any comparison with the investment area. Each individual area is so sui generis

with cumulative legislation, different understandings, and informal arrangements, that strict comparison is impossible. Instead a political game of highly selective comparison takes place. The moral of looking at "Gower" is not that an easy solution is available, but that it does not exist.

Other bodies which were broadly in favour of Finniston included the Committee of Vice Chancellors & Principals which welcomed Finniston and did not baulk at external accreditation of courses. (CVCP press release, 9 September 1980). The CVCP response did, however, argue for establishing the EA under the Privy Council in the manner of the GMC.

The EEF and CBI were generally (in the press) included in the pro Finniston camp. Both bodies perhaps under played their influence by becoming involved in lengthy internal consultation exercises, which meant that their comments did not arrive until after the original date set by the Department. In any case, their support was not absolutely committed on the major statutory/charter distincition. For example an EEF brief on 18th February, supported the EA proposal, but saw use of existing organisations and machinery strengthened by statutory powers, as an alternative to a new body. The EEF wanted at least half the places on the EA for employers.

The EEF reply to the departmental questionnaire, asked for an engineering authority accountable to the Privy Council rather than the DOI as this would be "less vulnerable to changing pressures and considerations". The CBI response was delayed until May. The CBI committee charged with looking at the Finniston Report came down in favour, but their advice was amended at the full meeting of the CBI Council in April. Viscount Caldecote put forward a proposal which, in effect, rejected CBI backing for a statutory form of the engineering authority and this was agreed.

The Fellowship of Engineering held a meeting on 1st March to formulate their response. At the meeting, and subsequently, a body of members pressed the President, Lord Hinton, to refuse to discuss the formation and composition of an Engineering Authority, on the grounds that this implied acceptance. The final form of the Fellowship's comments to the DOI bluntly rejected a QUANGO. Within the Fellowship the main personalities in this matter were probably Sir Hugh Ford (also active in the Institute of Mechanical Engineers) and Viscount Caldecote (later President of the Fellowship) who, as noted above, was influential in the CBI debate and was also a leading member of the Engineering Employers Federation. It was probably because Caldecote and others had such standing in other bodies that the Fellowship became the key body in the later stages of the story - with Caldecote emerging as "honest broker" among the contending groups. Other important examples of overlapping roles included that of Mr Michael Leonard who was both Secretary of the Fellowship and CEI. Lord Caldcote became President of the Fellowship early in 1981, with Sir Denis Rooke, Sir Robert Clayton, and Sir Hugh Ford as Vice-Presidents. Between them they possessed considerable contacts and influence.

The Fellowship met with Sir Keith on 23rd June. What is particularly noteworthy is that (not for the first time) Lord Caldecote organised a pre-meeting session to ensure that all those attending spoke with one voice. The stress was very much on building a concensus. It was (correctly) assumed that if the Profession could present an agreed package to the Government, then the Government would be reluctant to face up to a united front. There were earlier attempts within the sixteen institutions to build a consensus. The initial stumbling block to this strategy was, of course, the attitude of the reformist IEE.

Building a Consensus

A least initially almost everybody saw some good in the Finniston Report - or at least found it tactically advantageous to start off with general commendation before undermining the Finniston proposals. That, and the fact that the supporters too had their own amendments to offer - meant that the line up for and against was confused. As we have seen even the Finniston supporters wanted the statutory engineering Authority to report to the Privy Council: the opponents wanted the Privy Council to grant Royal Charter status to the Engineering Authority.

After the event, the Department of Industry and its Ministers would now present this distinction between the types of Authority as unimportant. For example, in a speech on 4th February (Hansard col 372) John McGregor (Junior Industry Minister) argued "The Hon Member exaggerated somewhat when he said that we are a long way from Finniston. He knows that the Finniston Report did not propose any statutory powers for the new statutory authority. At the time the difference between statutory and nonstatutory was seen as crucial - and some would still claim this - though as suggested above it may be that the difference was more important as a symbol of the implementation or dilution of Finniston than for its technical content. While the noises may have blurred into confusion, the participants knew who was for, who against and who was available for recruitment.

In early January, (4 January 1980) the secretaries of the I Mech E and the IEE informally agreed that a joint response from their Institutions was not feasible, because IEE was closer to "Finniston". The IMechE Secretary acknowledged that as the IMechE had changed their emphasis even from the draft they had first shown IEE, agreement was "highly unlikely". He went on "...There will certainly be, in our detailed report, some radical difference between

ourselves and Finniston as to what we see the Authority doing.... we are much more lukewarm about the Engineering Authority than Brown (President of the IEE) is...." The IMechE position had hardened up, moved further away from the Electricals after an advisory committee meeting at which resignations were threatened . One remark by the IEE Secretary, Dr Gainsborough underlines the IEE's role as the lynch pin of Finniston support - "I think (non agreement) will be very disappointing to our chums at the Department of Industry; they were hoping that you and we would stand together as the people who would really support the thing in principle - and as long as you and we did, they didn't give a damn about the rest."

The IMechE's initial response was unenthusiastic but at least initially did not suound much different from the IEE (with its own detailed qualifications). In a press statement the President Gordon Dawson said that strong reservations on the major recommendations must not be interpreted as an overall objection to the proposals in the report. The proposed Engineering Authority was accepted, if it was seen to be an instrument of the profession and not of the Government. He said that the Report undervalued the experience and working expertise of the main institutions, the CEI and the ERB. A working relationship between the main Institutions and the EA was looked for.

The IMechE Press Release of 12th March on their formal response backed a strong umbrella body and claimed that the CEI had not reached the level of effectiveness as a body of influence that had been wished and "..... it is unlikely that it can ever be made so." Therefore IMechE proposed a British Engineering Council (the title was thought less autocratic) which would have about fifteen members - perhaps eight from the Chartered Institutions, five from employer and academic interests and two nominated by the Privy Council for the public interest. Institutions would have no power to direct or

mandate their nominees. The IMechE proposed that the EA should be given stautory powers to maintain a registrar - but that the ERB should operate this. The EA would exercise its statutory responsibilities under the jurisdiction of the Privy Council - but that it should not itself, at least in its formative years, have a Royal Charter.

IMechE

In the full set of comments to the Department, the Finniston prescription was described as "a drastic and needless change in the organisation of the engineering profession". The objection to an authority that it was "no longer self-regulating" was reiterated. The Government appointment system was seen as "an encroachment withouth precendent on the integrity and freedom of a highly responsible profession." The Howie compromise of Institutional involvement in nominating (see Finniston Report, p126, footnote 1) was dismissed as "incredibly attentuated". The Report's promise of involvement of the Institutions was presented as "arms length" involvement whereby the Institutions provided experience without influence.

The IMechE letter of 22nd February was aware that there was likely to be industrial support for the "Carey questionnaire". Accordingly the IMechE argued that the industrial view was vague and ignorant about current qualifications. The Mechanicals argued "where the engineering dimension is concerned, not all of those who wpeak for industry are the best ones to diagnose its ills, let alone prescribe for their cure."

By the March comments the anti-Finniston language was significantly more vigorous - eg "so unrealistic as the border on fantasy" (p5), "mistaken premises" (p9), "superficial" (p14), "guilty of some dereliction" (p25), "misguided, confused philosophy" (p23) etc. As Lord Howie put it in his column in NCE the President of the IMech E, "has clearly been raised in the Dennis Healey School of public controversy".

The ICE's attitude was perhaps more sceptical than even the IMechE which had periodically drifted into reformist phases. Although the instant comment of the ICE President was that "Finniston" was welcome if it meant that the status of the engineer improved (NCE, 10th January) suspicion deepened with the passing of time. The ICE comments for the DOI (prepared after discussion with the Mechanicals, Structural and Municipal Engineers) bluntly opposed any Engineering Authority. The ICE thought ., "fundamentally that any body of this kind should be set up as an appendage of Government and not as an instrument of professional control". However, in a fall back position the ICE argued that if the EA was created, it should be as a Royal Charter body with its governing board compromising of representatives of the Institutions, together with representatives of employers and academic interests - plus nominees of the Privy Council to provide breadth of interest and influence (submitted 3 March 1980).

Dr. Hislop, when retiring as the Chairman of the CEI, wrote to Sir Keith on 27 March making the point that was now central to the anti-Finniston case, "One of the main purposes of the Finniston Inquiry was to improve the standing of the engineering profession so as to enhance the contribution to industry. It is an astonishing paradox that the principal recommendation of the Report is to the effect that engineers, unlike members of other professions can no longer be trusted to manage their own affairs." This was the gut reactions that underlay much of the opposition to statutory involvement.

The issue of "self regulation" appears to be (surprisingly) relative rather than absolute. What is considered as satisfactorily self regulating depends on where one starts from. For example Burroughes' (1982) study of the emergence of the Insurance Brokers Registration Council deals with an analogous process. The IBRC established by the Insurance Brokers (Registration)

Act consists of seventeen persons of whom five are nominated by the Secretary of State and includes a lawyer, an accountant, and a person to represent consumers. The remaining twelve are nominated by the "umbrella" trade association - the British Insurance Brokers Association". While the British Insurance Brokers Council (a federal predecessor to BIBA) had originally aksed for self regulation and registration through a Registration Committee and Disciplinary Committee of itself, the idea of a distinct statutory body seems nontheless to have been welcome. Accordingly what is seen in the insurance profession as a solution conferring self regulation is also precisely the kind of solution that the engineering institutions termed governmental intervention.

The engineering/broker analogy can be pushed further in that Burroughes identifies as a weakness in the IBRCA scheme that all that was being regulated was the title "broker" - one can do the similar activities as (say) an 'insurance consultant". Similarly since (with minor exceptions) there is no restriction of particular work to designated engineers, the EC was only regulating the title Chartered Engineer. In May this concern about the threat to self-regulation within the engineering profession gained the support of a wide range of professional bodies when Sir David Napely - chairman of a new inter-organisational grouping of professional associations - wrote to Sir Keith observing that Sir Monty Finniston's arguments about engineering institutes should not be the cause for a precedent for impinging the independence of the professions. Any interference by the Government in the process of self-regulation would represent a major step back in the process of self-regulation. Sir David called instead for the granting of statutory powers by Parliament to a professional body - as had happened with the Law Society. This argument neglected two points - (i) there were statutorily based professions such as medicine; (ii) the whole process going back to Dr Gainsborough's effort

to set up and then change the CEI, were prompted by the belief that there was no effective body on which to confer statutory responsibilities.

Other Institutional responses to the Finniston Report - eg by the Municipals and the CEI were also hostile but it was the position of the three major institutions that was crucial (the CEI's reaction was too predictable to have much impact). On the face of it the initial recognition of the IEE and IMechE that a joint position was not feasible, linked with the hardening of the IMechE attitude and the engrained suspicion of the Civils, meant that a common Big Three position looked improbable. Nonethe less, there were attempts to develop unity within the Institutions, these efforts were surprisingly effective considering the direction of IEE's efforts since 1975.

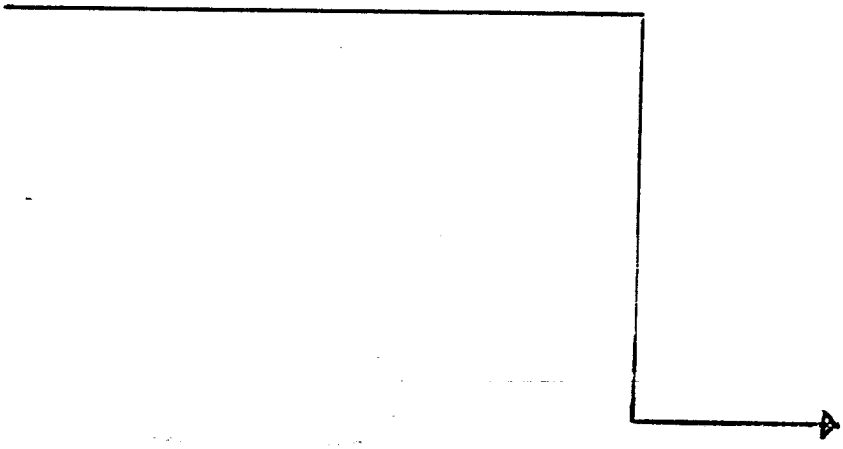
The sixteen Presidents of the CEI member institutions (including the President of the IEE) met on the 27th January 1980 and issued a news release on the 28th which said that they agreed unanimously that the engineering profession would not be able to cooperate with a body consitituted as proposed because (among other reasons):

- It would lack the independence from external interference that is required of a professional engineering body.
- It failed to take advantage of the experience and expertise available in the professional institutions.

This was seen as a lowest common denominator response, but it was useful to Finniston opponents in giving an impression of unity against the Report.

The next joint statement came from the President of the Big Four (Big Three plus Chemicals).

The Joint proposal was not unlike the earlier IMechE response and made the points that the Authority must be financed from within the profession, and that the Authority should be given statutory powers to maintain a register. But the document failed to be explicit on whether the Authority itself should be statutory or not. This vital point was concealed under the formula, "that the Authority should exercise its statutory responsibilities under the jurisdiction of the Privy Council" (it could have statutory responsibilities without itself being statutory). The IEE President claimed that the Four Presidents document was again a statement of common ground, but its acceptance was not unanimous within the IEE. Since the joint document had to be vague, it is difficult to pin down the differences between the stated IEE and the Four President positions - save that the involvement of the IEE in a joint response was itself remarkable. Under the Joint Proposal the Authority's 15 members would be selected by the Privy Council from lists nominated by the chartered institutions and other appropriate bodies. Eight places were expected to go to constitutional nominations and seven to employer, academic and public interests. As the Electrical Review put it in September, 5th 1980 in describing the IEE's shift from radical reform, "the sheep had devoured the lion".



The Four Presidents were invited by the Department or discuss their "non statutory alternative to the Engineering Authority". This meeting, on 2nd July 1980, was attended by, Sir Keith, M Marshall (the Junior Minister), Professor Brown (President of the IEE), Mr Franklin (IChemE), Mr Hildrew (President of IChemE), Mr Mackay (Secretary of IMechE). The Presidents stressed that their model differed from Finniston in that they emphasised self-regulation of the profession whereas Finniston appeared to be advocating Government regulation. (The Secretary of State observed that this was not his understanding of Finniston.) It was agreed to pursue the non-statutory idea further.

The further IEE involvement in discussions of what could be called sub-Finniston change by no means meant that the IEE had finally and officially "defected". For example their brief for a House of Commons debate on the 13th June, still argued for a statutory body responsible to the Privy Council. Dr George Gainsborough was later quoted as saying that ".... the Presidents' endorsement of the Four Presidents plan was the abandonment of a major feature of the institution's policy - an abandonment that did not have the authority of either the Council or members" (Electrical Review , September 3rd, 1980). The official IEE position remained in favour of a statutory body. The IEE internal politics were unresolved for some time; Arthur Palmer MP summoned another special general meeting in January 1981. The IEE Council - perhaps out of loyalty to the President - did not discuss the joint proposals, but saw them as an interim position. Such was the

intensity of views in the Institution that even the vote in the special meeting has been contested.

In viewing the policy process as a contest between groups - this case certainly provides plenty of grist for that mill - we must not overlook the possibility of politics of pressure extending to the group itself. Part of the process is the capture of groups by particular view points. Effectively, however, the IEE position was now reversed. As far as the Secretary of State was concerned he was now hearing a united institutional voice. As his advisers had laid some stress on the fact that one institution was arguing in an "enlightened" non-self interest fashion their case had suddenly disappeared, from now on the Royal Charter solution was inevitable, The Four Presidents meeting of 2nd July was one of the major turning points. The conclusions drawn from that occasion reinforced those from the meeting held by Sir Keith and leading representatives of the Fellowship on the 23rd June. Some days after the meeting with Sir Keith, representatives of the Fellowship met the DOI Deputy Secretary, Gordon Manzie to develop the proposals. It was agreed by the Department that the Fellowship should take the lead in consulting other organisations and should attempt to establish if an agreed non-Finniston option was feasible. The Fellowship's own option of basing change on the Fellowship was not followed - but they seem to have coined the Engineering Council label.

The conclusion of those Fellowship-based negotiations was to set up a new Charter Authority (on the initiative of the Government as this avoids delays with the PC) in parallel with the CEI. Throughout the summer the Ministerial mind was difficult to read: in the words of one of the observers, "Sir Keith appeared mesmarised by the choice". Despite the protracted nature of the "Reform story" the Charter decision was eventually made under such rushed circumstances that it may not be properly

recorded on departmental records. Officials decided that the second best solution ⟶ - a chartered body was better than continued drift and the possibility of no action and they therefore put the option to Sir Keith just before the summer recess. A paper was quickly prepared for submission to the Cabinet "E" Committee so that matters would not be delayed until the autumn. / We understand that this emerged as a somewhat contradictory compilation; it consisted of a summary of the inter-departmental committee's conclusions in favour of the statutory option and a longer gloss giving the reasons influencing Sir Keith in his preference for the non-statutory solution.

Consulting on the Engineering Council

The Department of Industry press notice of 7th August presenting the new Joseph package claimed that they had received widespread support for improvements in the organisation of the engineering profession, but much controversy on the statutory Engineering Authority. Sir Keith was reported as saying that, "many have expressed concern that a body of this kind would represent undue government interference in the affairs of the engineering profession". He claimed to have received several specific proposals within the profession for a non-statutory alternative to the Engineering Authority. The Royal Charter body suggested was presented as a "focal point for the engineers, academics and employers to work with the existing institutions." Initially this proposed body was anonymous in drafts, but it firmed up to become the Engineering Council.

The key passage in the press release was where he noted that instead of the new body itself organising accreditation visits and assessments of individual registrants, "I would expect this work to be delegated to nominated institutions, the new body simply determining the standards to be applied.

The government would expect the chartered body to become quickly self financing, but the government will be prepared to provide initial funding". Sir Keith authorised officials to enter into discussions with a view to the new body being established later in 1980, but its creation was in fact delayed until 1982.

Press opinion has broadly seen the Royal Charter as a watered down Finniston but - as suggested in John McGregor's speech quoted above - some civil servants and Ministers have managed to persuade themselves that the Engineering Council scheme has advantages over Finniston. The main proposition is that Finniston's statutory body was not given many specific statutory duties to go with its status. It was argued that the charter body would have independent finances and clearer aims. The ingenuity of this argument however does not square with the fact that the new idea is backed by those who opposed Finniston - and opposed by those who backed Finniston. Thus it is difficult to see this as the optimum means of implementing Finniston's intentions.

Finniston's own attitude to the Engineering Council proposal has swung between the neutral and the passionate. He has claimed that if appointments were kept out of the hands of the CEI institutions and the right people were appointed the EC could work. ("New Scientist", 14th August, 1980). At times he has been more unreservedly opposed. At one point he termed it an analgesic "when what was required was a stimulant". At another point instead of an "engine of change" he saw only a "shunter puffing along tracks which are both disjointed and worn". He claimed that he wanted to deliver a bouncing child with a silver spoon in its mouth" but his offspring turned out as "an anaemic suckling with a dummy".

Other critics of the charter proposal included John Lyons of the EMA who was reported as saying "that placing the responsibility for the

"engineering dimension" back in the hands of the institutions would lack credibility". At the DES conference in October, Prince Charles suggested that he favoured radical action. He acknowledged that the subject was a minefield but claimed

"It is a fact of life that not everyone shared the Institution's belief that we they are the custodians of the natural interest in this area".

"Before I have my honorary membership of the Institute of Mechanical Engineers taken away from me, I understand entirely the fears about changes to traditional ways of doing things, but once a deep breath has been taken and the pill swallowed, the after effects are not nearly as bad as we first thought."

Ken Gill, General Secretary of TASS accused Joseph of "degutting" Finniston and leaving the leadership of engineering in the hands of those who had manifestly shown that they are not capable of giving a lead. Gill lead a 15 man TUC delegation to meet Sir Keith to press this case.

However, since the charter body was devised to accommodate the most powerful institutions, naturally the proposals were well received in these quarters. A press release from the Big Four claimed that the proposals " .... will have the firm approval of the 128,000 chartered engineers (out of 196,000) in our combined membership (The Times , 10 October 1980). One Civils commentator observed that in securing a Royal Charter the Institution had done a good job - but "a leading ICE Civil engineer" claimed that if agreement on the EC was not reached ".... then Finniston supporters in the civil service will be in a strong position to resurrect the statutory approach". (NCE , 21 August 1980). This was a logically correct argument, but in practice it was a poor bargaining counter for the Department.

The Department probably felt that having conceded the principle demand to the Institutions, that matters could quickly proceed on the new consensus, but as the new round of consultations took place new divisions emerged. Once the main (statutory versus non-statutory) principle was conceded, it was difficult to find a Minister to stick out on what looked like detail. Despite the initial noises of welcome, the clash of personalities thus intensified after the Royal Charter concession was made. The Civil Service apparently felt that the ground rules of such encounters were broken when the institutions attempted to get the Under Secretary moved - complaining directly to the Secretary of State.

At the first meeting between the Big Four and the Department on the 13th August the question of nominating the Council broke the harmony. One problem which created difficulties was some doubt over what had been conceded. At the press conference on 7 August the CEI understood Sir Keith to say that, "the Government wants the engineering profession to regulate itself". However when the CEI met the Under Secretary (11 and 14 August) they thought they detected a different tone. There was some indication that the Departmental instinct was to ignore the CEI , ERB (and the existing Royal Charter) and start with a clean sheet of paper. All of the first round members of this governing body would be appointed by the government (through the PC?) - none would directly represent the institutions. The CEI felt that the Under Secretary concerned "... does not fully understand what is involved in the qualification function of the regulation of the profession and is unsympathetic to the concept of self regulation. He expressed the view that when Sir Keith Joseph talked of self regulation he meant only that government as such should not be involved." (Memo from CEI Chairman to Council's Presidents). The CEI line was as "title holders". The CEI would be in a strong position as long as supported by the "shareholders" (ie the Institutions). Accordingly, the CEI thought that it would not necessarily loose out.

Thus at the meeting on 13 August the issue that provoked disharmony was the question of nomination to the Engineering Council. The "Four" wanted direct nomination by the Institutions (see The Times 14 August 1980). As Building Magazine put it "The problem is that now, with the threat of statutory action lifted once

and for all, the engineering institutions may retreat into their pre-Finniston positions - basically as little change as possible." As one respondent said to us, "Why settle for nine tenths of a loaf when you have the whole loaf?"

In August began a hectic series of negotiations - some of the meetings are recorded in Appendix 1 - but one cannot itemise all telephone calls and correspondence. By January 1981 (in Standing Committee A) Arthur Palmer MP was complaining that "Members of Parliament are always the last to know". Certainly from this point on, even more so than hitherto, the negotiations were between departmental officials and group spokesmen.

In September a rather different type of programme of meetings took place. (reported below P69). This was a systematic, but rather formal, (and tending towards ritualistic) series of consultations with the total engineering community as defined by the Department - about 30 persons attending at a time. Not only was the Department put under pressure by the number of those repetitive meetings, the process was complicated by some groups refusing to attend in the company of others. Other groups insisted on coming to more than one meeting-presumably to hear what other groups thought, as the Department's introduction was, standard.

	DATE	BODIES
1.	18 September 3.00 pm	Institutions in C Eng, section of ERB, CBI, EEF, CSII, CPTS.
2.	23 September 10.30 am	Higher Education Sector
3.	25 September 3.00 pm	Institutions in Engineering Technician section of ERB
4.	29 September 3.00 pm	Scientific and Technological Institutes (CSII and CPTS).
5.	7 October 10.00 am	Further Education Sector
6.	7 October 2.30 pm	Institutions in Technician Engineer section of ERB.
7.	8 October 3.00 pm	Interested institutions outside the ERB.
8.	9 October 10.00 am	Industry - Trade Associations, CBI, EEF.
9.	Consultations in hand through MSc	Industrial Training Boards.
10.	Consultation in hand	Trade Unions.

As a result of this round of departmental meetings there was a growing view in the Institutions that the move from statutory to charter solution was unsatisfactory and somewhat bogus, if the Government retained the capacity to appoint the membership of the charter body.

At a meeting between the Fellowship and Sir Percy Carey and J. Leeming (Under Secretary of the Department), Sir Peter went out of his way to say that they had not yet made up their mind about the details of the new body, but he was firmly against the proposal that individuals should be nominated by sectional interests: "... this was not negotiable". Lord Caldecote of the Fellowship summarised the position as being "... there is still a chance that we might be able to influence the Government's thinking to come closer to our proposals but we have no chance of doing this unless we can get the Institutions, and if possible others such as the EEF, to go along with us and put forward agreed proposals. If we cannot achieve this it is quite clear that the Government will go ahead on their own lines which may be very unsatisfactory as far as the engineering profession is concerned".

In pursuit of the "agreed proposals" Lord Caldecote on behalf of the Fellowship met the Presidents (or their representatives) of the Big Four on 21 August. The basic line of the Fellowship at this stage was still for the Fellowship to be the "voice" of engineering and a British Council of Engineering to be the "engine of change". The Fellowshop hoped for about a half of the BCE places and this contributed to some suspicion of likely Fellowship dominance in the minds of some in the Big Four. Nonetheless, after a meeting of the Four on 2nd September it was agreed that the Fellowship and the Four should continue to work together as in the Caldecote strategy.

The Department published their first draft of the Royal Charter in early September. This sought reactions by October 16th, 1980, but this deadline was ineffective. The first draft still caused concern in the Institutions (both on

self-regulation and the right of a Secretary of State to give directions).

The Fellowship continued to orchestrate a common approach - advising the Big Four not to make any comment in advance of a common response and contacting other bodies such as the EEF and the CBI.

The Institutions (including the Fellowship and the CEI) developed their own draft charter and sent this to Sir Keith on 22 October. This was labelled the 18 Presidents' Paper Apart from some vagueness due to the need for compromise, this document was defective to the extent that it was not binding on the Institutions as it would have to be put to the Councils of the constituent Institutions for consideration. From the Departmental point of view, this was a recipe for the Institutions to come back to ask for more even if the current proposals were acceptable. This (Institution) document - due to the need to get agreement - neither made suggestions for selecting the first Council nor a procedure for electing subsequent Councils. While most bodies in and out of the CEI agreed in principle for the need for a system of nomination, there was a degree of haggling over the allocation. For example, the CBI in a letter of 23 October, sought at least 8 of the 15 members to be selected on the basis of their experience as employers. The Fellowship in a letter of 31 October, sought a 25 member Council with a Chairman, 2 members from the Fellowship, 8 from the Institutions, 8 from industry, 4 from the academic side and 2 Crown appointees. The EEF sought a non-engineer as first Chairman and at least half the fifteen members to be employers. The EEF also cautioned against the appointment of an Institutional secretary as chief official (submission 31 October 1980) (Later the Committee of Engineering Professors Conference and the Committee of Vice Chancellors and Principals would put in a bid for educational places.) While the Institutions recognised the benefits of having the CBI and EEF "in the team", the CBI and EEF comments to the DOI were both much warmer in tone than the Institutions would have liked. The EEF had, "considered the proposal and we support it", The CBI "supported the general approach".

Departmental officials met the CEI Secretary, Michael Leonard, and the Executive Secretary of the CEI, Denys Wood, on 17 December. At this informal meeting, the Department suggested that the time for decision was near - and it did not intend having a further round of discussion - this proved to be too optimistic. The Department was insistent that there should be no representation on the Governing Body by delegates of interests. This was again stated as a non-negotiable item. The Department also raised the proposal in the 18 Presidents' Document that any engineer granted Chartered Engineering status by the Engineering Council had to be a corporate members of a chartered institution. The idea behind this was straightforward - to prevent a draining of membership from the Institions. Officials indicated that this sounded too much like the closed shop principle to be politically acceptable in the current climate. The Department's suggestion to remedy the difficulty, was to set a retention fee for registration of the same order as membership of an Institution. Thus one would be as cheap paying the Instituition fee as not paying it.

The CEI signalled that it was aware that in having the existing Royal Charter and the CEng award at its disposal, it considered that it was in a strong position. The Privy Council was unlikely to set up another body in the same area without the cooperation of the CEI and it was clear that the Department had recognised this point.

The Instituions appeared to be succeeding in retaining the CEng award, as the Engineering Council award, but its link with Institutional membership/was "de-coupled" - one could be one, as now proposed, without the other. While the Department felt this danger to Institutional funding was fully covered by the commitment on fee levels, the Institutions were unconvinced. It was thought that this plainly artificial measure to protect the Institutions could not last. The Department justified their intention to have a new bod distinct from the Institutions and the CEI on the grounds that its charter

authority in granting the CEng (when transfered from the CEI) was dealing in technical competance. It was leaving to the profession the matter of professional competance. This argument convinced few.

While the stress on the institutional world was on a united front, there continued to be doubt over the contents of that joint approach. At the Council meeting in late November 1980, the IEE had agreed that the IEE should pursue vigourously its policy of granting statutory powers to the proposed Engineering Council.

The IEE therefore re-entered the controversy in January when a letter from the current IEE President, Air Marshall Sir Herbert Durkin, was sent to the CEI Chairman and circulated to the other 15 Presidents. This letter indicated that the IEE were quite ready to go along with proposed de-coupling. It also noted that the IEE were not happy with the assumption that the CEI objections to the charter were the same as the 16 Presidents: Sir Herbert indicated that his attendance at any CEI convened meeting could not be assumed. He also observed that the no comment policy to the press suggested by the CEI merely got the IEE a bad press and he intended to resume relations with the press to the IEE's advantage. The motivation for this letter was probably a feeling that the IEE was finding itself in a position of defending the CEI as a means of amending the draft Charter: the IEE was still unhappy to adopt a position uncritical of the CEI. It was perhaps that for that reason the Big Four submitted their own comment to the Department on 20 January - after receiving the Department's second version on 12 January 1981. This Departmental version was sent out to only six or seven consultees on a confidential basis. As yet another round of consultations was not proposed (and who could blame a hard pressed group of officials for wanting to avoid that) it was hoped that the document would be treated with suitable discretion. The covering letter made the important qualification - neglected

in most of the discussions - that the draft assumed that the CEI would concede the title CEng to the new body. The Big Four's comments set out a number of points which they felt they could not concede.

1. Composition of the Engineering Council - the Big Four might accept that the Chairman and two thirds of the Council be Chartered Engineers (a weakening of the three quarters insisted in the 18 Presidents' draft) but demanded safeguards written in to ensure a return to self regulation after three years. This meant that they accepted the appointment of the Council by the Secretary of State in the first instance, but sought Institutional participation thereafter.

2. Nominated Institutions - in the House on the 7th August the Secretary of State had said "... instead of the new body itself organising accreditation (of degree course) visits and assessments of indivdual registrants, I would expect this work to be delegated to nominated Institutions, the new body simply determining the standards to be applied." The Big Four complained that the January draft made no mention of nominated Institutions and indeed under Clause 4(a) (ii) allowed the Council to carry out these functions without reference to the Institutions.

3. Institution Membership - The Big Four accepted a "conscience clause" was necessary for those with good and sufficient reasons not to be a member of an Institution to be admitted to an Engineering Council controlled register, but insisted on the stronger clauses as in the 18 Presidents draft to ensure no cheap routes to registration.

4. Improvements in Standards - It was noted with concern that while one of the main reasons for setting up the new body was to improve standards of education, training and professional competance, the draft opened the door to "unqualified" engineers to the Chartered Engineer Register (Clause 4(c) (iii)).

5. Relationships with Government - The Big Four noted that the clause in the original draft had been strengthened to state "...the Council shall take note of any advice or request given to it by any of our Ministers and shall use its best endeavours to comply with such advice or request." In their interpretation of the clause the Department stressed "best endeavours" rather than "comply" and thought their wording as "soft" as the Institutions could have hoped. The Department was particularly surprised at the objections since the whole shift from statutory to charter had been made to refute the "Benn argument" of, "What will happen under an interventionist Secretary of State?". The Department having made that major turn around felt that the Institutions were seen to still be carping. On the Institutions' side there was a feeling that the Department was trying to reverse by detail what they had apparently granted in principle.

The emergence of the "Big Four" negotiating clauses meant that the Department was running two sets of negotiations with the Institutions in train, (one with the Big Four and one with the Fellowship). It also meant that there was a potential for conflict developing between the Big Four and the remaining "Twelve". Strategically, from the Institutions point of view this splintering had to be countered. The Department felt that the CEI - with most to lose - was the most hostile group: despite what one might assume, the CEI position was not identical to the sum of the Institutions.

While the Big Four sent their detailed objections to the Department, they also wrote directly to the Secretary of State "to give due notice of our unease". They asked for a meeting with Sir Keith - implicitly rejecting an offer of a meeting at official level.

While the Institutions had made their response quite separate from

the Fellowship and other bodies, the merit of the joint approach was still recognised. Accordingly they were very ready to accept the good offices of Lord Caldecote to arrange meetings between the Four Residents and the CBI and the Four Residents and the EEF. While concievably these meetings might have taken place without the midwife services of Caldecote, the fact that he was so well placed with contacts in, and experience of, each area greatly facilitated the arrangements.

The first of the meetings was on January 26th - EEF, Fellowship, Big Four (Lord Caldecote also met Sir Terence Beckett of the CBI on that day). In discussions with the Department (22 January) Caldecote had apparently become convinced that the Department's strategy was to "drive a wedge" between the "Engineers" and "Employers" and he accordingly attempted to build a coalition. The perceived strategy - if such it was - would have fitted in with the long standing view in the "Finniston" side of the Department that to help industry, one must undermine the Institutions, This dichotomization was rejected by Caldecote.

The Fellowship (Lord Caldecote and the Secretary, Michael Leonard) met officials of the Department late on the 26th January. This was the same day on which the Department circulated a "final" revision of its 12th January charter to a selected number of individuals. The Fellowships concerns as expressed at the meeting were similar to those of the Big Four. One aspect discussed was the DOI proposition that an engineer not in membership of a chartered institution could be granted the title "chartered engineer" by the Engineering Council. The Fellowship was prepared to see those engineers registered - but they would not thereby have titles or designatory letters conferred on them. This approach was based on the analogy with architects or doctors who were registered with the ARKUK and GMC respectively, but looked to the RIBA and Royal College of Medicine, etc. for appropriate designations.

This item was part of the general concern that the charter was insufficiently clear on the matter of self regulation.

The second principle raised was the freedom in the charter for Ministers to become involved (ie interfere) with the new council. When the latest wording was produced however Lord Caldecote thought that this would go a long way to allay misgivings on that particular aspect. The new wording again indicated that the Council would, "take note of any advice or request" and would "use best endeavours to give assistance" to Ministers when requested. The word "comply" had been dropped.

The third point concerned professional misconduct. The Department now (in the 23rd January draft) re-introduced the possibility of removal from the Register. This took the activities away from technical competence (in the Departments own language) to professional competence and clearly infringed on ——————→ Institutional activity.

Fourthly, the Fellowship objected to the term qualified engineer being used in the define the background of the "engineering quota " in the composition of the Council. They preferred the term chartered engineer, but accepted that a figure of two-thirds of the membership being chartered engineers would probably be acceptable. The Department, in response, noted that the employers side had objected that this was too high. Lord Caldecote, however, thought that the CBI and Fellowship would accept his original arguments.

At the meeting the Department apparently used an argument which was also leaked to the press at the same period - that the Department could either

drop the whole thing (wash its hands) or move back to a statutory solution. The "behave or you could get something worse" line was developed because the epartment could not unilaterally deprive the CEI of its charter privileges. If the Institutions did not "volounteer" changes, the Department could, theoretically, go ahead with its own body and rival the CEI/CEng qualification. But this was rejected by the Department as looking like (and being) duplication. Accordingly the Institutions had, in effect veto power. The Presidents met and wrote to the Secretary of State on 28th January stating that the draft remained unacceptable.

The CEI, in a submission to Sir Keith of 29th January, expressed blunt dismay that the Department's successive drafts had not moved much from the original of 5th September. On the 9th February, the EEF wrote to Sir Keith indicating that after the Caldecote discussions, they were prepared to accept the points most agitating the Institutions - nomination, two thirds chartered membership of the Council, a means of protection to stop Institutions losing/ members.

There had been claims in the Institutional world that the civil servants were taking a line different from that intended by the Ministers. Sir Keith's representatives accordingly took pains to make clear that he considered that the latest draft charter was fully consistent with his own statement of the 7th August - which the Institutions felt had conceded more than the civil servants now acknowledged.

On the 13th February in a letter to the Committee of Vice-Chancellors and Principals, Sir Peter Carey said that the Department looked forward to making swift progress in the affair, but this optimism was not justified. The CVCP had not been party to all the various drafts of the charter, but expressed broad support for the version of the 23rd January (as they had to the

original version). Perhaps predictably they argued that the Council composition should include those with experience of the education of engineers.

On the 16th February Departmental officials met the Secretaries of the Big Four, the Fellowship and CBI and EEF representatives. At the meeting the Department tabled a document amending the charter of the 23rd January and otherwise refining it by statements of interpretation. It was significant that the CBI and EEF now generally backed the Institution Secretaries.

It was agreed that the following matters (among others) should go to the solicitors of the two sides to work on a form of words mutually acceptable.

(1) Nominated institutions (for accreditation of academic courses and individuals seeking registration.) The legal wording should indicate that while the Chartered Engineering Institutions would be the main nominated bodies others such as technical Institutions, or TEC could be possibilities.

(2) While the council would generally consult, it was not the idea that a body could block actions because the consultative process in a particular matter had been inadequate or its own views ignored.

(3) The draft allowed the council to grant C. Eng. to non-qualified persons (eg in extreme form, to a garage mechanic). It was agreed that the idea behind this was that a mathetician or physicist might by experience be suitable for registration.

(4) Further attention would be given to the financial implications of the Ministerial "directing" process. If the Minister advised the Council he might be expected to pick up the bill - if the council advised the Minister, they might not be funded for subsequent actions on behalf of the Government.

(5) The two thirds chartered engineer proposition was accepted - and it was accepted that while the first chairman might not be a chartered engineer, thereafter this would be the case.

In the discussions between the Institutions and the Employers, the EEF was still unhappy about the concessions towards the council registering only Institution members and after an educational formation acceptable to the Institutions. This all smacked of the closed shop and was difficult to accept. More than the CBI, the EEF membership was sensitive to such issues. The Institutions argument was that this was not a closed shop - anyone could be employed as an engineer, but if an employer sought someone of the highest standards he might insist on registration. This was seen as with accountancy where many people work as non-chartered accountants, but where chartered status is an assurance of the highest standards

The Institutions stuck to their proposal that on the register there should be registered engineers (with no formal title) and chartered engineers (in institutional membership) who would be designated C. Eng. This was the first "sticking point" mentioned at a meeting between the Fellowship and the Department on 26th February. The DOI reiterated the view that this was a closed shop proposal - and hence politically unacceptable. The Department had received a substantial number of letters on this, about half supported the exclusive use of the Chartered Engineer and half took the opposite view - the latter view was held amongst employers. The Department agreed to recommend that the majority of the council be elected from lists of nominations put forward by the chartered engineering institutions. The Fellowship representatives agreed to recommend this to the Fellowship and the Institutional Presidents.

In February, the Committee of the Engineering Professors Conference (CEPC) also intervened. Three reasons perhaps account for the delay in of the CEPC in acting (relative to the Institutions). One reason was that the CEPC had naturally been paying most attention to the DES consultation exercise on educational aspects. Another reason is that the nature of the

organisation - regularly spaced meetings, no full time bureaucracy - meant that responses were likely to be delayed. Thirdly, the CEPC were now mobilised in a reactive manner: they realised that the negotiations with the Institutions would have implications that very much spilled over into their educational world. Despite the fact that there was overlap and hence conflicts of loyalty between CEPC and Institutional memberships, the CEPC came out with unequical opposition to what it detected was happening. Their views were conveyed to Sir Keith in a letter from Professor Smith of Southampton University. They felt that the views of the education sector wer not being adequately represented in the process of formulation of the charter, thus the Institutions had no brief to talk for the engineering education sector Prof Smith noted that the saga began with a recognition of a need to improve manufacturing industry, but observed that the Institutions appeared to believe that the Finniston Inquiry ought to have been primarily concerned with the welfare of the engineering profession, rather than the needs of the economy. He went on.

"They seem to be placing the preservation of the privacy of the Engineering Institutions and the status quo foremost among their aims and ahead of the need to generate the reforms and development which are necessary.

We fear the vehemence of the representations made to you by the Engineering Institutions may have misled you into believing that the Chartered Engineer status qualification is of far greater practical importance in industry than it actually is."

The CEPC objected to the shift in the draft charters section on the composition of the council from 'experienced professional engineers" to "chartered engineers". The CEPC also called for the registration by the Council to remain as registration - and to leave the C. Eng. dimension to the Institutions. They thus arrived at an argument which sounded similar to the Institutions by a very different route. For the CEPC the C. Eng. was

expendable. Rightly or wrongly, some on the Institution side saw Prof Horlock of the CEPC - who had served on Finniston - as an influence in the CEPC moves. The CEPC intervention produced a meeting with Sir Peter on the 12th March. At this meeting the CEPC repeated that it would prefer accreditation from the Council rather than the Institutions - and that they saw merit in the Council registering without using the C. Eng. The CEPC objected to moving from the 23rd January draft in the various ways that the Institutions had been pressing the Department. In basing the meeting on the 23rd January charter, the Department did not reveal that they had, in effect, already conceded two thirds chartered engineers on the Council.

On the 17th March Sir Keith met the President and Director-Generals of the EEF and CBI (Bryan Rigby attending for Sir Terence). From this meeting Sir Keith took away the impression that employers backed the Department. Certainly the CBI stated that the charter of 23rd February, did not conflict with their views of back in April 1980. The EEF was stronger on the "closed shop" aspect and in demanding significant change from the current CEI/Institutional arrangement. In March, the "Big Four" wrote to "the Twelve" (other CEI), Chairman of CEI and the Fellowship. This letter rehearsed developments to that point. It recorded that the Big Four were prepared to accept that the first chairman would not necessarily be an engineer. It recorded that a form of words was acceptable to the Big Four and the Department on "nomination" for accreditation purposes. This was,"in collaboration with such nominated Chartered Engineering Institutions and other nominated bodies." It indicated that the Four Presidents had been proceeding on the basis that non-members of Institutions could be registered as Chartered Engineers as long as this was not a cheaper option than Institutional membership - but recognised that other Institutions might object. It noted that the Big Four were still pressing through Lord Caldecote the matter of reserving all nominations to the Chartered Institutions and reserving the C. Eng. designation to Institution members.

The letter prepared the way for a meeting of the Presidents on the 19th March. The Institute of Energy was unable to attend but Highway Engineering and Welding (non CEI / members) were present At this meeting there was certainly tension between the CEI and the Big Four (specially the Electricals) on the problem of Big Four concessions without the other Presidents. It was agreed that the draft of the 3rd March was better than part of the 23rd January and that at the meeting with the Secretary of State to follow on 24th March they would oppose any effort to revert to the 23rd January version. The meeting decided that the Department must be regarded as committed to the draft which had been produced between it and the senior Institutions and the legal advisers. However the Institutions not party to these negotiations would not be committed. The meeting listed seven main points for the Joseph meeting. Most of these were familiar, but in detail the package was stiffer than in the various Fellowship and Big Four discussions. For example, it was decided that in the matter of nominating accrediting bodies the minor Institutions insisted that they would be guaranteed nominated status by a formula of words along the lines of "which in the first instance will include the 16 Chartered Engineering Institutions". The meeting insisted on the restriction that the Council could only give the C. Eng. to Institution members (save for conscience cases) and that the size of the Council should be 20 - 25 members (plus Chartered Engineer chairman), two thirds of whom would be Chartered Engineers and the majority of whom would be elected, in a way determined by the Council, from lists submitted by the nominated Institutions. It was decided that Lord Caldecote should lead the discussion with Sir Keith on behalf of the Institutions.

Sir Monty Finniston intervened on 19th March to hold a press conference and to call for a meeting with Sir Keith to press a statutory solution. He argued that, 'the committee of inquiry was set up because of the worries over manufacturing industry and the nation's economic needs. The fact is that the

Institutions have not shown themselves to be primarily concerned about manufacturing industry's problems, now so much more pressing, or about economic needs. Now this affair has been reduced to institutional wrangles; it is a nonsense' (The Times, 24th March, 1981). Dr. Bryan Lindley, Director of Research at Dunlop, who also served on Finniston also intervened at the end of March saying that to accept the CEI would be 'a complete cave in to the powers of the present establishment and a negation of everything Finniston was attempting to do' (The Sunday Times, 29th March 1981).

However the retiring chairman of the CEI, Dr. Allaway, was quoted arguing that the CEI could not lightly or quickly cede powers and that it was more important to get a good solution than a quick one (The Times, 27th March 1981). He also argued, 'that Finniston has taken a considerable amount of effort and time which could have been spent more profitably on other matters' (Engineer, 2nd April 1981).

Even more apposite was his quotation in The Sunday Times on 29th March 1981, "...we didn't like the idea of a Finniston investigation even before it began. But we gave our point of view. Now we find that the Department of Industry is consulting the CBI, the TUC, the engineering Employers Federation, Uncle Tom Cobley in fact...". This remark betrays the sense of outrage at the erosion of the institution's dominance in the field.

At the meeting on the 24th the 18 Presidents (16 plus the IHE and Institute of Welding) met a strong departmental team of the Secretary of State, his Junior Minister, the Permanent Secretary, a Deputy, Under and Assistant Secretary. As pre-arranged the Institutional case was presented by Lord Caldecote who spoke to a paper presented earlier with the seven demands of

the meeting on the 19th. His remarks claimed that no power of veto was sought - and that the Institutions were not the reactionary self satisfied stick-in-the-muds, interested only in maintaining the status quo, as had been presented. He argued back while initial accreditation for all 36 chartered bodies was sought, the Council could if necessary "de-frock" unsatisfactory Institutions. He explicitly denied "a continuance of the CEI situation". He concluded that while changes were required, most of the problems of manufacturing industry have stemmed from failures in management rather than engineering; failures to recognise changing circumstances in time, and the need for appropriate investment, to allocate adequate resources to product and process development, failure to control costs and cash flow. The problems of engineers were presented as more minor in this perspective.

The Secretary of State's reply began by recalling how the Finniston report had been widely welcomed when published and that the report had acknowledged that its proposal for a statutory body would be bound to be unwelcome to the Institutions. His own proposals for a new chartered body were designed by incorporating the C. Eng. award to avoid conflict. The implementation of the proposals would depend on the agreement of the Institutions.

On the other hand, he observed, the discussions in the employers (CBI and EEF) and academics (CVCP) had found that the C. Eng. was not as widely valued as the Institutions wished. Success of the Council also depended on the cooperation of the employers and academics. They had indicated that their collaboration would not be forthcoming if the C. Eng. was the licence for a closed shop. The C. Eng. was questioned by employers. The engineering position had to be distinguished from others. Substantial numbers of engineering employers were accepted for employment without having carried a

professional qualification. (Sir Keith had adopted the wedge gambit).

In reply the Presidents argued that many of them and many of the other senior officers were employers or academics. The election of Presidents who had earned distinction in industry or as academics was the norm. Moreover they understood that the employers had more or less accepted the Institutions views on basic principle. When the Under Secretary responded to the Institutions' complaints by arguing, "I've got my other interests to satisfy", the Institutions demanded evidence that the CBI and EEF were still opposed. The Under Secretary was seen as the most intransigient of the senior departmental team and the Institutions requested that Sir Peter personally handle matters.

At the suggestion of Lord Caldecote Sir Keith asked Sir Peter Carey to arrange a meeting of the three sides - Institutions, academics, employers - to see if common ground could be established. The Secretary of State expressed the hope that this would produce a consensus - but he warned/bluffed that he had originally come under considerable pressure to adopt Finniston lock, stock and barrell and if no agreement was forthcoming, he might come under such pressure again in Parliament. Accordingly he found it necessary to reserve his position in the case of such a contingency.

The President of the IEE, Air Marshall Sir Hubert Durkin, had to leave the country on previously arranged business and could not personally attend the subsequent meeting. This encouraged him to make explicit, on paper IEE reservations./ For the sake of an appearance of unanimity they had not pushed their reservations at the Joseph meeting, but Sir Hubert now (in a letter to the CEI chairman, copied to the other 17 Presidents) stressed that the IEE were prepared to accept, with very minor amendments the charter of 3rd March. He warned "Much as we wish to maintain unanimity within the profession this

cannot be at the expense of an effective council." Sir Hubert underlined that while a show of hands at the meeting on the 19th March had shown that opinion was balanced of the restriction of registration to there in membership of the Institutions, had a card vote been taken 74% of engineers would have opposed.

Sir Hubert was of the opinion that if the coupling of registration and Institutional membership was dropped - and they did not press for guaranteed nominations for all 16 Institutions - agreement with the Department would follow speedily. He argued that, "I feel the time has come to say that the IEE can make no more concessions, but more to the point, I would now expect to see concessions from those who have yet to make any."

The IEE plan re-emerged as a problem for the united front strategy just as the academic and employer weakness in the Institutions' case was remedied. Though the good offices of Sir Hugh Ford (Fellowship Vice President) and Professor at Imperial College) Lord Caldecote, as spokesmen for the Institutions, met with Sir Denis Rooke (Fellowship Vice President) and Professors Raine and Nutting of the Fellowship and three leading members of the CEPC. At this meeting agreement was reached by viewing the register as covering three stages -

- accredited degree course
- accredited training
- experience as a professional engineer.

The Council would control the first two stages - but no title would be awarded. The C. Eng. title would be awarded at the end of the final stage, providing the individual was a member of a chartered institution.

A subtle reformulation allowed agreement on the nomination issue. It was agreed that for the first 2 or 3 years the Institutions would carry on their accrediting functions as at present. At the end of that period the Council would nominate which Institutions it wished to continue in this role.

The gulf between the Institution and the CEPC thus appeared open to accommodation when face to face discussion took place. Lord Caldecote's good relations with the CBI also ensued that no serious dissent would emerge from that quarter. The EEF however proved more difficult to incorporate. Indeed the EEF felt that its own gestures in making concessions in the direct negotiations with the Institutions were not being reciprocated as the Institutions kept finding new problems. This is the Engineer (2nd April, 1981), the Director of the EEF quoted claiming that, "a further round of talks with fresh demands would be a waste of time".

Lord Caldecote arranged to meet the EEF, CBI and EPC on the 22nd April. This meeting was in anticipation of the Peter Carey convened meeting which had been agreed with Sir Keith. Before this meeting, the 18 Presidents met on 6th April to discuss Institutional priorities in these open meetings. It was unanimously agreed that Lord Caldecote would continue to lead the delegation, though little else of significance appears to have developed. The meeting of April 6th selected representatives for the Carey meeting. These representatives met in a further meeting on the 15th April to refine their position. This established a document setting out the Institutions latest position and priorities.

At the meeting with the Institutions, CBI, EEF and the EPC the Institutions list of conditions for supporting the Council was again agreed - with the

exception that the CBI/EEF/EPC did not insist on a majority of chartered engineers on the council selected from lists submitted from nominated chartered institutions.

After the meeting several versions of the Institutions basic seven demands were circulated. Paper B as discussed at the meeting became C and then D. Not all changes were to accommodate the employers/academics. At the Four Presidents' meeting on the 6th May the ICE President objected to certain insertions/alterations as they felt it would be difficult for the EEF to go along with them. The 7 Presidents met on 7th May and on the 8th May Lord Caldecote met the Four Presidents. At this meeting Sir Hubert Durkin was able to report that in the interests of professional unity he had again put the matter of "coupling" the C. Eng. to Institutional membership to his Council. The IEE was now prepared to go along with the other Institutions' demand that the Council could not award C. Eng. without Institutional participation. On the basis of the various discussions a version D was established. This was sent to Sir Peter in anticipation of the major multilateral meeting on the 14th May. Lord Caldecote in forwarding the paper, advised Sir Peter that the document was the outcome of negotiations between the Fellowship, CEI, Institutions, CBI, EEF and CEPC. He claimed that there had been much "give-and-take" in the process. However if one compares "Paper D" which was tabled for the meeting on 14th May with the original Institutions paper submitted for the meeting on 24th March one cannot see much evidence that the academics and employers had much impact.

In commending Paper D to Sir Peter, Lord Caldecote emphasised that it was a " package " and that any attempt to alter it piecemeal would destroy the whole. . At the meeting on the 14th, the following attended -

Department of Industry	Sir Peter Carey (P. Sec.)
	Mr. A. G. Manzie
	Mr. J. C. Leeming
	Mr. J. I. James
Department of Education and Science	Mr. C. R. Walker
Vice-Chancellors' Committee	Sir Alec Merrison
	Sir Rex Richards
Director of Polytechnics	Dr. Rickett
	Mr. G. Hall
Engineering Professors' Conference	Professor Smith
	Professor Johns
Confederation of British Industry	Sir Raymond Pennock
	Mr. B. Rigby
Engineering Employers' Federation	Mr. A. B. Hampton
	Mr. A. F. Frodsham
	Mr. R. G. Hooker
	Mr. S. Margolis
Institutions	Mr. B. Hildrew
	Mr. P. A. Cox
	Sir Herbert Durkin
	Mr. G. J. Mortimer
	Dr. R. Lickley
	Professor P. N. Rowe
Fellowship of Engineering	Lord Caldecote
	Mr. W. Leonard

The Institutions paper 'D' was the basis of the discussion. Sir Peter Carey - after giving a general welcome and resume of the history since August 1980 - took the meeting through D clause by clause. In the discussion it was

brought out that as chartered engineers already had an entitlement to elect members to the CEI Board, they would have been persuaded at a General Meeting to give this up if the Engineering Council replaced the CEI. It was noted that after the discussion of the future of the GMC in the Merrison Committee, the GMC had adopted a largely elective procedure for appointments.

While most of paper D generated extensive debate it was accepted in its entirety. On the vital matter of "coupling" there was full concurrence that the letters R. Eng. not be used. Duplication of title, it was argued, would merely lead to confusion. The Employers and Academics explicitly accepted the C. Eng. propositions. When (ie if) the C. Eng. was transferred from the CEI, the new Council could refuse to register a nominee, but it could not bestow this title and letters to an individual not in membership of a nominated chartered Institution.

The register would be in three stages. On completing the third stage successfully all engineers could be registered, but only those in membership of an Institution would be able to use the title C. Eng. If an individual chose not to join an Institution he would be specifically required neither to use any letters or title so as to pass himself off as a chartered engineer.

The Council, being the registering authority, would have ultimate control over all three stages, but the third stage would be primarily a matter for control by the Institutions. Granting undisputed control to the Council gave it the capacity to approve university and polytechnic courses - a matter of concern to the academics. The academics raised the matter of new technologies. On the one hand the Council was expected to encourage new technology, but on the other hand this would not (by definition) be adequately dealt with by

existing Institutions. It was agreed that machinery could be found to deal with this therefore a new clause was added to paper D (vi) to cover the situation.

Towards the end of the meeting Sir Peter read through the accepted changes and the text of all seven clauses. This was agreed by all present. He said that he would report to Ministers (as the representatives had to report to their bodies), but it was his personal hope that they would be content on the basis of agreement at the meeting. The Department would then re-draft accordingly.

It was suggested by the Institutions that the senior of the Solicitors employed by the three large Institutions, who had assisted in the 3rd March drafting, could get together with the Department's lawyer. This suggestion was accepted as was one that meetings continue. The meeting concluded with Sir Peter thanking Lord Caldecote for his initiative which had led to the meeting and the development of the agreed paper, together with all those who had contributed.

Next day the Permanent Secretary circulated participant with a copy of the peace treaty. This was the Institutions Paper D with its agreed minor amendments. Sir Peter asked for confirmation that the new text accurately reflected the agreement at the meeting. This, in the series, became Paper E.

On behalf of the Institutions Lord Caldecote confirmed that Paper E was acceptable and re-drafting began. A revision was sent to three of the principals (F) and a meeting held on 11th June leading to a draft being prepared on 16th June (Paper G) by the departmental solicitor. As for the draft of 12th January, recipients of the new draft were asked to continue on a discreet basis as another round of consultations was not envisaged. However

the Institutions did not consider the draft reflected agreed changes in paper E or the agreement of the 14th May. Indeed as with the first draft charter, it was thought there had been a breach of faith by the civil servants in misinterpretating agreement. Thus even the detail of the peace treaty was controversial.

The employers serious objections to the 10th July charter were limited to points about the transition period during which Institutions would continue their accreditation role. The employers wanted a clause which made explicit that after the initial two year period the Council could nominate which Institutions (and other bodies) responsible for the work. The Institutions also thought the lack of a transition period unsound but their objections of the Institutions were more numerous and serious. They were first discussed with the Department at a meeting on 1st July and which various changes were accepted. The Institutions accepted that they had made more progress, but they were unhappy that the latest draft still did not specifically mention the Institutions as nominated bodies. Nor did the draft guarantee appointment to the Council of individuals on the lists supplied for the Institutions.

At a meeting of the 7 Presidents on 3rd July the Presidents agreed with the "sticking points" identified by Lord Caldecote at the meeting with the Deputy Secretary on the 1st July. He then wrote (7th July) to Sir Peter enclosing a schedule itemising the 9 outstanding areas of difference. These were:

Article 6((2)(c)) On the clause on monitoring of professional experience [ie stage 3), the Institutions suggested that the draft needed the addition, "as monitored primarily by the appropriate nominated Engineering Institutions"

Article 6((3)(b)) This paragraph (concerning "grand fathering" of persons not on the ERB register) was not part of the 14th May or 3rd March drafts and the Institutions objected to its late insertion.

Article 6((4)(a)) The draft said that the C. Eng. could be used by any professional engineer who is a member of a nominated charter body or of any body of persons recognised by the Council. The Institutions objected to the general nature of the last proposition.

Article 11(1) On a minor point the Institutions wanted the quorum increased. They also objected to the presentation of the size of the Council which was given as "..not less than 10 nor more than (the chairman plus) 25 other members". The original "treaty" had said a chairman and not more than 25 other members. The Institutions wanted to revert to the 14th May understanding.

Article 11(2)(a) and (b) On the background of the chairman and members the 14th May document had explicitly mentioned the words "learned societies". The
Institutions objected that the draft charter clauses complied with neither the spirit or the text of clause IV - and demanded a reversion to that wording.

Article 11(4), (5) and (6) The May 14th document had used the word <u>selection</u> in connection with appointment of Council members after the initial period. The new draft charter used the term <u>election</u> and the Institutions claimed that the Council must

have the power to select "to secure the balance for credibility" and the process whereby it received names might well vary between sources - some of them being satisfied by election.

Article 11(5)(a) Clause (111) of May 14th had called for the chairman to be a chartered engineer and that two thirds of the Council should be chartered engineers. The new version said that two thirds of the members (including the chairman) should be chartered engineers. Objecting to the salami cut in representation, the Institutions demanded the status quo ante.

Article 11(7) merely said that the Council should elect its members from a panel maintained for that purpose - but the May 14th paper had expressly stated (clause(111)) from lists of chartered engineers submitted by the nominated Chartered Engineering Institutions. The Institutions requested that the charter be amended accordingly.

Transition Period. The agreement had been for a transition period of a maximum of two years (clause(ii). The June draft made no mention of this and its insertion was required.

The solicitors also met in this period, so that when (in Sir Peter's absence) the Deputy Secretary, Gordon Manzie, replied to Lord Caldecote that the Department accepted all the points - except four.

Article 6(2(c)) Nomination. The Department drew attention to the fact that monitoring of professional experience in the agreed paper had been primarily (not exclusively) for Engineering Institutions, but it proposed that the Institutions be used, "unless it appears to the Council inexpedient to do so..."

Article 6(3)(b) On the point the new registration system of "swallowing up" existing lists, Mr. Manzie claimed that this had been accepted at the meeting on 1st July.

Article 11(1) Mr. Manzie claimed that the charter and the peace treaty were consistent but that he would accept the Institutions wording save for the addition of some minimum size figure.

Article 9(3) Of the 3rd March draft. This omission from the previous draft had not been in the schedule of differences annexed to the Institutions 7th July letter, but had been mentioned in the text. It concerned the provision for reimbursing nominated bodies for their costs in work assisting the Council. The Department now felt that this could be dealt with by normal contractual arrangements. If the Institution didn't think the reimbursement sufficient, it could refuse to do the work.

The Department accepted the "transition" point and the May 14th formula for the composition of the Council (11(2)). This was done with some reluctance as it was felt that the words "major areas of industry" and

"principal engineering disciplines" risked the Council failing to adequately present new technologies.

These remaining details were discussed by Mr. Manzie and Lord Caldecote on July 22nd. On all four points the Department agreed to consider versions put by Lord Caldecote. All appeared (with minor modification) in the (renumbered) final draft, except the method of handling reimbursement of costs (9(3).) which was ruled unnecessary by the Solicitor. A last minute controversy emerged when it was discovered that the Department proposed to add a paragraph to 6(4) to cover an individual in membership of a body that could not be affiliated to the CEI, Lord Caldecote reiterated the principle (agreed on 20th May) that it was essential that at all times the title Chartered Engineer and the title C. Eng. be used only by an individual in membership of a Chartered Engineering Institution (or a corporate body affiliated to such an Institution). The discussion led Mr. Manzie to agree that if a body could not affiliate to an existing chartered institution, it could affiliate to the Council itself.

Lord Caldecote requested a copy of the redraft to ensure that the final charter covered the points agreed by the DOI and the Presidents delegated by the Institutions to act on their behalf. However as the DOI intended to put the final draft to the Secretary of State on the 23rd (next day) before an announcement was made in Parliament around the 30th July, this was not possible. A copy of the version sent by the Secretary of State to the Privy Council was sent to Lord Caldecote on the 30th July. Lord Caldecote had meanwhile reported to the other members of the 7 Presidents negotiating team on 28th July.

5. The Engineering Council and The CEI

As is usual in such matters the Parliamentary announcement was made through a question from a friendly back bencher - in this case John Ward MP (Poole) - a member of the CEI Board - and in a Press Notice the same day. In his written answer to the Ward P.Q., Michael Marshall announced that the draft Charter which would establish the Engineering Council had been sent to Privy Council. Apart from the announcement of the name of Sir Kenneth Corfield (Chairman and Chief Executive of Standard Telephone and Cables Limited) as the chairman designate, the most important section of the reply was undoubtedly the paragraph which set out the position vis a vis "ownership" of the C. Eng. award. The reply stated

"In view of the widespread interest which has been expressed, I should explain what is envisaged would happen to the title "Chartered Engineer". At present this is granted by the Council of Engineering Institutions (CEI) under its Royal Charter. The discussions with the leaders of the profession have been on the basis that the title should be made available to the Engineering Council at the end of the transition period, although this change would require a Petition to the Queen which would have to be approved by the membership of the CEI. Once the title was available to the Engineering Council anyone on its register as a professional engineer at Stage 3 would then be able to call himself "a Chartered Engineer" provided that he was a member of a nominated chartered engineering institution or an affiliate; or, if there was no such body for the brand of engineering concerned of a body affiliated to the Council. This latter possibility would cater for new disciplines emerging as a result of new technologies. Any such person who did not wish to join such a body would still be able to indicate that he was a registered professional engineer at Stage 3."

Press releases by the Fellowship, the EEF and others signalled acceptance of the 30th July version. The EEF welcomed the Council as giving "prominance to experience managers and employers". The News Release noted that discussions in the past year had already already led to closer links between the engineering industry, academics and the professional institutions. The Fellowship particularly welcomed majority representation for Chartered Engineers and, "the principle that the Engineering profession should be able to regulate itself and have (a) sufficient measure of independence to do so."

One of the few events to mar the general air of exhileration was a Times editorial on the 31st July. Our account perhaps picks up the flavour suggested by those involved of steady progress to reach an agreed conclusion. The Times instead charged that the Government's response to the Finniston Report, "has confirmed precisely the complacency and institutional jockeying which the report had set out to break... Instead of treating the report on its merits the Government set out to find a consensus among the very bodies and opinions which the report sought to supercede. The result is a soggy set of compromises of the sort that always emerges from such exercises." This alternative interpretation of events is perhaps summed up even more succintly in some remark in one disgruntled interview, "How do you get from the Finniston Report to The Engineering Council? Walk backwards for eighteen months." We have argued ourselves elsewhere that it is the British style to consult the frogs about draining the swamps. It could be claimed that in the engineering case we have even sub-contracted the drainage work to the frogs. Sir Monty's own comments sounded as if he was unconvinced by the compromise, 'Sir Keith has never really consulted me. He's only listened to the institutions" (Engineering Today No. 28 3 Aug). He had earlier been reported in Engineering Today as disowning the 4th Charter as making too many concessions to the Presidents - but later he consented to be photographed with the first Council which showed some reconciliation with the idea.

The best refutation to this line of argument (virtuous reform betrayed) was perhaps given by Lord Caldecote himself in his subsequent letter to The Times (10th August, 1981).

"It would have been quite useless to set up a new council.... without the support of the majority of engineers.... It was therefore well worth spending much time and effort to reach a workable consensus so that the new Council can be set up... with wide support from the engineering profession, employers and the academic world."

In other words the Government had little choice but to compromise when implementation was inevitably in the hands of the profession. There was no alternative professional leadership available that could provide radical new faces, ideas and talents. Since the world outside Whitehall and its powers cannot be wished away, it has to be manoeuvred.

Whether one thinks that the Caldercote consensus was desirable probably depends on large part what one thinks is the level of the relevant question. In looking at the Report itself or one of Sir Monty's summaries such as his speech to the Parliamentary and Scientific Committee (18th December, 1979) it is striking how large is the gap between Finniston's definition of the heart of the report and the core of the matters in the Engineering Council negotiations. Finniston was arguing about low industrial productivity. The 'engineering dimension" covered "the capability of the organisation as a system for translating engineering expertise into the production and marketing of competitive products through efficient production processes." Finniston was talking about the (underutilised) place of the engineer in company policy making. These Finniston concerns were displacedin the discussion and we got to specifics such as whether the Council should be two thirds chartered

engineers or a chartered engineer chairman and two thirds of the remainder. For the Institutions under threat, for those in the profession who did value self regulation, whatever the merit of Finnistons broad analysis his proposal that one remedied the "engineering dimension" problem, by imposing statutory authority was unacceptable.

However even if one accepts that the industrial future is a more profound issue than is the arithmetic of representation (or whatever) one has to has to beware the false equation that having a statutory Authority is the same as solving the industrial malaise and that anything else is a shortfall. Even if Finniston correctly diagnosed disease, the prescription could have been right, could have been wrong, or could have had little to do either way, with the causes of the complaint. Dr. Finniston's Patent Medicine of Radical Change, can be legitimately challenged even by those concerned with the health of the patient.

It can be noted (with some irony) that if part of the political pressure to avoid a statutory solution was quango - avoidance, the end result was archetypically quangoid. It was a "non governmental body" that looked autonomous but wasn't quite. It was at least initially funded by Government, appointed by Government, staffed by Government secondments. In a Canadian term (at least as useful - or otherwise as QUANGO) the Engineering Council is a GONGO - a Government Organised Non Governmental Organisation.

The final Royal Charter was awarded in November 1981. In appointing the first Engineering Council the department, seeking to maximise support for the body consulted widely and made part of and built up a list of 300 suggestions.

Other than the Chairnamn Sir Kenneth Corfield the other council members are:

1. Gordon Beveridge, Professor of Chemical and Process Engineering, University of Strathclyde
2. Viscount Caldecote, formerly Delta Group chairman (President of Fellowship of Engineering).
3. Geoffrey Drain, NALGO General Secretary.
4. Professor Derek Embrey, electronics and executive director of RB Electronic Products.
5. John Fairclough, VP and Managing Director, IBM UK Limited.
6. Sir Alistair Frame, RTZ, Plessey and Vickers.
7. Geoffrey Hall, Brighton Polytechnic, CNAA and Science and Engineering Research Council.
8. Professor Sir Alan Harris, structural engineer.
9. Michael Harrison, Deputy Chairman Standing Conference on Schools, Science and Technology.
10. L. H. Head, acting Secretary, Engineering Council.
11. Ronald Hooker, industry, EITB and EEF.
12. Dr. John Horlock, OU Vice-Chancellor and Director BL Technology.
13. John Lyons , EMA General Secretary and British Telecom Board.
14. Peter Martin, consulting engineer.
15. David Plastow, Managing Director and Chief Executive, Vickers.
16. Baroness Platt of Wittle, aeronautical engineer, TEC.

    Office Staff Superannuation Fund.
18. Derek Roberts, electrical engineer and research director, GEC.
19. Henry Sykes, Dubilier and James Austin Holdings.

The Government have been accused of snubbing the TUC as two of its nominees were rejected - Ken Gill of TASS and Stan Davison of ASTMS. The TUC general council wrote seeking to replace John Lyons by Gill or Davison, but the Department refused. In The Engineer (3rd December, 1981) Davison

argued that "I have no doubt that the Council is a captive of the professional institutions". He saw the appointment of Lyons as evidence of this.

The position of Director-General went to Dr. Miller. Miller was experienced in this world - a Council member of the Fellowship and a member of the UGC. (This latter distinction has not been recognised by all as being helpful in his current post). Dr. Miller was aided in setting up the new organisation by two secondments from the Whitehall - including one of the Finniston secretariat.

An interview in The Engineer (17th June, 1982) reported that Dr. Miller had already met with the chairman of the CEI. It said that Dr. Miller's feeling was that unpleasant tasks should be carried through quickly - and that should the CEI Council not allow the Engineering Council to take over CEI privileges, the major institutions could deal directly with the Council thus making the CEI unviable.

It is about here that this stage of our study concludes. Instead of the creation of the Engineering Council representing a conclusion, a new set of negotiations opened between the CEI and the Engineering Council. This is unlikely to be resolved quickly. Even had the CEI wished to cooperate with enthusiasm (and this is not quite the case) constitutional problems mean that it could not cede the C. Eng without consulting an extraordinary general meeting - and organising a postal ballot within the component institutions.

The device of setting up the EC and leaving it to reach agreement with the CEI had the advantage for civil servants and Ministers of off-loading the problem of the past six years: the problems have been devolved to the EC and

any failure of delay is non-governmental. While there are unresolved issues between the CEI and the EC, CEI resistance will be undermined by the nature and status of the individuals in membership of the new Council. With figures such as Sir Kenneth Corfield, Lord Caldecote, Sir Alaister Frame, etc. participating it is difficult to argue that the Council is ill-informed or lacking experience or whatever.

What is problematical is the question that could be legitimately asked of Finniston's Engineering Authority. The creation of a prestigious Engineering Council is symbolic of a determination to do 'something', but in the vast subject of engineers (in their 57 varieties), in their different working contexts, being used better or worse by different employers, it may be difficult to devise (on particularly a low budget) solutions of a scale that match up to the dimensions and the problem.

Apart from this scale issue, is the applicability of the engineering imagery, this is often (by coincidence) applied to problems and their solution. As Richard Nelson has written (The Moon and the Ghetto, 1977) "...the steering wheel is often but loosely connected to the rudder. The impact of policies depends in good part on the performance or reaction of people not under direct control of the policy maker." (p34). To quote this is to underline that resolving the battle over institutions is not to solve the problems the institutions are designed to tackle.

APPENDIX 1

TIMETABLE OF NEGOTIATIONS ON DRAFT CHARTER

ATTENDING

1980	11th Aug	Leeming (Department Under-Secretary), Wood (CEI)
	13th Aug	Leeming, Big Four
	14th Aug	Leeming, CEI
	15th Aug	Leeming, Sir Peter Carey (Permanent Secretary), Fellowship
	21st Aug	Fellowship, Big Four
	2nd Sept	Big Four
	17th Dec	Leeming, Richards (DOI), Wood, Leonard, CEI
	6th Jan	Leeming, Caldecote, (Fellowship)
	22nd Jan	Leeming, Caldecote
	26th Jan	(1) Leeming, Carey, Caldecote, Leonard
		(2) Caldecote, Beckett (CBI)
		(3) Caldecote, EEF, Big Four
	16th Feb	Leeming, James, Sherwood, Richards (DOI), Big Four, EEF CBI, Fellowship
	25th Feb	Caldecote, Big Four
	26th Feb	Carey, Leeming, Manzie (Dep Sec Dol), Caldecote, Hildrew, Leonard
	17th March	Joseph, CBI, EEF
	18th March	Leeming, Leonard
	19th March	17 Presidents (18 minus 1 of Eng), 1 of Highway Eng, 1 of Welding

24th March	Joseph, 18 Presidents, Highway Eng, Welding
1st April	Fellowship, EPC
6th April	17 Presidents (18 - minus IERE)
15th April	7 Presidents
6th May	4 Presidents
7th May	7 Presidents
8th May	Caldecote and 4 Presidents
14th May	Carey, Menzie, Leeming, James, DES, CVCP, Polytechnics, EPC, CBI, EEF, 7 Presidents
2nd July	Leeming, Menzie, McEllin, Caldecote, Leonard
22nd July	Manzie, Caldecote
28th July	7 Presidents

APPENDIX 2

DRAFTS OF ENGINEERING COUNCIL CHARTER

DoI Versions		Institutions Versions
5th September		
		22nd February (18 Presidents)
12th January		
26th January (Final revision)		
		13th February (Big Four)
16th February	)	
	)	
18th February	) minor amendments	
	)	
24th February	)	
3rd March		
16th June		
30th July		
November	Final Privy Council acceptance	